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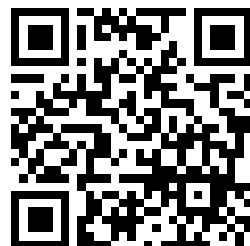


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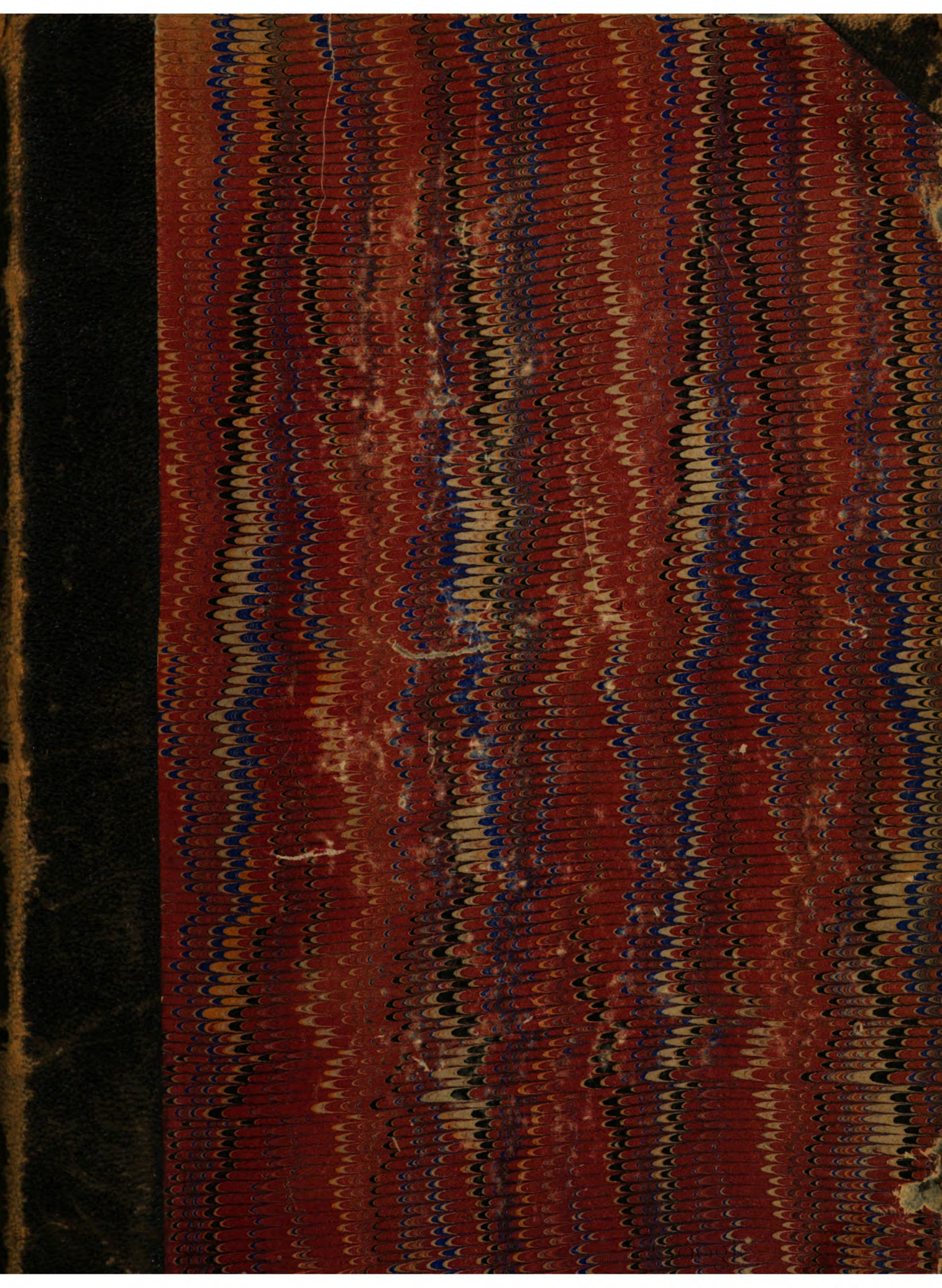
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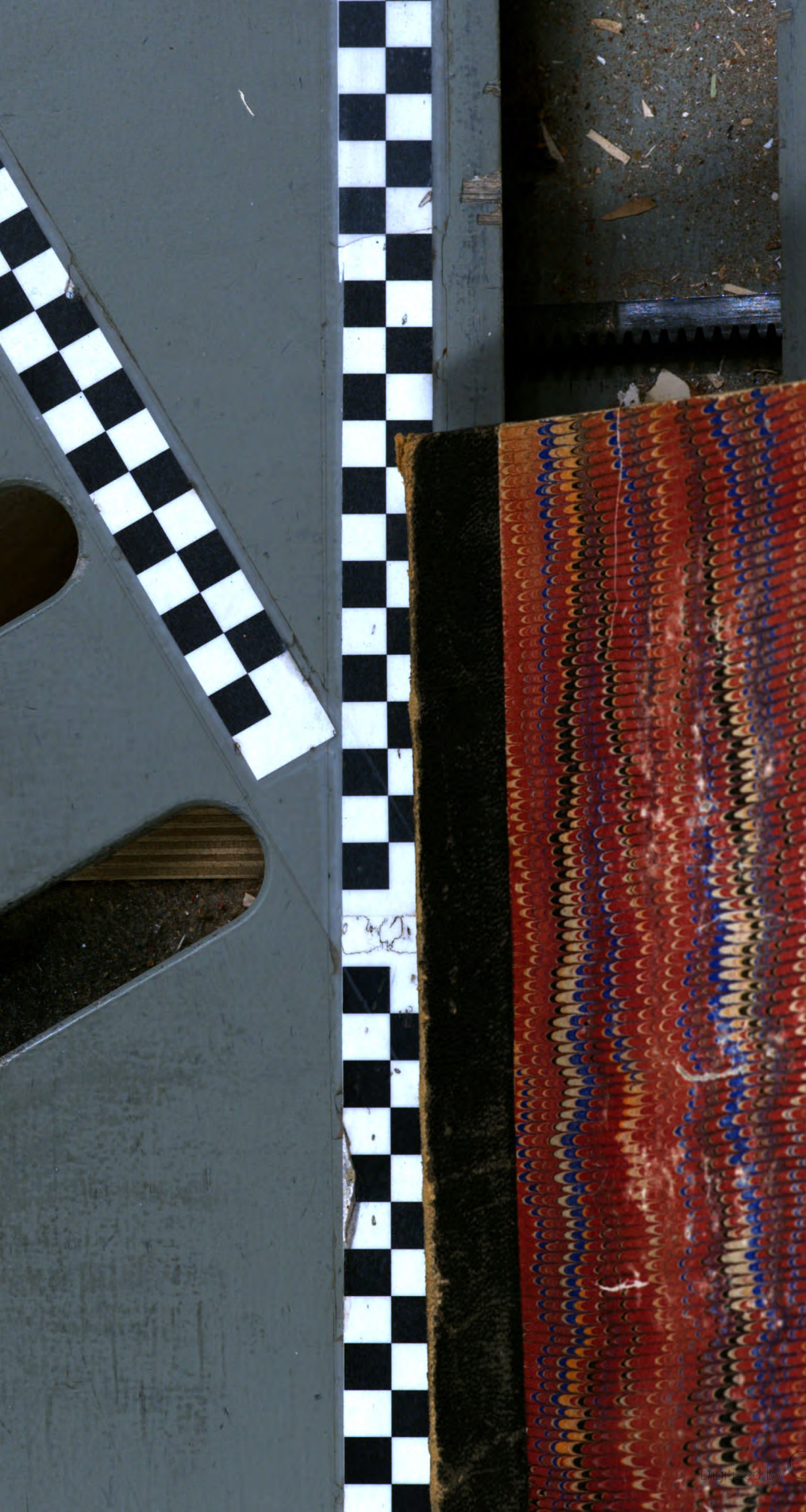
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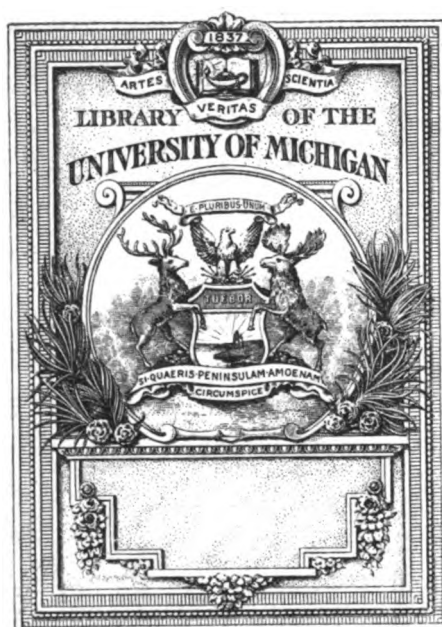












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# Jarris and Gale Lectures

ON THE  
RELATION OF EXPERIMENTAL PHYSIOLOGY  
TO PRACTICAL MEDICINE.

*Delivered at the Royal College of Surgeons, June, 1882,*

By G. F. YEO, F.R.C.S.,

PROFESSOR OF PHYSIOLOGY IN KING'S COLLEGE.

## LECTURE II.—PART II. THE GROWTH OF PHYSIOLOGY.

BUT has experimental research been silent concerning the circulation since the time of Harvey and Malpighi? Certainly not. The great microscopist, Leuwenhoek, working almost at the same time as Malpighi, confirmed his observations and demonstrated the capillary circulation in the frog's web, and other transparent tissues. He discovered the red blood-corpuscles, or globules as he called them, which were afterwards shown by Hewson to be discs. Another fundamental step in the comprehension of the vascular mechanism was made by an Englishman, a doctor of divinity—the vicar of Teddington. The high pressure comes next in importance to the contracting power of the ventricle for the understanding of the blood-flow, which, without a knowledge of this continuing force, the constant overflow from the arteries into the veins through the capillaries cannot be properly understood. Without a due appreciation of the force with which the blood tends to escape from the arteries, how can the surgeon well estimate the means he must adopt to check its flow from a severed vessel? In 1732 Dr. Stephen Hales published his *Statical Essays*, which contained an account of the experiments on living animals which he performed to estimate the force of the heart. By means of the trachea of a goose he connected a long tube with the crural artery of a mare, and he found that the blood rose to the height of some eight feet. On the other hand, he showed that the pressure in the veins was very low, being on an average ten times less than that in the arteries. The manometric method introduced by Hales was greatly improved by Poiseuille who used the mercury gauge. The whole question of hæmodynamics was fundamentally investigated by Volkmann. The graphic method which enables us to preserve such accurate records of the changes occurring in the circulation under different circumstances—the sphygmographic tracings of every well-educated physician—was introduced by Ludwig.

It is remarkable that just about the time when the view of the ancients regarding the active propelling power of the arteries was thought to be satisfactorily refuted, the existence of contractile elements in their walls was first definitely made out. Haller convinced himself of the existence of muscle tissue in the coats of the arteries and of the nerve influences controlling it, although he could not observe it to respond to ordinary stimulation. Cullen, adopting Haller's view, assigned to the arteries the power of controlling the distribution of the blood to the several parts of the body, while the force and frequency of the heart-beat remained the same. The experiments of John Hunter on the contractility of the arteries of the horse next followed. The demonstration of the actual occurrence of the contraction in response to different stimuli in the living frog's web, by Dr. John Thomson, placed the matter beyond doubt. It remained for Claude Bernard to demonstrate by vivisection the paralyzing effect of section of the sympathetic nerves in the neck upon the vessels of the head. Immediately afterwards Dr. Brown-Séquard observed that the electrical stimulation of the distal end of the divided sympathetic caused the small vessels to contract, and thus brought back the pallor of the part. From numerous sets of experiments we now know the wonderful nervous and muscle systems that belong to the vaso-motor mechanisms, which are constantly employed to regulate the blood-supply to the various organs and parts. By means of experiments on living animals almost daily additions are being made to our knowledge of this important subject. The practical value of these details is, I think, sufficiently

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proved by the fact that many of them were discovered during the practical investigation of the processes of inflammation, which lies at the root of all pathological science. I shall, therefore, only remind you of the important facts: (1) That our methods of arresting bleeding have been improved; (2) our means of alleviating cardiac disease have been extended; (3) and our knowledge of the pulse, as well as our method of investigating it, have been completely changed by such additions to our knowledge as those I have just mentioned.

And have we gained any practically useful knowledge of the capillary vessels since the days of Malpighi and Leuwenhoek? We have learned by the vivisections of Waller and Cohnheim that their walls are permeable not only to the fluid but to the solid parts of the blood, and that under certain circumstances the white corpuscles may be seen to creep through the plastic wall of a capillary or small vein without leaving the least trace of their exit. Not only does fluid pabulum pass through the textures, but also protoplasmic units; active formative agents emigrate from the vessels and wander through the interstices of the tissues. From Cohnheim's experiments with emboli in the frog's tongue, we know that when a little area of capillaries is for some time deprived of its blood-supply, the wall of the vessels undergoes some change (arising from malnutrition), loses its power of retaining the blood, which consequently escapes into the textures around. Of the blood itself we also have learned much of recent years that is practically useful. Besides the part played by the fibrin-factors in bringing about coagulation, we have been shown that the lining wall of the vessels bears to the blood a remarkable relationship, by means of which coagulation is constantly held in check. Thus a kind of interaction, a mutually protective or reconstructing interchange, seems to occur between the blood and the tunica intima, particularly in the minute vessels.

From the foregoing examples, it is evident that the general explanation of how the blood—the universal carrier of both food and waste-products—travels through our frame, was from first to last demonstrated by experiments on living animals. I need not pause to inquire what the probable effect of not possessing this knowledge would be even to the most unscientific routine practitioner!

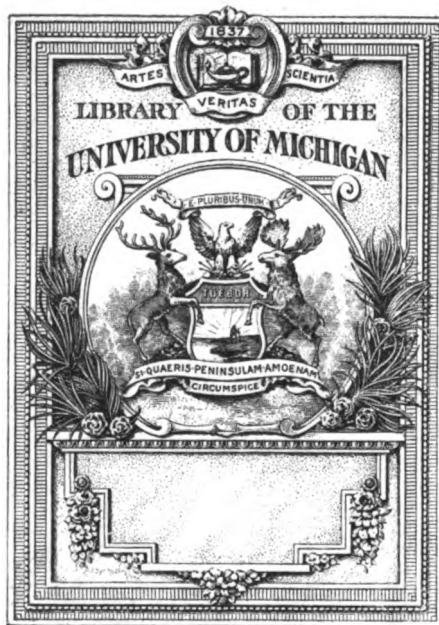
I must now rapidly glance at the function of respiration.

Before Malpighi demonstrated the vesicular texture of the lungs and the passage of the blood through their capillaries, but little was understood of the manner in which the blood passed from the right to the left side of the heart. Though the fact that the blood must pass thus through the spongy lung tissue was, as we have seen, long known, its relation to the air must have remained a complete mystery until the dense meshwork of capillaries, well called the "rete mirabile Malpighi," was discovered. But even when the air cells were familiar to all physiologists, and the mode of exposure of the blood in a wonderful network of vessels had been demonstrated on living animals by the aid of the microscope, the process of respiration was but very imperfectly understood, and the true relation of the respiratory movements to the motion of the heart and the flow of blood in the arteries was quite unknown.

It was the prevalent opinion among the ancients that the air passed through the lung into the pleural cavity. This opinion continued down to the time of Haller (1747) and received the sanction of all the great authorities in the beginning of the seventeenth century, including Harvey, Hales, Boerhaave, &c. This error arose partly from the condition of the parts found in post-mortem examination of the human body, when the lungs are usually in a collapsed state, and partly from experimentation upon birds. It was only by a series of experiments that Haller disproved this theory. Is there anyone who can be so ignorant of the value of the physical methods of examination as not to recognise the practical importance of a correct knowledge of the relation of the pleura to the lung and to the chest-wall? Apart altogether from its physiological importance as an item in the comprehension of the mechanism of respiration, would not ignorance upon this point cut us off from all possibility of physical diagnosis in pulmonary and pleural complaints? Have these experiments of Haller's, then, proved of more than purely scientific value, and have they done more than "satisfy scientific curiosity and quench the selfish thirst for knowledge?"

It was the distinguished English physicist Boyle who first pointed out that the lungs were filled by the atmospheric pressure. The thorax, he said, acted like a bellows; when it





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dilated the air was forced into the trachea and filled the lungs. This he compared to the distension of a bladder into which the atmosphere rushed when the air around it was removed by an air pump, an instrument which was, at that time, a great novelty. But this simple view deprived the lungs of all their vital action in causing the motion of the blood, and, though amply demonstrated, was not received as correct for a long time afterwards.

From an inspection of the anatomy of the thoracic viscera and the beautiful and complicated apparatus by means of which the air and the blood were brought into immediate relationship one to the other, it was but natural to conclude that the use of the lungs was to enable the air to produce some change in the blood. Indeed, before the anatomy, either of bloodvessels or lungs, was understood, we had learned from Servetus that the vital spirit of the air was supposed to have a definite effect upon the blood. From the moisture and warmth of the expired air it was concluded by the more cautious physiologists of olden times that the air removed from the blood some of its moisture and heat, and thus refreshed it as well as added to it new vital spirits. The absolute necessity of constant and uninterrupted respiration was recognised by all, but it was attributed to the mechanical effects produced by the respiratory movements upon the motions of the blood. Boyle showed, however, that the air must be fresh in order adequately to supply the requirements for life and to carry off the moisture and what he called the "recrementitious streams." At this time it was pretty generally believed that the blood gave something to and received something from the air. But what that something was chemistry was not yet ready to state. Mayow, by acute reasoning and a most carefully arranged series of experimental researches, in a great measure performed on living animals, arrived at conclusions that were far in advance of his time. He announced that the air of the atmosphere was a compound body, and that it contained as one of its constituents a substance which he called (on account of its relation to nitric acid) nitro-aerial spirit. To this nitro-aerial spirit he attributed the properties of oxygen. It gave the air the power of supporting combustion, and to it were due the vital properties which the air imparted to the blood during its passage through the lungs. It was this nitro-aerial spirit that made the air useful for respiration, and its absence rendered it unfit to support life. But the knowledge at the time when Mayow lived was not ripe for such views. They fell into disuse, and were almost forgotten by his successors. Even Hales, who paid much attention to the subject, seems to have known but to have disregarded the theory of Mayow.

I need not attempt to follow the various stages in the discovery of oxygen, and the application of this all-important piece of knowledge to the function of the lungs, but I would call attention to the experimental steps in advance made by Black and Priestley at a time which may be regarded as the dawn of our modern chemical knowledge. The fact that what was then called "fixed air" (since commonly spoken of as carbonic acid gas, or now carbon dioxide) was present in the expired air, was shown by Black by experiments on living animals about the year 1759, and about twelve years later Priestley showed the analogy of respiration to combustion, and concluded that the air, in passing into and out of the lungs, lost some of what we now know as oxygen. But the great credit of giving an exact explanation of the chemical changes occurring in respiration is due to the eminent French chemist Lavoisier, and the completeness as well as the accuracy of his views may be traced to the constancy and skill with which he experimented on living animals. The more important principles of his writings have since been fully worked out, and, in the main, confirmed by others, so that we now have an accurate knowledge not only of the chief chemical changes that take place between the air and the blood, but also the exact quantities of carbon dioxide given off and oxygen consumed in the process. Need I attempt to point out even to a layman the value of this knowledge? Has it not strengthened our hands in attempting to prolong life and alleviate human suffering? The merest tyro in hygienic study knows how absolutely necessary a knowledge of such facts must be before one attempts to consider the essential point of ventilation. What would have been the fate of the hundreds of persons who have been revived by artificial respiration had we not known the mechanism of breathing? What would we now do without physical examination of the chest? and how would we proceed did we think the pleural cavity full of air?

Having learned the changes occurring in the air during its visit to the lungs, there still remained the important questions to answer:—What changes take place in the blood? what becomes of the oxygen? whence comes the carbon dioxide? The difference between the colour of the blood flowing through the veins and that in the arteries had long been remarked, and since the time of Galen had been attributed to the vivifying action of the heart itself, the centre from which emanated the heat and vital spirits. The first light thrown upon this point came from a most admirable series of experiments made by Lower. By opening the thorax of a living animal he found that the change in colour took place in the pulmonary capillaries, and not in the heart cavities. Though as clearly demonstrated as any scientific fact so surrounded with difficulty could be, this instructive observation of Lower remained unnoticed by his immediate followers as well as by his contemporaries. Not until Priestley showed the effects of the exposure to the air of a blood-clot was the scarlet colour of arterial blood regarded as a change probably brought about by the air acting on the blood in the lungs. Now that we are well acquainted with the red corpuscles and their colouring matter, and its wonderful relationship to oxygen, it seems difficult to understand why Lower's views did not meet with immediate approval. And now that we know that white blood-corpuscles are the active agents which preside over the repair of our injured or worn-out tissues, that the serum conveys pabulum to these, and that the oxyhæmoglobin supplies them with oxygen, we should shrink with alarm if it were proposed to apply twenty leeches over the apex of the lung of a phthisical patient, or to take thirty ounces of blood from the arm in the early stage of typhoid fever.

The attention of the ancients was exclusively devoted to the stomach as the organ in which the necessary changes took place in digestion. First of all these was supposed to be simply "concoction," a process dependent solely upon the moisture and heat of the stomach. From some of the coarser changes which would be observed in the food stuffs as they passed along the small intestine, it was afterwards supposed by others that the chief change was one analogous to putrefaction. From the elaborate muscular stomachs in birds and some other animals another set of physiologists put forward the view that the only essential in digestion was trituration, a view which, though supported by but slender evidence, required the experimental contradiction of Spallanzani for its complete refutation. In opposition to the latter view the theory of fermentation was stated, which term, however, at the time when the earlier chemists flourished, had a very different signification to that which it now bears. It was not until definite experimental research was instituted that the secretion of the gastric juice became known, and its effects on certain kinds of food were tested by Stephens and Spallanzani. Time will not permit me to mention in detail the numerous series of experiments which showed the chemical composition of the gastric juice and its effects on proteid food as well as its inertness on other food stuffs, nor the investigations which led to the comparatively recent discovery of the widespread activity of the pancreas (to which the ancients assigned the modest function of a protective pad), nor those on the value of the succus entericus. It is sufficient to say that by means of experiment on living animals we have arrived at a fair knowledge as to where and how the various food stuffs are changed in digestion. And I would ask any practitioner, however opposed he may be to experimental research, can he ignore the mode of action of the gastric, pancreatic, and intestinal juices on the different foods when prescribing any special dietary; and is he aware that most of the important points that form the basis of his practice have been elicited by vivisection, possibly during his own lifetime?

In order to appreciate the influence of experimental research on the progress of the knowledge of the physiology of the nervous system, it is well to bear in mind the views of the ancients upon this subject. The brain was deemed by them to be a large gland, secreting certain subtle animal spirits, which were distributed by the nerves to the different tissues of the body. "The nerves," says Galen, "like streams from a fountain, convey to the muscles their powers from the brain." The flow of this nervous fluid being difficult to detect, it was subsequently supposed that merely vibrations occurred in it, and no real material current. When the knowledge of electricity came to enlighten physicists concerning so many difficult phenomena, nerve

force was supposed to be traceable to its influence—or, in short, to be electricity. It is only owing to the numerous experiments on living animals that we now know that a nerve impulse is the rapid transmission of a chemical change or protoplasmic explosion, as it were, passing along the axis cylinder of the fibre. It was in the earlier part of this century that by the experiments of Sir Charles Bell, Magendie, and Johannes Müller the distinction of motor and sensory nerves was definitely established. This was the first great step since Galen, and was the key to the understanding of the functions of the nerve centres. Without it Whytt and Prochaska were but groping in the dark. It was chiefly by following the question of the functions of the roots of the spinal nerves by repeated experiments on living frogs that Johannes Müller was led to his accurate conclusions as to the functions of the spinal cord. But it is, no doubt, to our fellow countryman, Marshall Hall, that most credit is due for both originality of discovery and energy in advocating the laws of reflex action which really form the basis of our present knowledge of the uses of the nervous centres. Now we have a precise acquaintance with the localities in which lie the nerve cells that preside over many of our most important organic motions, such as respiration, deglutition, &c.; and a kind of localisation of higher functions seems to be promised by certain modern methods of experiment, which have so far only given results which tempt the sanguine physiologist to look forward to great advances in psychical therapeutics.

Any account of the growth of physiology would be most faulty which did not give prominence to the name of Albert von Haller. By his exertions as an experimentalist, a teacher, and an author, Haller gave a most powerful impulse to the study and progress of physiology. His original investigations have given us a series of results unequalled in number, accuracy, and importance by those of any other physiologist. But Haller's claims to the gratitude of posterity rest less, perhaps, upon the discoveries which he himself made than by his bringing together in his "Elements of Physiology" all that was known of this science, which had been previously scattered throughout the cumbersome writings of the numerous earlier observers and experimenters. Further, he created a spirit of experimental research which had never before existed, and which, I hope, will never again disappear from our methods of medical study. He gave the first short and comprehensive view of physiology that ever appeared. In short, Haller may be said to have created our science as it now is, and he has been well called the father of physiology. I have here his "Præparatæ Lineæ," which is the oldest and one of the best student's handbooks of physiology. Our science, then, which was conceived in the days of Galen, was only born in the eighteenth century, having undergone a remarkable quickening in the time of Harvey.

It is in connexion with the irritability of muscle, independent of the nervous system, that the name of Haller is most familiarly known, for this was the point raised by him which gave rise to the wide-spread pathological theories which I mentioned in my last lecture. Galen and all his successors believed that the activity of muscle came from the brain or the cord. "All the muscles," says Galen, "have a communication with the brain and spinal marrow; for they must receive from the brain or the spinal marrow a nerve which, though small in appearance, is by no means inconsiderable in power . . . . There is certainly some great power in the nerves, flowing into them from their primary organ, for they have it not in themselves, neither do they originate it in them. This is proved most distinctly by the fact that if you divide any of the nerves, or the spinal marrow itself, the part above the incision and in continuity with the brain will still retain its powers; but the part below will be incapable of producing either sense or motion." The first dissentient from this view seems to have been Glisson; and he also first used the term irritability as applied to a muscle independent of its nerve. Indeed, he also seems to have had an idea of reflex action. According to him muscular fibres may contract in response to three different kinds of stimuli: (1) To those applied to them directly; (2) to a sensory stimulus coming from without through the medium of the nerves; and (3) to a voluntary impulse arriving from the brain. Haller explains the matter much more fully and clearly than Glisson, and applies his views to all the motions of organic life. He says, "Every muscular fibre when irritated contracts itself, and this character distinguishes it from the vegetable fibres, and perpetual irritation alone is the cause of the continuation of motion in the vital organs, after the

animal organs had ceased to move. . . . The irritability of the muscular fibre is independent of the nerves and of all known property." Elsewhere he says: "Irritability is different from elasticity, and from the dead contraction common to all fibres; it seems to constitute a power which is quite peculiar to the muscular fibre, and characteristic of it, so that every muscular fibre may be said to be irritable; and, on the other hand, everything which is irritable may be said to be muscular fibre. It is a power distinct from every other power and to be referred to the sources of motion—of the ultimate cause of which we are ignorant." How apposite is Haller's muscle-force at this moment, when there is a difficulty in explaining some vaso-constrictions which occur without nerve influence and vaso-dilatations which follow nerve influence.

Although Germany be the cradle in which our comparatively young science is now fostered, I think, from the sketch I have given, it may be gathered that England has made a fair contribution to modern physiology.

Are English physiologists now to stop working, or must they proceed with the heavy incubus which has been placed around their necks by the opponents of experimental research?

## COMPOUND SUPPURATING HYDATID CYST OF THE LIVER,

TREATED SUCCESSFULLY ON THE ANTIREPTIC PLAN.

By JOHN COCKLE, M.D., F.R.C.P.,

SENIOR PHYSICIAN TO THE ROYAL FREE HOSPITAL;

AND

WILLIAM ROSE, F.R.C.S.,

SURGEON TO THE ROYAL FREE HOSPITAL.

SIMPLE hydatid cyst of the liver is far from uncommon; its diagnosis is generally easy, and its treatment successful. But simple cysts may change at times into those of compound form by fusion or otherwise, and yield a high death-rate from the accidents of size, situation, laceration, or change in the nature of their contents, and occasionally from the very means adopted for their destruction. The case to be described would fall under this second division, and may be thought worthy of notice, not only from its special complexity or the freedom of the operative procedure, but from the unusually large amount of hydatids discharged during the progress of the treatment (to state the number; at two thousand would probably be an under-estimate), and also from the apparent completeness of the cure, without the occurrence of any untoward symptom of more than transient duration.

Thos. M—, aged thirty-seven, unmarried, was admitted into the Royal Free Hospital, under the care of Dr. Cockle, on Nov. 22nd, 1881, with the following history. He comes of a healthy family. Was formerly a commercial traveller, but for the last four years has been in the police force. He has been subject at times to a cough in the winter, unattended by any shortness of breath. Has had no previous illness beyond an attack in 1875, supposed to be lumbago, which lasted six weeks. Since then he has suffered at times from wandering pains in the back, and more or less from weak digestion and some failure of the appetite. Within the last year or two he has got thinner and become paler, and eventually observed that his feet and ankles were swollen at night. In the beginning of November he states that he caught cold, followed by shivering, subsequently recurring at irregular intervals, with severe cough and difficulty of breathing. However, he still kept on night duty, but was at length compelled to go on the sick list for bronchitis. On Nov. 20th he felt great pain in the pit of the stomach, which was relieved by the application of iodine liniment.

*Present condition.*—He presents the appearance of a man originally of good muscular frame, but now considerably emaciated, and he states that he is still losing flesh. His complexion is of a markedly earthy tint, but without the slightest jaundice; the conjunctivæ are quite natural, and the urine clear. His skin is harsh and dry, the tongue coated, and digestion impaired. The left lung generally is unduly resonant on percussion as compared with the right; a few scattered râles are audible at the bases; and dry



sonorous rhonchi at the upper portion of the chest, especially towards the left apex. The expectoration is moderate, clear, frothy, and somewhat viscid, but never tinged with blood; cough is occasional, but not great. The heart occupies, apparently, its natural position; its rhythm and sounds are normal. The pulse is full, soft, and slightly quickened. The area of hepatic dullness is very markedly increased, extending from about the upper border of the fourth rib in the right mammary line to upwards of two inches below the umbilicus; in the mid-axillary line from the lower border of the fifth rib to three inches above the right crista ili. Upon placing one hand posteriorly, and the other over the anterior face of the liver, the antero-posterior depth feels greatly increased, yielding a sense of resistance. The entire right lobe on its anterior face felt tolerably firm and smooth, without any particular bulging or sense of fluctuation at this time, and, from its perfect painlessness and absence of tenderness on pressure, rather suggesting the idea of amyloid enlargement. The enlargement has a remarkably square end to the left of the umbilicus. The position of the organ remains unchanged during respiration, and is probably fixed, at least in places, by adhesion. The splenic dullness seems normal. Very marked oedema of both lower extremities exists. The patient continued in much the same state until Nov. 28th; the bronchitic symptoms were greatly lessened, but he complained of a "tight feeling" at the pit of the stomach.

Dec. 2nd: There was now apparent a marked and visible prominence over the middle of the enlargement, it being tense, elastic, with obscure hydatid fremitus on percussion, and a distinct feeling of fluctuation. Upon firm and sustained pressure over the prominence the fluid in the swelling seemed to be displaced, reappearing slowly with a rebound as the pressure was gradually relaxed.

Leaving for the moment these later physical signs it was necessary, in order to include all the data for accurate diagnosis, to look again into the past history of the case so far back as the supposed attack of flumbugo in 1875. For it is probable that this attack may have been connected with the development of a cyst deep in the liver, near its posterior surface; such a view seems consistent with what is known as to the ordinarily slow and painless growth of a hydatid cyst. Although no particular symptoms immediately followed the attack beyond a wandering pain in the back and impaired digestion, more remotely there occurred, without other obvious cause, gradual loss of flesh, change in the complexion, and, finally, oedema of the lower extremities, the latter result only to be explained by the pressure of a cyst upon the inferior vena cava, for the urine was fairly normal in quantity and free from albumen. Finally, the severe pain at the pit of the stomach, together with the rigors and the comparatively rapid development of the anterior fluctuating swelling, led to the diagnosis of a compound suppurating hydatid cyst of the liver.

Mr. Rose was requested to open the cyst by incision, which was done on Dec. 6th under the antiseptic spray, and the antiseptic treatment was continued unintermittingly throughout. All notes from this date were taken daily by Mr. Pollard. An incision, one inch and a half in length, was made just internal to the cartilage of the ninth rib, when a large amount of pus and hydatids escaped through the opening. The number passed at once, and by subsequent manipulation, was about five hundred. The hydatids varied in size from an ordinary pea, or smaller, to cysts whose walls were two inches in diameter. A large-sized caoutchouc drainage-tube was inserted and the wound dressed. In the evening severe pain of a shooting character was complained of. Pulse 100; temperature 98°6'. A quarter of a grain of morphia was administered.

December 7th: Wound dressed; free discharge of pus and hydatids; discharge more serous; drainage-tube left in situ; dressings tinged with bile; odour of sulphuretted hydrogen. Pulse 100; temperature, 98°.—8th: Wound dressed; discharge less free; hydatids tinged with bile blocking tube, which was removed and reinserted. Pulse 84; morning temperature, 98°; evening, 99°8'.—9th: Appetite good; feeling stronger and has less pain. Wound dressed; discharge of feculent odour, tinged with bile; tube removed, shortened, and reinserted. Salicylic cream applied round the wound. Morning temperature, 98°; evening, 99°4'.—10th: Some cough; wound dressed; free discharge of the same character. Temperature 98°.—11th: No discharge has come through the dressing; bowels acted for first time since operation. Morning temperature, 98°6'; evening, 97°2'.—12th: No dis-

charge has passed through; feels comfortable and free from pain. Morning temperature, 97°4'; evening, 100°; has slept through the rise.—13th: Wound dressed; drain blocked by cysts; four ounces of muco-biliary matter evacuated. Morning temperature, 98°; evening, 99°4'.—14th: Patient looking clearer and brighter; occasional darting pains in region of liver; complains of presence of the tube; wound dressed; free biliary discharge; fewer cysts. Morning temperature, 97°8'; evening, 98°.—15th: Discharge not through; no pain; looking and feeding well. Temperature, 98°.—16th: Wound dressed; discharge thicker and more grumous; still feculent odour; tube shortened; before reinsertion the dressing forceps had to be used, as the liver appeared to have risen somewhat. Morning temperature, 98°; evening, 97°2'.—17th: No discharge through. Temperature normal.—18th: Slight throbbing pain. Morning temperature, 97°4'; evening, 98°.—20th: Wound dressed; drainage-tube removed; slight serous discharge tinged with bile; free from pain; sat up; protective used for the first time.—22nd: Wound dressed; no special odour with discharge, which is serous, but the protection is blackened.—26th: Dressed; same character of discharge.—29th: Wound open to one inch depth; not much discharge; got up.

Jan. 1st, 1882: Dressed; less discharge, without smell; sinus about the same depth.—4th to 6th: Dressed; no smell detectable since Dec. 18th until Jan. 8th, 1882; temperature ranged between 97°4' and 99°; no hydatids were discharged; patient was up daily.—9th: More pain complained of; the discharge on dressing had again a feculent odour; six hydatids came away; dressed with salicylic cream, spray and deep dressings. Morning temperature, 98°2'; evening, 100°2'.—10th: Some pain complained of; expression of countenance evidently anxious; kept in bed.—11th: Still complains of pain; no change in respect of temperature.—12th: Morning temperature, 101°2'; evening, 98°6'; felt in the evening a rush of discharge from the wound; feculent smell detected two beds off; pulse full; headache; furred tongue.—13th: Incision reopened by inserting and opening drainage forceps; thirty or forty hydatids passed with about six ounces of pus of feculent odour. The cysts measured more than two inches and a half in diameter. The finger introduced detected a kind of shelf, behind which it entered a cavity deep in the liver. A large caoutchouc drainage-tube two inches and a half long was introduced, which, after passing upwards, dipped into the cavity. Morning temperature, 98°4'; evening, 100°.—14th: Dressed; a longer tube of four inches was introduced, the present tube being absolutely blocked by hydatids. The forceps were used and several more extracted, with four ounces of pus of feculent odour. Morning temperature, 99°8'; evening, 98°4'.—15th: Pain in wound less; looks brighter; discharge not through. Morning temperature, 98°; evening, 99°4'.—17th: Dressed; a larger tube introduced; six ounces of pus and more cysts discharged; it seems as if a large mother cyst had existed behind the first which was opened.—19th: Dressed; tube again blocked. A silver tube is to be made of such a size that it cannot be blocked, and will be capable of being cleaned without removing it.—21st: Dressed; pus to a large amount, and with decomposing cysts, escaped. Morning temperature, 100°4'; evening, 98°4'.—27th: Since the 21st the wound has not been dressed, as the discharge has not come through; temperature has varied between 98° and 99°4'; dressed to-day; discharge smelling less, and less abundant; drain shortened.—28th and 29th: Patient more comfortable; discharge not through. Morning temperature, 98°; evening, 99°.—30th: A silver drainage-tube with collar made specially, 6·5 centimetres long, collar 1 centimetre broad, calibre 1·4 centimetres; this was inserted after the removal of the previous tube. Its insertion was followed by a gush of a very large quantity of pus and hydatids, the sheets &c. being soaked in addition. During the night dressing and draw-sheets were soaked. Morning temperature, 98°2'; evening, 99°4'.—31st: Dressed; eight large cysts on dressing and in tube; discharge serous; air enters and is expelled during respiration through the tube, which is protected both by the spray and a piece of gauze dipped in carbolic lotion. Temperature, 100°2'.

Feb. 1st: Dressed; a copious serous discharge, which has coagulated round the tube. Morning temperature, 98°4'; evening, 99°4'.—2nd: Dressed; discharge serous, thinner; no cysts. Patient complains in the evening of the pressure of the tube. Morning and evening temperature, 98°2'.—3rd: Brown serous discharge; tube projecting half an inch;

collar protected by wet gauze, and protective with salicylic cream.—4th: Dressed as yesterday.—5th: Dressed. Night temperature, 101°. Bowels not open for several days; purgative.—6th: Discharge not through. Morning temperature, 98.4°; evening, 99.4°.—7th: Dressed; tube kept half an inch out; serous discharge.—8th: Dressed. If the dressing over the tube is touched much pain is felt, and patient feels as if "something was forcing out the tube."—12th: Dressed; much less discharge; tube in only two-thirds of an inch; well padded with wet gauze.—15th: Dressed; tube forced out; little discharge; liver dullness nearly normal; silver tube finally removed.—17th: Dressed; superficial wound dressed with protective and gauze with collodion to keep it impervious. Patient got up.—23rd: Granulations prominent; probe enters a quarter of an inch, touched with nitrate of silver and dressed with dry gauze and collodion.—26th: Wound healed; covered with collodion; since Feb. 1st the temperature, except on two occasions, has not risen above 99° or fallen below 98°. The patient is now able to go out, and seems quite strong again.

April 9th: The patient expresses himself as perfectly well, and leaves the hospital to-morrow for a convalescent home. He has gained appreciably in weight; his face has again filled out, and the complexion is natural. Both appetite and digestion are now excellent, and every function is naturally performed. The liver has retracted nearly within its normal limits, some slight sense of resistance being still detectable. The shape of the abdomen is quite normal. It may, therefore, be fairly hoped that the cure will remain permanent.

*Remarks.*—The case was probably one in which two hydatid cysts were developed in the liver; the larger and earlier commencing deep in the right lobe, occupying the middle and posterior portions, and eventually communicating with the anterior cyst, which latter, judging from the history of the case and the late appearance of visible bulging, seemed to be of more recent formation. This, at least, may be regarded as the probable order of development, inasmuch as the finger, after passing through an apparent anterior cyst, entered a well-defined opening at its further end, barely admitting it (and which, judging from the thickness and the resistance of the walls, appeared to consist of healthy hepatic tissue), and leading into another cavity, the exact extent of which could not be accurately gauged, but, judging from its contents, seemed to be of very considerable size, sufficient to exert pressure upon the inferior vena cava, and to induce secondary dropsy of the inferior extremities. It will have been noticed that on several occasions during the progress of the treatment discharge of bile took place through the tube. Some biliary duct or ducts had evidently opened into the cavity. Although several of the cyst membranes were stained with bile, large numbers of hydatids were subsequently discharged at intervals apparently quite unchanged, retaining their tense and semi-translucent appearance, seemingly tending to show (contrary to what is usually supposed) that the bile during this period had neither excited inflammation nor exercised any lethal influence over the parasite. In many of the secondary cysts that were entire numerous minute buds studded the germinal membrane, to which they were more or less firmly attached. Such of the undamaged cysts as were microscopically examined contained either hooklets or echinococci. Some cysts were passed ruptured and decomposing. The feculent odour was tolerably persistent, more or less detectable in the discharge through the tube, and probably resulted from the proximity of the mother cyst to the intestine, as usually happens wherever pus forms near the latter; or from some change in the character of the cyst contents. At no period did there exist the slightest ground for supposing that any communication with the bowel existed. If there were, it must have been a mere capillary fissure. In conclusion, it may be observed that considering the high mortality of cases of suppurating hydatid cyst of the liver, treated heretofore by incision in the ordinary way, the advantages of the antiseptic plan are clearly manifest.

P.S.—May 2nd: The patient has returned from the country in excellent health, and is about to resume duty as a constable.

## ON CONVULSIONS IN CHILDREN.

BY EUSTACE SMITH, M.D., F.R.C.P.,

PHYSICIAN TO HIS MAJESTY THE KING OF THE BELGIANS, PHYSICIAN TO THE EAST LONDON CHILDREN'S HOSPITAL AND THE VICTORIA-PARK HOSPITAL FOR DISEASES OF THE CHEST.

THE commotion in the nervous system which goes by the name of eclampsia, or a fit of convulsions, is a common phenomenon in infancy, and is sometimes seen in early childhood. It depends upon an exalted sensibility of the reflex centres seated in the pons and the medulla oblongata, but is attended by no change in those parts capable of being detected on examination of the dead body. The disturbance is essentially a symptom, and may be produced by a variety of causes. Irrespective, then, of the immediate danger to life, the phenomenon may be of serious moment or of trifling consequence, according to the cause which has induced it. It is therefore of great importance to ascertain its mode of origin, for only by this means can we speak with any confidence as regards the influence which the attack is likely to have upon the future well-being of the child.

It is during the first two years of life that the tendency to this form of nervous derangement is most active. At this period of childhood the nervous system of the infant, although immature, is undergoing rapid development, and the reflex centres respond briskly to every form of peripheral irritation. The tendency to eclampsia is not, however, confined to this age. Convulsions may even affect the infant in the womb. Early death of the fœtus and premature labour can be sometimes attributed to this cause, and it is to this accident that some varieties of congenital deformity have been referred—those which are characterised by permanent contraction of special muscles. After birth the proneness to convulsions may continue for a longer or shorter time, according to the natural sensitiveness of the nervous system to external impressions. It is therefore much more persistent in some children than in others, and may endure in exceptional cases to the ninth or tenth year.

There are certain conditions which predispose a child to convulsions. Thus, the liability to eclamptic seizures sometimes runs in families so that all children born of certain parents are found to suffer from these attacks. In other cases the tendency is confined to certain individuals of the family, or even to one sex. Thus, all the boys may have convulsions, while the girls escape. Again, in rickets there is a special convulsive tendency, which is very remarkable; and a very large number of the cases of reflex convulsions are found in children with this constitutional condition. When the predisposition exists, very slight causes—causes often so trifling as to escape recognition—may induce the attacks.

Within certain limits, the state of a child's nutrition does not appear to affect his susceptibility to convulsive seizures. A strong child and a weak one may be equally prone to suffer from this nervous disturbance. When, however, an infant is greatly reduced by long-continued interference with nutrition, a remarkable difference is noticed in his sensibility to nervous impressions. Not only is there no exaltation of reflex function, but the normal excitability of the reflex centres is diminished or annulled; so that in a child so enfeebled convulsions are seldom of reflex origin, but usually indicate grave cerebral disease.

In every case of convulsions we should examine the patient very carefully for signs of disease of the brain or its membranes; more especially as the first question usually asked by the parents, after their excitement and alarm have somewhat subsided, relates to the possibility of any affection of the brain. In infants of twelve months of age and under—if the child be fat and robust-looking, the fit is in all probability reflex; if he be under-nourished, weakly, and wasted—i.e., in that condition where all reflex excitability is practically in abeyance, the convulsion is no doubt the consequence of an intra-cranial lesion. In a weakly emaciated infant by far the most common cause of a convulsive seizure is general tuberculosis with secondary tubercular meningitis.

The character of the fit itself will give some indication. Cerebral convulsions are often partial; therefore if the spasms are limited to one side of the body, or to one limb, we should search carefully for signs of cerebral disease. Paralysis of

THE Société contre l'Abus du Tabac offers a prize for the best essay on the question, "Do there exist characteristic symptoms sufficient to warrant the conclusion that amaurosis or defect of sight is caused by the excessive use of tobacco?" The prize consists of books to the value of 200 francs and a bronze medal.

the face remaining after the end of an attack is indicative of a cerebral lesion. Thus, drawing of the mouth to one side, ptosis, or inequality of pupils are symptoms never seen in true uncomplicated eclampsia. A squint persisting after the convulsion has passed off must be regarded with anxiety; for although not necessarily a grave symptom, it is often indicative of a serious lesion, and if accompanied by signs of heaviness or tendency to stupor, must be looked upon as of unfavourable omen. Again, convulsions, general or partial without loss of consciousness, should lead us to suspect disease of the brain. Another important sign is the condition of the child after the attack. In true eclampsia consciousness is recovered quickly after the seizure; and if any drowsiness remain it is over in a few hours. Signs of persistent stupor or dulness of the senses would point to a cerebral lesion. Mere temporary loss of power in a limb is no proof of centric origin; but if the paralysis continue longer than a few hours, or a day or two, especially if contraction of muscle occur, we may conclude that some centric lesion, either primary or secondary, is present. Even if the convulsion leave behind it conclusive evidence of a cerebral lesion, it does not follow that the lesion was the cause of the fit. One consequence of eclamptic seizures is congestion of the brain; and if the nervous attack be prolonged, serous effusions and perhaps minute capillary hæmorrhages may occur and lead to very serious consequences.

Convulsions taking place at the end of the exanthemata and other febrile diseases are commonly attributed to cerebral congestion, although it seems probable, from the observations of Dr. Bastian, that embolic plugging of minute cerebral arteries takes a large share in their production. These attacks never come on except at an advanced period of the illness, when the state of the patient is evidently very serious, and they quickly terminate his sufferings. It must be remembered that a fit may be the first sign of secondary tuberculosis. Tubercular meningitis, when it occurs in the course of an acute illness, has its own early symptoms masked by those proper to the primary disease, and only reveals its presence by the more violent phenomena which are characteristic of the third stage of the intracranial lesion. Appearing in this form—as a part of a general formation of the grey granulation all over the body—tubercular meningitis is not uncommon in babies of a few months old. If, then, in a child of any age, suffering from an acute inflammatory disease, such as an attack of catarrhal pneumonia, convulsions come on, we should strongly suspect tuberculosis, and if the fit is followed by squinting and irregularity of pupils, with or without rigidity of joints, we can speak confidently of the existence of tubercular inflammation in the skull cavity.

In cases where no serious cerebral lesion is suspected, it is important to distinguish an eclamptic attack from an epileptic seizure. At the time this is impossible, for the state of the patient requires all our attention, and, if only to quiet the alarm of the relatives, it is urgent that something should be done. When, however, the subsidence of the spasms gives us leisure to make inquiry, we should try to discover some source of irritation to which the convulsion may be attributed. We should look for signs of rickets—the condition which especially predisposes to eclamptic seizures—and inquire for any convulsive tendency in the family. The age is of importance. Up to the time of completion of the first dentition the disturbance is probably not epileptic, and if the gums are tense and hot, or the child has lately swallowed some unsuitable food, we may feel satisfied that the case is one of pure eclampsia. Again, high fever is not a characteristic of epilepsy, therefore if there be pyrexia the fit is probably reflex, or is a nervous disturbance announcing the onset of one of the exanthemata, or of an acute disease. But irrespective of these considerations, under the age of two years epilepsy is rare, while reflex convulsions and the other forms of pure eclampsia are very common.

In older children it is more difficult, often it is quite impossible, to exclude epilepsy. If, however, the fit is a prolonged one, and lasts for an hour or more without intermission, we may conclude that the attack is eclamptic; for the duration of an epileptic seizure rarely exceeds ten minutes, or at the most a quarter of an hour. When the urine can be obtained it should be always examined for albumen, as uræmic convulsions in children are not uncommon. For the same reason the whole body should be carefully inspected for signs of peeling of the skin, as uræmic convulsions towards the end of the desquamative stage of scarlatina are far from rare. The attack of scarlatina is sometimes so mild

as to be overlooked by inattentive or unobservant parents; and even if it be known to have occurred the past illness may be looked upon as immaterial to the present disturbance, and may not be referred to. In all cases we must remember that after the age of three, or at the most four, years eclamptic attacks from reflex irritation are rare. Convulsions occurring in a child of this age, if not due to cerebral disease, are generally either uræmic or are premonitory of some acute febrile disease.

As long as any cause can be discovered for the attack the fit is probably eclamptic. It is the convulsion occurring without evident cause which is so suspicious of true epilepsy; and if a child of four or five years of age or upwards be visited while in apparent health by such a seizure we are justified in fearing the beginning of epilepsy. It must not be forgotten, however, that convulsive seizures at first eclamptic may pass into true epilepsy. There is no doubt that this does happen in cases where there is a strong neurotic inheritance. Where there is no such predisposition I believe that epilepsy only follows in cases where the eclamptic attack has induced a secondary cerebral lesion. In such a case, although the first attack, or series of attacks, may have occurred as a result of some appreciable cause, the after convulsions may arise without anything being discovered to serve as an explanation of the morbid phenomenon.

(To be concluded.)

## ON THE METHOD OF OPERATING IN STRANGULATED UMBILICAL HERNIA.

By RUSHTON PARKER, B.S., F.R.C.S.,  
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THE communication of Mr. T. F. Chavasse in THE LANCET of May 27th, 1882, is deserving of criticism on several grounds, among which are, the importance of the emergency, the principles concerned in its appreciation, and the question, above all, of practice. The gravity of a condition which, without artificial relief, is almost necessarily fatal, and which formerly seldom proved otherwise, in spite of that relief, cannot possibly be over-estimated; and the traditional importance of the emergency may have not been diminished by the comparative infrequency of its occurrence; may rather, as I think, have been enhanced, seeing that a possible reduction in the mortality may have failed to attract a deserved attention, through sheer poverty of the associated statistics. The amenities of experience (or of what, in default, has to do duty for it) sometimes uttered in the terms "he will never get better," or "such cases always die," are frequently more authoritative than trustworthy; and I confess that I have on that account now and then withheld the complete respect accorded by some to this familiar but despondent wail. In short, the frequent former fatality that attended herniotomy, as performed for umbilical strangulation, has never caused me to view it as the inevitable, or even as the most likely, prospective issue of such cases. But, after all, this statement of my impression must, like that of Mr. Chavasse, or of anyone else, be held subordinate to the great realities, in the light of which the mere impression may be criticised, and eventually justified or rejected.

The former death-rate of umbilical herniotomy, though absolutely high, has been in certain groups of statistics, especially in the hospitals of towns, almost if not quite equalled by that of inguinal and femoral. But an improvement has taken place all round, for reasons that will be differently explained under varying or imperfect impressions. It is certain, however, that of late years an immense immunity from death, in quarters where escape was previously more rare, has been enjoyed after the more common herniotomies; while there are records of conspicuous, if not numerous, successes in even umbilical cases. Much of this success is attributed, and fairly attributable, to the direct protective influence of the antiseptic system and the simplification and multiplication of its cures. But an indirect result of this success has been the removal of unwonted reluctance and delay; in fact men operate earlier, and for some purposes oftener, than they did before, while operations are freely undertaken that were formerly avoided altogether.

The causes of failure, and the means to ensure recovery, in cases of strangulated hernia are not all, however, summed up in the methods employed at the wound or hernial sac, since we have often to reckon with widespread disturbance of intestinal function, to administer opium and proscribe diet, for want of which precautions the most perfect herniotomy, or the most successful taxis without operation, may alike be rendered useless.

I had occasion to cut an umbilical hernia for the relief of strangulation in the summer of 1879. The symptoms were quickly relieved, and the patient made a simple recovery. A complication subsequently arose in the establishment of a faecal fistula, which did not heal spontaneously, but which I effectually closed at a second herniotomy in the summer of 1880. The case is recorded in the *Medical Times and Gazette* for Feb. 18th, 1882, where details are given. A radical cure of the hernial protrusion did not occur (though I attempted it at the second operation), owing to the wideness of the neck, the thickness of its margin, and the inability of my sutures to obliterate the aperture. But the method that proved unsuited to mine succeeded in a case of much larger umbilical hernia, but with a smaller neck, previously operated on by my colleague, Mr. Banks, for the purpose of radical cure alone, and at which I assisted him, in the same summer.<sup>1</sup> Eventually I was enabled to radically cure, by effectually ligaturing the sac alone as deeply as possible, an irreducible omental umbilical hernia,—a method I venture to recommend to all for simplicity and safety.<sup>2</sup>

I can see nothing in umbilical hernia, strangulated or not, to which the known principles of surgery that apply to other herniæ do not equally apply; still less do I see why such a hernia should be, under any circumstances, denied complete reduction, or the supreme advantage of a radical cure. Neither can I imagine that the three patients in these four cases were placed in special jeopardy by manipulation, under suitable precautions, of the umbilical sac or of its contents; or that their simple and speedy recovery can be viewed in the light of a narrow escape.

It is true that in only one instance was strangulation present, and even then of so mild and recent a character as to contrast favourably with similar cases more advanced. But the very fact that the woman was not left till she became moribund, or rather was promptly rescued before signs of actual danger were evinced, is one of the proofs so often and so truly adduced that we must not mistake for consequences of the operation symptoms that never occur when herniotomy is properly and promptly performed. Perhaps one cause of the desperate state into which intestinal irreducibility may drift, in umbilical cases, is the comparative wideness of the neck, facilitating descent, but not strangulation, which is consequently rather prohibited, and, what is worse, is from its more gradual onset apt to be insufficiently noticed by the patient, who fails to connect with the tumour, not differing, perhaps, from its usual daily state, the uneasiness, cructation, and other early symptoms, so much more appreciable to some non-medical intelligences than to others, and so instantly attractive of medical notice. It is truly bad enough for the patient if medical attention be delayed until the unequivocal strangulation has reached an advanced stage of constitutional and even local disturbance. Precisely the same, however, occurs in old inguinal herniæ, from many of which an umbilical differs only and simply in the single item of locality. Even at this juncture the successful advantage of operation is conspicuous enough, but it may go very hard with the patient if his surgeon has to think twice about cutting him, through a perfectly unfounded and superstitious dread of killing, by the means alone capable of keeping him alive. I cannot therefore entertain or further discuss the notion of the special vulnerability of the sac of a strangulated umbilical hernia as distinguished from that of the adjacent peritoneum; the onus of proof rather rests upon those who have invented the idea, which, I venture to think, is not based upon any intelligible principle of anatomy, physiology, or clinical experience. It is at best, and under the easiest circumstances, a roundabout way of attaining what should be a straightforward, intelligent, and even simple end; in gangrenous cases it is the surest way to spill seæ into the peritoneal cavity, while in all it is an obstacle to radical cure, without which no herniotomy can now be said to be artistically complete, and to solely attain which many herniotomies are very properly undertaken.

## SYPHILIS AND MARRIAGE.<sup>1</sup>

By FREDERICK W. LOWNDES, M.R.C.S. ENG.,  
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THE following case will serve as a very appropriate introduction to this paper, as well as affording ample reasons for introducing this subject:—In October, 1879, I was requested by our respected honorary member, Mr. F. Worthington, now retired from practice, to see for him a married woman in the last stage of tertiary syphilis. She was in a dying state at the time of my visit, and it would be difficult to convey any idea of the shocking condition in which I found the poor creature, though it may be imagined what it must have been from the subsequent history of her case. The greater portion of her face was gone, her sight was gone; it was with the greatest difficulty that she was fed, and the stench which filled the room was the most sickening I ever encountered. I only saw her once, as she died two days after my visit; and I may here remark as worthy of notice, that her friends were most anxious that the cause of death should not be stated in the certificate, fearing that such would entail a forfeiture of the club money. Circumstances prevented me from taking some medical friend to see the case as I could have wished, or from getting any complete history of it until recently, when, at my request, Mr. Worthington sent me the following details:—

"I cannot," he writes, "find my notes of the case of Mrs. T—, so that I cannot give you more than my recollection of her unfortunate case. Her husband was a sailor and married her when she was seventeen or eighteen. He had had a chancre, and said that a surgeon pronounced him to be thoroughly free from all disease, and that there would not be any risk of infecting his wife if he married. Mrs. T— suffered from syphilis some months after the marriage, and subsequently she was for some months in one of the London hospitals. She came out not much better. She had been under the treatment of two medical men in Liverpool and of Mr. Bickersteth before I saw her. The people in the house in which she lived neglected to carry out Mr. Bickersteth's directions, and he consequently declined having anything more to do with the case. She was then under another surgeon's care for a time. When I first saw her there was necrosis of both the upper and lower jaw. I removed at different times the greater portion of the upper maxillary bone, extending up to the eyelid on the right side. As you know, she was emaciated to a great degree, and could scarcely swallow for some time before her death. Her husband was in the navy, not a common sailor, but what office he held I do not know. He assured me that a surgeon pronounced him perfectly well and safe in marrying. It was the worst case of tertiary syphilis I ever met with; the smell was so horrible that the room was intolerable without the unintermitting use of disinfectants."

I took great pains to find the missing links of this history, and especially that portion of it which referred to treatment in a London hospital. Here I was unsuccessful. St. Bartholomew's, University College, Middlesex, and the Female Lock Hospitals were each indicated as the one in which Mrs. T— was treated, but at none of them could I obtain any information of her. From the landlady of the house in which she died I learned that the deceased had one child which only survived its birth a few months, and was very weakly; also that both the deceased and her sister were always delicate women. She added that Mrs. T— preserved her bearing up to the last, and to a great extent her reason, which only wandered occasionally.

This case suggests very grave reflections. Here was a man knowing that he suffered from a disease which might prejudice his marriage, taking the precaution of seeking medical advice and obtaining medical sanction for it. It would have been interesting to know what interval elapsed between the healing of the chancre and his marriage, as also whether he was treated with or without mercury. It is true that the frightful result was the consequence of a delicate, probably scrofulous constitution, and of neglect as much as of syphilis. It is also probable that under different and more favourable circumstances the deceased might have re-

<sup>1</sup> See the *Liverpool Medical-Chirurgical Journal* for Jan. 1882.

<sup>2</sup> See *Medical Times and Gazette*, May 27th, 1882.

<sup>1</sup> Abstract of a paper read at the Liverpool Medical Institute, April 20th, 1882.

covered. Still the fact remains that she suffered from syphilis very shortly after her marriage, and that this was the primary cause of her death. It may be urged that this was a very exceptional case. So it was; but it is not generally recognised that the worst cases of tertiary syphilis occur, not among prostitutes, nor the male patients of lock hospitals, but among respectable married women. In September, 1875, I saw in the London Female Lock Hospital a married woman who was the subject of extensive tertiary disease of the bones of the face. She was also covered with rupia; and in spite of the most liberal use of carbolic acid and ample ventilation the stench was intolerable. I subsequently learned, from the able and courteous resident surgeon, Mr. G. H. Bishop, that after a stay in the hospital of over two years all the necrosed bone was removed and a firm cicatrix covered the parts, the nose, mouth, and right eye being one cavity. He adds: "I have a case of extensive necrosis of the skull, the brain protruding in several places. This, again, is a respectable married woman." Fournier, in his recently published work, says,<sup>2</sup> "Every married woman who contracts syphilis under the conditions which we have considered will always be very insufficiently and incompletely treated, and will consequently be exposed to the most serious future dangers. . . . I insist upon it, that nothing is more frequent in practice than tertiary symptoms of syphilis contracted by women in marriage. Such observations are most abundant; I can reckon them by hundreds in my hospital and private notes."

During the last seven years between seventy and eighty married women have been admitted into our lock hospital here, a large number when we consider that there are only two wards opening into each other, in which married women and prostitutes are mixed together, a fact calculated to deter the former from coming in at all. Of these the greater number suffered from syphilis, some having the tertiary form very severely.

Now, it is no less remarkable than true that those men who may with perfect safety marry, never having had syphilis at all except in their own imaginations, are those who are the most anxious and dubious about doing so, consulting their own and other medical advisers, and being with great difficulty persuaded that there is no danger in their marrying. On the other hand, those who take no medical advice on the subject are too often the very ones who ought to do so, taking the irrevocable step of marrying within a recklessly short period of having suffered from syphilis, or even before its primary manifestation has quite disappeared. Hence it follows, naturally, that many married women suffer from syphilis, and suffer very severely, the approach of the disease being to them insidious and mysterious, occasioning great reluctance to seek medical advice until much valuable time has been lost.

A man comes to consult us. He says he is going to be married in a few days, that he has had impure connexion very recently, and he wishes to have some prophylactic against any disease he may have contracted. On examining him we find no disease whatever. But we all know that the period of syphilitic incubation is one of weeks rather than days, and instances of seven, and even eight, weeks have been proved beyond doubt. This is not a mere point of theoretical interest, but one of great practical importance. Although our patient may be perfectly healthy apparently, he may, nevertheless, have syphilis incubating in him, and a few weeks will suffice to remove all uncertainties. Hence, it is manifest that the only prophylactic we can safely prescribe is a postponement of the marriage for at least three months from the date of impure intercourse. I am unable to give any case in my own practice showing the disastrous results of this recklessness, which is much too common; but a very good illustration is given in Fournier's work, under the note "Syphilis contracted before marriage, and developing itself afterwards."<sup>3</sup> The result of the case is thus summed up:—

1. Coitus a fortnight before marriage with a woman afflicted with valvular syphilides.
2. Marriage in full state of health.
3. A fortnight after marriage the appearance of a syphilitic chancre, followed at the usual time by general symptoms.
4. Infection of the young wife by the husband's chancre, the nature of which was misunderstood when it appeared.

Sometimes we are consulted by men with sores on the penis who are about to be married in a few days. Obviously, marriage is out of the question, and must be adjourned *sine die*. I should not think it necessary to say this if I had not seen such cases, and found it very difficult to dissuade at least some men from marrying in such a condition.

But the most frequent and far the most anxious cases are those of men who have undoubtedly suffered from syphilis more or less recently, sometimes being under our own treatment, and who wish to know whether they can safely marry. These cases present grave difficulties, and involve us in very serious responsibilities. We are between two fires. On the one hand, nothing could be so terrible as to incur the responsibility of such a case as that I cited at the beginning of this paper, or, indeed, to sanction any marriage which might result in the syphilitic infection of the wife, in however mild a form. On the other hand, to forbid marriage upon what may afterwards turn out to have been insufficient grounds would be to incur a responsibility only secondary to this. It is generally admitted that no disease is so amenable to treatment as syphilis, and, therefore, the fact of a man having had syphilis does not of itself constitute a bar to marriage. Fournier gives the following as the conditions under which a man who has had syphilis may marry:—

1. Absence of actual specific symptoms.
2. Advanced age of the diathesis.
3. A certain period of absolute immunity since the last specific manifestation.
4. The non-menacing character of the disease.
5. A sufficient specific treatment.

He also gives notes of eighty-seven cases of men who, having suffered from syphilis, married, and subsequently became fathers between them of a total of 156 children absolutely untouched by the disease, and in thirty-five of these cases various symptoms of an unquestionably specific character developed themselves after marriage, without the wives or children of these patients in any way being affected by the disease. While admitting the reassuring aspect of this latter fact, he very properly warns us not to exaggerate its bearing nor to strain it to mean more than it really does.

By the term sufficient specific treatment he explains his meaning to be that mercury and iodide of potassium are to be administered in really active and curative doses, intermittently for at least three or four years. Even then he advises delay before marrying, but gives his consent if the patient has gone on for eighteen months or two years without symptoms, and if he be otherwise in good condition. Mr. Jonathan Hutchinson, who writes the preface to the English translation, says:—"I feel scarcely prepared to go the full length which M. Fournier suggests in the direction of caution and prohibition. . . . Respecting a malady so common as syphilis, whilst it is often our duty to warn, it is also not unfrequently equally our duty to encourage." With this most of us will agree, but I must express my regret at the following sentence of Mr. Hutchinson's: "The surgeon who, on account of past syphilis, forbids marriage to an otherwise eligible man, must remember that he forbids it at the same time to some woman who possibly, if well informed as to her risks, would willingly encounter them." Now, I maintain that no woman should be permitted to encounter such risk, and neither man nor woman is justified in exposing to this risk an unborn child. It seems to me that each case must be judged on its own merits. When the constitution is good, and there has been sufficient specific treatment, marriage may be permitted within a much shorter period than M. Fournier suggests, and with safety. Syphilis alone, and syphilis combined with scrofula, are two very different foes to contend with; and if our patient be of a scrofulous temperament, a delay even longer than M. Fournier's may be desirable. In all doubtful cases we shall do well to seek consultation with one another, specialists consulting freely with all-round physicians and surgeons, and with obstetricians. This should be done to avoid specialism becoming narrow and routine, especially when we remember how that syphilitic diseases penetrate through every nook and cranny of medical, surgical, and obstetrical practice. I have been frequently urged to try non-mercurial treatment, but have always been deterred from doing so by the words of the late Dr. Thos. Edward Beatty, a pupil, be it remembered, of Richard Carmichael, in his address at the annual meeting of the British Medical Association, at Leeds, in 1869: "Mercury given to the man when first diseased would, I

<sup>2</sup> Syphilis and Marriage, by Alfred Fournier, translated by Alfred Lingard, pages 174, 176.

<sup>3</sup> Op. cit., pp. 252-4.

<sup>4</sup> Op. cit., p. 85.

<sup>5</sup> Op. cit., vii.



firmly believe, have prevented this terrible calamity—i.e., the syphilitic infection of the wife; and I would now humbly suggest to all who undertake the treatment of venereal disease, that if they have a certainty that their patients will remain celibate all their lives, they may heal up their sores and dispel their eruptions and sore throats in any manner they like; but that they have no right to expose the pure, innocent, high-minded females of society to contamination by marrying men treated without mercury."

## A CASE OF TRANSPOSITION OF HEART.

By CHAS. POPE, L.R.C.P. & L.R.C.S. EDIN.

G. C—, a bricklayer, aged forty-one, was admitted to the South Shields Workhouse Hospital on May 24th, 1882, suffering from pneumonia with distressing dyspnoea and extreme lividity. The heart's impulse could not be detected anywhere on the left side of the sternum, and the sounds on auscultation were distant and muffled. On examining the right side I found the impulse well marked about two inches below the right nipple and two inches on the right of the sternum. On auscultation at this point I heard a mitral regurgitant murmur, which, however, was only audible over a very limited space, about two inches in diameter. It could not be heard in the axilla nor at the lower angle of either scapula. The pulsations could be heard feebly at the back of the right chest low down, but were inaudible at the back of the left. I could obtain no history of pleurisy, empyema, or pericarditis, neither was there any evidence of tumour of any description, the man declaring that until the present he had never had a day's illness in his life. He had always been a hard worker and a good deal addicted to drink. Under the circumstances I was driven to the conclusion that this was a case of transposition of heart.

The patient died on June 4th, and on the following day, assisted by Mr. Robson, I made a post-mortem examination. On opening the thorax we found the heart natural in size and weight, but nearly entirely on the right of the median line, as indicated during life. The aorta ascended to the central part of the thorax, after which it arched at the usual level over to the left, and descended on the left of the vertebral column, giving off in their normal position its three large branches; these were distributed as usual. The pericardium was nowhere adherent. On opening the left side of the heart the anterior flap of the mitral valve was partially adherent to the endocardium, as were also some of the chordæ tendineæ, thus preventing its proper closure, and giving rise to regurgitation; there was also slight fibrous thickening. The tricuspid valve was in every respect normal, but the right side of the heart was full of clotted venous blood. The lungs in appearance and on section presented the usual signs of grey hepatisation; the right lung was markedly smaller than the left, but consisted of three lobes; the left lung consisted of two lobes as usual; there was no fluid in the cavity of the pleura, nor were there any pleuritic adhesions. On opening the abdomen the liver was found in its natural position and healthy, as were all the other organs. This was evidently a case of congenital abnormality.

South Shields.

## DISLOCATION OF THE LOWER END OF THE TIBIA FORWARDS OR OF THE FOOT BACKWARDS.

By GEO. ASHMEAD, L.R.C.P. & L.R.C.S. EDIN.

ON the evening of June 11th I was sent for in haste to the house of an ironworker, who was said to have broken his leg. I found him lying on the sofa with his left leg resting upon its fellow; he was groaning with pain, and on examination I found the lower end of the tibia occupying a position on the instep of the foot; the extensor muscles and the integuments were tightly distended and of a rose-red colour; the toes pointed downwards and the heel drawn upwards. The fibula was fractured near the articulation. By securing the knee and extending the foot with slight flexion on the

tibia, reduction was easily effected without the aid of an anæsthetic, accompanied by a grating sound distinctly audible to those present. Instant relief followed replacement; the foot was bandaged and light lateral splints applied. The easy reduction may be ascribed to the early attendance, the injury having taken place only a quarter of an hour previously. The above is the only example I have met with, and is described by Bryant, Hamilton, and others as extremely rare. Some surgeons have found it very difficult of reduction. The patient had a pair of heavily nailed boots on, and slipped upon some wet glazed bricks, his leg being doubled under him, "tailor fashion," to use his own words. Brierley Hill.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alla pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## MIDDLESEX HOSPITAL.

CASES OF SARCOMA.

(Under the care of Mr. J. W. HULKE.)

CASE 1. *Sarcoma beneath the Superficial Muscles of the Calf of the Leg; Excision; Recurrence; Amputation; Secondary Hæmorrhage; Death.*—A cook, aged sixty-nine, was admitted into Regent ward on April 26th, 1880, with a swelling in the right leg, which she thought had begun six years previously. Latterly its growth had been rapid, and it had become very painful. The swelling was caused by an elastic, lobulated mass, reaching from near the heel half-way to the ham. When the leg was extended the mass appeared fixed, but when the leg was flexed, and the superficial muscles of the calf were relaxed, the mass was found to be so movable as to preclude the idea of its being attached to periosteum and bone. Amputation being rejected by the patient, on May 5th it was cut out by a long incision, splitting the gastrocnemius and soleus. It was found to be beneath the fascia covering the tibialis posterior muscle. The posterior tibial artery passed into the tumour, and was necessarily cut away with it; the posterior tibial nerve, which was stretched over its surface, was disengaged from it and saved. The wound was washed out with a chloride of zinc solution, and dressed with boracic lint, and the limb was slung. Healing was slow, as might be expected at the patient's age, and in so extensive a wound, and was not completed till the end of July.

In the following October the patient was readmitted with a recurrence of the tumour. There was now above the inner malleolus a mass of the size of a small orange. The skin over its summit was gangrenous, and for some space around it was inflamed. She complained of much pain in the foot, and plaiting it on the ground caused spasmodic flexure of the leg and foot. Amputation, previously rejected, was now sought by the patient, and on Oct. 13th, the limb was removed by Teale's method, below the knee. The vessels were secured with carbolised catgut ligatures. At the end of one week she had very severe hæmorrhage from the stump, from which she never rallied, and died eight hours later. The primary and recurrent tumours were spindle-celled sarcomata.

CASE 2. *Sarcomatous (?) Tumour of Scapula; Secondary Affection of the Lungs.*—A housekeeper, aged forty-four, was admitted into Regent ward in September, 1881, for a tumour of the right shoulder-blade. It was an oval mass, of the size and figure of a cocoa-nut cut lengthwise, firmly attached to the scapula. Its surface was even and defined, and the skin over it was free. It was not tender when handled, but occasioned severe pain, radiating into the neck and down the arm. The grasping power of the right hand was less than that of the left, and the hand felt numb. No enlarged glands could be felt in the armpit. Her breath was short, and she had a cough. She attributed the origin of the tumour to a fall five months before, and she said that it had grown from the size of a walnut to its present bulk during



the last month. Dr. Cayley, who examined the chest, found dullness of the right side from the collar-bone to the level of the fourth rib, and thought this due to secondary tumour growth. She remained in the hospital for six weeks, during which time the tumour on the shoulder and the pulmonary complication both made great progress. She was allowed to go out with an "exeat" for a few hours, and did not return.

**CASE 3. Large Periosteal Sarcoma of the Upper Arm (Pregnancy); Excision; Recovery.**—A remarkably fresh-looking well-grown maid-servant, aged twenty-two, was sent into the hospital by Mr. Pitts of Chelmsford on July 1st, 1880, for a tumour of the arm, of the presence of which she had only very lately become aware, a fellow-servant having noticed the swelling whilst she was washing, and called her attention to it. The tumour reached from near the shoulder to midway between this and the elbow, forming a very conspicuous swelling of two principal and some smaller lobes. The largest of these was beneath the triceps muscle at the back of the humerus. Another large lobe passed round the inner side of the humerus, pressing out of their course the nerve-cords and large vessels to the front of the bone beneath the biceps muscle. It was thought that the mass was slightly movable on the bone. Its consistence was very soft and elastic. It was not tender when handled, nor, usually, painful, but there were occasionally shooting pains in the distribution of the musculo-spiral nerve. The girth of the arm over the tumour was fourteen inches, that of the other arm at the same level ten inches. The principal mass of the tumour was laid bare by a long incision through the middle of the triceps. It was crossed superficially by the trunk of the musculo-spiral nerve, which it had lifted from its groove. This nerve, with the brachial vessels and nerves at the inner side of the arm, were disengaged, and the tumour was dissected out. It sprang from an oblong spot, one inch and three-quarters in extent, of the periosteum at the upper and back part of the humerus. This part of the bone being found rough after separation of the tumour, was cut away. Except at its attachment the tumour was completely invested with a capsule of dense connective tissue. The wound was washed out with a solution of zinc chloride, and four deep rubber drainage-tubes inserted. Strict Listerian measures were adopted during the operation and the subsequent dressings. On the following day the temperature was 100° F., and the pulse 120. On the fourth day the temperature was 99·6° F., and the pulse 102°. There was great pain in the course of the musculo-spiral nerve. As there was some tension the stitches were cut. Suppuration ensued, and the wound closed by granulation. On August 20th she went home convalescent.

In this case the definite lobular figure, softening and elasticity of the tumour, and the patient's age, were suggestive of sarcoma, and its restricted mobility suggested a periosteal origin. The freshly cut surface of the tumour, of a translucent pinkish-grey colour, was very succulent; the juice was clear, not creamy as in cancer. Microscopic examination showed the tumour to be a round-celled sarcoma. Before the operation the large size and vascular turgescence of her breasts raised the suspicion of pregnancy, but this was allayed by her statement that she continued regular. The recurrence of sickness on several mornings when it could not be regarded as an effect of the ether led to a direct inquiry and an avowal of pregnancy in the third month.

#### LIVERPOOL NORTHERN HOSPITAL.

EXTENSIVE EPITHELIOMA OF PENIS AND SCROTUM; OPERATION; SATISFACTORY RESULT.

(Under the care of Mr. CHAUNCEY PUZEY.)

In our "Mirror of Hospital Practice" of May 20th last was reported a case, from the clinique of Mr. Pearce Gould, of the Westminster Hospital, of operation for extensive epithelioma of the penis, with some remarks upon the various methods of operation which have been practised in such cases. The following record of a very similar case will be of interest, more especially as the operative proceedings were to a certain extent conducted on the same plan, for the same reasons, and with a like satisfactory result.

T. R—, a quartermaster of an ocean steamer, was admitted into the Liverpool Northern Hospital on Jan. 16th of this year. He was suffering from epithelioma of the penis

and scrotum, which was said to be of about three years' duration; and he was in a most wretched condition. The penis had become converted into a shapeless epitheliomatous mass, in which a portion of the scrotum was also involved. A slight trace of the remains of the glans penis and of the upper wall of the urethra could be distinguished, but practically no penile urethra remained, and a scanty and constant leakage of urine was going on from somewhere in the scrotal portion of the disease, the parts round being sodden with decomposing urine.

At first sight the possibility of complete removal appeared doubtful, but on examination the mass was found slightly movable on the pubis. There was enlargement of some of the inguinal glands on the right side, but there was reason to think that this enlargement was due to irritation, not to infection. A remarkable feature in the case was the condition of the abdomen. Tense, full and hard, it presented an appearance almost resembling that of pregnancy, and this was due to the excessively distended bladder, the fundus of which reached to fully half way between the navel and the ensiform cartilage. It appeared on inquiry that the man had long suffered from organic stricture of the urethra, and that for the last three or four weeks he had been unable to pass any urine voluntarily. The general condition of the patient was very bad; his features were pinched and dusky, his extremities cold and bluish, the pulse quick and feeble, and the respiration hurried and imperfect; the last-named conditions probably being due to the distension of the abdomen interfering with the action of the diaphragm. The propriety of immediate aspiration of the bladder was considered, but it appeared so likely that the bladder must be paralysed and that after-leakage of urine into the pelvic cellular tissue might occur, that we decided to leave the bladder distended one day longer—in addition to the three or four weeks already passed—and to operate next day for the removal of the disease. Every effort meanwhile was made to warm and stimulate the patient, and to bring him up to the mark for operation.

Next day (Jan. 17th), the patient having been etherised, the operation was undertaken. It was conducted slowly, all bleeding vessels, distended veins as well as small arteries, being tied as divided, so as to diminish as much as possible the risk of collapse, the man's general condition being still very unsatisfactory. Two curved incisions were made, extending from a little above the pubis to the perineum, including the whole of the disease and all doubtful-looking portions of skin; the dissection was then carried down, with knife or finger, to the pubic bone, the testicles being held away on either side; the suspensory ligaments of the penis were divided, and then it was evident that a healthy portion of the organ had been reached. The corpus spongiosum was cut through well behind the disease and dissected back a little way, and urine at once commenced to flow freely from the urethra; the corpora cavernosa were transfixed as far back as possible with a stout curved needle, behind which a whipcord ligature was tied temporarily. The penis was then cut through bloodlessly; the dorsal arteries and those of the corpora cavernosa were tied, and the temporary ligature was removed. The wound was then extended down the middle line of the perineum, the corpus spongiosum dissected back for some distance, the urethra, which was found much strictured, was slit up freely, and the cut portions fixed by several stitches to the skin of the perineum. A No. 6 gum catheter was tied in the bladder, and the remainder of the perineal and scrotal wound brought together with stitches, a drainage-tube having been previously laid in and left protruding at each end of the wound. Just enough scrotal integument remained to cover in the testicles, the left lying behind the right. The man having been removed to his bed a long rubber tube was fixed to the catheter so that the bladder might empty itself gradually into a vessel placed under the bed, and no attempt was made to hasten the flow of urine, but rather the reverse, so as to avoid any tendency to syncope from the sudden removal of tension from the abdomen.

Next day the man's condition was better in every way, the respiration freer, the pulse better, the face improved both in colour and expression. The appearance of the wound was altogether satisfactory, and over seven pints of high-coloured urine had drained away since he had been removed to the ward, in addition to a considerable quantity which had escaped during the operation.

There is little more to say concerning the progress of the case, which was uninterruptedly satisfactory. Four days

after the operation, the catheter having slipped out of the bladder, urine began to collect again, so the catheter was replaced and kept in for about a fortnight. There was hardly any suppuration from the wound, the greater part of which healed by primary union, the perineal portion, which filled up by granulation, being fully cicatrised by Feb. 22nd, the day on which the man left the hospital.

Quite recently (May 22nd) this patient presented himself for inspection. He appeared absolutely well in every respect, and said he never felt better in his life; he certainly looked years younger. He said he had no trouble about micturition, could hold his urine for twelve hours if he wished, but generally passed it about every five or six hours. He could do so standing up, but found it more convenient to do so in a squatting position. The pubic and and scrotal cicatrix was hardly perceptible, and there was no trace of the original site of the penis. The scrotum was small, soft, and smooth, the testicles, which are small, lying one in front of the other. The enlargement of the inguinal glands had altogether disappeared. So far the case appears a complete success.

*Note by Mr. PUZEY.*—Some years ago at another hospital I saw the unfortunate result of amputating the penis close to the pubis, and trusting to the stitching of the urethral mucous membrane to the scrotal integument. Extravasation of urine and diffuse cellulitis soon led to a fatal termination. The various methods of making a perineal urethra, with the object of avoiding this accident, were so fully discussed by Mr. Pearce Gould in the report already alluded to, that there is little left to add to the subject. It appeared to me that Professor Humphry's plan of leaving the end of the corpus spongiosum protruding from the perineum was likely to be followed by a constriction as the perineal wound cicatrised. Consequently I had decided to slit up the urethra freely, and stitch it to the edges of the wound; and when in the course of the operation the presence of well-developed organic stricture was manifested, it appeared still more desirable to adopt this plan, the result of which has proved most satisfactory. It was remarkable how soon the bladder regained its power of contraction. We had feared that more or less paralysis of that viscus might have followed its long-continued distension; but its muscular structure was evidently hypertrophied (probably owing to the necessity of overcoming the old stricture of the urethra). When partly filled, the bladder could be felt through the abdominal walls firm and hard, like a solid tumour. This muscular hypertrophy was, no doubt, the reason why the bladder so soon recovered its contractile power. How long the stricture had existed we could not ascertain; sailors seldom trouble themselves about such matters until retention occurs. The subject of this report would appear to have been unusually callous, for with all his extensive disease he had been going to sea until three weeks before his admission, by which time the passage of urine *per vias naturales* had been almost completely obstructed, not by the stricture, but by the epitheliomatous disease.

### KASHMIR MISSION HOSPITAL.

#### A CASE OF COMPOUND FRACTURE OF BOTH ARMS.

(Under the care of Mr. E. DOWNES.)

A LAD, about fourteen years of age, had walked to the hospital with his mother for more than twenty miles after meeting with an accident ten days before. The boy was in great pain. When he was placed under chloroform it was found that the radius and ulna of both arms had been broken one and a half or two inches above the wrists; the upper fragments, the periosteum of which was bared for about an inch, were protruding from the wounds. The wounds on both arms were in a dirty and stinking state; the right arm the worse. There were two wounds, one for each bone, and the right hand was swollen, and pus could be pressed up into the wound from the palm. On the left side the wound was a large jagged one, from which both bones protruded; the vessels on both sides appeared not to be injured. After the wounds had been cleaned the ends of the bones were sawn off, the limbs were put up with bracketed splints, dressing the wounds with lint and carbolic oil.

For days the poor lad lived in the greatest agony. His screams in spite of opiates kept the patients awake at night in the wards. He was moved into a house in the

village; the neighbours, when they found out what a noise the lad made, objected and asked that he might be removed elsewhere. Here he sat and lay, yelling night and day, and in a half delirious state he several times tore his splints with his teeth. Still attempts were made to save him as much pain as possible by giving him opiates.

At last, after about a fortnight, improvement came; the discharge became more healthy, the hands looked more natural, the pain diminished, and his appetite improved. He was then taken back to the hospital where the flies were not quite so abundant as in the village and he was quiet. After about six weeks it was found that there was union in both arms. From time to time several sinuses were slit up in which matter had burrowed, and were carefully dressed. After he had been in the hospital between two and three months he was discharged.

At the time he was discharged there was certainly some deformity; the fingers of the right hand were not of much use, the left hand even was somewhat stiff; the hand could, however, be flexed, and the fingers also; he could even hold a stick with his left hand, though his grasp was not firm. Still he possessed his two hands, such as they were, and his life was saved. He was seen in the following spring begging in the bazaar, and he appeared to have succeeded in his new profession, for he looked fat and well.

*Remarks by Mr. E. DOWNES.*—This case shows well how limbs may at times be saved, even after the worst accidents, if the main vessels are not ruptured, especially in the case of young and healthy subjects. At the same time, if one limb instead of both had been injured, or if the case had been one where to save life was the chief consideration, I do not think I could have ventured to attempt to save limbs when the prospect of success appeared so small and the risk so great. In the summer many of the Kashmiris almost live upon mulberries, which they pick and eat on the trees like monkeys. In June, 1878, the famine had continued for about three months, and the people, being weak, fell from the trees by hundreds. That year I had about fifty cases of simple and compound fractures of different bones, which had been caused in this way, brought to the hospital for treatment; some were very bad cases, and this was the worst of all.

## Reviews and Notices of Books.

*Clinical Lectures on Diseases of the Urinary Organs.* Delivered at University College Hospital by Sir HENRY THOMPSON, Surgeon-Extraordinary to H.M. the King of the Belgians. Sixth Edition. London: J. and A. Churchill. (Student's edition.)—A new edition of these excellent lectures is always welcome; and while there is no part that is not valuable and full of practical instruction, imparted in a very pleasant style, those to whom the general teaching of Sir Henry Thompson is already familiar will naturally turn to the chapter on the results of Lithotomy at a Single Sitting with the most interest. In the preface Sir Henry states that he regards this "modern operation" as "superseeding the old operation, and to a great extent the operation of lithotomy;" and that this is no mere general statement of opinion only, is fully shown by the results of the operation in Sir Henry's own hands during the last three and a half years, during which he has employed this method almost entirely; for the last two years he has employed it without any exception. During that period he has operated on 112 consecutive cases of elderly men—that is, on 112 separate individuals. The mean age of these patients has been over sixty-two and a half years, and no case of mere phosphatic concretion is included in the list. The calculi have been thus composed: of uric acid 64, of oxalates 4, of phosphates 39, mixed 14. The number of deaths has been 3 only. Sir Henry's average mortality with the old operation was seven and a half per cent.; and once he had so few as 6 deaths in 112 consecutive cases. We thus see that in the hands of the accomplished operator and chief exponent of the old operation, the adoption of Dr. Bigelow's suggestion has reduced the mortality by more than half.

Sir Henry Thompson has made a new departure in the form in which this edition is published. Following a course which has been recently pursued in works of general literature, he has issued it at less than a fourth of its former price. It now appears printed in double columns, and in a stiff paper cover. The paper is sufficiently good, and the type excellent; and we hope this experiment may be a success, and that it may find many imitators among the more successful of our medical text-book writers.

*Handbook of Therapeutics.* By SIDNEY RINGER, M.D. London: H. K. Lewis. 1882.—Criticism of a work that has already passed through eight large editions is superfluous. Ringer's *Therapeutics* is a deservedly popular work with the profession, and therefore needs no commendation from us to draw attention to its merits. But even if we had been disposed to criticise, the opportunity is hardly afforded, since there is no very material addition to the present edition, and its increase in bulk is due rather to an alteration in the arrangement of the type than to the importation of fresh material. This is one of the disadvantages rapidly successive editions are attended with—they leave little time for the author to collect and arrange new facts. The two years that have intervened between the two editions, however, have been by no means barren in therapeutical research and progress, and consequently we are somewhat surprised at the slight advance noted in this edition. Perhaps, like a prosperous company declaring an unexpected dividend, the present edition must be regarded as an *ad interim* one, and that in the ensuing issue we shall have the bonus and results of the past two years' work more fully given than in the present volume. Dr. Maxwell of Woolwich has, as usual, prepared the Index to Diseases, and this forms one of the most useful and valuable features of the work.

*On Concussion of the Spine, Nervous Shock, and other Obscure Injuries of the Nervous System in their Clinical and Medico-Legal Aspects.* By JOHN ERICHSEN, F.R.S., Surgeon Extraordinary to the Queen, &c., &c. A new and revised Edition. London: Longmans, Green, and Co. 1882.—This book is so well and widely known that it is only necessary to notice the issue of a new edition. The few alterations made in the text are improvements and valuable additions; yet on the whole there is but little difference between this and the preceding edition. As, however, Mr. Erichsen's experience in these injuries is constantly increasing, each time that he issues a new edition his opinions acquire more value and weight. No attempt is made to conceal the exceeding difficulty of the subject; but all surgeons called upon to give an opinion in cases of the kind here described will find Mr. Erichsen's directions of great assistance.

*Manual for the Physiological Laboratory.* By VINCENT HARRIS, M.D., and D'ARCY POWER, M.A. Second Edition, with forty illustrations. London: Baillière, Tindall, and Cox. 1882.—The number of special works on Practical Histology and Physiology is a proof of the great amount of care and thoroughness with which this subject is now taught in medical schools. This, which is one of the smaller manuals, is already well known, and we need only point out that this second edition has been carefully revised by the authors. It contains many valuable additions; in particular an account of some of the more simple physiological instruments, and of the experiments demonstrating the properties of nerve and muscle. Short accounts of the ophthalmoscope, laryngoscope, and the stethoscope have also been added to the book. In future editions we would suggest that only those methods of preparing tissues for microscopical examination which the authors have themselves found to be really trustworthy should be described. In practical manuals of this class this appears to be the only safe rule.

*Household Chemistry for the Non-chemical.* By ALFRED SHILTON, F.C.S. London: White and Co. 1882.—A practical treatise of this kind supplies a want that has been long experienced. We have often felt that the best first step in chemistry for educational purposes is to make the student acquainted with the nature and composition of familiar bodies in daily use, rather than to commence with abstract principles and experiments with rather intangible materials. Mr. Shilton teaches, and is not merely a popular writer. His first chapter consists of definitions, and certain chemical preliminaries for the student to refer to, and he then plunges at once into his subject. He commences with common washing soda, describes its manufacture and chemical relations with common salt, Glauber's salts, and the manufacture of soap and candles. Air, ozone, combustion, &c., are next described, and then follows an excellent chapter on water, with respect to its purity, hardness, &c. The chemistry of the starches, gums, and sugars is fully described, and there are some interesting remarks regarding the chemistry of fermentation in relation to bread-making, brewing, and wine production. The work concludes with a chapter on food and physiological chemistry. We can heartily recommend the work to teachers as sound, practical, and on the whole accurate.

## New Inventions.

### DR. W. P. MORGAN'S SURGICAL NEEDLE FOR WIRE SUTURES.

THIS is a slight modification of the needle in common use in this country for wire sutures. Instead of a solid "eye," this end of the needle is tubular, the tube opening one-eighth of an inch from the end in a slit one-eighth of an inch long. The wire is passed along the tube and out at the slit. Its



end is then doubled on itself, and the loop so made drawn into the slit. If this be done neatly, the wire does not make any projection on the needle, and the suture can be passed with a minimum of friction and force. At the same time, however, we must add that the needle is not threaded so quickly and easily as the gutter-eyed needle.

### STEVENS' PERMANENT THERMOMETER.

THE chief point in the construction of this instrument consists in the formation of two constrictions, about a quarter of an inch apart, above the bulb. The bore of the instrument in the uppermost constriction is bent at an angle, which allows of the whole column of mercury above this point remaining stationary and serving as the index. A separate detached index is thus dispensed with. The graduation is very distinct, owing to the adoption of a blackened surface along the markings; whilst the column of mercury itself is rather thicker than usual. The instrument is a reliable one. It is made by Messrs. Stevens and Son, of Gower-street.

### ABDOMINAL BELT.

MESSRS. SALT & SON have brought out an abdominal belt with some new features, for which several advantages are claimed. The buckles for fastening the belt are placed well forwards, and the fastening can easily be done by the patient. The straps slide over revolving pulleys, and readily yield to every movement of the body. Adequate provision is made for gradual enlargement of the belt when it has to be worn during pregnancy.

## THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

THURSDAY, JUNE 29TH.

DR. ACLAND, PRESIDENT, IN THE CHAIR.

### VISITATION OF EXAMINATIONS.

THE Council went into committee for the purpose of further considering the report on the examinations, 1881-82, of the medical and surgical corporations of the United Kingdom, and the remarks of the said corporations on the report.

Mr. TEALE moved the adoption of the first of the "conclusions" of the visitors, "That it is desirable that every 'primary' or 'first part' examination should include dissections by every candidate." He said he had a strong feeling that of late educational matters in medicine had been drifting into difficulties. Different departments of knowledge had been added or enlarged, and the subjects which the students were expected to bring up for examination had been greatly increased. Those additions had brought them face to face with a necessity for thoroughly reconsidering and revising the whole question as to what should be required of the students, so that the outcome of medical examination and education might be the best attainable—much better than the result at present obtained. Certainly the result was not what it ought to be considering the amount of labour bestowed by students, teachers, and examiners; it was disappointing in consequence of the want of a better distribution of time. The whole subject required careful consideration in reference to the method by which they not only tested but regulated the examinations. One leading object of the visitors had been to make their suggestions bear upon the kind of study brought out in the schools, so that there might be a thoroughly practical development of faculties useful in the profession, doing away as far as possible with that which was evidently growing in all directions—a system of cramming and getting up subjects simply because they were required in the examinations. It was very undesirable that clinical teachers should have to conduct their teaching in reference to the examination; their object should be to teach in the best way they could with a view of making their students practitioners of the highest order. He did not desire that the "conclusions" of the visitors should end in becoming immediately recommendations from the Council. He had no desire to put any strong pressure on the various bodies, but the discussion of the subject by the Council would be of great value; and he had no doubt that it would be extensively read not only by the examiners, but by the teachers. He was aware that the conclusion the adoption of which he had moved did not commend itself to all the bodies. The system proposed was carried out by several important bodies, and he thought it was reasonable to conclude that the practice was a "desirable" one. The principal objection to it had come from the College of Surgeons of England. That body did not indeed deny the desirability of what was proposed; but it had not carried it out on account of the practical difficulties in the way. It was not for the visitors, or perhaps for the Council, to go into the question as to whether a thing of that kind was practicable or not. They had described in their report what was done on a considerable scale by the College of Surgeons of Ireland, and the method there adopted having now been described and put forward authoritatively for the first time, other bodies might perhaps find a way of overcoming the difficulties that had presented themselves. The College of Surgeons of Edinburgh also objected to the proposal, and stated that "few anatomists would consider that such dissections as could be made in half an hour by nervous and anxious candidates would be a fair test of their manual dexterity or anatomical knowledge, whilst it would be an enormous waste of time, which could be better spent in testing their real knowledge." They further stated that the method had been tried by their examiners some years ago, and fell through, not because the system was a bad one of testing knowledge, but because of the mechanical difficulties in the way of carrying it out. The visitors believed that

dissections were the very best way of testing "real knowledge." Examinations should be regarded not only as a test, but as a guide to study, and no one could doubt that if a student had to dissect in his examination, he would work more at dissections than he otherwise would, and would be able to produce infinitely better work than he could accomplish by means of plates and spirit dissections.

Sir WM. GULL said he was aware that there were certain mechanical difficulties in the way. It might interest the Council to know that last year at the London University the highest honours in anatomy were obtained by a woman. He had asked her how she had obtained her anatomical knowledge, and what she had dissected, and she told him that she had dissected the whole body carefully twice. The subject of the examination was the bend in the arm, and she was, of course, well prepared for it. He had no doubt the question had been carefully considered by the University authorities, and Dr. Sharpey, who had guided the examinations, would be admitted to be a high authority.

Dr. LYONS, in supporting Mr. Teale's motion, said that at the Anatomical School of the University of Dublin each student was obliged to dissect, and the examinations had given great satisfaction to those who had taken part in them. With regard to the suggestion that time was wasted by dissections, and that there were better modes of testing real knowledge, he was certainly surprised that such an observation should come from the north of the Tweed. The whole subject of anatomical examination was one deserving the closest consideration. There was no subject on which artificial knowledge had been more assiduously foisted on the profession. He knew of no efficient way of testing the real knowledge of the candidates except that of requiring the students to make anatomical dissections of given parts of the body. No doubt when the views of the Council went abroad they would have considerable effect; and, for himself, he should not be afraid of pushing the matter with as much authority as the Council possessed, and stating not only that the practice recommended was desirable, but necessary.

Dr. PYLE said he believed the University of Durham was the first to institute an anatomical examination. Twenty-five years' dissections in the dissecting room formed part of the examination, and they had done so ever since. He agreed with everything Mr. Teale had said as to the importance of the subject.

Mr. MACNAMARA thought that the recommendation proposed was in too milk-and-water a form, and he should like to see it made much more stringent. The Council had already decided that "In examinations in anatomy candidates should understand that they may be called upon to perform actual dissections, and candidates in surgery should understand that they may be called upon to perform one or more operations on the dead body." With regard to the scarcity of subjects, Professor Redfern had said that such a scarcity would be an advantage, because it would enforce a more thorough use of the subject; the student would have to go deeper in his dissections and not be satisfied with superficial work. He entirely endorsed the statement. What was required for the students was what Dr. Hargrave used to call scalpellary anatomy. Any man of experience in conducting an anatomical examination would at once recognise by the way the student handled the scalpel and forceps whether he had been in the habit of using them or not. He begged to move as an amendment the omission of the words "it is desirable that," so that the motion would read "That every 'primary' or 'first part' examination should include dissections by every candidate." He thought that a very decided opinion on the subject should go forth from the Council.

Mr. SIMON said he felt as strongly as anyone the desirability of dissections forming part of all primary examinations; but he thought the recommendation ought not to go forth in the stringent way proposed by Mr. Macnamara, because there were considerable difficulties in the way of carrying it out, and in some places it might for a time be impracticable. In passing the recommendation as proposed by Mr. Teale, the Council would be giving the bodies a hint that it was their duty to get over the difficulties which they at present encountered.

Mr. MARSHALL said that the College of Surgeons of England was not unanimous in thinking that there was a very great advantage in dissecting, though he believed that a large proportion of the Council thought that dissections were desirable. He could support Mr. Teale's resolution,

but if a stronger resolution, which could not be carried out, were adopted by the Council, he thought the result would be mischievous. If Mr. Macnamara's proposal were adopted the result might be to starve the dissecting rooms and interfere with the general education of the student, diminishing his facilities for dissections and operation on the dead body.

Mr. TURNER said it would be entirely impracticable to carry out the method proposed. He maintained that it was quite possible to conduct a satisfactory anatomical examination without submitting the candidate to the test of actual dissection, and he based his statement on personal experience. He objected to all anatomical examinations where there was no dissected body placed before the student; but he thought it was a matter of indifference whether the dissection was made by the student himself or by somebody else. He admitted that all examinations on dried specimens or specimens preserved in spirit were fallacious in the extreme. He could form as accurate an opinion of what a man had done by seeing how he handled the parts submitted to him as by seeing him actually engaged in the work of dissection. Many of the students in the University of Edinburgh were taught and examined by the professor of anatomy and his associate examiner. Many of the candidates were under personal observation from day to day for years, so that their work was well known, and certificates given at the end of the session. That was a much better test than any half hour's practice on the day of examination. He agreed with the recommendation of the Council that candidates should understand that they might be called upon to make actual dissections, because it was a stimulus to lazy students, and might induce them to work at dissections; but to carry out the system suggested would, he maintained, be impracticable, owing to the scarcity of subjects.

Dr. HUMPHRY said that while he admitted that dissections formed a good feature in anatomical examinations, they were not essential, and in many cases it was impossible to introduce them. He opposed Mr. Macnamara's amendment, and supported the more reasonable resolution of Mr. Teale.

Dr. HAUGHTON said that in the University of Dublin it had been the practice for twenty years for the teachers of anatomy to dissect the bodies carefully up to a certain point the day before the examination, and then call upon the students to complete the dissections. He had consulted some of the distinguished anatomical students upon the subject of dissection at examinations, and their view of it was that it was "only skinning the corpse."

Dr. WATSON agreed that dissections at examinations were desirable, but it should be remembered that students were required to obtain certificates not merely as having been in the dissecting room, but of what they had dissected, and how; and such certificates might be reasonably accepted as an assurance that their instruction had not been perfunctory. He would suggest that the proposed recommendation be qualified by the words "where circumstances permit."

Dr. PETTIGREW supported Dr. Watson's suggestion.

Sir WM. GULL said that certificates were fallacious and worthless. If they could be trusted examinations would be needless. With regard to examinations by the teachers themselves, the Council had already laid down the principle that a teacher should not examine his own students.

Mr. TURNER said that the principle laid down by the Council was that a candidate should not be "wholly" examined by his teacher.

Dr. QUAIN said that great advantage would arise from teaching more medical anatomy and dealing less with dissections.

Mr. Macnamara's amendment was then put and lost.

Dr. WATSON moved, as another amendment, the insertion of the words "where circumstances permit."

This was also put and lost, the numbers being for, eight; against eleven.

The original motion was then put and carried.

#### REGISTRATION OF MIDWIVES.

The deputation on the subject of the draft Bill for the Registration of Midwives attended according to appointment. It consisted of the following gentlemen:—Dr. W. Playfair, Mr. Sibley, Mr. Ernest Hart, Dr. J. H. Aveling, and Dr. Holman.

Mr. ERNEST HART made a statement on behalf of the deputation, and referred to the various efforts made by the Obstetrical Society to promote legislation in reference to it. He also recalled the action taken in the matter by the Local

Government Board, by the Duke of Richmond, and the Medical Council. There were, he said, 10,000 or 11,000 women practising as midwives in England and Wales, assuming that title at their own will and pleasure, and fulfilling their duties without previous education, and without being called upon to furnish any evidence as to their moral character or technical skill. It appeared by the statistics of Dr. Hall Davis that the actual mortality of women attended by skilled midwives—those of the Royal Maternity Charity—was less than the general mortality throughout the country, and that, no doubt, was owing to the fact that so many of the general population were attended by midwives the majority of whom were entirely unskilled, their want of skill more than counterbalancing the advantage derived from the skill of medical practitioners in respect of that part of the population attended by them. The object of the framers of the Bill had been to make it as simple as possible, and it was not desired to throw any expense on the Medical Council. The duty of the Council would be to appoint a board, to approve the regulations formed by that board, and to transmit them to the Privy Council. Local examining boards would be created, but they would not have to meet very often, and their fees would not be large. It was not desired to create any new or superior class of educated women, but to provide for the training and registration of midwives for the poorest classes in cases of natural labour.

Dr. W. PLAYFAIR said that the action taken by the Obstetrical Society was simply tentative and with the view of smoothing away any difficulties that might arise in carrying out the object they had in view.

Dr. J. H. AVELING said that 60 per cent. of the poor women in the manufacturing towns and villages were attended by midwives, and many of them had lost their lives or received injuries from the want of skill of those who attended them. The members of the Matrons' Aid Society, composed of midwives who had passed the Obstetrical Society's examination, were now petitioning Parliament that something should be done to improve their status, and it was urgently necessary that something should be done in the direction indicated.

Dr. HOLMAN, as a medical practitioner, corroborated the assertions made by Dr. Aveling, and added that three-fourths of the midwives in the country were not only ignorant, but generally dissolute women.

Mr. SIBLEY considered that the General Medical Council was the natural guardian of the new movement. The duty of the Council would be to nominate the board and control its action. But very little expense would be involved in the exercise of its powers.

Mr. MACNAMARA inquired if the deputation could state why Ireland was omitted from the Bill?

Mr. HART said it was believed that Ireland was in a better position in respect to midwives than England, and that it had been thought wisest to apply the Bill exclusively to England and Wales.

Mr. TURNER asked for some explanations in regard to payment and fees required by the working of such a measure.

Mr. HART said that the framers of the Bill desired to leave as open as possible the questions relating to modes of payment, which might be better adjusted hereafter; but that it was believed that ample funds would be forthcoming to meet all expenses.

Dr. HUMPHRY asked if the deputation could state what was the general feeling of local practitioners throughout the country in regard to the subject under discussion.

Dr. HOLMAN replied that the opinion throughout the country amongst local practitioners was almost unanimous in respect to the value of the Bill.

Dr. HAUGHTON suggested that there were certain difficulties in the Bill as it affected Wales and Ireland.

The PRESIDENT thanked the deputation, and added that the Council was obliged to the members for submitting their views on this important matter. The Council had received from the Government a copy of the Bill, and had already referred it to a committee of their body. The committee and the Council were glad to have heard the views of the deputation, and would give them their fullest consideration.

#### VISITATION OF EXAMINATIONS.

The Council again went into committee, and resumed the consideration of the report of the Visitors of Examinations.

Mr. TEALE moved, in pursuance of the recommendation in the report, "That having regard to the great and increasing



range of chemical and physiological science, candidates should be informed beforehand of the limits of the examination in these subjects." Everyone, he said, would acknowledge that the area of physiology and chemistry had been greatly extended of late years, and it was therefore desirable that in the examinations some such limitation as the visitors had recommended should be introduced.

Sir WM. GULL seconded the motion.

Dr. SMITH said he considered the motion unnecessary, as the proposed limitation was already included in the recommendations of the Council.

After a brief discussion, Mr. Teale modified his resolution as follows: "That in view of the great and increasing range of chemical and physiological science it is particularly desirable, in regard to these subjects, that examining bodies should comply with Recommendation 40 of the Council, and that the candidates should be apprised beforehand of the examinations in these subjects."

Dr. HAUGHTON asked whether the resolution would apply to the universities as well as to the medical corporations. If it did, he should feel compelled to move that it be restricted to candidates for licences from the medical corporations. The University of Dublin wholly dissented from the recommendation, and would never adopt it. It would degrade their examinations in chemistry and physiology to tell the candidates beforehand of what particular branches they would be examined in. It would be impossible for a high class body like the University of Dublin to adopt such a schoolboy programme.

Dr. SMITH called attention to the following statement of the King and Queen's College of Physicians in Ireland, "The College consider that there are serious objections to define the limits of the examinations in the subjects of chemistry and physiology, and believe that these are sufficiently defined by the scope of the lectures required by the medical authorities. In fact, the College have never had any remonstrance from teachers or candidates regarding the indefinite character of the information demanded on these subjects." Such remonstrance would be almost impossible in consequence of the strictly practical nature of their examinations.

Sir WM. GULL said that the University of London had prescribed certain limits in its curriculum.

Dr. STORRAR thought it desirable that attention should be called to the recommendation of the Council already given with regard to the subject referred to in the motion.

Dr. WATSON moved as an amendment that questions of physiology should be considered apart from that of chemistry.

Dr. PETTIGREW seconded the amendment, which was put and negatived.

The PRESIDENT, in putting the original motion, said he thought it was a matter of great importance that the recommendation of the Council should be enforced, and that special attention should be called to it in the way proposed in the resolution.

The motion was then put and carried.

Dr. HAUGHTON moved, as an addition to the resolution, the words, "For ordinary licences to practise"; but withdrew it on the suggestion that the position of the Universities would be in no way affected.

#### FINANCE.

The Council having resumed,

Dr. QUAIN presented the following report of the Finance Committee:—

"The Finance Committee reports that the income of the General and Branch Councils for the year 1881 (ending January 1st, 1882) has been £6509 7s. 11d., an amount which is £362 11s. 1d. less than the income of the year 1880. The expenditure during the year 1881 has, however, been only £4786 14s., which is less than the expenditure of 1880 by £517 14s. The Committee has, therefore, the satisfaction of reporting to the Council that the excess of income over expenditure for the year 1881 amounts to £1722 13s. 11d., the excess of income for the previous year, 1880, being £1568 1s. Table B annexed to this report indicates the increase and decrease of the several items of expenditure which have taken place during the years 1879, 1880, 1881. From this Table B it will be seen that the chief item of expenditure wherein there has been an increase, during the year 1881, is the visitation of examinations, which amounts to £920 19s. 6d. In the house expenses there has been an increase of £93 5s. 5d., owing mainly to repairs carried out,

and the production of the Medical Register has cost £28 3s. 3d. beyond the amount expended on this item during the previous year. The principal items of diminished expenditure of the year 1881, as compared with 1880, are as follows:—(1) Fees paid to Members of Council, amounting to £493; (2) publication of the Pharmacopoeia, amounting to £483 5s.; (3) Printing, £253 14s. 1d.; (4) law expenses, £83 19s.; and (5) salaries and retiring allowances, £68 4s. 7d. The latter have now ceased. While, therefore, the total increase of expenditure in respect of certain items is £1050 1s. 2d., the total decrease in respect of other items amounts to £1486 13s. 9d., showing, on the whole, a decrease in expenditure of £436 12s. 7d. [From Table C, which shows the average income and expenditure of the General and Branch Councils during the last seven years, it will be seen that the average yearly income, during that period, exceeds the average yearly expenditure by £434.

"Visitation of Examinations.—The Committee deem it desirable to mention the several items, with the view of comparing them with like expenditure in former visitations. The sum of £1279 17s. 10d. (made up of the following items: Visitors' fees, £791 14s.; travelling and hotel expenses, £135 6s.; and printing, stationery, shorthand writers' fees, &c., £352 17s. 10d.) has already been expended in the visitation of the nine medical corporations, and various other sums in respect of expenses incurred have yet to be paid. Comparing the expenditure thus far with that incurred on previous similar occasions, it will be found that in 1873-4 ten visitations were conducted at a total cost of £598 10s., and in 1874-5 thirteen visitations involved a total expenditure of £1174 19s.

"Dental Finance.—Table D shows the receipts and expenditure of the Dental Registration Fund for the year ending January 1st, 1882. In the receipts, £690 16s. 2d., it will be noticed, there is an increase of £74 8s. 11d. over those of last year, while the expenditure, £1148 7s. 3d., has been less by the sum of £680 3s. 4d., leaving the deficiency of income for the year £457 11s. 1d., compared with a deficiency of £1192 3s. 4d. in 1880.

"Investments.—Pursuant to instructions given to them at the meeting of the English Branch Council in 1881, the treasurers have invested £4015 in the purchase of £4000 Consols, in the names of the trustees of the Branch Council, thus making a total now invested under this trust of £29,000 Consols.

"June 23th, 1882." "RICHARD QUAIN, M.D., Chairman.

The report was unanimously adopted, and the Council adjourned.

#### FRIDAY, JUNE 30TH.

Mr. MACNAMARA asked the President (pursuant to notice) whether it was proposed to take into consideration the report of the Royal Commission.

The PRESIDENT said there was no notice of motion on the programme having reference to the subject, and he had received no private notice of the intention of any member to move in the matter.

#### VISITATION OF EXAMINATIONS.

The Council went into committee to resume the consideration of the report of the visitors on examinations.

Mr. TEALE brought up Conclusion No. 3—viz., "That at the final examination candidates should be examined orally or practically on strictly regional anatomy—that is, on the parts of anatomy which illustrate surgery and medical diagnosis, and not purely descriptive anatomy." This, he said, he proposed to bring forward in a somewhat modified form. Like some of the other conclusions, it was in accordance with the previous recommendations of the Council; but some objections had been taken to the form in which it was expressed. The object of the visitors was to call attention to two main points: one that in the final examinations students often seemed to have forgotten very much of their anatomy; and, secondly, that questions were sometimes put in the final examination which hardly came within the range of anatomy, and might fairly be expected at the primary examination. The primary examination in anatomy should be more or less minute, very much apart from its practical bearing, but in the final examination it should have special reference to its practical application. Whatever anatomy was required at the final examination should be thoroughly good and well brought up, and no more should be required than was fairly reasonable. The requirement

was fairly expressed in Recommendation 30, "The candidate shall be examined in medicine, including medical anatomy, and in surgery, including surgical anatomy." The visitors felt that the knowledge of medical and surgical anatomy was not what it ought to be and might be without putting an undue burden upon the students in their final years of study. At the primary examination of the Society of Apothecaries, London, a very good method was employed for testing the students very accurately in their knowledge of the human body and the position of the various organs, and the same thing was carried out from a surgical point of view by the Royal College of Surgeons. The visitors were much struck by the capabilities of the method of examination shown by those two bodies. With a view of bringing the conclusion into harmony with the recommendation of the Council, he would propose it in the following form, "That it is desirable that at the final examination candidates should be examined in medical anatomy and surgical anatomy."

Dr. HAUGHTON objected to the terms "medical" and "surgical" being applied to anatomy. Anatomy was anatomy, and nothing else. They might as well talk of Catholic mathematics and Protestant mathematics.

After some discussion as to the precise phraseology which should be adopted, the Council agreed to the conclusion in the following form, "That at the final examination candidates should be practically examined in anatomy in its relation to practical medicine and practical surgery in accordance with Recommendation 30."

Mr. TEALE proposed the adoption of Conclusion No. 4, "That it is desirable that in every final examination for a surgical diploma a candidate should, as far as practicable, be required to perform operations on the dead subject, in accordance with the intention of Recommendation 44." Such operations, he said, formed a very valuable feature of the examinations. It was thoroughly carried out in Dublin on a moderate number of subjects, and without requiring an extravagant amount of time. Before seeing that examination he should have been inclined to vote against such a proposal, but he was now convinced that it was an extremely valuable method, not only of testing the students, but of directing their work beforehand.

Sir WM. GULL seconded the motion, and, referring to the difficulty of obtaining subjects, said he believed that that very difficulty tended to beget a spirit of reverence in the minds of the students, which was at the bottom of all true science. The student knew that he could not take a human body, like a piece of wood, and do anything he liked with it; and the very scarcity of the subjects was likely to create a feeling of reverence for every living thing.

Mr. MACNAMARA thought that conclusion should be worded much more strongly. Operations at examinations had been in abeyance at several institutions. It was monstrous for a corporation to certify that a man was a surgeon, and capable of performing important operations, without having tested him to ascertain whether he could perform any operation whatever. The fact that a student knew that he would certainly be called upon to perform certain operations would be of the greatest value in surgical education. If the bodies that had hitherto ignored the recommendation of the Council on that subject would try the experiment, he believed they would find it successful; but if they found that it "starved" the dissecting room, as had been suggested, they could of course abandon it.

Mr. MARSHALL agreed that the recommendation should be carried out wherever it was practicable, but he did not believe in its absolute necessity, and in many cases it would be quite impossible to carry it out. It was impossible to teach the students to perform all operations. In the College of Surgeons the operative classes were well carried out; but even there it was impossible to enable any individual student to perform more than ten operations, and there was a drag upon the anatomical supply to meet even that slender requirement. It was better to teach well and examine imperfectly than to teach imperfectly and examine highly. Their forefathers were not so completely examined, but there were no better surgeons than they proved themselves to be. His own master was not a highly examined man, but he would rather allow him to take off his arm than any person he had ever known.

Dr. CHAMBERS said that the duty of an examiner was to ascertain whether a man had gone through a course of operative surgery, and that could easily be ascertained by seeing how he performed one or two operations.

Mr. TURNER agreed with everything that had fallen from Mr. Marshall.

Dr. HAUGHTON said he should prefer the omission of the words "as far as practicable"; but perhaps they were required by the necessities of the case. He thought that every effort ought to be made to render the method compulsory.

The motion was then put and agreed to.

Mr. TEALE brought forward Conclusion No. 5 in the following modified form, "That it is desirable that the examination in operative surgery should for the most part be directed to emergency operations, such as amputation, deligation of arteries, catheterism, tracheotomy." The object, he said, was not to push the extension of examinations too far. Common sense should of course be brought to bear upon the subject, and it evidently required that a man who went out as a general practitioner should be able to give some sort of guarantee that he knew how to amputate a limb and perform such other operations as he might be called upon to do at any moment. It was not desirable, however, to press things that were not absolutely essential.

Mr. MARSHALL thought it would not be wise to tie the hands of the examiners by limiting the operations which the students were required to perform.

Dr. HAUGHTON said if the particular operations were specified, teachers would teach nothing else.

Mr. TURNER thought a great deal ought to be left to the discretion of the examiners.

Dr. HUMPHRY thought that no recommendation should be passed on the subject. "Emergency operations" could not be defined. The result of such a recommendation would be to restrict the range of teaching without benefiting the examinations.

After some further discussion, Mr. TEALE said that he was satisfied with the discussion that had taken place, and he would therefore withdraw his motion.

The next "conclusion" of the visitors was then read, "That the application of bandages and splints should be required in every surgical and clinical examination."

Mr. TEALE, in moving its adoption, said that the students, in preparing themselves for this part of the examination, would not be wasting time, but would be qualifying themselves for their professional labours without overtaxing their brains.

Sir WM. GULL seconded the motion, but suggested the omission of the words "and clinical."

Dr. HALDANE, in supporting the motion, called attention to the remarks of the visitors in reference to the clinical examinations at the College of Physicians and Surgeons of Edinburgh: "Another weak point was that there was no systematic provision of padded splints for the candidates to select from, as was the case at the Glasgow hospitals; but each candidate had to apply to the ward nurse for the materials he needed, and make the best of what the nurse chose to supply. The Glasgow plan not only economises time, but appears to be a more adequate test of the efficiency of the candidate." The surgical examiners entirely disapproved of these observations of the visitors, believing that it was far better to test the candidates' knowledge by making them select the splints themselves. Each candidate was in the same position as a surgeon in his infirmary; he did not take what the nurse might choose to supply, but asked her for what he wanted. If it were understood that the splints alluded to were not to be padded, but left to the judgment of the candidate, he should agree with the resolution.

The motion was then put and carried.

With reference to Conclusion No. 7, "That the examination of normal and morbid urine should be an essential part of every clinical examination in medicine,"

Sir WM. GULL questioned the propriety of the examiners dealing with one excretion only, and added that he had himself gained more information by the examination of stools than of urine.

Dr. HAUGHTON said that if the conclusion were adopted students would never study anything but urine all their lives.

Mr. TEALE said he would not press the motion, and it was accordingly withdrawn. He then proposed Conclusion No. 8, "That the practical examinations in chemistry should, when feasible, be conducted in a laboratory." He said if the examination in practical chemistry were to be anything like a  *viva voce*  examination of the candidate in a quarter of an hour.

Dr. HAUGHTON suggested the omission of the words "when feasible," and said that it ought always to be feasible. He could not conceive of there being any practical difficulty in the way.

Mr. TURNER asked what was meant by a laboratory.

Mr. TEALE said that the visitors did not mean a permanent laboratory, but would be satisfied with a temporary laboratory fitted up for the purpose of the examination. The object was to have the examination conducted distinctly from the *visd voce* part. The candidate should be able to go to a separate table with appropriate solutions and tests which he should be required to recognise.

Dr. HAUGHTON said that a few solutions on a table would not be sufficient. The candidate should be required to go into a laboratory and do certain things that could only be done there. If the examination were not carried out in that way, he should prefer to have it entirely conducted by written papers.

Mr. TURNER said he presumed that examiners would be satisfied with qualitative analysis and would not require quantitative analysis; a judicious selection of tests, he thought, would be generally sufficient.

Dr. PITMAN said that the examination in practical chemistry of the College of Physicians was conducted in a laboratory especially fitted up for the purpose; and he should be glad if the visitors would inspect it and see how carefully the College had provided for the examination.

Mr. MACNAMARA supported the motion.

Dr. STORRER described the method adopted by the University of London examinations, which, he said, were conducted in a large room fitted up as a laboratory with a series of compartments or boxes for the candidates, who were required to give written answers to the questions as the results of experiments that they were obliged to undertake.

The motion was put and agreed to.

Mr. TEALE then read Conclusion No. 9: "That a practical knowledge of the histology of tissues and chief organs should be required of all candidates for medical or surgical diplomas," which he said he felt inclined to withdraw, as being too much a matter of detail.

Mr. TURNER said that the Council had already issued a recommendation on the subject to the effect that observations with the microscope should form a part of the examinations of the candidates for licences.

Mr. SIMON said that if the recommendation had not been properly carried out (as appeared from the remarks of the visitors), some resolution ought to be passed directing attention to the subject.

Mr. TEALE said that the visitors were of opinion that in the examinations of some of the bodies the recommendations of the Council had not been sufficiently attended to. He then proposed, "That it is desirable that the recognition of microscopical specimens, normal and morbid, should form a part of the examinations for medical and surgical diplomas," which was seconded by Dr. PETTIGREW, and, after a short discussion, was agreed to.

Mr. TEALE then moved, "That in oral examinations, where the time allotted is strictly limited, for instance, to ten minutes or a quarter of an hour, there is a serious risk that candidates of an average ability who have been conscientiously taught and fairly prepared in their work may be rejected owing to misunderstanding or nervousness, and this is a hazard which, reacting as it does injuriously upon study and teaching, ought to be, if possible, avoided by allowing a margin of additional time for satisfying the examiners in all such cases. The actual practice of certain boards, and especially of the Colleges of Physicians, shows that this suggestion is not impracticable, although it may be more or less difficult to carry out where the numbers are very large. The visitors think that no mere difficulty of mechanism should be allowed to interfere with its being adopted as a measure of justice to candidates." The motion, he said, raised a point to which the attention of the visitors was directed—namely, the cause of the numerous rejections. In all the bodies a very large proportion of the candidates, varying from one-third to a half, was rejected. With regard to the College of Surgeons of England, especially, he could not but think that the very perfection of its splendid mechanism not unfrequently led to unnecessary rejections. They all knew that the College of Surgeons was generally reputed to reject candidates who in the opinion of their teachers and fellow-students were thoroughly good, and there was, he thought, sufficient testimony to show that

that happened more frequently than it ought to do. He desired to be understood as speaking only of the primary examination. As an illustration of what he meant he might mention that an anatomical teacher and an examiner in anatomy in another body, who had sent up a dozen candidates for the April examination, told him that he knew that several of the candidates would be rejected, but he could not say which. It was an unfortunate thing if, in a good examination, men who were industrious and well prepared could not have a reasonable certainty of passing, and he could not help thinking that the uncertainty that existed would lead to some amount of cramming, and the spending of a good deal of time in over-preparation in order to make the candidates secure. In order to obtain absolute fairness and impartiality the examination at the College of Surgeons was divided into four stages, each conducted by a different examiner, so that there was no possibility of any general view being taken of what the students had done. Of course, the reasons for continuing that method might be insuperable, but he desired to point out the impressions made upon the visitors that the system of marking adopted led to a certain amount of uncertainty. If, for example, a candidate obtained three marks for his paper on physiology, and then came up for the *visd voce* examination, and the examiners hesitated whether they should give four or five marks, the total aggregate number being eight, their decision would decide the question of his passing; they would not be guided, in arriving at it, by what the candidate had done before, but simply by the part of the examination which they had themselves conducted. If the examiners saw the paper work in addition to hearing the *visd voce* examination, they would be able to give a fairer judgment on the whole matter. Again, so much of the examination was conducted by the rigid quarter of an hour rule that many candidates were unable to do themselves justice. If a candidate were questioned upon a point with which he was not thoroughly familiar, and spent a little time upon it, his chance was almost gone. The examinations appeared to be conducted with the object of seeking for ignorance instead of for knowledge. In so wide a subject it was impossible that every candidate should be thoroughly up in every part of it, and any candidate, therefore, might be questioned upon a point upon which he was weak. Some of the examiners, the visitors observed, acted with great judgment in occasionally helping the candidates where they hesitated, and so economised time. He did not suggest that the Council should ask the College of Surgeons to make any alterations, but it was well perhaps that the Council and the College should know what was the feeling of impartial visitors on the subject, in order that they might take it into serious consideration. At the examinations of the College of Physicians more time was given in the *visd voce* part.

Dr. BANKS seconded the motion.

Mr. MARSHALL said he should be able to show that the "general impression" alluded to by Mr. Teale was incorrect. The visitors had laboured under a great disadvantage from the fact that their visitations were upon a come-and-go principle; and he believed if they had witnessed a year's work of the College of Surgeons, and examined the whole of the statistical results, they would have arrived at a different conclusion. He did not deny that there might be individual cases of hardship; and those cases would, of course, be more numerous where there was a very large number of candidates than in the examinations of smaller bodies. Comparing the rejections at the primary or scientific examinations of the different bodies, he found that the percentage of rejections at the College of Surgeons was lowest of all, being 29½ per cent., which showed distinctly and conclusively that the examination was not so severe as had been suggested. He did not complain that the visitors had brought the subject forward, because it was useful that the examiners of every institution should be occasionally reminded of the peculiarities of their examinations. The visitation was an admirable one, and had done a great deal of good; but in looking at the subject, the Council should view it as broadly as possible, and not always take a candidate's or a teacher's view of the cause of rejection, or even a visitor's view. The examiner was superior to the visitor, knowing the kind of men who presented themselves, and having a duty to fulfil to the College, by whom he was appointed. He considered that there was something a little out of the way in the Council calling the bodies to account for their rejections.

The further consideration of the motion was adjourned.



The case of David Beatson Murdoch was considered in private, and he was summoned to attend the Council on Tuesday.

#### SATURDAY, JULY 1ST.

The Council, in Committee, resumed the consideration of Conclusion No. 10 of the Visitors' Report with reference to the time allowed for examinations.

The PRESIDENT reminded Mr. Teale that the conclusion which he had moved was not strictly in the form of a resolution, and therefore required modification before being submitted to the Council.

Dr. HAUGHTON dissented *in toto* from the recommendation of the visitors, who, he said, had lost themselves in a labyrinth of words. As a practical examiner he could not accept the view that candidates of average ability who had been conscientiously and fairly prepared were likely to fail from "misunderstanding or nervousness." For those two words he would substitute "ignorance or stupidity," which had probably a great deal more to do with the rejections. Mr. Marshall's comparison of percentages completely destroyed the force of the visitors' recommendation. The proportion of the College of Surgeons, 29½ per cent., was the lowest in the table except that of Trinity College Dublin, which was 28 per cent. Some examining bodies boasted of their high proportion of rejections; but the fact was that figures of that kind formed no test of the severity or purity of the examinations; they only showed (assuming that they were pure) the relation of the preparedness of the candidates to the examinations. In some of the best examinations of the University of Dublin, outside the medical school, the proportion of rejections was not 5 per cent. The students knew what the standard was, and it would be a disgrace to their teachers if they were plucked. Mr. Marshall's figures showed that at the College of Surgeons a smaller proportion of candidates was rejected than at other corporations; and he had no doubt that the examination was conducted in such a way as to give a fairly prepared candidate every facility for passing. He could not agree with the visitors in regard to the fifteen minutes' question. He had often found in examining a candidate *vis à voce* that he could make up his mind to pass him in five minutes, while another would require ten. As far as he could judge, a quarter of an hour was quite long enough for testing *vis à voce* in anatomy and physiology. In the examinations at the University of Dublin the whole court of examiners came together to discuss the cases, and no power of veto rested with any of them. He did not think it was well to put such a power in the hands of any examiner. Such a system would be more likely to lead to the rejection of well prepared candidates than any amount of nervousness; and if rejections of that sort were numerous it was evident that something ought to be altered in the system adopted for examination.

Mr. TEALE said he proposed to bring forward his resolution in the following form, "That in oral examinations where the time allowed is strictly limited, for instance, to ten minutes or a quarter of an hour, there is a serious risk that candidates of average ability who have been conscientiously taught and fairly prepared in their work may be rejected for a misunderstanding or nervousness, and this ought, if possible, to be avoided by allowing a margin of additional time for satisfying the examiners in all doubtful cases."

Dr. SCOTT ORR said that Mr. Marshall's observations were worthy of the serious consideration of the Council; but he thought that some latitude should be allowed with regard to the time during which the candidates were examined. Five or ten minutes might be sufficient to test a good candidate or a very bad one; it was the middle men who were the most difficult to test, and many of them might require more than the prescribed time.

Dr. BANKS, in supporting the resolution, said he disclaimed any idea of throwing blame upon anyone. At the final examination of the University of Dublin candidates had frequently complained to him that the time was too short. He did not agree with Dr. Haughton that the slow men were necessarily stupid. There were many who were not quite so bright and ready as the others, but who were by no means stupid, and who, if sufficient time were allowed, would be able to pass the examination.

Dr. LYONS said that some candidates could be tested in a very few minutes, but others, whose comprehension was slower, required a longer time. He thought that an undue

amount of attention was sometimes paid to examinations. He agreed with the late Dr. Stokes, who said he would rather secure a perfect system of education than a perfect system of examination. Slow students often turned out better men than those who were more brilliant. What was wanted was to test the knowledge of average men. The system of examination had its faults as well as its merits, and no doubt many able and useful men were shut out of the public service only by the system of competitive examination, while a number of weedy horses, because they were able to put on a spurt for a moment, were admitted.

Mr. MACNAMARA said it should be borne in mind that the fifteen minutes' *vis à voce* examination was supplemental to the written examination. If a candidate did not know anything about the subject in which he was examined a very few minutes would suffice to ascertain the fact, and a prolonged examination under such circumstances would not be attended with any advantage. It was necessary where there was a large number of candidates that the times should be so arranged as that the students might come on in their proper order. He never heard rejected candidates complain that they had not time enough; probably they had too much, and the longer they were under examination the more reason they had to regret it. He thought it undesirable that the Council should descend to such matters of detail, and that some latitude should be allowed to the corporation in the working of their various systems.

Mr. TURNER said that when he was an examiner at the London University he learned the great value of some latitude being allowed as regards time. At Edinburgh at first there was no such latitude, but at present there was, and he had sometimes occupied as much as half an hour in the examination of a candidate, while on the other hand he had occasionally disposed of one in ten minutes. When the time was limited he was afraid that justice was not always done in the case of sensitive and shy men.

Dr. HUMPHRY said he did not understand what was meant by the expression that some examiners examined as if their object was to find out ignorance, and others as if to find out knowledge. It appeared to him that he could not do the one without doing the other. Examination and education were reciprocal, and if the Council perfected the former it would perfect the latter. At the College of Surgeons, although a veto might be given at a particular table, it must always be by two examiners; and it almost always appeared that a candidate vetoed at one table had not gained sufficient marks at the other tables to entitle him to pass even if he had not been vetoed. If the marks were so near that he would almost have passed, an opportunity was given to the examiners to reconsider their decision. He very seldom found that any of his pupils who he thought ought to pass were rejected by the College of Surgeons. In his opinion the definiteness of period, while having certain disadvantages, had also certain advantages. It caused the examiner to commence at once, and avoided those few minutes when the candidate would otherwise be nervously wondering what he was going to be asked. But there were cases in which a man answered scarcely well enough and the examiners felt in some doubt. Then it was desirable that a larger amount of time should be given. He was therefore willing to assent to the view that some little latitude should be given as to time.

Dr. PETTIGREW supported the motion, because he considered that everything possible should be done to protect the students. Examinations did very little for a man, the teaching and training doing everything. To many men rejection was equal to condemnation, and if a little latitude were allowed many a good man might be saved the mortification of rejection.

Dr. HALDANE said he regarded this question as one of detail, into which the Council should not enter. It was a subject for the bodies and the examiners to decide upon. As stated by Mr. Turner, the University of Edinburgh had changed its system, and a similar change would take place wherever it was found necessary, and therefore the Council need not lay down a formal resolution on the subject.

Dr. PITMAN said that formerly the practice in the College of Physicians was to limit the time to a quarter of an hour, but it was found to be so unjust to the candidate in some cases, that power was given to the examiners to deal as they pleased with the matter of time.

Dr. QUAIN said one point appeared to have been overlooked in the discussion—namely, the sacred duty of the

examiner to the candidate. What could be more unjust to a man than to reject him, when, perhaps, five minutes more would get him over his nervousness? Some examiners, too, committed the fault of trying to display their own knowledge.

Mr. MARSHALL said that the total rejections at the College of Surgeons amounted to 29.75 per cent., and out of 111 rejections only 11 were actually vetoed. On the whole, he was in favour of a fixed time for the examinations; but there might be a qualification permitting an extension in doubtful cases. The practice of the College of Surgeons was in accordance with that principle, and the reason why it did not appear that many men had the advantage of it was that the system of veto was much more gentle in its operation than might be supposed. The large majority of the rejections were of those who failed to get the requisite number of marks, and did not arise from the individual action of one table.

Mr. SIMON did not regard the question as one of mere detail. It was rather whether certain examinations were as certain in their results as they might be. It was of supreme importance that all candidates should be able to expect the greatest attainable certainty of result in all the examinations; and he agreed with the visitors that with a hard-and-fast line as to time such certainty could not be absolutely reckoned on.

Dr. CHAMBERS said at the College of Surgeons, Ireland, the *viva voce* examination was supplementary to the paper work; but at the College of Surgeons, England, the *viva voce* examination was quite independent of the written examination. In the latter case, therefore, more time might be required.

Sir WM. GULL said he was quite sure that in consequence of nervousness a good many men were rejected who ought to pass. The duty of the Council was to protect the students as far as possible, and he thought they might come down upon the examiners a little and see that they did their work thoroughly well.

Dr. PETTIGREW regarded examinations as a necessary evil, and thought the Council would make a great mistake if they attached too much importance to them. He knew one case where a student was rejected, not only at a first, but at a second, examination, but he was now a professor of European reputation.

Dr. BANKS said there were some examiners who when they found a candidate weak upon a subject pertinaciously stuck to that subject, instead of taking him over a large range and endeavouring to find out what he really knew. Under such an examination good men might frequently be rejected. The object should be to elicit what was known, and therefore he strongly advocated the elasticity of examination.

Dr. STORRAR said that some thirty-five years ago Dr. Sharpey, when examining a candidate at the London University, asked, "Can you tell me anything about the circulation of the blood?" The answer was, "The blood goes out of the heart, down one leg, Sir, and up the other." Dr. Sharpey was equal to the occasion, and asked, "And how does it get across?" That was an extravagant illustration of the state of mind that some students got into, and their answers were then no indication of their intellectual powers.

Dr. HAUGHTON said that the report of the visitors left an unpleasant impression upon his mind that there was a charge against the colleges that owing to the absence of some such rule as that referred to in the motion substantial injustice had been done to some candidates. To his mind such a charge was utterly unfounded.

Mr. SIMON said that the question under consideration was not the historical one whether injustice had been done, but whether the tendency of the system was to do it.

Sir WM. GULL said there was an impression abroad in large medical schools that there was an uncertainty in the examination, that a man might be well-informed and yet get rejected.

Mr. MARSHALL said if the resolution were to be associated with such an impression in regard to the examinations of the College of Surgeons, that body would undoubtedly send some answer to the Council. Dr. Chambers had referred to the fact that at the College of Surgeons, Ireland, the written papers were laid before the oral examiners; but what was the use or justice in testing a man's knowledge of having the answers given three days before placed before the examiners in order that they might enable the candidate to correct some errors in the paper? By that time he

had discovered what blunders he had made, and had prepared correct answers. It was much better that the examiners should act independently and give independent reports.

Dr. LYONS suggested that a little verbal alteration in the motion would be advisable, so that it should read, "That in oral examinations, notwithstanding any general rule which limits examinations to ten minutes or a quarter of an hour," &c.

Mr. TEALE, in reply, reminded the Committee that it was an instruction to the visitors to inquire into the causes of the numerous rejections, and that was the ground on which this subject was brought forward. If the recommendation had needed any justification the discussion had afforded it. Mr. Marshall had supported his view by statistics; but the statistics for the last five years showed that the rejections in the primary examination at the College of Surgeons (England) were 33 per cent.; at Edinburgh, for the double qualification, 36 per cent.; and at the College of Surgeons (Ireland), 40 per cent. At the first of these there was a practical sifting before the examination, so that the candidates came up better prepared. He hoped that none of the resolutions on this subject would be taken as reflecting upon anybody. In framing them he was entirely free from any such feeling.

The PRESIDENT said that no one who looked at the whole tenor of the report could doubt for one moment that the suggestions of the visitors were expressions of convictions forced upon their minds after long and laborious investigation of the examinations over the whole country. Anyone who had been in the Council for many years must feel that instead of recriminations between different bodies as to the numbers of persons passed who ought not to have passed, the discussion had been one of the quietest and most serious that had ever occupied the time of the Council. Their object had been to ascertain whether it was or was not true that some examinations were uncertain, and whether that uncertainty implied the occasional rejection of really good men. The total result of the whole discussion was the bringing of the whole force of the representatives of all the examining bodies to see in what way the examinations could be made more perfect in all their parts. He was only surprised that there should be any doubt at all that under the severe intellectual pressure brought to bear upon the candidates many excellent persons failed, not from want of knowledge, but from want of power to endure the strain of the examination.

The resolution was carried with five dissentients.

On the motion of Dr. PITMAN, seconded by Mr. TEALE, the Council resumed.

Mr. MACNAMARA called attention to the case of Mr. Hartley Dixon, concerning whom a letter had been received from the South Australian Branch of the British Medical Association, complaining of certain proceedings on the part of the Apothecaries' Hall of Ireland. He said that this letter was referred to the Executive Committee, who, after ascertaining the facts of the case, forwarded the answer of the Apothecaries' Company to the South Australian Branch of the British Medical Association. He could not understand why the committee had taken such a step, instead of bringing the subject before the Council, and having the whole matter settled. He was satisfied that the governor of the Apothecaries' Hall was ready to prove to the Council that the Company had acted strictly within its legal rights. He therefore thought the subject should now be taken into consideration.

Mr. COLLINS asked if the question would be reopened in case any reply should be received from the South Australian Branch of the British Medical Association.

The PRESIDENT said it was not quite clear what further light could be thrown upon the subject until the reply was received.

On the motion of Mr. MACNAMARA, seconded by Dr. HAUGHTON, the further consideration of this matter was adjourned till Monday.

#### REPORT OF PHARMACOPOEIA COMMITTEE.

Dr. PITMAN moved that the following report of the Pharmacopoeia Committee be received, entered on the minutes, and adopted:—

"The Committee have to state that after due inquiry they have not obtained sufficient information to enable them to report in accordance with the terms of the Council's resolution, 'That it be an instruction to the Pharmacopoeia Committee to report to the Council year by year as to

addenda.' The Committee report further that the present stock of the last edition of the Pharmacopœia amounts to 2550 copies, and that the average annual sale is about 1000 copies; thus a fair estimate may be obtained as to the period at which it will become necessary to supply a new edition. With a view of taking steps towards the publication hereafter of another edition of the Pharmacopœia, the Committee make the following recommendations:—(a) That the Pharmacopœia Committee be a standing committee until the issue of the work; (b) that the Committee be authorised to appoint from amongst its own members a sub-committee, to assign to it such duties as it may think fit, and to take such other steps as may be necessary for fulfilling the duties assigned to it; (c) that a sum not exceeding £100 per annum be placed at the disposal of the Committee.

"June 30th, 1882." "RICHARD QUAIN, M.D., Chairman.

Dr. A. SMITH seconded the motion.

Dr. STORRAR wished for more detailed information as to what the committee were about to do before the Council gave them power to expend £100 a year.

Dr. QUAIN said it was proposed that the sub-committee should take steps to appoint editors who would draw up a report to be submitted to the Council as to what should be done with regard to the Pharmacopœia. No steps could be taken towards issuing the work until the reports came before the Council.

Mr. SIMON expressed a hope that at least one of the editors would be a person well acquainted with pharmacology abroad.

The resolution was agreed to.

The standing orders having been suspended on the motion of Dr. Pitman, seconded by Mr. Turner,

Dr. CHAMBERS moved "That a committee be appointed to consider the abuses which arise from the employment of unqualified assistants by registered practitioners, and to report to the Council whether any means can be adopted for checking these abuses without diminishing the conveniences of the present practice." His reason for bringing forward this motion, he said, was not so much the complaints of the public as the serious injury done both to the good fame and to the pockets of the profession by the abuses complained of. In the north of England the miners preferred bone-setters to properly qualified practitioners, who were often sent for only when the patient was dying.

Mr. BRADFORD seconded the motion.

Sir WM. GULL said there were bone-setters in London who were much more believed in by some people than experienced Fellows of the College of Surgeons; but the Council had no power to deal with that subject. Unless a man's name was on the Register they had nothing to do with him.

Mr. SIMON thought the Council might explain to the profession what they considered an abuse of the employment of unqualified persons.

Dr. HAUGHTON said that His Grace the Archbishop of Dublin employed a bone-setter only six months ago.

Dr. A. SMITH recommended the omission of the words "without diminishing the conveniences of the present practice."

This was agreed to, and the motion was carried unanimously.

The Council then adjourned.

#### MONDAY, JULY 3RD.

The Council resolved itself into committee to resume consideration of the conclusions arrived at by the visitors of examinations.

Mr. TEALE moved the 11th conclusion, "That with a view to the economy of the time of the examiners it is desirable that when a candidate has obtained rejecting marks in the written portions of an examination he should not be required to proceed to the oral." He said he had hesitated as to whether he should bring forward this motion or not, but two members of the Council had expressed a wish that he should do so. The visitors felt that after they had recommended certain points which would seem to impose additional labour on examiners in order to make the examinations more satisfactory, some consideration should be given as to how this could be done without calling upon the examiners to spend more time on the examinations than they did at present. If there was one thing that had struck the visitors more than another it was the amount of voluntary work that was done in the examinations. It was quite clear to them

that unless a large number of leading members and teachers of the profession were content to devote their time to the work of the examination of their bodies from a feeling of *esprit de corps* the bodies could not command the high standard of examiners that they did at present. He was extremely anxious that the examinations should be in the hands of the profession and the bodies themselves rather than relegated to anything like a State appointment, because a State-appointed body would be pledged to one of two courses, either to go to infinitely greater expense to command the services of such men as the bodies now command, or to throw the examinations into the hands of persons very much less experienced. In this point of view economy must be searched for in the method of examinations; therefore it was thought that students who were hopelessly condemned by the marks they had obtained in their paper work should not be dragged through the oral examination. He was quite aware that there were very forcible arguments against this, but the point to be considered was which course was open to the least objection. Akin to this was another suggestion, which, from its novelty, had not been well received, but he was sure that in due time it would receive consideration—namely, that the paper work should be carried on in England at the seats of teaching, thereby candidates might be saved coming up to the centre for examination.

Mr. MACNAMARA seconded the motion. He said that the visitors stated that the difficulty "had been solved by the Irish College of Surgeons in a remarkable manner." Such evidence having been brought forward it would have been a very unsatisfactory thing if the matter had been regarded simply as one of detail, and had not been brought under the consideration of the Council. It was perfectly clear that when a candidate entirely failed in the written paper and then went to the oral examination, a certain amount of useless work was thrown on the examiners. If the written examination was of importance, and a man showed he was wholly unable to pass it, to permit him to go on implied a certain amount of doubt as to the value of the written examination. It had been stated that to adopt the course suggested by the visitors would lead to an insufficient paper examination, but such was not the experience in the College of Surgeons, Ireland. It struck him that it would be advantageous for England if a great portion of the examination was conducted at the local centres, and the papers sent up to the examiners of the College, so that they might frame a list of those who had passed and those who had not passed. Then the candidates would know whether it was of any use their coming up to London for the oral examination. In the College of Surgeons, Ireland, if a man failed at one examination, he did not come up to the next. He was perfectly satisfied that the motion would not be carried, and he had very little doubt that ultimately the Council would see the propriety of endorsing this most important conclusion.

Dr. WATSON said he had been exceedingly anxious that this matter should not be allowed to pass without some remark with reference to a subject which might be said to be germane to the recommendation contained in it—namely, the question of the unfortunate rejected candidates. In most cases, when a candidate was rejected, he had to come up again for examination in the whole of the subjects which constituted the examination, and that appeared to be a great hardship. This condition of things was particularly unsatisfactory to the candidates with reference to the second or practical part of the examination, because the great mass of non-qualified assistants who should, if possible, be got rid of, came from the men who had been rejected in their second examination in the practical part of medicine, surgery, and midwifery. He urged the committee to consider whether some instructions could not be added to the conclusion in the direction of recommending to the examining bodies the propriety of re-examining a rejected candidate only in those subjects which he had previously failed to pass in. The mental condition of some men was such that they were unable to take up more than a single subject at a time to learn it thoroughly. He thought it would be advantageous if some such instructions as the following were added: "And that where a candidate has been referred in his written and oral examination only because he has not obtained pass marks in one or more, but not in all, the subjects, when he again comes up to examination he should not be examined in those subjects in which he had obtained satisfactory marks; and that any candidate who has once been referred may take any of the subjects in detail, and

should not be obliged to present himself for all the subjects included in that examination."

Mr. SIMON said he must at once enter a *caveat* as to some of the principles affirmed in Dr. Watson's speech. They would get into extreme danger with regard to the whole object of education if they admitted the principle of passing by instalments. The meaning of the licence was that at the moment of obtaining it a man was in possession of certain knowledge, not that at some antecedent period of his life he knew such or such a thing. If they were content with successive crams and little bits of passes it would be impossible to say what the worth of the guarantee was. As regards Mr. Teale's proposal, if that were the Council of the Royal College of Surgeons, and he had the honour of being a member of it, he should certainly vote for the resolution; but whether it was worth while for this Council to press it against the feeling of the representative of the College was a different question, and the subject was not one of such importance as to entitle them to take that course. The economy of time would be very small.

Dr. HUMPHREY thought it would not be wise for the Council to pass such a resolution, requiring or recommending a certain method of examination to the several bodies. The bodies should be left to conduct their examinations in such a manner as they themselves found best. He considered that the practice of the Royal College of Surgeons of Ireland to re-examine a rejected candidate from the point at which he had previously stopped was very objectionable. If the several bodies proceeded on that plan it would soon be necessary for the Council to visit the examinations in a different sort of spirit from that in which they had proceeded lately. It would also tend to make the examiners more liberal in their marks, if they felt that a failure in one branch of the examination shut a candidate out from the opportunity of passing in the other branches. A candidate who was rejected had to bear whatever discredit appertained to the plucking, and he ought to be allowed the advantage of going through the whole examination again. He himself had been surprised at the improvement which took place in candidates during the interval between rejection and re-examination, and he attributed it very much to the experience which the men had had of the examination in the first period. It should also be remembered that examinations were one means of lengthening the period of education to the required point. A large number of the more intelligent and diligent students could prepare their subjects in four years, but others could not do so, and were therefore referred back for further study. He felt very strongly that such candidates should have the full benefit of a second examination.

Dr. QUAIN said that the influence which the Council had had on education and examinations had not been obtained by interfering too minutely with the examining bodies, but by laying down general principles. If they went too minutely into these subjects the different bodies would all say, as the College of Physicians in London had said, "We have done it, and we will continue to do it."

Mr. MARSHALL said he should certainly vote against the resolution. If the plan suggested were carried out, the greatest economy of time that it could effect would be no more than one hour per day, and the examiners did not wish for that economy. He regarded the examination as a whole, although for practical purposes it was divided into written, oral, practical, or clinical; and it was decidedly better that a candidate should pass through the whole examination before the result was made known. The education afforded to a man by going through the examination was of very great importance, for it taught him how to prepare himself for the future. If they rejected him on the written examination it deprived him of obtaining any experience from the oral examination. To permit a man to pass on re-examination only in the subject in which he had previously failed would lead the way to an enormous deal of scamping. Students would only prepare for one part at a time. He urged the Council not to go too far and emasculate the bodies, destroying their influence and position, and causing them to lose heart in the work.

Dr. HAUGHTON said he could not comprehend what the meaning of conclusion No. 11 was. He had been quite electrified by some of the fossil principles of examination that had been dug up. He knew what the nine Muses were, and what the three Graces were, but he could not understand what the four vetoes were. It would not be tolerated for one minute in the University of Dublin. He strongly ob-

jected to the resolution as being altogether an improper detail. In the Dublin University there was no such thing as an oral examination in addition to the written examination. The examination was essentially practical—in the dissecting-room, at the bedside, in the laboratory, &c. If that was what was meant by an oral examination, he considered it ten times more important than the written examination. If a man failed in the written, perhaps through nervousness, and then came up and passed a brilliant oral examination, he would be allowed to pass. He was also strongly opposed to passing men bit by bit, and he objected to the *morale* that dictated the resolution, which was the convenience of the examiners, and not justice to the candidates.

Dr. SCOTT ORR considered that going through the whole of an examination was a most valuable lesson to a man. Like Dr. Humphry, he had been struck with the improvement which rejected candidates had shown when they came up for their re-examination. Many candidates who were rejected in the written examination might go away with the feeling that they had not had justice done to them, because they might have redeemed themselves in the oral examination. He therefore could not support the resolution.

Dr. HALDANE protested against the resolution, because it dealt too much with detail, with which the Council had really nothing to do.

Sir WM. GULL considered that it was *ultra vires* for the Council to make arrangements for the economy of the time of the examiners.

Mr. TEALE, in reply, said the *morale* of the resolution was that the visitors pointed out a method by which the difficulties which it had been urged would be experienced in dealing with very large numbers of candidates, if certain details were adopted, might be avoided. He quite agreed with Dr. Humphry that taking the candidate through the whole examination was a kind of education.

Sir WM. GULL moved the previous question.

Dr. LYONS seconded it.

On being put to the vote the previous question was negatived, as was also the original motion, for which only two hands were held up.

Mr. TEALE next moved a resolution embodying the twelfth conclusion of the visitors, "In any future revision of the curriculum, the subjects of hygiene, ophthalmology, and mental disease will command serious consideration, and perhaps admission, under careful limitation, as distinct elements of examination." He thought it was quite clear that the general practitioner ought to know of specialties such portions as would necessarily come under his own treatment at first. For instance, he should be able to undertake a case of ordinary disease of the eye, in order to recognise such a subject as glaucoma.

Mr. COLLINS seconded the motion.

Dr. BANKS said there was no knowledge more necessary for a general practitioner than that which would enable him to decide upon a person's sanity or insanity. Ignorance on the subject might involve the letting a lunatic go at large, or the deprivation of a sane person's liberty. Two years ago this question was brought before the Council, but was shelved. No better example could be followed than that of the London University, which insisted on three months' clinical study in an asylum for the treatment of mental disease, and the Royal University in Dublin had placed a similar requirement in their curriculum. He therefore intended to move, "That in consideration of the absolute need which exists for the general practitioner of possessing a knowledge of mental disease, it be a recommendation of this Council that in any future revision of the examination rules the subject of mental disease be made a part of the examination."

Dr. HAUGHTON said he was prepared to second such a motion.

A long discussion ensued as to whether or not this could be put in as an amendment. Ultimately it was decided to separate the subjects of mental disease, ophthalmology, and hygiene, and to take a resolution on each.

Dr. TEALE proposed, "That it is desirable that the subject of mental disease should have serious consideration in any revision of curriculum and examination rules."

Dr. BANKS seconded the motion.

Mr. TURNER said he was more than doubtful as to the expediency of calling the attention of the medical authorities by resolutions of the Council to this or any other subject as a special one. It should be taken for granted that all such

subjects came within the scope of the study of medicine, and the good sense and zeal of the examining bodies would lead them to put as much into the examinations as they safely could with reasonable justice to the students.

Sir WM. GULL also thought that the object of the Council should be to secure a wide education for medical men, and it was undesirable to split up the subjects too much.

Dr. HAUGHTON said there were five medical authorities in Ireland, not one of which required any training in a hospital for the insane.

Mr. SIMON asked if it was the opinion of the visitors that, in general, mental diseases were not sufficiently examined in.

Mr. TEALE said he did not think the conclusion was drawn so much from anything that was observed, as from a desire to call attention to these points.

Mr. MACNAMARA said there would be great difficulties in some cases in obtaining facilities for the clinical study of mental diseases, and the Council ought to hesitate before making a recommendation which must afterwards be practically disregarded.

On being put to the vote, the motion was lost by 9 to 5.

Mr. TEALE said that the principle having been established by the Council in its vote with reference to mental diseases, he proposed to withdraw from its consideration the remaining matters referred to in the visitors' conclusions.

Mr. MACNAMARA moved, "That this Council note with approval the suggestion, so far as hygiene is concerned, by Dr. Gairdner and Mr. Stokes."

Mr. COLLINS seconded the motion.

Mr. SIMON moved as an amendment, "That, considering how important it is to all medical practitioners to possess a competent knowledge of hygiene and preventive medicine, the Council takes note of the suggestion of Dr. Gairdner and Mr. Stokes that these subjects ought to form a more independent part than they do of the examinations of all corporations."

Mr. TEALE, in seconding the motion, said, although he agreed with his colleagues Mr. Stokes and Dr. Gairdner that hygiene should be taken into consideration, he was not prepared to concur in their suggestion that the matter should now be pressed upon the different bodies as a subject of examination.

Dr. PETTIGREW thought that it would be undesirable to overburden the student with a new subject which might add another year to his period of study. The proper time to consider the matter would be when the curricula of the different bodies were overhauled, a work which would soon have to be undertaken.

Dr. LYONS suggested the omission of the words, "preventive medicine." He thought the term was very objectionable, as being loose and indefinite. A high authority like the Medical Council ought not to encourage *argot* of that kind.

Mr. SIMON protested against Dr. Lyons's description of the term "preventive medicine," which he said had been current for twenty years, and was perfectly well understood.

Dr. HAUGHTON opposed the motion and the resolution, and described the whole discussion on the question as a mere logomachy. In the University of Dublin a person could not have a certificate in State Medicine unless he was a Doctor in Medicine, or a Graduate in Medicine and Surgery of Dublin, Oxford, or Cambridge; and the subjects included law, engineering, pathology, vital and sanitary statistics, chemistry, meteorology, and medical jurisprudence.

The amendment was then put, and carried by 10 votes against 6. When put as an original motion, Dr. LYONS moved as an amendment the omission of the words "preventive medicine."

Dr. SMITH seconded the amendment, which on being put was negatived.

Mr. SIMON's amendment having now become the original motion, was then put to the vote and carried.

The Council then resumed, and on the motion of Dr. CHAMBERS, seconded by Dr. PITMAN, a committee was appointed on "Uses and Abuses of Unqualified Assistants."

Dr. HAUGHTON called attention to the fact that the Council had decided to take into consideration not only the report of the visitors, but the remarks of the corporations visited, and suggested that an opportunity should be afforded to the representatives of those bodies on the Council to make any observations they might desire to offer on the report.

Sir WM. GULL thought it would be a waste of time to go over the ground again, and said that every opportunity had been afforded to the representatives to make any remarks upon the report of the visitors.

Dr. SMITH expressed a hope that the Council, for the sake of its own credit, would not refuse an opportunity to the

representatives of the bodies visited of making observations on the report of the visitors.

Dr. LYONS moved, "That Order No. 3 (the motion of Dr. Haughton for the consideration of the visitors' report and the remarks of the corporations) be discharged."

The PRESIDENT said that upon that motion the representatives of the bodies visited would have an opportunity of making any remarks upon the visitors' report.

Dr. SMITH called attention to the remark made by the King and Queen's College of Physicians, Ireland, with regard to Part III. of the Report, "That the College have only to remark, with regret, the absence of specimens of the answers given by the candidates to the questions printed with the other examination documents of the College." It appeared from the visitors' preface that they had not printed any of the written answers, not feeling that a commensurate advantage would result from the publication of such a large mass of manuscript, but they had collected the answers, or copies of them, selected from the examinations of each body which had been placed in sealed packets among the archives of the Council. As the answers had not been printed, he thought that the visitors ought to have given the Council some information with regard to them, and especially to have stated whether the answers to which they had referred, as showing a defective education, had been taken into account in passing of the candidates.

Dr. HALDANE referred to the statement of the visitors in the preface of their report, "They have refrained from expressing opinions on the judgment formed by the examiners in passing or rejecting candidates, feeling that such judgments ought to rest solely with those who are responsible for the examination; and moreover, that the standard of any examination cannot be fairly taken from the individual opinion of the examiner, especially when given in the presence of visitors, who have to report critically upon the examinations." If the view of the visitors were correct he thought there was no use in having visitations at all. Their object was to discover the weak points in the examinations of the candidates in order that they might be laid before the Council, and an opportunity be given to the different bodies to correct their errors. There were several errors in the report of the visitors to which he desired to allude. With reference to the question as to whether examiners were elected to examine in special subjects, the visitors said with regard to the Royal College of Physicians, Edinburgh, "to a certain extent—i.e., after elections are assigned to special groups of subjects"—that statement was not correct, the examiners being elected purely for their special knowledge in different subjects. The visitors further stated, "The examination for the double qualification of the Glasgow Faculty pertains also to that of the College of Physicians of Edinburgh, but of this examination the 'primary' witnessed by the visitors was conducted almost exclusively by the Glasgow examiners, those from Edinburgh acting simply *pro forma*." That also was an inaccurate statement, an equal share being taken by the Edinburgh and Glasgow examiners. The visitors were further in error in stating that at the College of Physicians examination in the double qualification there was no practical examination in chemistry. There were several other points on which the visitors had been led into error, but they had been referred to in the printed remarks of the different bodies.

Dr. WATSON said it was the duty of the visitors to inquire into and report to the Council as to the efficiency of the examination conducted by the several licensing bodies as to the candidates' fitness to obtain their respective qualifications, and he desired to ask the visitors, with reference to the college which he represented (the Royal College of Surgeons of Edinburgh), whether the tests employed by that body were sufficient for that purpose. He failed to find any such answer in their report. They had stated that "the visitors feel bound to notice certain respects in which the examination (of the Royal College of Physicians of Edinburgh) appeared to fall short of the requirements considered necessary by other examining boards that they have inspected." Either they had not the courage of their opinions or they wished to put the matter in such a way that they could not be made responsible for what they said. The visitors had been required to inspect certain bodies in Scotland, but so far as he could ascertain they had not visited the examination of the Royal College of Surgeons, though they had received information as to when it was to take place. He wished to know the meaning of the statement of the visitors that "at the Royal Colleges of Physicians and Surgeons, Edinburgh, the



very questionable practice still prevails of framing at the beginning of the year the questions for the written part of the several series of examinations," and also of the statement that "in the arrangements for each examination the written answers are read and decided upon by the examiners, who may not have been responsible for the questions put, and the *read voce* part is conducted by different examiners, who may, and often do, ask the same questions as have already been given in writing." With reference to the first statement, he might remark that what the visitors condemned in connexion with the Edinburgh College they praised to the skies in connexion with the London College of Physicians; and in regard to the second statement, he had not been able to find in the report the faintest trace of anything to support the allegation. He might be permitted to mention an absurd error made by the visitors in regard to one of the patients brought under the notice of the candidates. The case was one of hard chancre, but was referred to by the visitors as a case of rupial eruption.

Mr. TEALE said he was the only visitor in the Council, and he did not therefore feel himself in a position to answer the statements that had been made before consulting with his colleagues. He might mention, however, with regard to the question of printing the answers of the candidates, that the cost would be very considerable, and that there were so many difficulties in the way, that the visitors had thought it better to have the papers preserved for the inspection of the Council if required.

Dr. Lyons' motion was then passed, and the Council adjourned.

#### TUESDAY, JULY 4TH.

The whole of the sitting was occupied by the Council on the consideration of the case of David Beatson Murdoch, in regard to whom a communication had been received from the Medical Alliance Association requesting that his name should be removed from the Medical Register "for disgraceful conduct in the practice of his profession." Mr. Murdoch attended before the Council and was examined by Mr. Farrer, the Council's solicitor, with regard to his employment of unqualified practitioners. The Council deliberated in private for three hours, and when strangers were readmitted the President announced to Mr. Murdoch that the Council judged him to have been guilty of infamous conduct in a professional respect, but did not now direct the Registrar to erase his name from the Register, on the ground that he had undertaken to discontinue the acts complained of.

#### WEDNESDAY, JULY 5TH.

The first subject taken into consideration was the communication from the South Australian Branch of the British Medical Association with regard to the case of Mr. Hartley Dixon. After hearing the explanation by Mr. Collins of the circumstances under which the Apothecaries' Hall of Ireland granted their licence to Mr. Dixon, the Council resolved: "That it is unnecessary to take further steps in the matter." In the matter of George Stratten Symmons, who had petitioned the Council to restore his name to the Register, a discussion arose as to whether the Council had power to comply with the petition, and the opinion of counsel on the subject was ordered to be taken.

The name of William Story was ordered to be erased from the Register, he having been convicted in October last at the Bedford Assizes and sentenced to penal servitude for five years for setting fire to a house in his possession.

The remainder of the sitting was occupied with the consideration of the Dental Register. The Dental Association had requested the Council to erase from the Register the names of certain persons who, it was alleged, were not legally entitled to call themselves dentists; but the Council decided that they were not prepared to comply with the request of the Association.

#### THURSDAY, JULY 6TH.

The Council spent some time in considering the report of the Committee of the whole Council on the report of the visitors of examinations. The first seven clauses of the report were adopted with slight alterations; the clause relating to additional time at oral examinations, and the clause respecting hygiene and preventive medicine, were not adopted in the form of positive recommendations, but the attention of the corporations was directed to them, and also to the subject of mental disease. A motion made by Dr.

Pitman, to the effect that persons whose names were struck off the Register under Clause 29 of the Medical Act should *ipso facto* forfeit any medical titles which they might hold from any of the medical authorities was, after some discussion, withdrawn. The remainder of the sitting was occupied with the consideration of a motion by Dr. Smith with reference to an application made by the King and Queen's College of Physicians in Ireland respecting one of its licentiates, who, it was stated, had been improperly accused of malpractice by a fellow-practitioner. Complaint was made that the English Branch Council had not made due inquiry into the matter; and it was resolved that it should be referred to that body for further consideration.

A fuller report of Tuesday's, Wednesday's, and Thursday's sittings will appear next week.

### "THE OPERATION OF 'SPAYING' IN WOMEN."

To the Editor of THE LANCET.

SIR,—I have read your correspondence with Mr. Lawson Tait with much interest, and, as bearing on the point at issue, may I recount my experience with Mr. Lawson Tait not three months ago? And I may add that Dr. Webb of Wirksworth was cognisant of the position Mr. Tait took, and also witnessed the operation, and saw the patient's ovaries after removal.

Mrs. A—, widow, aged thirty-eight, had suffered continuously for twelve years from the distressing physical and mental symptoms of what one physician termed spinal irritation, another aggravated hysteria, another chronic ovaritis, but all in turn, including myself, failed to do her any good. She was thoroughly wretched, and being a sensible and a Christian woman felt her enforced dependence on her brother and her entire inability to carry on her little shop very deeply. I felt certain the source of all her trouble lay in the ovaries, and with a fully descriptive letter I sent her up to Mr. Tait, with the recommendation that he should watch her condition for a time before forming an opinion. This he did, and wrote to me, "I cannot find anything wrong with the uterus or appendages; you had better come up before I send her back. I cannot operate, as I do not see any justification for doing so." In consequence of this I went to Birmingham, and told Mr. Tait that I felt sure the removal of the appendages was the only thing that would benefit her. He still refused to operate unless I would take the entire responsibility of the procedure, which, after a consultation with her friends and herself, I agreed to do. The operation was performed the following morning, with the result of finding the tubes impermeable and bulging with puriform fluid and the ovaries partially filled with inspissated pus. The patient has recovered well from the operation, though slowly; but notwithstanding the second recurrence of her menstrual period since the operation, she expresses herself as feeling less excitable and mentally wretched, and I have every hope that when the uterine function wholly ceases, which it probably will in a few months, she will improve more rapidly and decidedly.

Now, in fairness to Mr. Lawson Tait, you must admit that, had he such a proclivity for "spaying," as you suggest, he would not have refused to operate in the case I have described. Nothing could be more defined or decided than the position he took.

As an interesting incident in relation to these prolonged, distressing, and obscure cases, I well remember some years ago a farmer's wife suffering from a set of symptoms very similar to those of Mrs. A—. She was ill several years, and went from one doctor to another, and at last died under forty years of age. I remember distinctly asking the gentleman under whose care she was at the last what was the matter with her. He replied, "We had a post-mortem, and found her ovaries full of cheese-like pus, nothing else."

I am, Sir, faithfully yours,

Milford, Hants, July 8rd, 1882.

DOUGLAS W. ESHELBY.

\* \* We would call attention to the fact that Mr. Tait removed the ovaries of a patient of whom he said, "I cannot find anything wrong with the uterus or appendages. . . . I cannot operate, as I do not see any justification for doing so." And, to quote Dr. Eshelby, "He still refused to operate unless I would take the entire responsibility of the procedure."—ED. L.

# THE LANCET.

LONDON: SATURDAY, JULY 8, 1882.

THE more the Report of the Royal Commission is studied, the more will it be valued as a contribution to sound legislation. It not only recommends the unification of the licensing authority in each division of the kingdom, and the representation of the individual authorities of each division in a Divisional Board, but also proposes a very material change in the constitution of the Medical Council. Our readers are aware that the present Council consists of twenty-two members and the President chosen by the Council from without. The twenty-two members represent respectively the medical authorities and the Crown. Each medical authority, excepting the four Scottish universities, which have only two representatives among them, sends one representative to the Council, and there are in it six gentlemen representing the Crown. The Royal Commissioners propose to reduce the number of the Council from twenty-two to eighteen. It is but logical, when combining the licensing authorities into one, to do away with their individual representation in the General Medical Council. Accordingly, the Commissioners propose that the Divisional Boards in which every medical authority, or every surviving medical authority, is to be represented, shall choose eight of the members of the new Medical Council to represent them—that is to say, four to be chosen by the English Divisional Board, and two by the Scotch and Irish Divisional Boards respectively. In this way, instead of having seventeen representatives in the Council, the medical authorities will have only eight. The Crown will have six, as at present, and the profession is to have four. The profession, and the public too, will cordially appreciate the view of the Commissioners, very boldly and earnestly expressed, that whilst the Council exists mainly in the interest of the public, its constitution is a matter of vital interest to the whole medical profession. The paragraph of the Report on this subject is so outspoken, and destined, we trust, to have such important consequences, that we give it in full:—

“The direct representation of the profession upon the Medical Council is a question which has been so long and fully argued that we feel it unnecessary to enter upon it further than for the purpose of expressing our conclusion. While we insist that the reason of the existence of the Medical Council is the interest of the public, we cannot but recognise the vital interest of the whole medical profession in the constitution of that body. It seems to us highly important that the profession should have full and complete confidence in the Council, and, seeing that the governing bodies of the medical corporations which now elect members of the Council can hardly be said to represent the great majority of practitioners, we think it advisable to give the general practitioner an effective voice in the body which will be the principal authority of the medical profession. We see no reason to suppose that the members elected by direct representation will be less eminent than those nominated either by the Crown or the divisional boards.”

Such a view of the relation between the Medical Council and the medical profession must commend itself to all medical men who have not learned to look on the profession from the eminence of a corporation like the Medical Council, which, deriving its chief importance from the profession, whose education and registration it supervises, seems to regard its members with very scant respect. It is pitiable to see a man like Mr. SIMON disparage and, as we think, seriously misrepresent—of course unintentionally—the nature of the demand for the representation of the profession in the Council, and to see him joined by Professor TURNER. Their position of Commissioners might have deterred them from taking the action of witnesses and reproducing old and ten-times-answered arguments. When the evidence has been published, the Government and Parliament will have an opportunity of judging how far Mr. SIMON'S representations of the motives and objects of those demanding the representation of the profession, as distinguished from its corporations, is justified, and we very much mistake if they do not come to the conclusion that the Medical Council is a very self-complacent body, and that Mr. SIMON and Professor TURNER have the complacency and the conservatism of the Council in a very pronounced form. The Government will not fail to notice that the report in favour of direct representation has all the support that Sir WILLIAM JENNER can give it, who is in far more direct contact with medical practitioners and with the public than either the learned anatomical professor or the somewhat unsympathetic ex-medical officer of the Privy Council. The Royal Commissioners not only intend the future Council to enjoy the confidence of the profession, but of the public. It is not to be a weak “recommending” body like the present. But is to have “supreme authority” and “larger powers” than it has hitherto possessed. It will have power to vary or annul any resolution of a Divisional Board, and it will be its duty to ensure as far as possible equality in the curriculum and examination between the three Divisional Boards.

The report of a Commission that has so grasped the great questions of medical reform, and that has besides recommended the entrustment of prosecutions under the Medical Act to the Public Prosecutor is not to be lightly esteemed. Despite the conservatism of Mr. HUXLEY, and of Mr. SIMON and Professor TURNER, changes like those suggested by the Commissioners must take place. Mr. MUNDELLA will not be deterred, with the support of Lord CAMPERDOWN, Mr. COGAN, Sir GEORGE JESSEL, Sir WILLIAM JENNER, and Mr. McDONNELL, from proposing changes which are mainly resisted by members of existing bodies. Never yet have bodies been reformed from within. Never yet have their members seen the necessity of changes till they were accomplished against their will. The time has come now to act independently. Government cannot evade the duty, if it would, of teaching the medical corporations that they exist for the public, and that they cannot longer be permitted to compete in lowering the standard of medical education.

It was generally understood that the *magnum opus* of the Medical Council at its recent meeting was to be the Report of the Visitors, and the discussion on it. There were sub-

stantial reasons for thinking so. The Visitors were men of the highest capacity for the work. They visited, or had a commission to visit, all the corporations of each division of the kingdom—those examining bodies, it will be noticed, that are reputed to be so different in their standard, and yet in whose substantial uniformity of standard the public and the profession have so great an interest. The President has told us they were not to be hindered by economical considerations, and were to avail themselves freely of any clerical assistance. The financial facts connected with the Report justify the expectation with which it and the discussion of it have been regarded. As we said last week, the Report itself has taken about £1500 out of the funds of the Council. The discussion of it has extended over four or five days, or parts of days, of the session of the Council. We shall not be far wrong in supposing that, as the Report itself cost £1500, the discussion of it will cost £500 or £600 more—in all over £2000. Will anyone say, regarding either the Report or the discussion, that we have value received? We are tempted to say that if three advanced students had gone to visit the examinations and to report, we should have had a more practical report than the one we have got. The discussion in the Council took the form of a debate on thirteen abstract conclusions of the Visitors. On one or two of these some really pertinent and important speeches were made: notably that of Professor TURNER on the impracticability of the conclusion of the Visitors that every candidate should be required to dissect with the present limited supply for anatomical purposes; and that of Mr. MARSHALL on the conclusion of the Visitors against a sharp limitation of time in examining candidates. In the case of one or two of the conclusions of the Visitors, the Council, after discussing them for a length of time, discovered or remembered that they were already part of their published Recommendations. The Report points out, in the case of most of the bodies, Recommendations of the Council or of previous Visitors which have not been adopted.

We must confess to a feeling of considerable disappointment with the Report, or at least with the inadequate way in which the comparative efficiency of the examinations of the several corporations has been represented to the Council. The public had a right to expect to be plainly informed whether the often-alleged differences of standard between the examinations in London, Edinburgh, and Dublin, really exist. It may be true that they are implied or insinuated in the reports. We think that careful readers, or those who know how much is meant by the euphemistic phrases of the Council and its Visitors, will see that very grave differences of knowledge are accepted as satisfactory by different bodies which ought to do substantially the same work. But this has not been made manifest. Mr. MARSHALL elicited the curious fact, already brought out by Dr. GLOVER before the Select Committee of the House of Commons, that the College of Surgeons of England rejects a far smaller percentage of candidates than the Scotch Corporations. But nobody believes that the standard of examination is higher in the conjoint examinations of the Scottish corporations than in the examination for the membership of the English College. This great and costly visitation of the corporations in all divisions of the kingdom can only be justified by a full and explicit statement by the Visitors, as Dr.

HERON WATSON very properly said, of their opinion of the sufficiency of the examinations. It is only due to Dr. WATSON, as the representative of the Edinburgh College of Surgeons, to say that he challenged Mr. TEALE to express such an opinion as regards the examinations of his own College; but Mr. TEALE declined, without consultation of his colleagues, to do so. Meantime the Edinburgh corporations suffer, notwithstanding a very smart retort upon the Visitors, under such disparaging remarks as these: that in the opinion of the Visitors the major part of their anatomical examination consists "of questions of too elementary a character," and that eight examiners form a judgment of ninety-six papers in Anatomy, Physiology, and Chemistry in less than an hour.

The euphemistic style of the Visitors reaches its climax in the Report on the Examination of the Apothecaries' Hall of Ireland. We commend it as a study in this kind of writing.

AN almost untouched field has been explored by NOTH-NAGEL in his latest study of intestinal function. Of the effect of various chemical substances on unstriated muscle we know almost nothing, and this has been the subject of his investigations, the results of which are of great interest as well as of novelty. The investigations were made on etherised rabbits, the open abdomen being immersed in a warm neutral solution, and the substance to be tried was gently placed, in a solid form, on the external surface of the bowel. It was previously ascertained that the mechanical irritation thus caused was too slight to produce any effect on the muscular tissue.

The first important fact ascertained was that there is a fundamental difference in the action of potash and soda salts, and that this difference depends on the alkali, being irrespective of the combination in which the alkali happens to be. However similar, for instance, in general action is bromide of potassium to bromide of sodium, there is a marked contrast in their effect on the intestine, due to the basic alkali. If a salt of potash is placed on any part of the bowel, large or small (the cæcum for the present being excluded), a strong muscular contraction results, which remains limited to the part touched, or merely extends around the intestine in an annular form. On the other hand, if a soda salt is employed, a contraction is produced which does not remain limited to the spot, but extends from it for several centimetres, and always upwards, towards the pylorus. The result is uniform in cats as well as in rabbits, and there is no reason to suppose that it is not true also for the human intestine. The fact may sometimes be of use to operators. If, for instance, a small piece of the bowel is exposed and it is desired to know which is the upper and which is the lower portion, all that is necessary is to place upon it a fragment of common salt—a perfectly harmless proceeding—and a contraction will occur, and will pass invariably upwards.

The contraction produced by potash, although so limited, is very energetic, completely emptying the bowel at the spot, and the local contracted part may be concealed, being overlapped by the adjacent uncontracted part, so abruptly limited is the contraction. The local contraction does not seem to set up actual peristaltic action, any slight movement of this character which is observed being apparently due to the distension of the bowel above by the



interference with movement of the contents. In order to produce the contraction, the potash salt need not remain in contact more than from half a second to one second, and the interval between the commencement of contact and of contraction is from one-eighth to six-eighths of a second. The contraction always begins at the spot touched. On the other hand, in the case of the soda salts, the contraction sometimes begins at the spot touched, but very often a few millimetres higher up, the spot actually touched remaining uncontracted, a phenomenon never observed with potash salts. The contraction then extends upwards as already mentioned, until six or eight centimetres of the intestine may be reduced to a pale empty cord. The constriction lasts from five to thirty seconds, and then goes off gradually with some slightly irregular peristaltic waves. The duration and intensity of the effect seem to depend to some extent on the degree of irritability. Below the point of application the bowel is for the most part still. The application of the soda salt to the cæcum has almost no effect. A very short application of a soda salt to any part, for less than one second, often has no result. The application has usually to last for two or three seconds. The latent period before contraction begins is from two to ten seconds. The contraction does not last so long as that which is produced by the potash salt. Experiments on cats yielded similar results, the only difference observed depending apparently on the greater development of muscular tissue in the intestine of the cat.

Observations on the action of other substances showed that only ammonium compounds produce the same effect as the soda salts—i.e., an ascending contraction. All other substances examined have a different effect. Common alum causes a slow and comparatively feeble contraction, remaining limited to the point to which the stimulation was applied. The effect of magnesian chloride and sulphate is uncertain; sometimes they cause a local contraction, sometimes none at all. Chloride of calcium produces a somewhat stronger contraction than chloride of magnesium, but sulphate of copper, chloride of silver, and acetate of lead, produce only a local contraction, which comes on slowly and lasts a long time, often several minutes. Sugar and urea have no effect. It is very remarkable that the action of the sulphates of potash, soda, and magnesia, when applied to the outside of the bowel, should be so widely different, although each produces the same effect when taken internally.

In considering the mode in which the effects were produced, only the effects of the compounds of potash and soda were considered. The first question was whether the contractions were to be regarded as the direct result of the stimulation of the muscular fibres, or as the effect of the excitation of any nervous elements. The local character of the contraction produced by potash makes it probable that the action is the result of the local stimulation of the muscular fibres. NOTHNAGEL believes that the soda salts exert an influence, although feebly, on the muscular fibres, but it is very difficult to decide whether the special ascending contraction of the soda salts is or is not due to a nervous mechanism. That it is, is suggested by the striking difference from the contraction produced by the potash salts. Experiments showed, however, that the contraction occurs even when the nerves of the mesentery have been divided, and the only nervous mechanism which could co-operate in pro-

ducing the contraction is the ganglionic arrangement in the wall of the bowel itself. That it does depend on this mechanism is probable from the considerations, first, that the contraction begins not at, but a little above, the point touched; secondly, the longer latent interval; and thirdly, the fact that after the post-mortem peristaltic action has ceased, potash salts still cause the local contraction, and a similar contraction can sometimes be caused by soda, but never the characteristic ascending contraction.

A large number of experiments were made on other organs which are furnished with involuntary muscular fibres, under the same conditions. In the bladder the soda salts caused only a feeble and local contraction, while the potash salts had a much more energetic effect, producing an alteration in the shape of the bladder and not unfrequently the expulsion of some of its contents. Applied to the stomach both salts cause only a local contraction, which is sometimes absent when the soda salt is used. Neither caused any appearance of peristaltic waves. These results show that the potash salt has a more energetic local action on the bladder and stomach than the soda salt, and agree with effect on the intestine if the ascending contraction, observed in the latter, is regarded as produced through the nervous mechanism, and to this view they therefore give indirect support. How this local stimulation is produced is, however, obscure. That it is not due to the simple withdrawal of water is evident from the trifling effect of the chlorides of calcium and magnesium. Still more surprising and mysterious, however, is the remarkable fact that the contraction produced (probably through the nervous structures) by the soda salts should pass invariably upwards. The fact is one which cannot be correlated with any other known facts in the physiology of the intestine, and it affords a glimpse into a class of phenomena of which at present we apparently know nothing.

SOME few weeks ago we called attention to the serious condition of the colonial medical service in British Guiana, which had led to strong expressions of opinion in the local press. Since that date we have received further information, which not only confirms that on which we previously acted, but has furnished us with some of the reasons for the disastrous state of the service. Among these we may mention the following. The medical officers are under the control of the Governor of the colony, and are liable to instant dismissal by him without any right of appeal or protest, and in this respect they are worse off than any other civil officer of the Governor. The statistics to which we have previously referred show that Governors have hitherto not been slack in exercising this "privilege." But a still greater source of difficulty is the fact that the medical officers are allowed no independence of action, and are continually hampered in the discharge of their duties by managers of estates and others, who at times regard them as beneath all consideration. Even in the hospitals to which they are attached, and for the proper and successful conduct of which they are responsible, they are not their own masters, but are subjected to constant interference and grave annoyance by lay authorities, managers, and so forth. The climate of Demerara greatly taxes the health and endurance of Europeans, and those who are actively engaged

with such anxious and exhausting duties as those discharged by the colonial medical officers need opportunities of visiting more temperate and healthy climates at short intervals; but even this meagre measure of justice is withheld or given tardily, grudgingly, and with ill grace. The leave of absence should be a matter of right after but a short service; but the present arrangement is that none is due until after five years, and it may then be postponed or withheld by the head of the medical department if his personal feelings so incline him; and even when the leave of absence is at last granted, its recipient has to forego half his pay. Again there is no security against change, and the medical officers of the service are liable to be sent from one part of the colony to another at the shortest notice, and no allowance is made for the serious expense and inconvenience to which they are exposed. Happily the public press is interesting itself in the case of the medical men, and there is therefore some hope that the complaints may reach official ears. But it is evident that the whole subject demands a full and searching inquiry, and that the medical service of the colony must be put on a better basis. It needs a strong man at its head, commanding the respect of all parties; and the medical officers should be freed from all petty annoyances, frequent removals, and the interference of laymen in their own special sphere; they should also have leave of absence assured to them after three years' service. While the service is in its present disorganised state, we cannot recommend anyone who values his independence of action, or has any wish to uphold the dignity of his profession, to enter this colonial service. A "strike" of candidates is probably the only form of pressure that will tell upon the authorities, who, by their indifference to the complaints and representations of those who have entered their service, seem to show that, so long as there are men to fill the vacancies as they arise, they have no interest in the welfare of their servants. Unless some distinct improvement is soon accomplished, the colonial authorities will, however, find themselves in an unenviable predicament.

## Annotations.

"No quid nimis."

### THE MEDICAL COUNCIL AND SHAM DISPENSARIES.

THE Medical Council has woken up at the eleventh hour. It perceives thus late that it has some duties in connexion with the moralities of medical practice. We shall not determine who is to blame or who is to be praised in connexion with this late display of usefulness on the part of the Council, whether the Medical Alliance Association (which has displayed a creditable amount of energy and public spirit in exposing the working of so-called provident dispensaries in the east of London), or Mr. H. Samuelson, who put a question on Mr. Murdoch's case in the House, or the Home Secretary who answered the question, and in doing so referred Mr. Samuelson to the Medical Council, which, he said, has power to act, by the 21st & 22nd Victoria, in such cases. The Home Secretary further advised Mr. Samuelson to ask the Medical Council to put the Act in force against registered practitioners acting as in this case. As the Medical Council has generally been deaf to the voice of the profession when asked to vindicate professional morality,

most people will be apt now to think that, apart from the magic influence of the words of the Home Secretary, we should have heard nothing in the Council of Mr. Murdoch and his now victorious assistant, "the black doctor," *alias* Colonel Griffin, or "Governaur Hamilton Griffin," who, though entirely without medical qualification, played such a large part in the treatment of cases supposed to be under the care of Mr. Murdoch, and who was also Mr. Murdoch's landlord. Our readers are aware of the main facts of the two cases which were fully brought out at two inquests before Sir John Humphreys. There were really three cases: Naomi Chatfield, Martha Elizabeth Bailey Chatfield, and Henry Arthur Parker. Griffin had been in attendance on Naomi. The parents and friends thought him a qualified doctor, for whom they "had sent to the provident dispensary." When Naomi was dying "the Colonel" sent for Mr. Murdoch. He came, and the child died as he came in. The certificate was in Mr. Murdoch's writing. On this occasion Mr. Murdoch saw Martha Chatfield, but never afterwards. When she died a certificate of death was handed to the parents by Griffin with Mr. Murdoch's name attached. Mr. Murdoch alleges this was a forgery. The facts of the death of the third child, Henry Arthur Parker, are that twice out of thrice it was seen by "the dark gentleman," once by Mr. Murdoch. A certificate was given, which Mr. Murdoch said he had not authorised.

There is much reason to believe that there are too many practitioners in London who, like Mr. Murdoch, have three or four dispensaries, at considerable distances from each other and from the residence of the principal, worked by unqualified assistants whose names even are unknown to the people whom they attend, who take them for the principal whose name covers and protects the whole arrangement. The gentlemen who are in Mr. Murdoch's position will perhaps take warning by what has happened. The Medical Council have stopped short of erasing Mr. Murdoch's name from the Register. But it may be assumed that, after this warning and the sharp call of the Council to duty by the Home Secretary, they will not deal so tenderly with any similar case that may come before them.

### THE CHAIR OF SURGERY IN EDINBURGH.

THE vacant Chair of Surgery in the University of Edinburgh will, we understand, be filled up on July 17th. The appointment is in the hands of the Curators, three of whom—viz., Sir Alexander Grant, Mr. Campbell Swinton, and the Hon. Lord Kinnear,—are elected by the University, four of whom—viz., the Right Hon. Sir T. I. Boyd, Lord Provost, Mr. John Boyd, Mr. Duncan McLaren, and Mr. James Colston,—are elected by the Town Council of Edinburgh. The candidates are Mr. Joseph Bell, Mr. Chiene, Dr. John Duncan, and Dr. P. Heron Watson.

Mr. Joseph Bell graduated as M.D. Edin. in 1859. After acting as resident surgeon under Professor Syme, and resident physician under Professor Gairdner in the Edinburgh Royal Infirmary, he acted for two years as demonstrator of anatomy under Professor Goodsir. For seventeen years he has been a member of the surgical staff of the Royal Infirmary, and is now senior acting surgeon. In the year 1863 he commenced to lecture on surgery, and continued to give a systematic course in the Extra-Mural School until 1878, when he became senior surgeon. He then, in accordance with custom, gave up his systematic course to conduct a qualifying course of Clinical Surgery. Mr. Bell is the author of "A Manual of the Operations of Surgery," and of numerous papers in the *Edinburgh Medical Journal*, of which he is the editor. He is engaged in extensive practice, both medical and surgical.

Mr. Chiene graduated as M.D. Edin. in 1865. He acted

for twelve months as house-surgeon to Mr. Syme, and acted for four years as demonstrator of Anatomy under Professors Goodsir and Turner. Since 1875 he has held the office of additional examiner in anatomy in the University of Edinburgh. He is one of the acting surgeons to the Royal Infirmary, Edinburgh. Since 1870 he has given a systematic course of lectures on Surgery in the Extra-Academical School, the average attendance at which has been 107 students. He is the author of an illustrated work on Surgical Anatomy, of a series of Lectures on Surgery, which have been published in the *American Practitioner*, and of numerous papers in the various medical and scientific journals. From an early period of his career he has devoted himself to pure surgery.

Dr. John Duncan graduated as M.A. Edin. in 1858 and M.D. Edin. in 1862. After acting for a year and a half as house-surgeon to Prof. Syme he spent two years in the continental schools. He then succeeded to a considerable portion of his father's practice, which soon became one of the largest in Edinburgh. "Finding, however, that, although an invaluable training, its increase began to interfere with surgical work, and being relieved from the necessity of pursuing it, he abandoned general practice; and for many years he has confined himself strictly to surgery." In 1865 he began to teach as demonstrator of anatomy under Dr. Handyside; and he then initiated a course of surgical anatomy and operative surgery—a course which he subsequently conducted at the request of Professor Goodsir in the University. In the year 1871 he commenced lecturing on systematic surgery in the Extra-Academical Medical School. His classes have annually increased in numbers; and last winter he enrolled one hundred and forty students. He is one of the acting surgeons to the Royal Infirmary, Edinburgh; is the author of a series of Essays on the Application of Electricity in Surgery, and of numerous other papers on surgical subjects.

Dr. P. Heron Watson graduated as M.D. Edin. in 1853. After acting as house-surgeon to the Edinburgh Royal Infirmary he became assistant-surgeon in the Royal Artillery, and was for some time engaged in active service. Soon after his return to Edinburgh he was appointed to the staff of the Royal Infirmary, and commenced to lecture on systematic surgery. He is an ex-President of the Royal College of Surgeons of Edinburgh, and was recently appointed the representative of the College in the General Medical Council in the room of the late Professor Spence. Dr. Watson is surgeon to the Royal Infirmary and to Chalmers Hospital, Edinburgh, and for many years has enjoyed one of the largest practices, both medical and surgical, in Edinburgh. He is the author of "Excision of the Knee-Joint in Cases of Disease or Accident," "The Modern Pathology and Treatment of Venereal Disease," and numerous papers on surgical pathology and therapeutics.

We have reason to believe that Dr. William Macewen is not a candidate for the Chair of Surgery in the Edinburgh University.

#### MUSEUM OF THE ROYAL COLLEGE OF SURGEONS.

PROFESSOR FLOWER'S annual report of the Museum of the Royal College of Surgeons is ready. Sir James Paget, with Dr. Goodhart and Mr. Duran, have been working on the new catalogue of the Pathological Collection. The whole of the M.S., including revised descriptions of nearly 5000 specimens, of which 1500 have been added since the publication of the last edition, is completed. The first volume, containing a description of the preparations illustrating General Pathology, will be ready for distribution in a few weeks. We have also to congratulate the Council on the nearly finished catalogue (Part 2) of the Osteological Col-

lection. Some of the finest additions to this collection—as the great elephant seal of the South Seas, and its allied species, the sea bear—have already been noticed in THE LANCET. The collection of human skeletons and skulls continues to receive large additions—notably a series of upwards of 100 skulls from Egypt, mostly those of mummies, presented by Captain R. C. Burton. Professor Flower regrets that it is not possible to ascertain the precise date of any of these skulls, yet many valuable indications may be gained from them relating to the general physical characters of the people to whom they belonged. The appeal made a few years ago by Sir Joseph Fayrer, F.R.C.S., to the medical officers of the army serving in India, to collect skeletons and crania of various Oriental races, has been liberally responded to, especially by Surgeon-Major Mackenzie, M.D., of the Campbell Hospital, Calcutta, who has forwarded eight perfect specimens to the Museum; Deputy Surgeon-General John Shortt, M.D., of Madras; Surgeon-Major G. Bidie, M.B., Superintendent of the Government Central Museum, Madras; Mr. Ondaatje, Colonial Surgeon, Ceylon; and Mr. R. S. Nariman, Civil Surgeon, Dohad. The Collection of Surgical Instruments, in which the late Sir William Fergusson took such a warm interest, has been enriched by Mr. Charles Hawkins, another ex-member of the Council, who has presented a series of about twenty-four instruments, which formerly belonged to the late Sir Benjamin Brodie, exhibiting progressive modifications in the methods of removing calculi from the bladder without the use of the knife. Dr. Jamieson, of Shanghai, has also presented some curious trusses of native manufacture. It is stated that as many as 11,234 visitors signed the hall porter's book during the past year, against 3669 in 1861.

#### THE TREATMENT OF FRACTURE OF THE SKULL WITH DEPRESSION.

It is not improbable that in the operative treatment of injuries and diseases of the skull some of the most important advances in surgery in the immediate future will be made. We now operate freely on deformed bones and diseased joints: operations on the abdominal viscera are now undertaken which but a few years ago were looked upon as altogether beyond the bounds of the practicable; and the therapeutic advances that have made these procedures so successful may be equally well applied to the surgery of the head. But accuracy in diagnosis is an essential condition of successful treatment, and as the recent discoveries of the special function of individual portions of the surface of the brain are rendering exact diagnosis of superficial brain lesions possible, it is not rash to foretell that surgery will keep pace with the science of diagnosis. The surgical treatment of depressed fracture of the skull has been formulated into the proposition that when accompanied with evidence of compression of the brain an operation to remove the depressed bone should be undertaken at once. This is the general if not the universal practice among British surgeons. But latterly some inclination to extend the use of the trephine has shown itself in more than one quarter. The reasons for this extension are that the operation, when properly conducted, and especially when carried out with due precautions against septic infection of the wound, is not a very dangerous one, and if we may argue from Dr. Yeo's experiments on monkeys to man, we may say that the use of the trephine adds very little, if at all, to the gravity of a case. Again, surgeons from time to time see cases where the results of a post-mortem examination show that a life might have been saved by a timely use of the trephine. In Paris the doctrine was first promulgated that the trephine ought to be used in *all* cases of compound fracture of the

vault of the skull, whether actual depression of bone, or symptoms of compression, be present or not. And lately in America it has been urged by Dr. Gunn that in all cases of depressed fracture, with or without symptoms of compression, and whether simple or compound, the depressed bone should be elevated. While we fully believe that the operation of trephining has fallen into undeserved disrepute, and might with advantage be resorted to more freely, we think that Dr. Gunn's proposal is unsound and dangerous. It is a familiar fact to any surgeon of large experience that patients who have received depressed fractures go through life quite unaffected by them, and while such is the case no appeal to cases in which the course of events is different ought to induce a surgeon to submit all cases alike to operation. For there is not conclusive evidence before us that the evil effects of depressed fractures, which often arise, may, without giving rise to symptoms, advance to such a degree as to render trephining useless. There appears, then, to be no sufficient ground for formulating the rule of practice otherwise than as at present, but it should be more liberally interpreted, close watch for symptoms of local mischief should be kept up, and the trephine resorted to as soon as any such symptoms declared themselves, even though slight, and with strong hopes of a successful issue, instead of, as at present, looking upon it as a *dernier ressort*, and using it timidly and with gloomy foreboding.

#### STERILITY.

THIS subject has been again and again brought before our notice of late in various forms: in some cases as “specialities” in the shape of instruments, said to be convenient and portable, for the removal of our heading; in others as strictures, not only in various parts of the genital canal, but on the whole subject. The menstruum of sterility itself is, curiously enough, an instance of a figure known in rhetoric as “oxymoron,” for, contrary to its name, it produces (if we are rightly informed) a micrococcus, which increases rapidly when once introduced, is about the size of a shilling, yellow in colour, marked on one side with the figure of St. George slaying the dragon, and on the other with the head of our most gracious Queen. Like the red blood-corpuscles, it is accompanied (in all but aristocratic circles) with a similar body, but of equal size and shape and nearly identical marking, weighing rather less, and, unlike the white blood-cells, in exactly equal proportions to the yellow body; both have a tendency to form rouleaux. In the menstruum we have mentioned, their excessive multiplication is liable to be followed (according to the powers of resistance of the patient) by rapid loss of health, both physical and moral, even though the micrococci are removed as rapidly as they are produced. Their resistance to reagents is remarkable; they are rapidly soluble only in aqua regia, though the white variety slowly forms a black sulphide. Thus much about the micrococci. We must now notice a somewhat new departure with regard to the question of sterility—a departure which, like other disturbances, has been previously seen on the other side of the Atlantic, and which has at least a claim to originality. This consists in the proposal to endeavour to cure sterility not only in sterile but in fertile women—an object to be achieved by a careful local supervision in the intervals of pregnancy, with a view to eliminating deviations from a “normal” standard, such deviations including retroversion, fissure of the cervix, patulous os, glairy discharge (i.e., the normal cervical secretion). These conditions, we are told, we “must” remove. We are not able to state how many healthy women with the above “abnormal” conditions would probably, and in our opinion rightly, decline to be treated at all (for it must be remembered that these conditions are to be searched for by

the physician, not merely discovered while investigating complaints); but we will enumerate a few of the things we “may” do. These include applications of nitric acid to the canal of the cervix, tracheloraphy, pessaries (of course), posture (not omitting the Turkish attitude of prayer), garment-suspenders, &c. What with the micrococci, the treatment that *must* and the treatment that *may* be carried out, there is reason to fear that some of the bolder female spirits will heartily wish they had been born with empty pelvises, or at least to rectify the mistake as soon as possible; and to get rid of organs which, it would seem, are to leave their unfortunate owners never free from investigation.

#### “DRUNK OR DYING.”

FROM the report of a recent inquest on a case in which the police had failed to discriminate between apoplexy and drunkenness, it appears that a medical witness remarked, “It was a mistake police officers often made; but the local police had been attending the Ambulance lectures, and, he thought, would have been able to distinguish the two.” This would seem to imply that at least one member of the profession expects more than it is reasonable to expect from the modicum of information it is possible to acquire in the course of a system of instruction which is rather well-intended than well-advised. If the teaching given by the Ambulance authorities were more modest, it would be incomparably more useful. It is not mere surplussage to talk to policemen about the special symptoms of drunkenness as distinguished from apoplexy. Even trained medical men have often great difficulty in recognising the difference between the two states, and, as we know, mistakes sometimes occur even in hospitals. The police should be instructed to treat *all* insensible or drowsy persons as though they were suffering from illness, and to send at once for medical aid. If the case prove to be one of simple drunkenness, the fee for attendance could be added to the fine imposed; if not, it would be only too gladly paid by the friends of the patient. It is inevitable that mistakes should occur if the police are permitted to attempt a diagnosis. We should be glad to hear that the whole system of instruction by “lectures” and “examinations” given under the auspices of the Ambulance Association had been revised, and that instead of the bewildering, because quasi-technical, knowledge it is now desired to inculcate a few simple principles were laid down, with sole reference to the prevention of accidents, until proper aid can be obtained. It is in no spirit of jealousy that we make these remarks. The Ambulance Association might do excellent work, but it has overstepped its province and is ill-advised. This is manifest from the questions set in the “examination papers.”

#### COUNTRY RESIDENCE FOR OUR CITY POOR.

THERE is no agency more widely applicable in the treatment of disease among the poor than change of air or country residence. Often the physician feels the immense advantage to the convalescent which, in all likelihood, would follow a month's sojourn at the seaside, or in some quiet corner where pure air could be inhaled and good milk freely drunk. It appears akin to sarcasm, however, to advise the father or mother who earns but a few shillings a week to leave their charge and go health-seeking, while the others may starve; and at present it is only the few fortunate recipients of the charitable card who can obtain that relaxation so much needed. Now that the population of the towns is so aggregated and the rural districts so thinly occupied, difficulty is found in obtaining labourers for the ingathering of the crops; and this has been specially felt during the past few years, when the harvests have been protracted by unsuitable weather. High wages were vainly offered, and

severe losses were occasioned through the scarcity of labour. Without doubt many thousands of our city population could find employment of a remunerative kind, cheap lodgings, and wholesome food during the approaching harvest, and a month's labour of this kind would give a return in the shape of robust health, enough to carry their fragile bodies through the hardships of the winter. When mills are running short time and complaints of dull trade are heard on every side, advantage may, without indirect loss, be taken of this means of obtaining the best results of country residence now open only to the rich. Employers might allow relays of their workmen to enjoy these advantages for suitable periods of time, and farmers would be much relieved by such a supply of labour, perhaps at wages less than regular farm labourers can claim.

#### CARBOLISED NERVE LIGATURES.

NERVES were used as ligatures in experiments made at the early part of the present century, but were never introduced into practice. In the active search for the best material for ligatures that is now being prosecuted, the applicability of nerves has again been put to the test. Dr. John A. Wyeth of New York records in the Archives of Medicine for June a case of malignant tumour of the upper jaw, which spread into the adjacent sinuses and cavities and was accompanied by dangerous hæmorrhage, in which he ligatured the common carotid artery on the same side, using the sciatic nerve of a calf. The nerve was the size of the median or ulnar nerve in the arm, and was soaked in an aqueous solution of carbolic acid, 5 per cent., for twenty-four hours before use. The nerve thus prepared was "very strong by virtue of its neurilemma, and soft and cushioned, since its cylinders of neurilemma were filled with the white substance of Schwann." To prevent any possibility of slipping the two ends of the knot were tied together with catgut, and the ends were then cut off short. The woman recovered from the operation and lived for seven months. The carotid artery was found to be "completely occluded and its continuity unbroken. There was a depressed ring, scarcely appreciable, at the point where the ligature had constricted it," and the ligature had completely disappeared. Dr. Wyeth has also used a nerve ligature to tie the carotids of a horse and of a large greyhound, and has examined the parts after five weeks. The carotid of the dog was occluded. "The ligature had slipped from its place on the horse's artery and it was permeable. There was a roughened surface at the point of deligation, due to proliferation of the endothelia." As the animal was plunging violently at the time of the operation, Dr. Wyeth is doubtful if the operation was satisfactorily performed. Both ligatures were completely absorbed.

#### THE DUKE OF YORK'S SCHOOL.

THE revelations of grievous mismanagement in the Greenwich Hospital School, to which we called attention in our issue of the 17th ult., naturally suggest the question whether such a state of things exists also in the analogous army institution—the Royal Military Asylum at Chelsea. We regret to say, from inquiries we have made, that there are strong grounds for believing that a similar ill-advised course of money-saving has been adopted there of late years, and with corresponding results in bringing the health and physical condition of the boys to a low ebb. We understand that a committee has been carrying on an investigation into the system adopted at the asylum and its effects, educationally and physically, on the boys. We shall look with much interest for its report, which, we presume, will be presented to Parliament, as was the case with that of the Greenwich Committee.

#### MONTROSE ROYAL LUNATIC ASYLUM, INFIRMARY, AND DISPENSARY.

THE centenary of the opening of this institution was celebrated last week. It would appear that this was the first establishment provided for the care of the insane in Scotland, and originated in the thoughtful care of Mr. Carnegie of Charlton, in the neighbourhood. In 1839 the Infirmary was separated from the Asylum, and in 1859 the splendid building at Sunnyside—costing up till now £50,000—was provided for the insane patients. Dr. W. A. F. Browne (late Commissioner in Lunacy) was the first resident medical superintendent, was appointed in 1834, and happily still survives. It was not till 1800 that the next asylum was opened at Aberdeen, and before 1839 other five had been added. Many improvements have been carried out since Dr. Howden was appointed superintendent twenty-five years ago, and the addition of a wing four storeys in height is just now finished. The sanitary arrangements are very complete. Each watercloset is directly connected with the main drain outside the building; this is at all points disconnected from the house and thoroughly ventilated along its course, and is open at its highest and lowest points, so that a current of air may pass through it without impediment, and the sewage is at once conveyed by gravitation to a farm of 200 acres, and distributed in a perfectly harmless and almost odourless manner. Dr. Mitchell, one of the Commissioners in Lunacy, states that "in no Scotch asylum certainly, and probably in no asylum in the empire," are the sanitary arrangements so complete. There are at present about 360 patients in the house, and accommodation is now provided for a much larger number. At the commemoration gathering the greatest satisfaction on the part of the directors was expressed towards Dr. Howden, who unfortunately was confined to his bedroom from illness.

#### THE BEARING OF DRUNKENNESS IN CLUB PATIENTS.

WHEN drunkenness in an Oddfellow leads to sickness he is not entitled to the benefit of the club during the said sickness. The rule is that—"any member incapable of following his employment by any immoral or disorderly conduct, by fighting, or by accident or illness arising from intoxication, or continued excessive drinking, shall not be entitled to any sick pay." The rule is a most proper one. And an equally proper inference from it would seem to be that a member should have no claim on the medical attendant of the club for accident or disease so disgracefully incurred. The question has often been raised. It has been lately raised most properly before J. Stephen, Esq., County Court Judge, Holbeach, by Mr. A. H. Haines, in an action for £22 18s. for attendance upon a club member for delirium tremens and other disorders caused by drunkenness. The man at various times seemed to recognise that attendance on his ailments was a private affair between Mr. Haines and himself and had paid various bills on that view. The jury, we are glad to say, gave prompt judgment for the plaintiff for the whole amount, in spite, we regret to say, of some hesitation on the part of the judge. The judge did not see that the medical officer of the club was exempted from the duty of attending a member because of the rule quoted above. He thought the rule not at all explicit enough for this purpose. But he regarded the defendant's conduct in paying bills to Mr. Haines from time to time as capable of being construed into a kind of implied contract between himself and Mr. Haines. The sooner Oddfellows and other benefit societies make their rule complete the better. It is absurd and unjust to bind the medical officer to attend drunken members. Benefit societies have an enormous power for good in marking drunkenness as an offence against

societies and the working class generally. And they owe it to their medical officers to protect them in this matter. The profession is indebted to Mr. Haines for fighting this question very well before judge and jury.

### GUNSHOT WOUND OF BRAIN.

A CASE of survival after a severe gunshot injury of the brain has recently occurred at Torquay. On June 14th a young gentleman, nineteen years of age, was found lying on the ground near Torquay, with a pistol-wound in the head. He was taken to the Torbay Hospital, and from information kindly afforded us we are able to state the nature of his injuries. There was a wound in the right temporal region, perforating the skull and the dura mater, and permitting the escape of brain matter. There was also extensive comminution of bone in the left parietal region from internal impact of the bullet, but here there was no external wound. When found the lad was conscious, and all symptoms of shock and concussion soon passed off. On the fifth day left facial and lingual paralysis was noticed; no other paralysis or any alteration in sensibility has since developed itself. The temperature has been within the normal range except a single rise to 102° on the third day, and the pulse has been regular throughout, only ranging from 60 to 68. The lad eats and drinks well, and his intellectual faculties are good. The wound is granulating, and up to the 5th inst. no fresh symptom had arisen. The bullet is conical, one-third of an inch in diameter, and it remains lodged in the cranium. According to Dr. Ferrier's experiments, the injury to the convolutions is localised in and near the ascending and middle frontal convolutions. This case has been mentioned in the lay press, where it has been erroneously stated that a considerable part of the frontal bone with brain matter attached had been shot away, and great surprise has been expressed at the boy's living after such an injury. The case is very interesting and remarkable, but by no means unique. Larrey drew attention to the fact that bullets may remain encysted in the brain for years without producing symptoms. In the surgical history of the American war many cases of recovery—some partial, some complete—after perforation of the brain by bullets, and after comminuted fractures with destruction of brain-matter, are recorded. In the Franco-German war other similar experiences were met with, and Dr. Gilbert Smith has related the case of a man who recovered from a sabre-cut received in the first Carlist war. The wound was followed by hernia of the brain, and the man was seen alive and well several years afterwards, with a large cavity within the skull, and an opening in the bone. His faculties were unimpaired, as shown by the fact that he was engaged in his business of a photographer. It is a well-known fact that injuries to the anterior part of the brain are less serious than similar injuries inflicted further back.

### DUNDEE ROYAL INFIRMARY.

A PUBLIC meeting, called by the directors, and largely attended, was held a few days ago, when the feeling was unanimous against the provision of a separate hospital for children. It was, however, agreed that the establishment of a children's ward is advisable, and a committee was appointed to secure funds. It might have been well had such a course been pursued in the University towns in Scotland, as already in Edinburgh and Aberdeen independent institutions have been established which are attended by but a small proportion of the students. It is bad enough that many men should be licensed with an imperfect knowledge of some special diseases, but it would be intolerable to have children's diseases considered as a specialty either by teachers or students.

### DRINKING-WATER IN INDIA.

WE have received a copy of a lecture delivered in Madras on April 1st, 1882, by Dr. M. C. Furnell, and published by the National Indian Association, on "Water and its Effects on Public Health." The object of the lecture was to draw the attention of the public to the widespread disgusting pollution of the tanks from which the drinking-water of the greater part of the population of India is obtained, and to enlist their co-operation in the adoption and practical working of measures to get rid of this fruitful source of disease. In the lecture Dr. Furnell related many instances which had come under his personal observation, in the course of his inspections as Sanitary Commissioner, of the manner in which the water is contaminated, and all regulations for its protection are systematically disregarded. He showed the good effects of obtaining a supply of wholesome water and protecting it from pollution in the instances of Guntur and Madras, the former of which has been free from cholera since 1868, and the latter has enjoyed a marked exemption from that disease since the town was supplied with water from the Red Hills. Dr. Furnell suggests the adoption and strict enforcement of a regulation that "in all municipalities, villages, and communities, certain tanks and wells shall be set aside *strictly* for drinking only. That bodies, clothes, animals, &c., shall not be washed there, but in certain other tanks." We wish him every success in this commendable endeavour to teach the people in Madras the value of a pure water-supply in preventing the spread of disease, and the important aid which individually can be given in carrying out well-conceived regulations to effect so desirable an object.

### EXTENSION OF THE CRUELTY TO ANIMALS ACTS.

WE are glad to see that a short Bill—which there ought to be no difficulty in passing—has been brought in by Mr. Anderson, Mr. Samuel Morley, Mr. Jacob Bright, Mr. Passmore Edwards, and Mr. Buchanan, to place pigeon-shooting from traps or any similar contrivance under the ban of the Acts now in force "for the prevention of cruelty to animals." Possibly it might have complicated matters if the hunting of tame deer had been included under the same provision, but we heartily wish it could have been. Neither pigeon-shooting nor tame-deer hunting is "sport," in any true sense of the term, and they ought to have been placed in the same category with other forms of cruelty. It would tend greatly to improve the public taste and to clear the public conscience if these two seemingly small but really important blots on our humanity could be effaced.

### PAY PATIENTS AT THE NORFOLK AND NORWICH HOSPITAL.

AT a meeting of the Norfolk and Norwich Medical and Chirurgical Society, held in Norwich on Tuesday last, Mr. Horace Turner moved the following resolution: "That, in the opinion of this meeting, the admission of pay patients into the Norfolk and Norwich Hospital, to be under the care of members of the staff only, who may be allowed to charge fees for their attendance, would be most unjust in its operation towards, and injurious to the interests of, medical practitioners in both county and city." There was a full attendance of members and an animated discussion took place. Ultimately the motion was carried by an overwhelming majority, the minority consisting of one member of the staff of the hospital. We are glad to learn that although five members of the staff were present, only one was found to oppose the motion, while one supported it, and three abstained from voting. After such an expression of opinion, it is to be hoped that even the one



who voted in the minority will be convinced that his position is untenable, and that the whole staff will withdraw from what would have been an utterly false position. The whole question of the admission of pay patients to charitable institutions is beset with objections and difficulties, but that the acting staff of a hospital should be allowed to take fees from such patients is a notion which ought not to be entertained.

### THE SEGMENTAL NATURE OF THE SPINAL CORD.

THE spinal cord may be regarded as composed of a series of segments, indicated by the pairs of spinal nerves. According to Lüdertitz this view of its structure is morphologically correct. The spinal cord of the ringed snake shows a slight rounded swelling opposite each pair of nerves, which lies above the junction of the respective vertebrae, and constantly corresponds in height to the middle of a segment. The enlargement is due chiefly to that of the grey substance, but partly also to that of the white and to an increased size of the so-called lateral group of cells. The demarcation between the segments cannot be exactly determined, but they are longer in the middle of the cord and shorter towards the extremities, especially towards the basal portion. Similar segmental swellings are to be discerned in the spinal cord of the rabbit, even on naked-eye examination. Careful microscopical measurements of the areas of the several constituents of the cord in transverse section show an analogy between these elemental segments and the swellings of the cervical and lumbar enlargements. The middle part of each segment, for instance, bears a similar relation to the extremities of each segment when the area of the constituent columns is compared. The increase in size at the middle of each segmental swelling is greater in the transverse than in the antero-posterior diameter. The grey substance is enlarged in all directions, but especially in width. The spinal cord of man, however, presents no segmental swellings, and its elements can only be recognised by the intervals between the series of nerve-roots which arise from it. These intervals are larger between the posterior roots than between the anterior, and they are the greater the longer are the segments, being greatest in the middle and lower dorsal regions.

### FLOWERS FOR HOSPITALS.

THERE are few more delicate ways in which children can be brought under some sense of interest in the sick than by the device of a flower service for them in the various churches. We have already noticed a very successful effort of this kind by Canon Carpenter. We are glad to record a similar one by the Rev. Cecil Moore, St. John's Church, Paddington. The chancel space was one mass of flowers and fruit, and the communion table was covered by very beautiful flowers, nectarines, grapes, and strawberries. Some special cases of sickness in the district were not forgotten in the distribution, but the chief recipients were the patients in the various hospitals.

### THE SALVATION ARMY.

WE will not withhold our good wishes from the Salvation Army, in the matter of its main object—"War," as "the General" puts it—"against drink, sin, and the devil." In our own way we are always waging a similar war. Our methods vary. The method of General Booth may lead to great and rapid disappointment if it depends too much on excitement and sensational appeals to the feelings. But we admit the urgent necessity of some adequate means of rousing men from vice and sin. The organised churches are too strait-laced and minister too exclusively to the good or those who think themselves so. "They that are whole need not a

physician." If General Booth can abate drunkenness, increase purity, and put the churches on their mettle as moral and spiritual forces, he will gain the praise of "The Master," and the thanks of all good men.

### COLLEGE OF PHYSICIANS IN IRELAND.

A MEETING of the Fellows will be held this week to make two appointments—viz., that of the King's Professorship of the Practice of Medicine, vacant by the resignation of Dr. William Moore, and the King's Professorship of Midwifery, vacant by the death of Sir E. B. Sinclair. For the first there are two candidates, Dr. John Magee Finny and Dr. J. W. Moore; and for the second no less than six gentlemen have declared their intention of competing. They are Drs. John Rutherford Kirkpatrick, John Augustus Byrne, J. M. Madden, Wm. Cox Neville, R. D. Purefoy, and W. J. Smyly. Of these, but one is a Fellow of the College of Physicians, while two are Fellows of the Royal College of Surgeons in Ireland.

### SIR ERASMUS WILSON.

A FEW days since Sir W. Jenner, Dr. Wilson Fox, and Dr. R. Liveing held a consultation respecting Sir Erasmus Wilson's health. They decided that he should pass the summer months at Westgate-on-Sea.

### PERSONATION AT MEDICAL EXAMINATIONS.

IT is not without reason that Mr. Macnamara directed the attention of the Council to the risk of personation at medical examinations. A case has just been heard in Dublin, before Mr. J. A. Curran, Q.C., in which a student of that city was summoned on a charge of attempting to induce a gentleman, Dr. Norris, to personate him at a Dublin examination, and offering him in the first instance £150 and afterwards £100. Dr. Norris immediately communicated with the police; hence this action. The student did not appear, but the Court issued a warrant for his arrest.

### MR. THOMAS MADDEN STONE.

ON Midsummer-day last Mr. Thomas Madden Stone completed a term of fifty years in the service of the Royal College of Surgeons of England. In 1832 he was appointed assistant librarian, and in 1853 clerk, to the College. Many generations of practitioners recall with pleasure Mr. Stone's urbanity at the registrations and examinations of the College. His courtesy and his activity alike are still unabated. On Thursday last he took part at the College elections, and "made a tally" of the votes as accurately and expeditiously as of yore.

### METROPOLITAN HOSPITAL SUNDAY FUND.

THE Fund now exceeds last year's by some £400 or £500. The total amount from Hebrew congregations is £979 0s. 6d., almost exactly equal to their total of last year. We may now fairly expect the contributions for 1882 to reach at least £34,000.

THE College of Physicians and Surgeons of Chicago, U.S.A., has been incorporated. The building forming its local habitation is expected to be completed by September next. The list of the Faculty is published in the *Western Medical Reporter*.

DR. PATRICK HERON WATSON has been appointed one of the Surgeons in Ordinary to the Queen in Scotland, in the room of Professor Spence, deceased.

At a meeting of the Executive Committee of the Darwin Memorial Fund, held on June 30th at the Royal Society's rooms, Burlington House, it was announced that the total subscriptions already promised or received amounted to £2487 13s. It was decided that the memorial should take the form of a marble statue; and a sub-committee was appointed to make the necessary arrangements. It was agreed to ask the Trustees of the British Museum for permission to place the statue in the large hall of the British Museum (Natural History), South Kensington. The following gentlemen form the sub-committee:—Mr. W. Bowman, Sir J. D. Hooker, Professor Huxley, Mr. C. T. Newton, and Sir F. Pollock, with the Chairman, Mr. W. Spottiswoode (President, Royal Society), the Treasurer, Mr. John Evans (Treasurer, Royal Society), and the Hon. Secretaries, Professor Bonney and Mr. P. Edward Dove.

At the 101st annual meeting of the Massachusetts Medical Society, held on June 13th, a debate arose with regard to the admission of women to the Society. A motion in favour of altering the by-laws so as to admit them was met by an amendment referring the subject to the Council, and declaring that it was expedient that women should be admitted on the same terms as men. The amendment was carried; but when the matter came before the Council, that body decided by 65 to 36 votes to postpone the whole matter indefinitely.

At the recent meeting of the American Medical Association, held at St. Paul, Minn., in the first week in June, steps were taken to promote the publication of a weekly medical journal in lieu of the annual volume of Transactions hitherto issued. A board of trustees (consisting of Dr. Sayre of New York, Dr. Toner of Columbia District, Dr. Foster Pratt of Michigan, Dr. R. J. Dunglison of Pennsylvania, Dr. R. Battey of Georgia, Dr. W. J. Peck of Iowa, and Dr. H. O. Marcy of Massachusetts) was nominated to further this object.

PROFESSOR HERMAN KNAPP, M.D., has accepted the chair of Ophthalmology in the University of the City of New York, made vacant by the resignation of Professor D. B. St. John Roosa.

THE vacancy in the list of honorary surgeons to the Viceroy, caused by the lamented death of Surgeon-Major R. W. Cunningham, M.D., has been filled up by the appointment of Surgeon-Major G. C. Chesnaye, of the 4th Goorkhas.

THE General Medical Council is still sitting at the time of our going to press, and the session seems likely to continue for a day or two longer.

SMALL-POX having broken out in Cape Town, a large quantity of vaccine lymph has been forwarded to the colony at the request of the Government.

THE PRINCESS ALICE MEMORIAL HOSPITAL.—On Wednesday Princess Christian laid the foundation stone of the Princess Alice Memorial Hospital, at Eastbourne. The late Princess Alice, it will be remembered, resided at Eastbourne with her family several weeks in the autumn prior to her death, and on her decease it was resolved at a town meeting to give expression to the respect in which she was held by erecting what should be called the Princess Alice Memorial Hospital. An acre of ground, within a short distance of and to the west of the railway station, was given as a site by Mr. C. Davies Gilbert, and subscriptions to the amount of £3300 having been obtained, a contract to erect the building for £4547 was entered into.

## BRIGHTON SEWERAGE.

THE Report of Sir Joseph Bazalgette on the Sewerage of Brighton reached us last week, after THE LANCET was issued, or we should gladly have printed it. We now print it *in extenso*. The suggestions made by the eminent sanitary engineer, to whose judgment the Corporation has appealed, afford the most complete justification of all that we have urged on the subject. Indeed, the new works recommended and the alterations required exceed in extent and costliness anything we had contemplated. It is not our purpose, on the present occasion, to enter into a discussion of the means by which Sir Joseph Bazalgette hopes to remedy the defects he has discovered. Doubtless some of them are valuable, while to others we should be inclined to demur as either insufficient or inappropriate. Suffice it to say that the number and expense of the measures suggested to meet what he calls "minor exceptions" are alike startling. The authorities of Brighton are to be congratulated on the decision at which they have promptly arrived to carry out the extensive series of works recommended by their engineer, without either delay or parsimony.

If the advice of Sir Joseph Bazalgette was requested before we called attention to the subject, that in itself would be evidence that a strong misgiving existed as to the actual state of matters. If, on the other hand, it is only since the appearance of our articles the Corporation has recognised the need of a scrutiny, and entrusted the task to an authority of its own selection, the people of Brighton should be thankful for the assistance we have been able to give them, and we shall have cause for self-congratulation that we raised the warning cry in the interests of public health. In any case, the sewerage of Brighton will now be thoroughly overhauled, and we earnestly hope that by some measures of reform and reconstruction—whatever they may be—the insanitary condition to which we have felt it necessary to call attention will be finally changed.

## BRIGHTON SEWERAGE.

Report of Sir Joseph Bazalgette, C.B., C.E.

"Spring-gardens, London, S.W., June 27th, 1882.

GENTLEMEN,—In accordance with the instructions contained in the Town Clerk's letter of the 3rd ult., requesting me to advise the Town Council with reference to the flushing and ventilation of the public sewers in Brighton, I have examined the condition of the sewerage system of the town, more especially with reference to the ventilation and cleansing of the sewers. But before making specific recommendations on the subject more immediately referred to me, it may be well to take a brief retrospect of the results of some of the methods which have from time to time been suggested and tried for the better ventilation of the sewers of towns.

The removal or treatment of the gases resulting from decomposition in sewers, in an offensive manner, is a subject which during the last half century has received much consideration. When in 1850 I was conducting experiments on the ventilation of the sewers of London, I had the advantage of consulting with that eminent chemist, Professor Faraday, who had previously given much attention to the subject, and who, in his evidence before a Parliamentary Committee as early as 1834, had expressed the opinion that it was beset with great difficulties. Subsequently I visited some of the mines in the north of England and in Wales, in order to see how far any of the modes adopted for their ventilation could be applied to the better ventilation of sewers, and I became acquainted with most of the suggestions which have been



made for otherwise dealing with the gases generated in sewers.

In 1858 a Committee of the House of Commons, consisting of Lord Palmerston, Lord John Russell, Lord John Manners, Sir Benjamin Hall, Mr. Robert Stephenson, and Mr. Tite, directed me to make experiments on the effect produced by extracting and burning the gases of sewers by means of furnaces.

Those experiments were conducted with the furnace in the clock tower of the Houses of Parliament, and I subsequently gave evidence before that Committee, to the effect that in the immediate neighbourhood of the furnace the indraught was found to be very strong, but that, whilst the supply of air was drawn with great force from the sewer inlets close to the furnace, the air current produced in the sewers at a short distance from the furnace was scarcely perceptible.

The Committee of the House of Commons reported that although such a process might be advantageous to sewers within a short distance of the furnace, it could not be successfully applied to any wide range of sewers on account of the number of openings which unavoidably communicate with them, the nearest of which to the furnace would supply it with atmospheric air, whilst the gases in the further part of the sewers and house drains would remain unaffected by its action.

In a mine there is but one downcast and one upcast shaft, and all the air brought into the mine at the downcast shaft can be directed and conducted at will, and discharged at the upcast shaft after it has passed through the whole length of the various galleries; whereas, in an ordinary system of town sewers, provided with inlets for the admission of water at every house drain, gully, and branch sewer connexion, the beneficial effect of furnaces, fans, or air pumps, becomes limited to a comparatively small area. But, wherever furnaces exist in the neighbourhood of sewers, it is, nevertheless, desirable to connect them with the sewers. In long lines of intercepting and outfall sewers, which have no branch connexions or openings along their route, furnaces have been, and may be used with the same beneficial results as in mines.

In 1866 Dr. Miller, F.R.S., and I conducted a series of careful experiments on the effect of ventilating sewers through charcoal, which extended over a period of twelve months, and embraced a large drainage area. The sewers were cut off from all other means of ventilation, except through charcoal trays of various forms fixed in the ventilators. We found that whilst dry charcoal is an efficient means of deodorising and disinfecting sewage gases its introduction into the ventilators produced a sensible retardation of the current of air in the sewers, and the carbonic acid in them was increased, on an average of our experiments, from '106 to '132 per cent., and the mean temperature in the sewers was thereby raised from 50.8° to 56.2°. The beneficial effect of charcoal is, moreover, considerably reduced by moisture, and it therefore requires renewal at no very distant periods, varying according to the state of the atmosphere. Charcoal may be introduced with advantage into such ventilators as are the cause of any special annoyance, but as they retard the current of air their number and area would, if generally adopted, have to be increased to an extent which is for many reasons undesirable.

Shafts connected with the sewers, and carried through lamp-posts in the streets, or to the tops of adjoining buildings, away from the chimneys and upper windows, might in many cases be so constructed as to ventilate the sewers efficiently, provided they were sufficient in number and in the area of their openings. But there is frequently much difficulty in obtaining the necessary consent for ventilators up the sides of houses on account of their having to be placed on private property.

The use of sulphurous acid and chlorine gas placed in ventilating shafts, and various other chemical or mechanical antidotes, have been attended with more or less beneficial results, and most of them may, under favourable circumstances, be applied in particular places with advantage; but all these modes of treatment require such constant attention and frequent renewal that they thus become liable to failure.

In order to prevent the evolution of noxious gases from sewage the great object to be attained is its dilution and rapid removal, before decomposition has set in, by a copious supply of water, through sewers having sufficient falls to prevent the accumulation of deposits in them. Where these

conditions cannot otherwise be sufficiently secured the sewers should be kept clean by periodical flushing.

Road detritus, if allowed to enter and deposit in the sewers, will accumulate and precipitate with it much of the sewage which otherwise would not deposit. The efficient scavenging of the surface of the roads, and the interception of the detritus washed off them during heavy rains by properly formed catchpits, are therefore essential to the maintenance of clean sewers. Macadamised, chalk, or gravel roads, especially those having steep inclinations, require particular attention in these respects.

In 1878 there were in the metropolis 1700 miles of roads, of which about 1300 were macadam or gravel, and from the surface of the whole were removed in one year over 600,000 cubic yards of detritus, at a cost of about 1s. per yard, whilst about 100,000 yards were removed from catchpits under the gullies, at a cost of 2s. 6d. per yard, and 20,000 cubic yards were taken from the sewers at a cost of about 25s. per yard. Thus it will be seen that effective scavenging and the construction of proper catchpits are economical as well as being advantageous to the condition of the sewers.

There are few who will not now recognise that the removal of the refuse of large towns by water is so vastly superior to any other known method as to have caused it to be an essential in these days of civilisation and refinement. But the underground carriers must be freely ventilated, or the gases generated in them will escape into the houses, where, being shut up and but slightly diluted with atmospheric air, they are inhaled day and night, and become injurious to health and dangerous. It will be found upon close investigation that in the great majority of cases where persons have suffered from the effect of sewer gases the mischief has arisen from defective house drainage and not from the public sewers. Every house drain should be formed of stoneware pipes laid with sufficient fall to prevent the accumulation of deposit, and ventilated from its upper end to the roof of the house; but very few are so ventilated.

The gases escaping from efficient sewers ventilated on to the surface of the roads may, nevertheless, in certain states of the atmosphere be offensive in the immediate neighbourhood of such ventilators, and although no universal system of ventilation has yet been discovered which can be always applied without any inconvenience, some satisfactory mode may in every case be selected according to the varied conditions of the localities to which it has to be applied. Attention to the foregoing principles of construction and maintenance of the sewers will very materially promote their ventilation without offence or injury.

I have carefully inspected the main intercepting sewer of Brighton, which was constructed by Sir J. Hawkshaw in 1871-4. It commences at the western end of Hove, where its invert is about 1 ft. 6 in. above high water spring tides, and it is carried under the main road facing the sea to Portobello, where its outfall is four miles east of Kemp Town, and its invert is at the level of low water spring tides. From the Steine to the outfall it is 7 ft. in diameter, and it has an average fall of 3 ft. in a mile, and this gives a mean velocity of flow of about 1½ miles per hour when running half full. But in dry weather the rising tide closes the outfall for thirteen hours out of twenty-four, and thus the lower portion of the sewer becomes a reservoir, and stores the sewage until the tide has again fallen below its level.

From the observations recently made and furnished to me by Mr. Lockwood, it appears that the ordinary dry weather flow of sewage rises during the time the outfall is closed to a maximum height of three to four feet above the sewer invert at the Roedean furnace, and it reaches the maximum there at about three hours after high water; the tide has by that time fallen below its level, and it again falls to its normal condition.

Flaps have been placed across the sewer at Roedean to prevent air from the lower end of the outfall from passing above this point. Above the flaps the sewer is connected with a lofty ventilating shaft, at the foot of which a large furnace is kept continually burning, and as there are only four small openings into the outfall between the furnace and the Steine, a continuous current of air down the sewer towards the furnace is maintained, and is very perceptible at the Steine. This ventilation at the time of my visit was quite satisfactory. The flow in this sewer is sufficient to remove all deposit, excepting a few inches in depth extending for a short distance above the Portobello outfall.

In seasons of heavy rain, however, when the sewer becomes charged with storm water the furnace ventilation

is interrupted. In order therefore to relieve the intercepting sewer during heavy and continuous rain by discharging the storm waters more rapidly, I recommend that an additional storm outlet of the full size of the intercepting sewer be constructed from it into the sea opposite the Roedean furnace, the invert of the storm outlet to be level with the invert of the intercepting sewer at that point, and that it be protected and placed under command by proper tide flaps, and penstocks to be constructed in a penstock chamber. The men who attend to the furnace could also work these penstocks when required.

I further recommend the formation of additional storm outlets at the upper or Hove end of the intercepting sewer, which also would relieve it from becoming overcharged, and thus improve its condition.

It has been suggested that the Shone system, as adopted at Eastbourne, should be applied to Brighton for the more rapid removal of its sewage, thus, it is said, preventing the generation of sewage gases and contamination of the subsoil. The Shone system, as applied at Eastbourne, is simply the application of compressed air as an agent for pumping sewage from a lower to a higher level, and thus in dry weather a continuous flow at the outfall is obtained. But, as already stated, that portion of the Brighton outfall which is tide-locked is so far from Brighton, and its ventilation is so completely cut off by flaps across the sewer at Roedean, and the outfall between Kemp Town and Roedean is so effectually ventilated by the Roedean furnace, that there are no grounds for any complaint of the ventilation of this portion of the outfall sewer, and no advantage would be gained at Brighton which would justify the expenditure for pumping the sewage from it in dry weather. The Shone system would, moreover, be quite incapable of pumping the waters brought down in times of heavy rain. The air-tight pipes, which it has been said would prevent the generation of sewer gases and the contamination of the sub-soil, are introduced in the Shone system, not as substitutes for the existing sewers, but in addition to them and for forcing the sewage received from the ordinary sewers through the iron pipes to a higher level wherever pumping may be required. It would therefore be erroneous to suppose that the introduction of these additional iron pipes would prevent the generation of sewer gases or improve the ventilation or condition of the existing system of sewers. The branch sewers of Brighton have remarkably good falls, varying mostly from 1 in 50 to 1 in 150, and pumping is therefore unnecessary, and I fail to see in what manner the Shone system could be so applied as to be of any benefit to Brighton.

There are only nine sewer connexions with the main intercepting sewer and three drains from the Aquarium between the West end of Brighton and its outfall, and no other junctions up to South Avenue, Hove, excepting a storm connexion opposite Lansdowne-place, but between it and Hove-street, a distance of 2000 feet, there are eleven sewer and thirty house drain connexions. With these exceptions the house drains of Brighton and Hove are connected with the local sewers, some of which are parallel to and above the line of the intercepting sewer.

Four catchpits have been formed in the branch sewers near to their junctions with the main sewer, one at Waterloo-street, one at Western-street, one at East-street, and one in the Steine Valley branch. Also one in the main intercepting sewer opposite Fourth-avenue. If the road detritus gets into these catchpits it is liable to collect with it the sewage mud, and it will therefore be better that catchpits of sufficient size to intercept the road detritus should be formed under the gullies near the surface so as to obviate the necessity for the catchpits in the sewer, which should then be filled in. Some of the ventilators opening on to the surface of the roads should have charcoal trays fixed in them and additional ventilating openings should be formed in the neighbouring lamp posts.

For a considerable length of the sea frontage there are two parallel roads, divided by a line of iron railings, upon which the road lamps are fixed. By substituting for some of the present lamps others of an ornamental character, having tubes of not less than six inches in diameter passing through them, and connected with the adjacent sewers, and by, at the same time, fixing charcoal trays in the road ventilators, sufficient ventilation of the sewers may be secured without annoyance.

The complaints of defective ventilation have come mainly from the higher districts, and the upper ends of the sewers which mostly have rapid falls. The upper or dead ends of

these sewers should be connected with the adjoining sewers where practicable, so as to create a current through them. Thus, for instance, the ends of the sewers in Church-street, Buckingham-road, and Leopold-road, should be connected with the Dyke-road sewer, and the sewer in Queen's-place with the sewer in London-road. A pipe carried from the end of Wellington-street to Pevensey-road, would connect five dead ends, and three near the eastern end of Eastern-road and Bristol-road should be connected. Mr. Lockwood has furnished me with a list of the complaints he has received, showing the manner in which most of them have been satisfactorily dealt with. Some few of these have been removed by obtaining the consent of the owners of adjacent houses to construct ventilators from the sewers up their sides and above the roofs; but it has been found difficult to carry this out to a large extent, owing to objections raised by owners and occupiers. To accomplish this requires very careful and patient negotiation, and must be a work of time. Although I have personally inspected all these localities I do not propose to refer to individual cases in this report.

It should be made compulsory for a shaft, not less than six inches in diameter, to be carried from the house drains up the roofs of all houses to be built hereafter. It may also be arranged in some instances that in erecting new houses pipes or flues may be carried up for the ventilation of the adjoining sewer, but the upper ends of these should always be at a distance from the windows or other openings into the houses.

Some intelligent officer might be advantageously employed for a time under your surveyor in negotiating and carrying out the ventilation of the sewers, where there is at present any cause for complaint, through gas lamps, or shafts constructed in blank walls, or into furnaces or through lamps erected at "refuges" at the street crossings, or up the blank ends of houses or by other means, according to the various requirements and opportunities presented in each case. In the course of my inspection with Mr. Lockwood, we noted several cases where these suggestions could be applied with advantage. But in most of these it would be necessary that the consents of owners and occupiers of the adjoining houses should be obtained.

Mr. Lockwood informs me that the volume of the water supplied to Brighton and Hove is about 600,000 cubic feet per twenty-four hours, giving, on the average, a flow night and day through the sewers of 416 cubic feet per minute, which on a population of 132,000, is equal to 28½ gallons per head. This is but very little below the rate of the water supply of London, which is about 31 gallons per head, and the falls in the Brighton sewers are better than in London. It has been ascertained, by measurement in the sewers, that the maximum flow during the day (that being the period when it is most needed as a carrier for the removal of town refuse) varies from three times to four and a half times the minimum flow during the night. But it has been stated that during dry weather as much as 1,200,000 gallons of water per week, or at the rate of 90 tons per day, have been used for flushing those sewers which required it. This flushing has been done by filling the manholes, at the upper ends of the sewers to be flushed, with water from the mains, and, when full, letting it go through the sewers with a sudden rush. I recommend that this be continued in dry weather, more especially at the upper or dead ends of the sewers where the flow of sewage is smaller than at their lower ends, and, if properly carried out, it ought to prevent the accumulation of deposit, but I do not recommend the admission of a large volume of tidal water into the outfall sewer for the purpose of flushing.

The branch sewers generally are too small to have enabled me to enter and inspect them, but having regard to their superior inclinations and the condition of the larger sewers which I examined, and which had not such rapid falls, and from the observations and inquiries I have made, extending over several days, I am of opinion that, with some minor exceptions, to which I have already referred, and for which I have suggested various remedies, the general condition of the sewers of Brighton is satisfactory, and there are no just grounds for assuming it to be an unhealthy place; on the contrary, I believe it still deserves the high reputation it has always maintained as a desirable place of resort for those who seek the enjoyment of pure and invigorating air.

I am, Gentlemen, your obedient servant,

(Signed)

J. W. BAZALGETTE.

To the Mayor and Corporation of Brighton."

## THE WIRRAL HOSPITAL.

ON Saturday, July 1st, Lord de Tabley, R.W.G.M., of Cheshire, laid the corner stone of the new building of the Wirral Children's Hospital. The ceremony was performed with Masonic honours, and his Lordship was supported by a large gathering of the Masons of the county. This hospital, which receives patients not from Birkenhead only, but from the whole hundred of Wirral, originated in the efforts of five local gentlemen early in 1869. The first beginnings were in a very humble way, a small house (rental about £30) being occupied till the end of 1872, when the institution was removed to the building now in use, an old dwelling-house in Oxtou-road, which affords accommodation for sixteen in-patients. During the past thirteen years the hospital has done excellent work, and the demands made upon it have been yearly increasing. Thus the number of in-patients, which from 1869 to 1872 averaged 61 per annum, during the last three years has averaged considerably over 100 per annum. Lately adequate accommodation has been so pressing needed that it has been found necessary to hire a small house about fifty yards from the hospital, where are provided six additional beds.

The determination to build a new hospital was come to last year, and so prompt a response was made to the proposal that by December a sum amounting to £4250 was raised, and it was felt that a building fund of £6000 would doubtless be obtained without difficulty. Designs were accordingly invited. The design selected has a central administration with wards on either side, something in the form of an H. It is proposed to build the centre and one side only at first, and this will allow space sufficient for about forty beds. The architect is Mr. John Clarke, and the style of the building is what is termed Domestic Gothic.

## Public Health and Poor Law.

## LOCAL GOVERNMENT DEPARTMENT.

## REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Taunton (Urban).*—Dr. Alford has recently issued his reports on the sanitary condition of his two sanitary districts during last year. The population of the borough of Taunton is given as 16,611 persons, among whom the birth-rate was equal to 30.9, and the death-rate to 20.9 per 1000 during 1881. It appears that the zymotic death-rate was 3.1 per 1000, and nearly double the rate that prevailed in 1880. This excessive zymotic fatality was mainly due to the epidemic prevalence of measles in the early part of the year. An outbreak of scarlet fever occurred in the autumn; that it did not assume serious proportions, as on former occasions, is attributed by Dr. Alford to the existence of the Sanitary Hospital. The deaths from other zymotic diseases were not numerous, but included seven from whooping-cough, six from diarrhoea, and four from diphtheria. The value of the report would have been increased by the insertion of a small table containing a statistical summary for recent years; and some reference to the rate of infant mortality might have been looked for. Dr. Alford once more takes the opportunity to impress upon the sanitary authority for the borough of Taunton the urgent necessity for ventilating the sewers, no action having yet been taken upon his special report on this subject, made in November last under instructions from the Sanitary and Drainage Committee of the Town Council. Dr. Alford warns his authority that, "until this evil [want of sewer ventilation] is remedied much sickness and ill health, and many deaths which might have been averted, will inevitably occur." Another sanitary defect to which attention is directed is the filthy condition of a great number of dwellings in the town, some of which are described as hardly fit for human habitation. A house to house visitation is spoken of as absolutely necessary, as well as more frequent visits from the inspector of nuisances, as "it too often happens that filthy houses are only found out when disease has appeared and the mischief is done." There is evidently need for greater activity or a larger staff in the sanitary department of the Town Council.

Dr. Alford speaks gratefully of the improvement of the water supply, and of the town scavenging, also of the benefit derived from the sanitary hospital, to which thirty-two patients were admitted during the year, and in which only four deaths occurred.

*Taunton (Rural).*—The Rural Sanitary District of Taunton comprises an area of more than 100 square miles, on which the population in 1881 is stated to have been nearly 20,000. The birth-rate in this population was equal to 27.6, and the death-rate to 15.3 per 1000 of the population. The deaths are stated to have been below the average for the eight preceding years, but no comparative statistics are given for those eight years, which is to be regretted, as the marked difference in the age-constitution of the population of the rural district forbids any comparison with the statistics for the urban sanitary district. Speaking generally, Dr. Alford considers that the sanitary condition of the district is slowly but surely improving, but that this improvement can only be maintained by constant supervision. Several outbreaks of infectious disease are attributed to the concealment of the first cases; and in the case of a serious epidemic of scarlet fever at North Curry, the medical officer of health admits that "it was thoroughly established, and death had occurred before I heard of its existence." Some cases of disease were admitted to the Sanitary Hospital from the district during the year. The total zymotic fatality of the district included 8 deaths from scarlet fever, 7 from measles, and 4 both from enteric fever and diphtheria, and caused a death-rate of 1.4 per 1000. The proportion of infant mortality appears from the tables to have been low, but it is not specially referred to. The report, while recording sanitary work in many parts of the district, affords abundant evidence that in the matters of water-supply and nuisance disposal much remains to be done in many of the villages to meet the increasing difficulties of rural sanitation.

*Greenock.*—Dr. Wallace reports that during the five weeks ending 3rd June the annual death-rate in Greenock was equal to 24.1 per 1000, which was 1.2 above the rate for the corresponding period of 1881. The deaths from diseases of the zymotic group did not exceed 6.2 per cent. of those from all causes; they included 2 from diphtheria, and 1 each from enteric fever and scarlet fever. It is noted that during the period under review 57 cases of infectious disease were reported; of these 35 were reported by householders, 3 by the infirmary officials, 12 by the sanitary officers, and 6 by the registrars. The cases removed to the hospital during the five weeks were 13, including 5 of typhus, 3 of scarlet fever, and 2 of diphtheria; 11 cases remained in the hospital on the 3rd of June.

*Alcester District (Rural).*—Mr. G. N. Fosbrooke, medical officer of health for one of the Midland combined districts, gives in his annual report for this district some very interesting information as to the value of maintaining in a state of preparedness means for isolating infectious cases. During the past year there have been numerous disconnected outbreaks of scarlet fever, and in six of these the disease has been limited to a single family, a result which he explains has been brought about in each case by the immediate removal of the first patient attacked to the Alcester Sanatorium. It appears that during seven years as many as 372 cases of infectious disease have been admitted into his hospital, and also that a large proportion of the patients admitted have been young children, and this although the accommodation provided is admittedly plain, and was, as a matter of fact, never intended to constitute a permanent building. To its management much of this satisfactory result is attributed, and first amongst the conditions of administration which are specified as important is the circumstance that a resident nurse is maintained who always keeps the hospital in such a state of readiness for occupation that a first case of infectious disease can instantly be received from any house attacked, and thus as a rule the spread of infection is at once checked. Mr. Fosbrooke's district includes a population of a very varying character, but it is to a large extent made up of artisans and agricultural labourers, who of all others stand in most need of means of isolation when attacked with such a disease as scarlet fever. The success experienced in his district should, he says, "act as an incentive to all sanitary authorities to provide fever hospitals," a statement in which we thoroughly concur; but we would go further in advising authorities who are hesitating as to the provision of such hospitals to visit Mr. Fosbrooke's district, and learn all the details of his continued success in this matter.

*St. Asaph (Rural).*—Dr. Lloyd-Roberts' report upon the

sanitary condition of this rural sanitary authority during 1881 acquires additional interest from the recent official inspections in Denbighshire by Dr. Parsons, under the direction of the Local Government Board, with a view to the formation of a combined district. The report before us deals with a population of 15,275 persons, and, so far as may be judged from the mortality statistics, the health of the district during last year was fairly satisfactory. The gross death-rate was 18.9 per 1000; this rate is somewhat excessive if full consideration be given to the age-constitution of the population, as evidenced by a birth-rate not exceeding 28.8 per 1000. However, the proportion and rate of zymotic fatality were very low, only 4.8 per cent. of the total deaths being referred to the principal zymotic diseases, equal to a rate not exceeding 0.5 per 1000. The rate of infant mortality was also low during last year. Dr. Lloyd-Roberts appears to have published annual reports for this district since 1875, and this being the case we regret to miss from the present report a summary table of the principal statistics for the six or seven years embraced by these reports. Statistics for a single year relating to so small a population as that of St. Asaph district, standing alone, are of comparatively little value as a test of sanitary condition. In the face of the local sanitary shortcomings pointed out by Dr. Lloyd-Roberts, it is unsatisfactory to learn that "no public works have been carried out during the year." It is evident that much still needs doing in the way of sewerage and improvement of the water-supply, and, with such a report as the present in their hands, the rural sanitary authority of St. Asaph cannot plead ignorance of their urgent public health duties.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5739 births and 2936 deaths were registered during the week ending the 1st inst. The annual death-rate in these towns, which had been equal to 19.0 and 19.1 per 1000 in the two preceding weeks, declined last week to 18.1, and was lower than in any previous week of this year. The lowest rates in these towns last week were 9.5 in Wolverhampton, 12.5 in Huddersfield, 13.1 in Sunderland, 13.3 in Brighton, and 13.5 in Norwich. The rates in the other towns ranged upwards to 22.3 in Liverpool, 23.5 in Bolton, 24.4 in Manchester, and 25.1 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 464, and exceeded by 8 the number returned in the previous week; 135 resulted from whooping-cough, 96 from diarrhoea, 87 from measles, 74 from scarlet fever, 46 from "fever" (principally enteric), 17 from diphtheria, and 9 from small-pox. No deaths from any of these diseases were recorded last week in Norwich, while they caused the highest death-rates in Bolton and Hull. Whooping-cough was proportionally most fatal in Bolton and Bristol; measles, in Huddersfield and Plymouth; scarlet fever, in Hull and Brighton; and "fever" in Portsmouth, Bolton, and Hull. The 17 deaths from diphtheria in the twenty-eight towns included 12 in London and 2 in Liverpool. No death from small-pox was recorded in London, whereas 3 were returned in its suburban districts, 3 in Nottingham, 2 in Salford, and one each in Liverpool, Manchester, Leeds, and Hull. The number of small-pox patients in the metropolitan asylum hospitals, which had steadily declined in the nine preceding weeks from 350 to 242, further fell to 233 on Saturday last; 29 new cases of small-pox were admitted to these hospitals during last week, against 44 in each of the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 200 and 198 in the two previous weeks, rose to 212 last week, and exceeded the corrected weekly average by 11. The causes of 63, or 2.2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Leicester, Bolton, Oldham, and in five other smaller towns, while the proportions of uncertified deaths were largest in Sheffield and Hull.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight large Scotch towns, which had been equal to 20.8 and 22.4 per 1000 in the two preceding weeks, declined again to 21.9 in the week ending the 1st inst.; this rate, however, exceeded by 3.8 the mean rate

last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 100 last week, and showed an increase of 18 upon the number returned in the previous week; they included 32 from diarrhoea, 25 from whooping-cough, 17 from measles, 12 from "fever," 10 from diphtheria, 4 from scarlet fever, and not one from small-pox. The 32 deaths attributed to diarrhoea showed a further slight increase upon recent weekly numbers, and were 5 above the number in the corresponding week of last year; 10 occurred both in Glasgow and Dundee, and 7 in Edinburgh. The 25 fatal cases of whooping-cough also showed a further increase upon recent weekly numbers, and included 16 in Glasgow and 5 in Edinburgh. The deaths from measles, which had been 24 and 7 in the two previous weeks, rose again to 17 last week; 8 occurred in Dundee and 4 in Glasgow. The 12 deaths referred to "fever" also showed an increase, 5 being returned in Perth and 4 in Glasgow. Four of the 10 deaths from diphtheria occurred in Glasgow and 2 in Greenock. Scarlet fever caused 2 deaths in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 105 and 111 in the two preceding weeks, declined to 97 last week, and were one below the number attributed to these diseases in the corresponding week of last year.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 19.3 and 23.2 per 1000 in the two preceding weeks, declined again to 20.7 in the week ending the 1st inst. During the thirteen weeks of last quarter, however, the death-rate in the city averaged 26.8 per 1000, against but 19.5 in London and 20.5 in Edinburgh. The 138 deaths in Dublin last week showed a decline of 17 from the number in the previous week, and included 5 which were referred to diarrhoea, 4 to measles, 4 to "fever," one to diphtheria, and not one either to small-pox, scarlet fever, or whooping-cough. Thus 14 deaths resulted from these principal zymotic diseases, against 10 and 8 in the two preceding weeks; these 8 deaths were equal to an annual rate of 2.1 per 1000, against 3.0 in London and 3.1 in Edinburgh from the same diseases. The 5 deaths attributed to diarrhoea showed a further increase upon recent weekly numbers. The fatal cases of measles were also more numerous; since the beginning of the year no fewer than 551 deaths from this disease have been recorded within the city. The deaths referred to "fever" also showed an increase upon those in the previous week. The causes of 18, or more than 13 per cent., of the deaths in the week were uncertified.

### THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major Thomas William Wright has been granted retired pay, with the honorary rank of Brigade-Surgeon. Surgeon-Major Robert Hyde, from half-pay, to be Surgeon-Major, vice E. McGrath, promoted.

ARTILLERY VOLUNTEERS.—1st Cinque Ports: Edward Alexander White, Gent., B.A., M.D., to be Acting-Surgeon. —1st Northumberland and Sunderland: William Pope Mears, Gent., M.B., to be Acting-Surgeon.

RIFLE VOLUNTEERS.—1st Dorsetshire: Surgeon Henry Tizard, M.D., resigns his commission. —1st Flintshire and Carnarvonshire: Honorary Assistant-Surgeon Thomas Moffat, M.D., resigns his commission.

ADMIRALTY.—Fleet-Surgeon John Rorie has been placed on the Retired List from the 25th instant, with permission to assume the rank and title of Retired Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet. Staff-Surgeon Mark Anthony Harte has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet, with seniority of June 15th, 1882. Fleet-Surgeon William Henry Cruice, to the *President* (additional). Staff-Surgeon Nicholas Thomas Connolly, to the *President* (additional).

THE Princess of Wales has, in sympathy with the recent opening of the new extension building of the Consumption Hospital, Brompton, signified to the Committee her willingness to become a patroness of the institution, and to allow a gallery in the new hospital to be named after her Royal Highness.

## Correspondence.

"Audi alteram partem."

THE AUDITORY METHOD OF DETECTING  
STONE IN THE BLADDER.

To the Editor of THE LANCET.

SIR,—When the microphone was first employed to intensify the note produced in sounding for stone, Mr. Foveaux, then with Messrs. Weiss and Son, suggested the plan of connecting the sound with the ear by means of an india-rubber tube, precisely in the manner just proposed by Mr. Davidson. It was tried by Sir Henry Thompson, by myself, and by one or two others, with the result now described—viz., that of rendering very slight contact with a hard body audible, although the microphone was undoubtedly more powerful in its results. There was this objection, however, to the india-rubber tube—which, by the way, need only be quite small—namely, that it interferes with the delicate handling necessary to perform those movements of light sounding which are alone of any service in searching for a small calculus or fragment. If the tube is thick or heavy, no really delicate exploration with a sound can take place, and no other mode is worth cultivating to be of any service; a fact perhaps not generally estimated at its true value. It is not with the slightest desire to detract from the credit of original idea or of ingenious resource justly due to Mr. Davidson that this is named, but to show that the plan has already been considered, and to a certain extent appreciated. Sounding for small fragments is now a thing of the past. The proceeding is required only to find the original stone, when it is small if possible, and therefore as early as its presence can be verified. The modern aspirator (*vide* THE LANCET, Jan. 7th, 1882, page 2), especially with the latest improvements, reveals, as well as removes, fragments far more certainly than any other instrument, enabling us to complete lithotomy at one sitting; after which it is very rare indeed now to have any further trouble in "searching for a last fragment."

I am, Sir, yours faithfully,

Wimpole-street, W., July, 1882.

G. BUCKSTON BROWN.

## "THE BRAINS OF CRIMINALS."

To the Editor of THE LANCET.

SIR,—In your issue of June 3rd you comment on Professor Benedikt's views on the above subject, and state that according to the *New York Medical Record* I had adduced counter facts and statistics which involve "the collapse of Professor Benedikt's attempt to furnish an anatomical basis for crime." My limited observations scarcely justify such an expression. In the brains of two murderers which I had the opportunity of examining many of the fissures were of the so-called confluent type. I then proceeded to examine the arrangement of the convolutions and sulci in my collection of brains, and found that in sixty-three hemispheres a considerable proportion of the fissures were more or less confluent. My conclusions were as follows:—

1. That a considerable proportion of the brains of hospital patients are of the confluent fissure type.
2. The chief difference to be noted between Professor Benedikt's series of criminals' brains and those which I have gone over, is the somewhat greater number of unions between typical fissures, more particularly between the fissure of Rolando and contiguous ones. Thus in his set of thirty-eight hemispheres, this fissure connected completely or incompletely with the fissure of Sylvius in twenty-four instances; in my series in only ten. In the other fissures the disproportion is not nearly so great.
3. Considering the number of brains of ordinary hospital patients which present in some degree the confluent fissure type, it would seem more reasonable not to assign as yet any special significance to it until we have fuller information about the arrangement of the convolutions in the various races, and until a much larger number of the brains of criminals of all countries have been examined.

I am, Sir, your obedient servant,

WILLIAM OSLER.

Physiological Laboratory, McGill College, Montreal.

June 12th, 1882.

## IRELAND.

(From our own Correspondent.)

In 1866 cholera was brought into Dublin by the removal to one of the city hospitals of a patient from the ship by which he arrived in port. Owing to a belief that a fresh invasion of the same dreaded disease was likely to take place in 1874, a port hospital ship was constructed and placed in the harbour during that year, with a view of intercepting contagious diseases coming from other parts. The Corporation and the North and South Dublin Boards of Guardians wish now to get rid of the expense of keeping up the floating hospital, which has cost upwards of £2000, and accommodated, it is said, only one patient since its establishment. The Dublin Sanitary Association are, however, opposed to its abolition, and believe that a means of intercepting diseases which past experience has shown are introduced from abroad, should not for the sake of a very small outlay be discontinued. They point out, further, that the object of the hospital is not to treat cases once disease has broken out, but to anticipate outbreaks of disease by preventing their introduction on shore.

The "Hudson" prizes of the Adelaide Hospital, Dublin, have this year been awarded to Mr. Austin Nathaniel Cooper (first prize) and Dr. Bradshaw. They were founded by the late Dr. Alfred Hudson, formerly one of the physicians of the hospital, for the express object of encouraging clinical and surgical study amongst advanced students. This is the second occasion these prizes have been awarded. The gentleman who obtained the first prize was also successful in carrying off the first prize in the senior class at the College of Surgeons Medical School this year, consisting of the gold medal and £10.

Dr. James Emerson Reynolds, Professor of Chemistry in the University of Dublin, will, it is announced, continue to hold the chair for another term of seven years.

A death under singular circumstances recently took place near Killarney. A young lad, seventeen years of age, had collected some rushes, and these, with a rope, he suspended on his back. Whilst proceeding over a wire fence six feet high, he got by some means entangled at the top of the paling, and, the rope being applied round his neck, he was unable to extricate himself, and remained suspended, with the rushes at the other side of the fence, until life was extinct.

Mr. W. Thomson's case of ligature of the innominate artery, to which allusion has already been made, still progresses fairly. The deeper sinuses seem to be closed, there is but little suppuration, and every prospect of a successful result to a most important operation.

The question of building a new general hospital for Belfast, to be constructed on the most approved plans and on a site more convenient than that of the Belfast Royal Hospital, has lately been brought before the public. It is alleged that the only general hospital in the town—the Belfast Royal Hospital, with 160 beds—is totally inadequate for a large and prosperous place like Belfast. It is urged that its sanitary arrangements are defective, that the situation is not a desirable one, and, in the interests of the community and the daily increasing importance of the Medical School, that steps should be taken without delay, more especially as the lease under which the Belfast Royal Hospital is held will terminate in a few years. A site in Glanavel-street has been suggested, and as there are two institutions already located there—the Ulster Eye, Ear, and Throat Hospital, and the Hospital for Diseases of the Skin—it is believed they might form wings of the new hospital.

## PARIS.

(From our Special Correspondent.)

THE last bulletin of the Academy of Medicine contains an elaborate report by M. Bouley on the case of hydrophobia which has attracted so much attention lately. The author comes to the conclusion that inasmuch as M. Denis-Dumont neglected to perform any inoculation experiments on dogs with the saliva of his patient, it is impossible to pronounce any opinion as to the nature of the maledy, or to look upon



the result as an authentic instance of the cure of hydrophobia. He thinks, however, that, considering the alarming character of the symptoms, the satisfactory termination of the case must be attributed to the administration of the pilocarpine; and even allowing that the patient was only affected with imaginary rabies, the observation is interesting, and worthy of publication amongst the memoirs of the Academy. At the meeting of the Academy yesterday afternoon, a letter containing some further details concerning this case was read. The writer, M. Chatel, of Valcougtrain, states that Grillet (the patient) had been drinking heavily from Sunday afternoon until Monday morning, and that he was then in a state of complete intoxication. It was in this condition that he suddenly started up and rushed towards the door, exclaiming, "Je suis enragé!" "No, you are not," replied one of the persons present, "only you are drunk." Once outside the house he threw himself on the ground, biting the earth, and also his hands and arms. The bystanders promptly lassoed him, intending to secure his arms, but the noose slipped round his neck, almost strangling him. Guided by the instinct of preservation, Grillet managed to free himself from the rope, and, whilst warning those who approached that he would bite them, he requested that his arms should be tied, and threw off his belt for the purpose. Being then secured, he was taken to the Hôtel Dieu at Caen and placed under the care of M. Denis-Dumont. The sequel is known to your readers. As it now stands, the case would appear to resolve itself into one of acute alcoholic delirium. The antecedents of the patient, and the peculiar form of the delirium, easily account for the error of diagnosis, but it is to be hoped that the lesson will not be lost upon the Academy, and that it will be more chary in future of the sittings it devotes to the discussion of hypothetical communications.

An interesting case of non-hereditary sporadic cretinism was related by Professor Ball. The subject, whose bust was exhibited, is a young man aged thirty, but in appearance almost an infant. He was born in Paris, and has never been exposed to any of those influences which predispose to the disease. Three of his brothers and sisters died of convulsions.

Paris, July 5th, 1882.

## ROYAL COLLEGE OF SURGEONS.

THE annual election of members of the Council took place on Thursday last. The poll was as follows:—

Mr. MARSHALL .....	165, including	5 plumpers.
Mr. H. POWER .....	144	" 3 "
Mr. CROFT .....	103	" 21 "
Mr. A. Baker .....	72	" 10 "
Mr. G. Lawson .....	67	" 9 "
Mr. Macnamara .....	48	" 8 "

Mr. Marshall and Mr. Power are therefore re-elected, and Mr. John Croft replaces Mr. Baker at the Council Board. Two hundred and forty-five Fellows, out of a total of about twelve hundred, recorded their votes.

## MEDICAL NOTES IN PARLIAMENT.

*of various orders and petitions.*

A petition against the Infectious Diseases Notification Bill was presented to the House of Commons from Birkenhead on the 30th ult., and one in favour of the measure was presented from Worcester on Monday. Brighton sent a petition on Monday for the exemption of medical men from carriage duty. Cambridge petitioned in favour of the Irish Bill for the Suppression of Union Officers. On Tuesday a petition came from Farnham against the Lunacy Districts (Scotland) Bill.

The report for 1880 of the Army Medical Department was presented.

Mr. Herbert Gladstone gave notice that he will move for leave to introduce a Bill to dispense with the provisions of the Friendly Societies Act relating to the quinquennial returns of sickness and mortality.

Mr. Round gave notice that he will move for a return showing for each county in England the number and cost of

pauper lunatics, and the expenses and debt upon county asylums.

### Vaccination.

On Monday, Mr. Dillwyn, on behalf of Mr. Hopwood, asked the President of the Local Government Board whether the Board was prepared to advise the public which of the two modes of vaccination now in use was to be preferred—viz, the matter derived from arm-to-arm, or the one with the lymph from the calf recently provided by the Department; and whether it had been shown that tubercle may be transmitted by such lymph.—Mr. Dodson said the Local Government Board, after long experience of vaccination from arm-to-arm, had every confidence in its efficiency. They had not had experience on any large scale of vaccination with lymph direct from the calf, but they believed it to be equally trustworthy. In regard to the second part of the question, the Board were not prepared to offer any advice as to the preference to be given to one form of vaccination over the other.

### Guy's Hospital.

Mr. John Talbot asked the President of the Local Government Board whether he had been able to ascertain the truth as to the small pox patient who was alleged to have gone from Guy's Hospital to the Stockwell Hospital on a public conveyance; and whether, with the view of preventing the spread of disease, he would endeavour to arrange that the authorities of the various metropolitan hospitals should have ready access to the ambulances provided by the Metropolitan Asylums Board, or by the parochial authorities, for the purpose of conveying infectious persons to the hospitals appointed for their reception.—Mr. Dodson replied that he had ascertained that the person referred to came to Guy's Hospital among the crowd of out-patients who resorted there. He was found to be suffering from small-pox, and was advised to leave the out-patient room and apply for admission to a small-pox hospital through the intervention of the parish authorities, and without exposing himself unnecessarily so as to endanger others. He went to Stockwell Hospital on a public conveyance, but that appeared to have been entirely his own act, for which the medical officer at Guy's was in no sense responsible. It was evident that the governing bodies of the London hospitals had at present much difficulty in dealing with these cases when they presented themselves, as they had no accommodation for them; and he (Mr. Dodson) had now under consideration the arrangements which should be adopted for the temporary retention of patients of this class until they could be removed, and for rendering the ambulances of the managers of the Asylums District and the parochial authorities more readily available for their removal.

On Tuesday night Mr. Hicks moved the second reading of the Beer Adulteration Bill, upon which the House was counted out, and the Bill became a "dropped order."

On Wednesday, the second reading of the Criminal Lunatics Bill was further deferred for a week. The Baths and Washhouses Acts Amendment Bill was read a third time and passed. A Bill to amend the Weights and Measures Act was brought in by Major Ross. Mr. Moore's return relating to medical officers on board emigrant ships, which was wrongly stated to have been granted last week, has been "blocked" by Viscount Folkestone.

On Thursday, Mr. Trevelyan announced that Dr. Lyons had been appointed one of the new inspectors of the Dublin convict prisons.

### Sanitary Inspection of the West-end.

Mr. Heneage asked the President of the Local Government Board whether his attention had been called to the numerous cases of typhoid, and other illnesses arising from want of proper precautions in the drainage of houses and stables in the West-end of London; and whether many well-known and experienced medical practitioners and house agents considered that the present want of proper sanitary inspection was owing to the omission of London from the Public Health Act of 1875, and that some Act for the better sanitary supervision of London was urgently required in the interests of the public health.—Mr. Dodson said he had no information respecting the prevalence of typhoid and other diseases in the West-end of London. He did not think that such a condition of things was likely to exist without the sanitary authorities reporting it. Neither these authorities nor their officers had made any

such report. The Board had no jurisdiction in the matter. He was unable to say to what extent the opinion was entertained among the well-known medical practitioners and house agents to whom the hon. member alluded, that the want of adequate sanitary inspection was due to the omission of London from the Public Health Act of 1875. At the same time, he was prepared to admit that the system of sanitary supervision in the metropolis might be placed on a better footing.

## Medical News.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 1st, 3rd, 4th, and 5th inst. :—

Francis H. Knaggs, Thomas Rhodes, Edwin Greenough, George Wilson, and Herbert W. Pilgrim, Edinburgh; Harold B. Shaw, William H. Smart, Francis M. Hale, Thomas E. Hillier, George D. Haviland, Joseph S. Hinnell, and Herbert C. W. Jones, Cambridge; Robert J. B. Howard, McGill College, Toronto; Donald F. Macpherson, New York; John St. L. Clarke, Dublin; George F. A. Da Costa and George Vincent, Aberdeen; Jas. T. Simpson, Ambrose Atkinson, Albert E. A. Pearson, Henry Waite, and George Forden, Leeds; James Lazenby, William J. Ruddock, William M. Yeoman, George R. Hall, and Joseph T. Roberts, Newcastle-on-Tyne College of Medicine; Robt. H. Rains, Joseph A. Tooner, W. Arnold, Herbert L. Williams, Carl Freese, Octavius S. Fisher, Henry A. Marsden, William J. Fern, and John Aspinall, Owens College; George C. Helps and Arthur Bullied, Bristol; Walter J. Reed, Roland J. Riley, and Ernest Maberly, Birmingham; William Evans, Edward P. P. Macloghlin, Robt. C. Owen, and John E. Nevins, Liverpool; Henry D. McCulloch, Calcutta and Glasgow; John A. Fox and George R. McIntosh Pollard, Guy's Hospital; Wm. O. Barnham, J. Calvert, and Hugh Walsham, St. Bartholomew's Hospital; W. Mackonochie and W. R. N. Maloney, St. Mary's Hospital; E. C. Hare, A. H. Fowler, A. W. Webb, and J. D. Hughes, Guy's Hospital; F. Thomas, London Hospital; P. R. Stevens, St. George's Hospital; F. C. Kempter, Westminster Hospital; William B. Yates, J. B. Mann, and J. H. White, Owens College; Arthur G. Laidler, Newcastle-on-Tyne.

**UNIVERSITY OF DUBLIN.**—At a meeting of the Senate held on the 30th ult., the following degrees were conferred :—

**BACHELOR IN SURGERY.**—William Henry Burke, James Chute, James Seymour Carson, George Fredk. Dean, Benjamin Morgan Dockrell, William Francis Law, G. H. Longhead, Chaworth Louis Nolan, William Fletcher Moore Patton, George Blakeley Russell, John N. Seymour, Travers Robert Montgomery Smith.

**LICENTIATE IN MEDICINE.**—Wm. Hamilton Allen.

**BACHELOR IN MEDICINE.**—Thomas Robert Bradshaw, William Henry Burke, Wm. Halloran Bennett, Joseph Bulfin, William Alexander Carte, James Chute, Daniel Crowe, James Seymour Carson, George Frederick Dean, Benjamin Morgan Dockrell, George Lloyd-Appjohn, G. H. Longhead, Vicars H. Fisher, Robert Howard Fienling, William Francis Law, Michael McHugh, Charles D. Moutray, Charles St. Stephen Richard Nason, Chaworth Louis Nolan, Alfred J. Rice Oxley, Henry William Peard, William Fletcher Moore Patton, George Blakeley Russell, John N. Seymour.

**DOCTOR IN MEDICINE.**—Thomas R. Bradshaw, Frederick Charles Berry, Abraham Cohen, William Lovel Hunter, Henry Malet, Charles Highatt Trench.

**MASTER IN OBSTETRICS.**—Benjamin Morgan Dockrell.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on June 29th :—

Aslett, George Stratton, Oaklands, near Carmarthen.  
Beever, Hugh Reeve, King's College Chambers, Strand.  
Chadwick, Chas. Montague, Philpot-street, Commercial-road.  
Edwards, George Frederick, Derby.  
Fenwick, Edward Henry, Harley-street.  
Fink, George Herbert, Regent's Park College.  
Lynam, Robert Garner, the Quarry, Stoke-on-Trent.  
Penhall, William, Farnival's-inn.  
Milton, Herbert Meyrick Nelson, Richmond-terrace, Clapham.

The following gentlemen also on the same day passed the Primary Professional Examination :—

John Charles Smith, Charing-cross Hospital; Frederick Winstanley Spiller, Birmingham.

At the recent examination for the Prizes in Botany, given

annually to medical students by the Society of Apothecaries, the successful candidates were—

1st.—John Barker Smith, St. Thomas's Hospital. Gold Medal.  
2nd.—Charles Percival Crouch, St. Bartholomew's Hospital. Silver Medal and Books.

[The name "Percy" in the last list should have been "Perez."]

A COMMITTEE has been appointed to revise the rules of Addenbrooke's Hospital, Cambridge.

THE Duke of Cambridge will preside at the distribution of prizes at the London Hospital and Medical College on Tuesday the 18th inst.

A VERY successful dramatic matinee was held in Willis's Rooms on Tuesday last in aid of the funds of the Hospital for Children and Women, Waterloo-road.

THE Sultan of Turkey has given a site in Jerusalem for the purpose of erecting a hospice and ophthalmic dispensary under the auspices of the English branch of the Order of St. John.

THERE are forty-four cases of typhoid fever in the Brisbane Hospital at the present time (says the *Melbourne Argus* of May 22nd); five deaths have occurred within the last few days.

THE final tie for the Inter-Hospital Challenge Cup was played at Kennington Oval on Monday and Tuesday, the 3rd and 4th inst., between St. Bartholomew's and King's College, and was won by the latter.

**SANITARY INSTITUTE OF GREAT BRITAIN.**—At the anniversary meeting of the Institute, to be held in the theatre of the Royal Institution, Albemarle-street, on Thursday, July 13th, at 3 P.M., Edward C. Robins, F.R.S.A., F.R.I.B.A., will deliver an address on "The Work of the Sanitary Institute of Great Britain."

**METROPOLITAN SEWAGE DISCHARGE COMMISSION.** This commission met on the 30th ult., at 20, Great George-street, Westminster. There were present Lord Bramwell, F.R.S., Chairman; Sir John Coode; Professor Williamson, F.R.S.; Dr. De Chaumont, F.R.S.; Dr. Stevenson; Mr. Abernethy; and Dr. Pole, F.R.S., Secretary.

THE new infirmary which has been erected at Hope, near Eccles, for the accommodation of the sick poor of the Salford Union, will, it is expected, be opened towards the close of the present month, or early in August. Dr. Conry, the present resident medical officer at the workhouse, has been appointed as the first medical superintendent.

AT Lerwick, last week, the deaths were recorded of three very old women, at the ages of 94, 99, and 100. The centenarian was Mrs. Coutts, of Arcus, who was born in Shetland, and came to the town of Lerwick when she was only two years old. Although feeble in body of late years, her mental faculties kept wonderfully clear to the end.

ON DIT, a resident in Vevey, Switzerland, who died lately, left a will bequeathing the whole of his property, of which he was supposed to possess a large amount, to the "local hospital of the town." There being two local medical charities, the Town Hospital and the Hospice de Samaritan, the aid of the law was sought to decide between them. After considerable outlay in legal expenses, the dispute was abruptly settled by the discovery that the deceased had indulged in an unseasonable hoax, and that in fact he had not a penny to bequeath.

**THE PARKES MUSEUM.**—The first meeting of the Council of the Parkes Museum since its incorporation was held on June 29th, Captain Douglas Galton, F.R.S., in the chair, when the following officers were elected unanimously :—Treasurer: Professor Berkeley Hill, M.B. Honorary Solicitor: Mr. Basil Field. Secretary: Mr. Mark H. Judge, A.R.I.B.A. It was unanimously decided to remove the collection of articles at present housed in University College to premises more suited for the purposes of display and instruction, and a Building Committee was appointed to carry out this resolution.

**BOYLSTON MEDICAL PRIZE QUESTIONS.**—The following are the questions proposed for 1883:—1. Measles; German Measles; and their counterfeits. 2. The Differential Diagnosis of Abdominal Tumours, especially those connected with the Genito-urinary Organs. The following are the questions proposed for 1884:—1. Aseptic Agencies and Cleanliness in Wounds. To what exactly are their Good Results to be attributed? An Experimental Inquiry. 2. The alleged recent Reappearance of Intermittent Fever in New England; its History, and the Pathology of the Disease.

**PRESENTATIONS.**—On Wednesday, July 5th, a committee that had been formed among the friends of Dr. Langdon Down's patients at Normansfield, presented him with an admirably executed bust of himself in marble, by Mr. J. Sherwood Westmacott, to mark their great appreciation of the devoted care and skill their relatives had received at his hands. — Dr. J. P. Harper, late of Windsor, has, on his removal to London, been presented by his former neighbours with an ornolu casket containing a purse with 250 guineas, accompanied by an illuminated address on vellum. — Dr. Kirkwood of Largs has received a very handsome and flattering testimonial from his friends and neighbours on the occasion of his retirement from practice on account of infirm health. The presentation consisted of a silver tea and coffee service and a cheque for £1435.

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

**ASHTON, C. E., M.R.C.S.,** has been appointed Resident Assistant at the Wolverhampton and Staffordshire General Hospital.

**CURRIE, O. J., M.R.C.S.,** has been appointed House-Physician to Guy's Hospital.

**DAY, T. M., M.R.C.S., L.R.C.P.,** has been appointed House-Physician to Guy's Hospital.

**GRABHAM, Dr. G. W.,** Resident Physician and Superintendent of the Asylum for Idiots, Earlswood, has been appointed Inspector of Lunatic Asylums in New Zealand.

**HEHNER, OTTO, F.I.C., F.C.S.,** has been appointed Lecturer on Practical Chemistry at Westminster Hospital Medical School, jointly with Dr. Dupré, F.R.S.

**KNIGHTS, Mr. WEST,** has been reappointed Public Analyst for the County of Cambridge.

**LOGAN, J. R., M.B., C.M.Ed.,** has been appointed Junior House-Surgeon to the Northern Hospital, Liverpool, vice Wm. Y. Orr, promoted.

**NEWMHAM, W. H. C., B.A.Cantab., M.R.C.S.,** has been appointed House-Surgeon to Guy's Hospital. Also House-Surgeon to the Evelina Hospital for Children.

**ORR, Wm. Y., M.B.Ed., M.R.C.S.,** has been appointed House-Physician to the Northern Hospital, Liverpool, vice W. R. Parker, M.B., resigned.

**PEARSE, FRED. EDW., M.D.St. And., M.R.C.P.Ed., M.R.C.S.,** has been appointed Medical Officer to the No. 1 District of the Freme Union.

**PERKS, R. H., M.R.C.S., L.R.C.P.,** has been appointed House-Surgeon to Guy's Hospital.

**PILKINGTON, H. OLDFIELD, M.R.C.S., L.S.A.Lond.,** has been re-appointed Medical Officer of Health for the Preston Urban Sanitary District.

**POCOCK, F. ERNEST, M.D.,** has been appointed Surgeon to the Kensington District of the Gas-light and Coke Company, vice T. S. Gell, M.D., resigned.

**POPE, PERCY, M.R.C.S., L.R.C.P.Ed.,** has been appointed Poor-law Medical Officer to the Weald District, Hendon Union, vice J. R. Pope, M.R.C.S., L.S.A.Lond., deceased.

**PRICE, J. A. P., B.A., M.B.Oxon., M.R.C.S.,** has been appointed House-Physician to Guy's Hospital.

**RYLEY, J. BRESFORD, M.D.,** has been appointed Consulting Physician to the Great Eastern Railway Provident Society.

**SLATER, DRUCE J., L.S.A.Lond.,** has been appointed Resident Clinical Assistant to the East London Hospital for Children and Dispensary for Women, Shadwell, E.

**STEPHENS, L. E. W., M.R.C.S., L.S.A.Lond.,** has been appointed House-Surgeon to Guy's Hospital.

**STONDS, CHARTERS J., M.S., F.R.C.S.E.,** has been appointed Surgeon to Out-patients to the Evelina Hospital for Sick Children.

**STONDS, CROFT G., M.R.C.S., L.S.A.Lond.,** has been appointed Medical Officer to the Earl Soham District of the Plumrosegate Union.

**THOMSON, T. P., M.R.C.S.,** has been appointed Assistant Medical Officer at the Workhouse of the Leeds Union, vice Richardson, resigned.

**WHITE, T. BONSER, L.R.C.P.Ed., L.R.C.S.Ed.,** has been appointed Assistant Resident Medical Officer at the Workhouse of the Bolton Union, vice Barr, resigned.

## Births, Marriages, and Deaths.

### BIRTHS.

**BATEMAN.**—On the 5th inst., at Whitechurch, Oxon., the wife of Francis Bateman, M.B.Lond., of a daughter.

**CARVER.**—On the 2nd inst., at Fairlawn, Fulham, the wife of E. J. Carver, of a son.

**CONSTABLE.**—On the 27th ult., at Kennington-park-road, S.E., the wife of J. J. C. Constable, M.D., of a daughter.

**MORSE.**—On the 23rd ult., at Prince of Wales-road, Norwich, the wife of Thomas Herbert Morse, M.R.C.S., L.R.C.P., of a daughter.

**SEDGWICK.**—On the 2nd inst., at Park-place, Upper Baker-street, the wife of Wm. Sedgwick, M.R.C.S., of a daughter.

**SMITH.**—On April 19th, at Yarra-street, Geelong, Victoria, the wife of S. Maberly Smith, of a son.

### MARRIAGES.

**CADELL-BOILEAU.**—On the 21st ult., at St. John's Church, Notting-hill, Francis Cadell, M.B., F.R.C.S.Ed., to Mary Hamilton, younger daughter of the late Major-General A. Henry E. Boileau, Bengal Engineers.

**CASKIE-MACDONALD.**—On the 29th ult., at Islington Presby-terian Church, John Boyd Caskie, M.D.Glas., to Hannah, only daughter of the late Frederick Macdonald, of Devonshire-street, W.C.

**COOPER-FLLOWER.**—On the 4th inst., at St. George's Church, Hanover-square, by the Rev. William Heath Marsh, Rector of Lammas, Norfolk (uncle of the bridegroom), Alfred Cooper, Esq., F.R.C.S., to Lady Agnes Flower, widow of the late Herbert Flower, Esq., and youngest daughter of the late Earl of Fife, K.T.

**JOHNSON-BRAND.**—On the 20th ult., at the Parish Church of Great Cornard, Suffolk, James Bovell Johnson, M.D., second son of the late Rev. W. A. Johnson, formerly Vicar of Weston, Ontario, Canada, to Elizabeth Olive, only daughter of the late Oliver Brand, Esq., of Great Cornard.

**LANGDON-D'AUTEZ.**—On the 16th ult., at the Cathedral Church of the Holy Trinity, Gibraltar, Surgeon J. S. Langdon, Army Medical Department, to Leontine, second daughter of M. G. D'Autez, of Gibraltar.

**MASSEY-MORRIS.**—On the 28th ult., at the Parish Church, Croydon, Hugh Tiley Massey, L.R.C.P., elder son of Albert Massey, M.D., of Camberwell, to Eliza Jessie, younger daughter of William Henry Morris, of South Norwood.

**MORTIMER-CROWE.**—On the 30th ult., at Trinity Church, Cleygate, Esner, John Desmond Mortimer, M.R.C.S., L.S.A.Lond., to Katie, youngest daughter of the late Alexander Crowe, Esq., of Woodcote-grove, Epsom.

### DEATHS.

**BALL.**—On the 2nd inst., at Bruce-grove, Tottenham, Tertius Ball, M.D., Retired Surgeon-Major, Army Medical Department, in his 56th year.

**BREW.**—On the 29th ult., at Pontrhydryn, near Newport, Mon., Charles Adams Brew, M.R.C.S., in his 63rd year.

**KERSWILL.**—On the 27th ult., at St. Germans, Cornwall, Robert Kerswill, M.R.C.S., aged 74.

**KNAGGS.**—On the 3rd inst., at Stratford Lodge, Folkestone, Sydney Henry Knaggs, M.R.C.S., late of New Hampton, Middlesex, in his 49th year.

**LEWIS.**—On the 25th ult., H. Harman D. Lewis, M.R.C.S., L.S.A.Lond., aged 54.

**LING.**—On the 28th ult., at Abbotsford, Torquay, Edward Clayton Ling, M.R.C.S., L.S.A.Lond., late of Darfield House, Aldeburgh, Suffolk.

**NEWINGTON.**—On the 3rd inst., Samuel Newington, M.A., M.R.C.P., of Ridgeway, Titchhurst, aged 83.

**SEARLE.**—On the 1st inst., at her residence, Donyngs Villa, Redhill, Jane Mary Searle, widow of Henry Smith Searle, F.R.C.S., formerly of Kennington, aged 76.

**VALPY.**—On the 4th inst., William Henry Valpy, M.D., second son of the Rev. F. E. J. Valpy, M.A., late Rector of Garveston, Norfolk, aged 53.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, July 6th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. in Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
June 30	30.11	E.	60	58	82	63	52	..	Overcast
July 1	30.11	E.	56	52	112	72	46	..	Bright
" 2	30.10	W.	68	65	95	75	57	..	Hazy
" 3	30.09	N.W.	65	60	116	79	55	..	Bright
" 4	29.85	W.	60	56	97	66	56	..	Overcast
" 5	29.46	W.	63	58	112	68	54	..	Cloudy
" 6	29.30	W.	60	56	..	64	52	28	Cloudy

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

## RUSTY SURGICAL INSTRUMENTS.

IN a highly sensational and unduly coloured sketch, a writer has described in *Knowledge* a case of ascites, to which some years ago he called in "the great master of British surgery, Sir Rusty Poynts," who, on being requested to tap the patient, produced for the purpose a trocar with dull point, rusty sides, and an ill-fitting cannula, and, in spite of protest, insisted on using it, pleading, "It don't signify, you know." We cannot pretend to dispute the bare facts of the case, but we may fearlessly assert that no "master of British surgery," great or small, would to-day be found who would perpetrate such a cruelty. But yet there may be quite room even now for a word of warning as to the importance not only of absolutely clean, but of very sharp-cutting instruments. Where anaesthesia is not employed the amount of pain saved by using a knife of the greatest attainable keenness is very great, while in all cases alike, attention to this particular is one of the requisites of the successful surgeon who would obtain speedy healing of wounds. It is not an unknown thing to see two or even more incisions made before skin is divided, and the result must of necessity be a partially bruised and irregular edge, the healing of which is in exactly that measure interfered with.

*M.R. should apply to Mr. Gray, Marine Secretary to the Board of Trade.*

*Ignotus.*—We should see no objection to a circular barely intimating the facts.

## "DEATH UNDER CHLOROFORM."

To the Editor of THE LANCET.

SIR,—As the junior assistant administrator of anaesthetics at St. Bartholomew's Hospital, I must take exception to the statement in your article that "the shadow of the responsibility (with regard to the death) never leaves the administrator." All I can say is that I feel no responsibility whatever. I am fully aware that the chloroform was administered with every care, and that everything was done in the endeavour to resuscitate the patient. Again, I know that there are cases, though these are happily very few, which will succumb to the chloroform, no matter how administered, and if I have had to administer the chloroform to one of these, it is not my fault, for they cannot be distinguished during life.

With regard to the question of local anaesthesia, all I can say is that if I had an epithelioma of my lip, I would not have it removed without chloroform, for if you freeze the part the pain on thawing is worse than that of the operation, and the risk of hæmorrhage is greatly increased. In conclusion, let me inform you that my name is not Mr. J. S. Streat-ham, but yours truly, J. LIONEL STRETTON, L.R.C.P. Lond., &c. St. Bartholomew's Hospital, E.C., July 1st, 1882.

## "COMMISSIONS" IN DENTISTRY.

A CORRESPONDENT sends us a remarkable letter, written by a dentist to him, offering him a commission on patients introduced, the proportion to be 15 per cent. where the fees are below £5, 20 per cent. between £5 and £20, and 25 per cent. above £20! What shall we hear of next! We would remind the author of this proposal that the General Medical Council has power to erase the name of a person from the Dentists' Register, and that the Council has awakened to some sense of its responsibilities in regard to the behaviour of registered persons.

## "RED SOCKS AND STOCKINGS."

To the Editor of THE LANCET.

SIR,—It having fallen to my lot to analyse several socks and stockings of a red colour, and being supplied with the information that they have caused great irritation to the feet and legs of the wearers, causing small pustules to arise and the skin to subsequently exfoliate, I thought it would be interesting to members of the medical profession to know that the cause of irritation is apparently the tin salt which is used as a mordant in fixing the dye. I succeeded in obtaining as much as 22.3 grains of this metal in the form of the dioxide, and as each time the articles are washed the tin salt is rendered more easily soluble, the acid excretions from the feet attack the tin oxide, thus forming an irritating fluid.

I am, Sir, yours truly,

London, July 8rd, 1882.

J. WOODLAND, F.C.S., F.L.S., &amp;c.

*Incredulous.*—1. Certain persons, owing to an idiosyncrasy, real or fancied, are unable to eat beef without suffering from indigestion. In some rarer instances mutton produces the same effect.—2. Honey from certain districts occasionally has poisonous effects, but we are not aware of its ever giving rise to the symptoms named. Some persons are unable to eat celery; it may occasion nettle rash.—3. No, very small doses may induce salivation in individuals extremely susceptible to the influence of the drug.—4. Atrophy attended with the symptoms mentioned would point to diabetes.

*A Workhouse Medical Officer.*—The question is a new one to us, and entirely a legal one. Our correspondent should raise it in the form of an objection to attend an Oddfellow as a pauper.

## "DISPLACEMENTS OF THE UTERUS."

To the Editor of THE LANCET.

SIR,—I have read your article in THE LANCET of Saturday last on Dr. Vedeler's contribution to the *Archiv für Gynäkologie* with some degree of amazement. Are we to believe that in only 15 per cent. of the whole female population is the uterus in its normal position?

I am, Sir, yours, &amp;c.,

J. WOODHOUSE.

Hertford, June 29th, 1882.

\*. In 920 healthy nulliparous women complaining of no uterine symptoms, Vedeler found the uterus in the so-called "normal position" in 8 per cent., anteverted or anteфлекed in 78.7 per cent., and retroverted or retroflexed in 13.3 per cent. The natural inference is that the term "normal position" as used at present is a misnomer, and that the uterus in health may occupy several positions, most of which are now and have been for some years regarded as displacements.—ED. L.

*Italy.*—We must refer our correspondent to a very good statement of the facts in "Medical Education and Practice," by Herbert James Hardwicke, M.D., published by Churchill, London.

*Mr. Ambrose Tomlinson.*—We are not aware that French practitioners deny the antiseptic and antifebrile properties of salicylic acid. Certainly English practitioners do not.

## CORRIGENDA.

To the Editor of THE LANCET.

SIR,—Allow me to correct the following errata in my paper on the Results of Amputations, &c., in the Glasgow Royal Infirmary. Under "primary amputations" the deaths are 99, instead of 98; mortality per cent., 32.2; and at the foot of the column under the same heading the total percentage is 32.2, instead of 37.3. Your attention to this will oblige, yours truly, M. THOMAS.

Glasgow, July 1st, 1882.

*Enquirens.*—We know of no other means than by a charge before a magistrate of using a false title under the Medical Act—i.e., a title not warranted by the nature of the diploma.

## PROVISION AGAINST SICKNESS BY MEDICAL MEN.

To the Editor of THE LANCET.

SIR,—Can any of your readers favour me with the name and address of a first-class benefit association from which, in consideration of a monthly or annual payment, a medical man would receive compensation when laid aside by sickness or disablement from accident?

I am, Sir, yours, &amp;c.,

July 5th, 1882.

PROVIDENT

## MILITIA SURGEONS.

To the Editor of THE LANCET.

SIR,—In your journal of last week, in the Parliamentary news, there appeared the following reply of Mr. Childers to a question addressed to him by Mr. O'Shaugnessy:—"In reply to my hon. and learned friend, I have to state that until 1829 militia surgeons were members of the permanent staff, and, like other officers of that staff, entitled to pensions on reduction of the force, or on retirement through age or infirmity. But no militia surgeon appointed since 1829—that is to say, during the last fifty-three years—has been entitled to a retiring allowance. Her Majesty always had the power to decide at what age militia officers should cease to serve, and in 1872 this age was fixed at sixty, although retirement was not enforced in every case. In 1881 it was decided that at sixty-five all militia surgeons must retire, this being a boon to them compared with other militia officers."

I am surprised that Mr. Childers should have fallen back upon an Act of Parliament that has no bearing on the case. If it was necessary that militia surgeons should be on the permanent staff to entitle them to pensions, how was it that ensigns, lieutenants, assistant-surgeons, or, as they were then called, surgeons, mates, and paymasters, who were never on the permanent staff, received pensions varying from 2s. 6d. to 5s. a day?

It has been shown in repeated statements addressed to Mr. Childers, and also in the public journals, that the Act of 1829 contained no such proviso, nor was it repealed at that date, as was erroneously stated by Mr. Hardy, but was in force, and continued by succeeding Acts of 10th George IV., and as lately as 31st, 32nd Vict. The words in those Acts were as follows:—"All militia surgeons who shall have served for twenty years in the militia, and who shall be retired from age or infirmities, shall be entitled to an allowance of 6s. a day." Where, then, has Mr. Childers any grounds for saying it was necessary that they should be on the permanent staff? The Act of 54 Geo. III., sec. 17, enacts that "all surgeons of militia were, after thirty years' service, or becoming unfit for duty, to be entitled to a pension of 3s. a day." This was when the pay of surgeons was only 6s. a day. If pensions were not admissible for militia surgeons, how was it as lately as 1854 Lord Panmure, then Secretary for War, issued a circular granting half-pay under certain conditions to militia surgeons? How, then, can Mr. Childers state that for the last fifty-three years militia surgeons were not entitled to pensions?

If Mr. Childers' contention be correct, and the militia surgeons are wrong in their interpretation of these Acts, why does he refuse to allow an inquiry into the case? I am aware that the opinion of three eminent counsel has been taken, and they are confident as to the correctness of the claims of the militia surgeons. I am perfectly aware that any minister if he chooses can act in an arbitrary manner and refuse to grant a hearing, but it is not equitable or in accordance with common justice, especially as any legal action cannot be taken against the Government, so that all redress is denied us, and the old saying was never more applicable than in this case, that "might overcomes right." We only ask for a committee or Royal Commission before whom our legal representative may be heard, and if we fail to prove our case, and that Mr. Childers' view and interpretation of the Acts be right, we must bow to the inevitable; or we desire that an amicable suit may be allowed to be instituted in one of the law courts, and we will rest satisfied with its decision. It is always a sign of weakness or arbitrary conduct when in private affairs one refuses to come to an amicable arrangement such as arbitration, and I do trust Mr. Childers will see the equity and justice of granting us one or other of these requests.

Mr. Childers saying it was a boon that was conferred on us by allowing militia surgeons to serve until they were sixty-five years of age is simply an absurdity, and adding insult to injury. I cannot see wherein the boon exists. Surely that cannot be called a boon which takes from a man the whole or larger portion of his income, casts him adrift at a time when he requires it most, and when he is unable to obtain any other appointment or practice.

Mr. Childers may be right when he says Her Majesty can decide when and at what age militia officers should retire, but I cannot believe Her Majesty would, if she were made acquainted with the fact, sanction turning adrift, and in some cases penniless, servants who had rendered her faithful and loyal services. The order of 1872 to which Mr. Childers refers was, as I remember, applicable only to field officers, and not a word was said about surgeons, whose appointments, under their commissions from the Lord Lieutenants, were for life, or so long as they could discharge their duties efficiently. It must be remembered that field officers, meaning thereby colonels and majors, were men of rank and position, and with ample private means, to whom the loss of twenty-seven days' training pay could have been a matter of no consideration or entailing any loss. In the case of militia surgeons—dependent in many cases on the emoluments of their appointment, the greater number of the older surgeons to whom this harsh rule applies had sacrificed their private practices to accompany their regiments when embodied, many of them serving abroad.—It certainly appears to me to be an act of the greatest cruelty to cast them adrift at sixty-five years of age without any provision whatever.

I cannot believe that any minister when he has been made acquainted with the above facts would refuse to reconsider his decision, based, as it is, on erroneous premises; and I feel confident that when the public and the House of Commons are made acquainted (as the militia surgeons must they shall be) with the facts, as set forth in our petition, and the

several documents published and distributed among the members, they will at once see the justice of recognising our claims.

I would also draw attention to the erroneous statements set forth in Mr. Bannerman's letter to the chairman of the Parliamentary Committee of the British Medical Association, wherein he states that the Act 5th Geo. IV. and all other militia Acts were only in force a year. It has been pointed out repeatedly to Mr. Childers that those Acts, though annual, were continued from year to year by the Expiring Acts Continuance Bills, and the Act of 5th Geo. IV. was only repealed in 1873, although Mr. Hardy informed a deputation that waited on him early in 1873 that this Act was repealed in 1829-30. No doubt he was erroneously informed. If I remember right, Mr. Childers (then out of office) formed one of this deputation. The other Acts under which we consider we are entitled to pension were not repealed until 1876, the year when the militia ceased virtually to be a militia, but passed under the authority of the crown, and became part and parcel of the army, when the militia surgeons accepted service under the Warrant of 1876, and joined the departmental list, they were assured that by so doing they did not forfeit any previous right or claims they possessed, one of these being the right to continue in the service for life, or so long as they could officially discharge their duties, and when retired, from age or infirmities, a right to a pension of 6s. a day. They were never informed when joining the departmental list that there was a limit of age at which they would be forced to retire, otherwise none of them would have accepted service on those conditions. In 1880 the militia regulations stated that those regiments who had medical officers attached to them would retain their services until vacancies occurred, which evidently implied that such vacancies should be the result of death or retirement from age or infirmities, as laid down by the several Acts above quoted. It was not until Jan., 1881, this arbitrary order came out compelling us to retire at sixty-five. Surely here is a clear case of breach of faith.

I am, Sir, yours, &c.,

A SURGEON MAJOR OF OVER 30 YEARS' SERVICE  
COMPELLED TO RETIRE WITHOUT COM-  
PENSATION OR PENSION.

July 1st, 1882.

To the Editor of THE LANCET.

SIR,—After serving for twenty-two years as surgeon of the Royal Wiltshire Militia, with the rank (relative) of major, simply because I did not enter into the Militia Medical Department in 1876, the War Office authorities have reduced me to the relative rank of a captain. In 1859 militia surgeons, at the time line surgeons had the relative rank of field officer conferred on them, had the same rank granted them. This was done by an order of the then Secretary for War, General Peel. In my own regiment this circular has been destroyed, and I cannot find, from inquiries I have made of a few militia surgeons, that the circular is still in existence in their regimental records.

Will you allow me to ask present or late surgeons of militia if they would kindly make inquiries, and, if successful, send either to you direct or to me a certified copy of the circular of 1859 granting field officers rank to militia surgeons?—I am, Sir, yours faithfully,

Derizes, June 28th, 1882.

J. J. NICHOLLS, M.D.

A Student has not enclosed his card.

Mr. Mathews.—We cannot assist our correspondent.

Dr. John Meredith.—The paper is marked for insertion.

### "TREATMENT OF HÆMORRHOIDS BY CRUSHING."

To the Editor of THE LANCET.

SIR,—With reference to the remarks of M. C. Chassaingue in your issue of this date, I wish to state that the method of operating to which he refers—namely, the "écraseur de Chassaingue," differs most materially from the "treatment by crushing" with my instrument, with which, however, he seems to be unacquainted. He appears to be unmindful of the fact that the "écraseur de Chassaingue" is almost, if not entirely, obsolete, at all events in England, and is now very rarely resorted to in cases of this kind; indeed, no mention is even made of it in most of the great standard works on surgery.

Under these circumstances your correspondent's concluding remark that "all that has been attempted since to modify his (M. Chassaingue's) method has led to a deterioration, never to an improvement," cannot apply to either Mr. Pollock or myself, though it appears that "the wish is father to the thought."—I am, Sir, yours truly,

Baron's-court, July 1st, 1882.

R. FITZROY BENHAM.

### SYPHON BOTTLES.

To the Editor of THE LANCET.

SIR,—Have any of your readers ever noticed symptoms of lead poisoning caused by drinking freely of soda and potash-water out of the large siphon bottles? Has anyone ever tested these waters for lead, and with what result? I think this is a most important subject, and one that public attention should be called to at this season of the year, when they are so freely consumed. Also, is it not possible that these bottles may be the means of conveying scarlet fever and other infectious diseases, as we have no idea where the bottles were a few days before they were supplied to us. Cattle-trucks are disinfected, are not human beings equally entitled to protection? I should be pleased to hear the opinions of my medical brethren.

I am, Sir, yours, &c.,

June 27th, 1882.

M.D.



*Newcastle Daily Journal, Medical Temperance Journal, Philanthropist, Melbourne Argus, Montrose Review, York Herald, Capel Court Monthly Journal, Kent Messenger, Freeman's Journal, &c., have been received.*

**ROYAL FREE HOSPITAL.—Operations, 2 P.M.**

## Clinical Lecture

ON A CASE OF

## EXCISION OF THE UTERUS BY ABDOMINAL SECTION.

By ANDREW CLARK, F.R.C.S., &amp;C.,

ASSISTANT-SURGEON TO THE MIDDLESEX HOSPITAL, AND LECTURER ON PRACTICAL SURGERY.

GENTLEMEN,—On the 29th of September last there was admitted into the hospital L. D—, a thin, care-worn Pole, forty-two years of age, and understanding very little English. On this account a good deal of difficulty was experienced in eliciting the particulars of her case. She came because of a rapidly increasing abdominal enlargement, and gave the following history. Had been married twenty-two years; had never been pregnant; catamenia regular from the time they commenced, the date of which she does not remember, until three years after marriage, when they ceased altogether for nine or ten years; they then recommenced, and have been quite regular ever since. She has never had an attack of menorrhagia, and can give no reason for the cessation and recommencement of the menses. She has not been a strong woman, but has never been laid up with any illness, excepting five years ago, when she was for a short time in the London Hospital for a pain in her left side, with some slight enlargement in the iliac region. The pain was cured, but the lump remained, giving her little or no trouble. She can give us no information as to her family history. With regard to her present illness, she says that in January of last year she observed her abdomen was increasing in size, and since July the increase had been more rapid; it was unattended with pain till a few weeks ago, but lately she had been subject to occasional attacks of pain in her left side. The size and weight of the abdomen rendered her life miserable and prevented her moving about; she therefore sought medical advice.

*State on admission.*—Abdomen presents a globular tumour projecting forwards, having the appearance of a uterus containing a foetus at nearly full term, rather more prominent on left side than right, and as patient lies on her back considerable bulging of left flank. The skin is stretched and tense all over the belly, but the umbilicus is normal. There is no tenderness except in the left iliac region. Tumour smooth, yielding, and elastic. No wave of fluid can be felt from one side of abdomen to the other, but there is fluctuation to be felt here and there about the tumour. The whole tumour can be moved freely in the belly, and the highest part is about two inches from the sternum. The percussion note on the front of the abdomen is uniformly dull up to the top of the tumour, the dullness extending laterally on each side rather beyond a line drawn vertically upwards from the iliac crest to the twelfth rib. Both flanks are tympanitic; the extent of the area of resonance depends on the position of the patient, but in any position the note in the extreme flanks is perfectly clear. Girth of abdomen at umbilicus thirty-four inches. Vaginal examination: Os uteri soft, and in normal position, tumour moves with uterus and appears to be part of it; uterine sound goes in a quarter of an inch beyond normal distance, giving a good deal of pain. Putting the patient on the right side and examining with the left hand the tumour appears to be isolated from the uterus.

A note made on Oct. 17th says there is no material change except that the size of the abdomen has increased to thirty-six inches and a half at the umbilicus; menses ceased to-day. Area of dullness found very variable, rarely two days alike. Patient's general appearance has improved, she is stouter and in better spirits, the condition of urine normal, and all the functions of the body properly performed. I took the case to be one of ovarian tumour more or less solid, and decided on removing it by abdominal section, particularly, as owing to the ease with which it could be moved in the abdomen, and there being no history of previous attacks of peritonitis, I believed it to be free from adhesions.

Accordingly, at 9 A.M. on October 24th, the carbolic spray No. 3072

being used, the patient was anaesthetised with a mixture of chloroform and ether, and a small incision made in the middle line to expose the tumour. A trocar was introduced and nothing but blood came out; the incision was then extended upwards above the umbilicus, and downwards to the length of nine inches. The bleeding in the abdominal wall, which was very little, was stopped by the application of the torsion-pressure forceps, and the tumour being quite free from adhesions was easily drawn out of the wound. It turned out to be a solid tumour of the uterus. There were a few small cysts in the left ovary, and the right was quite normal. I separated the ovaries and removed them after tying their pedicles with carbolised silk, and returning them; a clamp was then put upon the neck of the uterus, and it was cut off with a scalpel about an inch above. The peritoneal cavity was then carefully cleansed with warm carbolised sponges (at this point in the operation the steam spray ceased to act), and the edges of the wound brought accurately together with seven deep and two superficial silk sutures, the pedicle being fixed immediately above the pubes, which was easily done without any undue dragging; the incision was dressed with boracic charpie and carbolised gauze, and the stump covered with lint dipped in carbolised oil. The patient was then tightly bound with a flannel bandage and removed to bed, having been under anaesthesia one hour and forty minutes. I saw her about two o'clock and found her very comfortable. She had recently complained of a little pain, but obtained relief after a catheter had been passed and about three ounces of urine drawn off. A note made at 9 P.M. says the patient is perspiring freely, has vomited two ounces of clear fluid, and has had a little pain in the abdomen. Temperature 99.8°. Ordered an enema with fifteen minims of sedative solution of opium. Next morning I found patient very comfortable, having slept three hours during the night after a second enema; had vomited two ounces; catheter passed once, and five ounces of urine removed. — 26th (third day): Continues in a most satisfactory condition; ordered small quantities of jelly beef-tea, cold. Wound dressed to-day under the spray in the same manner as at the operation. — 27th: Dressed to-day; one deep and one superficial stitch removed, and stump dusted with persulphate of iron; consumed three ounces of beef-tea in the last twenty-four hours. — 28th: Slight discharge noticed to-day from the vagina; three more stitches removed at the dressing; doing well. — 29th (sixth day): Complained of a sharp pain at 7.30 this morning; temperature then 96.8°. This soon passed off, and she seemed all right till about half-past twelve, when it returned. I saw her soon after one, and found her in a profuse perspiration, and apparently in pain. She complained of a burning sensation in the region of the wound, and I found some blood oozing from beneath the bandage. I immediately removed all the dressing under the spray, and observed protruding from the wound a greenish-black substance which looked like gangrenous bowel, but on investigation it proved to be a clot. This was carefully removed, but fresh blood oozed up in its place, and the manipulation causing a good deal of suffering, she was again anaesthetised, and the whole wound had to be opened up before the bleeding could be stopped. It was found to come from several small vessels in the abdominal wall; these were tied, and some blood being seen in the pelvis, I deemed it prudent to be quite certain that no blood came from there. Finding all secure, I carefully sponged out the pelvis, as at the operation, with soft carbolised sponges, and brought the edges together again with deep and superficial sutures, applying the same dressings as before. A subcutaneous injection of one-third of a grain of morphia was administered. A note made at 9 P.M. says: Patient expresses herself as very comfortable, and seems none the worse for what has taken place; she begs for something to eat and drink, but is only allowed ice. — 30th: Very comfortable; complains of hunger. Ordered jelly beef-tea in small quantities. — 31st: Still complains of hunger, and has become very restless on account of it. Ordered milk as well as the beef-tea. This produced vomiting, which seemed to do her no harm, and she begged for more, so it was given to her. She has had seventeen ounces of milk and four ounces of beef-tea during the past twelve hours.

Nov. 1st: Has been very restless during the night, and not quieted by two hypodermic injections of one-third of a grain of morphia; craving for more to eat. Ordered rusks and milk. Wound looking well; one superficial stitch removed; has been dressed daily. — 2nd: Had an enema to-day

followed by a copious evacuation. Pedicle now beginning to be offensive; carbolic oil painted over and applied on lint round it; two more stitches removed.—3rd: Expresses herself as feeling better; retches sometimes, but does not vomit. We may pass over a few days and note—6th: Had a breast of chicken to-day and enjoyed it; pedicle being very offensive dressed with iodoform and vaseline; all the stitches but two now removed. Sleeps well, and is in no pain.—7th (fifteenth day): At the dressing to-day clamp found to be loose; removed with the stump. At 10 P.M., eight hours after removal, slight retraction of pedicle noticed. Patient's only complaint is hunger, though she is allowed to eat as much as she likes.—10th: Continues to improve; has had a draught of compound senna followed by a copious evacuation. The pedicle is still retracting, and there is a good deal of discharge of laudable pus.—13th: Last suture removed to-day; doing well.—15th: The stump still discharging a good deal of laudable pus; does not seem to have retracted for the last three days. Passed her urine to-day for the first time without use of catheter. Now ordered to be removed to general ward; and from this date continued to progress favourably, and left the hospital for a convalescent institution early in December, six weeks after the operation.

Such, gentlemen, is the history of the case; it is interesting and instructive in several particulars; and I wish to direct your attention to the diagnosis, the operation, the treatment of the pedicle, and the secondary hæmorrhage.

As regards the diagnosis, I dwell on this partly because there is no class of disease in which the diagnosis may be more difficult than in abdominal enlargements, though the nature of some tumours may be readily determined, and partly because all of you when you get into practice, though you may not have to perform the operation of ovariectomy or hysterotomy, will certainly be called upon to give your verdict as to the nature of an abdominal enlargement, and you must not mistake a phantom tumour for ascites, or pregnancy for an ovarian cyst. I dare say some of you are thinking such mistakes are impossible, and no doubt such as I have mentioned are, if ordinary care is used, in by far the majority of cases; but there are instances where careful and experienced surgeons have attempted the operation of ovariectomy and found they were dealing with a pregnant uterus, and there are constantly recurring examples in which chloroform has to be administered, and perhaps an exploratory incision made before the diagnosis is ventured on. In the present case my diagnosis was wrong; but, with the history and condition of the patient, I still think I was warranted in coming to the conclusion I did—viz., that I had to deal with a nearly solid ovarian tumour free from adhesions.

Let us now consider the signs and symptoms in this case, and by a process of exclusion get at our diagnosis. And first we should decide whether we have an actual tumour to deal with, or whether the enlargement is due to ascites, tympanites, or a simple deposition of fat. Firstly, inspection. In either of the three conditions just named the enlargement is more symmetrical; the flanks are distended as well as the front. In ascites the superficial veins are enlarged, and the umbilicus more or less obliterated. In obesity other parts of the body would probably be found loaded with fat; the skin can be pinched up in folds, and on the patient sitting up the belly rolls down on itself towards the pubes. Secondly, manipulation. We note carefully the position of dulness on percussion; in ascites this will be found in both flanks when the patient is lying on her back, and the dull area will alter with the movements of the patient, the resonant parts always being highest. In obesity we find a difficulty in discovering any very resonant part, owing to the thickness of the abdominal wall, and in phantom tumour resonance is found all over the belly, and sometimes, by kneading the parts and taking off the patient's attention, it can be made to disappear; the administration of chloroform will always effect this. Fluctuation is absent in the two last named, and present in ascites, the wave being usually felt all over and at any part of the belly; and if firm pressure be made in either of the above conditions no tumour can be felt, and no more resistance at one part of the belly than another. A vaginal and rectal examination should not be omitted, and in either of the above cases no tumour will be felt. It is evident that this is not either of these conditions.

Now, what are the various tumours we have to choose between? Pregnancy, simple ovarian cyst, multilocular cyst, dermoid cyst, solid tumour of ovary, cyst of broad ligament, fibro-cystic tumour of uterus, fibrous tumour of

uterus, extra-uterine gestation, hydro-nephrosis, malignant or other tumours of kidney, tumour of omentum, liver or spleen, pelvic abscess, hæmatocele, and, perhaps, I should add impaction of fæces in colon and distension of bladder. The exact diagnosis between some of these is sometimes a matter of great difficulty; but in this case we can easily exclude many of them. Distension of bladder: the position of dulness excludes this, and had it been necessary a catheter would have settled the question; and I would venture here to remind you that the symptom of incontinence does not necessarily imply a full or empty bladder, it may occur in either condition. In impaction of fæces you generally get a history of colicky pains, with scanty diarrhoea, or, perhaps, constipation, and a vaginal or rectal examination will remove any doubt. Hæmatocele: the size of tumour and length of time it has been present, and absence of menstrual irregularity. The size, too, will exclude abscess, as well as the absence of febrile symptoms. The history and position exclude enlargement of liver, and in splenic tumours you can generally detect the notch, and the tumour has grown from above; the history and position, too, enable one to exclude omental tumour. Malignant tumour of kidney may be excluded by the absence of hæmaturia and the normal condition of the urine. The hardness of the tumour, as well as the position of the area of dulness (in kidney tumours you find intestines pushed to the other side of the abdomen), exclude renal enlargements. Pregnancy and extra-uterine gestation are excluded by the regularity of the menses, the absence of mammary signs, the absence of foetal movements and heart sounds, and the history. Simple ovarian cyst and cyst of broad ligament are, again, excluded by the hardness and absence of fluctuation; and that leaves us only multilocular or dermoid cyst, solid tumour of ovary, and fibrous and fibro-cystic tumour of uterus. The signs pointing to ovarian tumour are the impairment of the patient's general health, the rapid growth, the smooth surface and elastic feel, with fluctuation in parts, the inability to move the tumour with the uterus when the sound is introduced, and the possibility of raising the tumour out of the pelvis, and the regularity of the menses. Those pointing to uterine tumour: the age of the patient, the symmetrical enlargement, the lengthening of the uterine cavity, and the normal appearance of the umbilicus. I arrived at the conclusion that the case was one of multilocular cyst with a very short pedicle.

As regards the operation, it is one that I think may be fairly said to be yet in its infancy. Ovariectomy was, not many years ago, in the same position, though now it is one of the triumphs of surgery, and a surgeon undertakes such an operation as readily as, say, an amputation of a limb; but till within the last few years there have been very few amputations of the uterus by abdominal section for simple fibroid tumours, and I find a case recorded in an American journal for 1855, where the operator goes into the question whether having opened the abdomen and found a uterine instead of an ovarian tumour, he should proceed to remove it or close up the wound without doing so. In the case there recorded the operation was performed with a fatal result, but not directly due to the operation, and previous to that it had only been performed five or six times. During the next ten years it was performed about twenty times, and as recently as in the year 1866 I think but few surgeons would have knowingly attempted the operation, and many eminent authorities would then, if on an exploratory incision a solid uterine tumour were found, have closed the wound without removal. It is now a recognised operation, and directions for its performance are given in the text-books; the results are such as to warrant perseverance in improving it, and to make it a surgeon's duty to recommend it, not only as a last resource to save life, but to relieve a patient from suffering. As to the method of performing it, the first steps are the same as for ovariectomy, the abdomen being laid open in the middle line, the tumour exposed and adhesions, if any are present, separated, and bleeding stopped; but when we come to deal with the pedicle it is not quite as simple a proceeding. In cases of ovariectomy, I think, most operators agree the best method to adopt is to tie the pedicle—stout silk is the ligature mostly preferred,—cut the ends short, and having removed the tumour, let the pedicle drop back into the abdomen. This does not, as might be supposed, act as a foreign body in the peritoneal cavity, and set up peritonitis, but appears eventually to atrophy and disappear. To treat the stump of a uterus in this manner does not seem

so desirable. The thick more or less elastic substance of which it is composed would be exceedingly likely to shrink in the course of a few hours; this would loosen the ligatures and give rise to internal hæmorrhage, which would not unlikely be fatal, or at the best would necessitate reopening of the abdomen. In all these cases I should prefer to use the clamp, and fix the stump as I did here above the pubes. There are certain objections to the clamp, particularly the amount of traction there might be in the neighbouring parts, especially the bladder, but on the whole, it seems, safer, and you can generally leave enough of the neck of the uterus to prevent undue traction. The uterus may either be removed with the knife or *écraseur*, but when you have the clamp on and have at hand the means of arresting bleeding, should there be any, the *écraseur* seems unnecessarily to delay the operation and to bruise the parts; though should the tumour be too large to draw out at once from the abdomen, it may with advantage be reduced in size by the *écraseur*. In all cases, unless menstruation has quite ceased, both ovaries should be removed, and this may be done by tying their pedicles, cutting them off, and letting the ends drop into the abdomen as in ovariectomy.

As to the secondary hæmorrhage I never heard of a case like this one. There are cases recorded where the patients have died from hæmorrhage at or immediately after the operation; also where the ligature has loosened and there has been bleeding from the pedicle several hours or days after; but here the bleeding was from the divided vessels in the abdominal wall five days after the operation. It was, in fact, ordinary secondary hæmorrhage external to the peritoneal cavity, such as you are always liable to after division of an artery. In clearing away the clots, however, one almost of necessity reopened the peritoneal cavity, there not having elapsed sufficient time for the wound to have firmly united, and even if I had not opened it accidentally I should have been inclined to look into the pelvis again fearing some hæmorrhage might have taken place from the pedicles of the ovaries; but it was evident that the blood in the pelvis had merely trickled down, and therefore after again carefully sponging the peritoneal cavity I closed the wound. The case adds another to the successful cases of hysterectomy, and shows that under proper precautions the peritoneal cavity may be safely manipulated. The use of the carbolic spray is not a *sine quâ non*; on each occasion of opening the cavity it broke down; but antiseptics were freely used all through the operation; the instruments and hands of the operators were carbolised; great care was taken to thoroughly cleanse the peritoneal cavity; and the patient had been, so to speak, prepared for the operation by improving the general health and seeing that the functions of the body were properly performed. It teaches me specially the care one should take in making a diagnosis; and further, that in all operations of the kind one should be prepared for every emergency; for I must confess that I did not commence the operation prepared to excise the uterus; also the care one should take in arresting hæmorrhage in the abdominal wall. I have some doubt whether I thoroughly twisted the vessels after removing the torsion-pressure forceps with which the hæmorrhage was temporarily stopped; and again, I do not know whether the secondary hæmorrhage was not due to the stitches having been removed too soon. Certainly, at the time I thought I had left them in long enough, and that they had done their work, and fearing their presence might have set up irritation; but I was guided too much by what I had seen in one or two cases of harelip, where I had, as I thought, bad results from leaving in the pins too long. In these cases it seems one had better be a day late than a day early in removing the stitches. Lastly, I may say that I saw L. D— about the middle of June, and she was perfectly well and strong, had gained flesh, and was able to move about with ease.

THE French Society for the Protection of Animals has protested against the cruelties practised in connexion with the mode of providing frogs for the dinner-table in France. It appears that when caught the poor animals have the upper part of their legs—i.e., the edible portion—ruthlessly cut off with shears, the remainder of their bodies being carelessly thrown aside as useless. They are stated to have been found, in their mutilated condition, several days afterwards crawling about on their fore-legs. It is time vivisection of this kind, merely to satisfy the appetite of gourmands, should be interdicted.

## ON CONVULSIONS IN CHILDREN.

By EUSTACE SMITH, M.D., F.R.C.P.,

PHYSICIAN TO HIS MAJESTY THE KING OF THE BELGIANS, PHYSICIAN TO THE EAST LONDON CHILDREN'S HOSPITAL AND THE VICTORIA-PARK HOSPITAL FOR DISEASES OF THE CHEST.

(Concluded from p. 6.)

ECLAMPSIA is a symptom which may be serious or not according to circumstances. In estimating the importance of the symptom we must consider the age of the child, the nature and severity of the attack, and the probable cause which has induced it. Infants of a few weeks old often die even from purely reflex convulsions. Older children have a better chance of recovery. After the first few weeks of life much depends upon the cause of the attack. Purely reflex fits and the initial convulsions of acute disease rarely end otherwise than favourably. Again, the convulsions which arise from imperfect aeration of blood, such as may occur in pertussis, are often recovered from; but when the cause is collapse of the lung they are generally fatal. Eclamptic seizures often complicate whooping-cough, and although their occurrence should give rise to great anxiety, the seizures are not necessarily fatal. If the convulsion be the consequence of deficient aeration of blood, the return of free respiration removes the danger for a time; but if the same condition be frequently renewed, the child's state is a very dangerous one. So also convulsions excited by embolisms or congestions of the cerebral vessels, thrombosis of the cranial sinuses, or diffused collapse of the lungs, are very serious. These generally occur late in the disease and are almost invariably fatal. There are two forms of eclampsia liable to happen in cases of whooping-cough which are less dangerous. One of these is due to an exaggeration of the nervous excitement which is an ordinary symptom of the disease. In highly sensitive children it is probably not uncommon for convulsions to take place from this cause, especially if the strength has been quickly reduced by copious epistaxis. So also the onset of an inflammatory complication is often indicated by a convulsive fit, and these attacks, like the preceding, are often recovered from. If, however, a convulsive fit occurs late in the disease, when there is much consolidation of lung, the child seldom recovers. In all these cases it is very important with a view to prognosis to ascertain the mode of origin of the convulsive seizures. If the attack is symptomatic of the onset of an inflammatory complication, it is accompanied by a rise of temperature and followed by a diminution in the spasmodic symptoms and a modification of the physical signs in the chest. If it announces the occurrence of collapse of the lung, the characteristic symptoms which mark that lesion will be present. If the convulsion arises from exaggeration of the nervous disturbance which is one of the peculiarities of the disease, it will have been preceded by signs of unusual agitation in former fits of coughing. Such seizures are only seen in children known to be nervous, sensitive, and impressionable; they follow immediately upon the cough, and between the attacks no signs of nervous disturbance remain. So also in the case of convulsions arising from partial asphyxia; the nervous attack is excited by extreme violence of spasm; but after the fit has passed off no signs of cerebral lesion are left behind. If after a fit there are drowsiness, stupor, squinting, or other sign of nervous disturbance, we may fear that congestion of the brain is present, or that thrombosis of the cerebral sinuses has occurred.

When convulsions appear towards the end of the eruptive stage of measles or scarlatina, they must be looked upon as very dangerous symptoms. Uræmic fits often pass away without producing serious consequences. Whatever be the cause of the attack, stertorous breathing, great lividity of the face with blueness of the nails, or a very rapid pulse should excite the gravest apprehensions. Convulsions from cerebral disease, it need not be said, are of very unfavourable omen; and if they are followed by stupor, squinting, or irregularity and sluggishness of pupils, we can have little hope of the patient's recovery.

The influence which the attack is likely to have upon future brain development is a point of importance, and much anxiety is usually manifested on the subject by the child's relatives. In the commonest case, that in which a rickety child has a fit as a result of some trifling irritant, I believe

the attack to be absolutely unimportant; and familiar as is the experience have never known the patient to suffer from any after ill consequences. So in the case of the other forms of pure reflex convulsions, the eclamptic seizure is due to some temporary condition or set of conditions, which may pass off, if the child survives, leaving the brain unharmed. If, however, the patient belong to a family in which nervous disorders are common, convulsive seizures assume greater significance. If the attacks are often repeated, the prospect as regards the mental development of the child is very unfavourable, for such cases may end in epilepsy or even idiocy. In all cases, too, where the convulsions are connected, either as cause or effect, with some intra-cranial lesion, and where they are followed by signs more than merely temporary of muscular weakness, there is no doubt that for the time the brain is injured by the illness. In cases of recovery, especial care would then have to be exercised in the child's education, so as not to put too great a strain upon his faculties.

When called to a case of convulsions the practitioner should lose no time in questioning the attendants, but should have the child placed in a warm bath of the temperature of 90° F., and apply sponges dipped in cold water to his head. This is the time-honoured remedy. It is certainly an innocent one; it may tend to quiet the nervous system; and it is one the efficacy of which is so generally recognised amongst the public that it would be unwise to court unfavourable criticism by neglecting to employ it. The bath must not be continued too long. In ordinary cases the child should be allowed to remain in it for ten or fifteen minutes, according to his age. If, however, the patient be an infant who has lately been reduced by an exhausting diarrhoea he should not be allowed to remain more than two or three minutes in the hot water, and cold applications to the head must be dispensed with. If the convulsions have ceased when the case is first seen the bath need not be used; but we should not omit to have the child completely undressed, and then to see that he is placed, lightly covered, in a large cot, and that the room in which he lies is well ventilated and not too light. Care should be taken to unload the bowels by a large enema of soap-and-water, and if the child be noticed to retch his stomach may be relieved by a teaspoonful of ipecacuanha wine. In the case of a teething infant opioids differ as to the propriety of lancing the gums. There is no doubt that this operation is a useless one if employed with any hope of hastening the evolution of the teeth; but if the object be to relieve pain and tension I consider the practice judicious, and never hesitate in such circumstances to have recourse to it. If it be desirable to remove all sources of irritation, surely such a source of irritation as a swollen and inflamed gum should not be disregarded. Lastly, if it can be discovered that the child has had pain in the ear, or if the tympanic membrane can be seen to be red, the ear should be syringed out and fomented with hot water, and, if thought desirable, a leech may be applied within the concha, the meatus being first plugged with cotton-wool.

If, in spite of these measures, the convulsions return, or signs are noticed of continued irritability of the nervous system, it is best to administer a dose of chloral. Two or three grains can be given to a child between six and twelve months old; and if the patient be unable to swallow, half as much again may be administered by the rectum dissolved in a few teaspoonfuls of water. If necessary, the dose can be repeated two or three times a day. Bromide of ammonium and belladonna are also largely employed in these cases. The former can be given in three or four grain doses every two hours to a child of from six to twelve months old; the second in ten or fifteen drop doses two or three times a day to a child of the same age. Infants are so tolerant of this drug that it should be given to them in a dose which can produce some appreciable effect. In the convulsions of whooping-cough where the spasm of the glottis is extreme, treatment by bromide of ammonium or potassium is especially indicated. The bromides are well borne by quite young children, and we should not fear ill consequences from what may appear a very large dose. Chloroform is often employed, but it is decidedly inferior to chloral and much more troublesome.

If the child have been lately the subject of exhausting discharges warmth should be employed, and stimulants, such as the brandy-and-egg mixture of the British Pharmacopœia, be given energetically. If the convulsive attacks are followed by signs indicative of intracranial mischief,

such as stupor, squinting, ptosis, &c., the child should be kept quiet and an ice-bag be applied to his head. In all such cases the treatment must be conducted according to the condition from which the convulsion is supposed to have arisen.

When the convulsions have ceased, and signs of irritability of the nervous system are no longer to be observed, we must take steps to improve the general condition of the patient. His bowels should be attended to, and his diet be carefully regulated. If rickets be present it must be treated. Most children in whom the convulsive tendency exists are benefited by iron wine and cod-liver oil, for their nutrition is usually at fault, and both the alcohol and the iron contained in the wine are beneficial, while the oil is of the utmost value in supplying nutritive deficiencies. Fresh air, too, is of the utmost importance, and the child should be warmly dressed and be taken regularly out of doors.

## OSTEAL OR PERIOSTEAL CACHEXIA AND SCURVY.

By W. B. CHEADLE, M.D., F.R.C.P.

IN a clinical lecture which appeared in THE LANCET in November, 1878, I described cases of special cachexia occurring in young children which correspond most closely with those recorded by Dr. Gee, under the title of "Osteal or Periosteal Cachexia," in the last volume of the St. Bartholomew's Hospital Reports. In all there was the same underlying condition of rickets, with a cachexia beyond the common, marked pallor, extreme muscular debility, spongy gums, hæmorrhages, œdema of the extremities, and in one instance swelling of the periosteum of the long bones. These were unaccounted for by any disease of the lymphatic glands, liver, or spleen; and I showed, as I think conclusively, that the morbid condition was that of scurvy, supervening upon rickets, produced solely by a diet which was a scurvy diet, in addition to being certainly rachitic, the disease being cured absolutely and immediately in every instance by antiscorbutic diet. In an annotation in THE LANCET of the 24th ult. a similar view is taken of the nature of the cases described by Dr. Gee. Since 1878 I have seen three more cases of the kind—two in the hospital in Great Ormond-street, and one in private. They arose under similar conditions of diet, and recovered at once under antiscorbutic treatment. In one of these the periosteal swelling was so marked, the resemblance to the so-called "osteal or periosteal" cachexia so complete, and the result of a simple change of diet so striking, that the case is worthy of publication now that the subject is exciting interest and discussion.

*Scurvy in a child of ten months fed on Nestle's food; extreme cachexia and muscular debility; periosteal swellings; œdema of the legs; albuminous urine; hæmorrhagic, spongy gums; rapid recovery on antiscorbutic diet.*—C. G—, a full-sized boy of ten months old, the second child of well-to-do parents residing in a healthy suburb, first seen on November 11th, 1881. He is emaciated, extremely anæmic, with an earthy complexion, pallid and cachectic. The muscles are remarkably flabby and soft, and the child so feeble that not only is it unable to sit up, but it cannot even lift up its head, lying perfectly limp and almost motionless, although restless, irritable, never sleeping more than half an hour at a time, and crying at the least touch or movement. He is evidently tender and dreads being handled; most tender of all in the legs, especially the right, which is greatly swollen. This is found to be due chiefly to swelling of the periosteum of the tibia, which extends from half way below the knee in front to the ankle. There is a similar tender swelling, but smaller, on the left tibia. Both feet and ankles are œdematous, but show no petechiæ. The gums of the upper jaw in front are greatly swollen, protruding, spongy, purple, and bleeding. The lower gums in front are slightly swollen and marked by ecchymotic stains. The child has rickets; both ulnæ are much curved; the ribs beaded; the ends of the long bones enlarged; the chest compressed laterally; the fontanelles widely open; no bosses on the skull; no enlargement of the lymphatic glands, spleen, or liver. There is no sign of congenital syphilis. The lung and heart sounds are feeble but natural in character. The urine contains a cloud of



**albumen.** The temperature is slightly subnormal, 98°. There has never been any eruption or snuffles, nothing suggestive of congenital syphilis. There has been no vomiting or diarrhoea for the last four months. The child takes food greedily and in large quantities. The child is always hungry. The history given by the mother is as follows: The child was fine and healthy when born, and for the first two months thrived on a diet of half cow's milk and half water, sucking out a scanty supply of breast milk. At the age of two months the child was placed on Nestle's food. It remained well until it was six months old, when it was seized with severe vomiting and diarrhoea attributed to sunstroke. After this the child was fed for a time on arrowroot and isinglass; no milk. At seven months old Nestle's food was again resorted to, on which it has been fed entirely ever since—i.e., for the last three months. It has grown more and more pallid, feeble, and miserable. I directed the child to be placed at once upon a diet of half milk and half water, thickened with fine potato gruel and prepared bread. It was given in addition a small quantity of raw meat pulp and half a teaspoonful of brandy in a tablespoonful of the food every two hours. No medicine in the shape of drugs of any kind was given. Three days later, when the child was next seen, there was already marked improvement. The child was less tender on being handled, began to move its limbs about, and slept several hours at a time. The temperature had risen to 99°. In a week the periosteal tenderness and swelling had sensibly declined; the gums had ceased to bleed, and were only slightly purple and swollen; the oedema had almost disappeared; there was still a trace of albumen in the urine. At the end of a fortnight, on the new diet, the gums had become normal, the oedema had gone, and the albumen had disappeared. The periosteal swellings of the tibia were still perceptible, and the limbs were tender, but the child now kicked its legs about, and was clearly gaining ground every day. At the end of three weeks it could sit up, was putting on flesh rapidly, and regaining colour. The swelling on the right tibia had completely gone; there was still some fullness of the left tibia, but no tenderness anywhere. From this time improvement proceeded most rapidly, until the child grew perfectly robust and healthy-looking, and thus remains, the only change which had been made in the management being a change of diet.

This case is closely parallel to those recorded by Dr. Gee. I think there can be no reasonable doubt that the condition was one of scurvy supervening on rickets. This had arisen on a diet of Nestle's food, aided by an original drain from vomiting and diarrhoea, with a course of arrowroot and isinglass; but for three months Nestle's food had been the sole diet. Every addition had been strictly prohibited, for fear of bringing back the vomiting and diarrhoea. If Nestle's food was not the prime cause of the scorbutic condition, it was clearly powerless to remove it; yet it professes to contain a sufficient amount of milk, and milk, at any rate fresh milk, is an excellent antiscorbutic. I have more than once observed the rickety state creep on under a strict diet of this food, and the case just related shows further the inadequacy of this preparation alone for the supply of the full elements of nutrition.

Hyde-park-place, W.

## ACUTE IDIOPATHIC ARTERITIS; GANGRENE OF EXTREMITIES; DEATH; AUTOPSY.

By S. A. K. STRAHAN, M.D.

THE difficulty, approaching impossibility, of noting with anything like accuracy in an acute maniac the onset of an affection in which the symptoms are mainly or entirely subjective is well known. That patients in a state of acute mania frequently suffer—if I may use the word—from the most painful affections without once complaining or even speaking of their illness, is a fact recognised by all asylum physicians; and this, coupled with the frequency with which men in this special branch of the profession meet with cases of well-simulated, imaginary disease, may be taken as an explanation of why they put so little confidence in subjective symptoms, resting their diagnoses chiefly on physical signs. In the present case it cannot be doubted that had the patient

not been deprived of her mental faculties the disease would have been detected earlier; and although it is questionable whether any treatment would have averted the fatal termination, it is to be regretted that it was not sooner discovered, inasmuch as it would have given a better opportunity of noting in its entirety the clinical history of a very rare form of disease.

E. G.—, a female patient, aged forty-nine years, under treatment for relapsing mania, was on Feb. 4th suffering from an attack of acute maniacal excitement, the usual sedative remedies being administered.—5th: Condition unchanged; violent and destructive, requiring constant attention of two nurses. Was walked round court two hours between nurses. On coming in patient was, the nurse said, "taken very cold and trembled." Patient was put to bed between blankets, and, when seen by the medical officer a very short time after, was in much the same condition as in the morning—viz., restless and excited, striking anyone within reach, shouting, tearing her bedclothing, &c. Ordered a draught containing forty grains of bromide of potassium and twenty grains of chloral hydrate.—6th: Had a restless but fairly quiet night. She did not, as on former occasions, attempt to leave the bed. Still, in a state of acute active mania. The right leg was now discovered to be quite cold up to the knee, the skin being pale and mottled with purple. Volition and sensation lost. No pulsation could be detected in popliteal space. The left foot and half way up the tibia were in a similar condition. In the left leg pulsations could be felt in the popliteal artery, but nowhere below that situation. The left hand was markedly colder than the right, and no radial nor ulnar pulse could be felt; this hand she was using vigorously. Pulse at right wrist 96; small and weak. Temperature in right axilla 100·2°. The chest was carefully examined stethoscopically with negative result. The limbs were wrapped in soft flannel. Opium ordered in grain doses every three hours, and milk, beef-tea, and small quantities of whisky. 5 P.M.: Pulse 100; temperature 100°. State of right leg unchanged. Heat now present in left extremity as far down as the ankle and sole of foot of a dark purple. Temperature of left hand still very much below that of right, and looks pale. No pulsation can be felt below the axillary artery, and there are signs of pain on pressure over the course of the brachial artery, but no swelling or discolouration. She uses the left arm freely and throws it about much more than the right, which is in all respects normal.—7th: Had a restless night, tossing about as if in pain, but not speaking. Took some food and alcohol. Temperature this morning in axilla 100·6°; pulse 140, thin and feeble. Left arm, which was tossed about much during the night, seems warmer to touch than it was, but is still below 95°, the lowest the thermometers (two) used register. Pulse can now be felt at the elbow, and not below that point. Hand looks anemic beside the other. No discolouration. Right leg darker in colour, upper surface of foot very white, toes purple. Line of demarcation seems to be forming immediately below the patella. Severe pain, causing the patient to cry out on pressure being made over the femoral artery as it passes from Hunter's canal to the popliteal space. No pain above this part, no pulse in popliteal. Left foot, cold as before; upper surface of foot deep purple, toes white. Pulsations easily felt in popliteal in this limb, but nowhere below that. Severe pain on moving either leg. Bowels acting. 5 P.M.: Little change in general condition. Has not spoken since morning. Takes nourishment in minute quantities. She is fairly under the influence of the opium. Has lain in a restless troubled sleep the greater part of the day. Pulse 144, fluttering. Sordes on teeth; eyes becoming sunken and glazed. Right leg as described this morning except that the line of demarcation is better defined. Pain over femoral as before, and confined to the same part—viz., the first three inches above the knee-joint. Left foot appears as in the morning, but now there is severe pain on pressure over the anterior tibial artery in its lower half. Toes of both feet flexed and freely movable. Left hand and forearm remain in the condition described this morning.—8th: She passed a restless night, gradually sank, and died at noon.

**Autopsy.**—Twenty-six hours after death an examination was made of the body. The result is summed up in the following brief notes:—Cadaver that of a well-built, well-nourished woman of about fifty. Some slight ecchymoses on arms and forearms. Left leg and foot, from knee down, of a deep purple mottled with white. Right foot purple, with well-defined limit just below the ankle-joint. Palm of left hand slightly purple. Rigor mortis well-marked in all parts

of the body, except in the parts of lower limbs mentioned above as being discoloured, in which the joints were perfectly flexible and the muscles soft and flabby. Head: The dura mater was somewhat congested, as was also the pia mater, and there was some milky opacity of the arachnoid over the apex of the hemispheres. The brain weighed  $54\frac{1}{2}$  ounces, and had an abnormally plentiful show of puncta vasculare. In all other respects the contents of this cavity appeared healthy to the naked eye. There were no signs of atheroma in the arteries at the base. Chest: Lungs emphysematous to a large extent in their anterior and inferior borders. No fluid in pericardium. The heart weighed  $10\frac{1}{2}$  ounces, all valves competent. The cardiac muscle was fairly firm and appeared healthy, as did also its lining membrane, which was in all parts smooth and glistening. Right auricle almost completely filled by a yellow, fatty-looking clot. Right ventricle contained a much smaller clot of like character and some blood, while the left side of the heart was gorged with black fluid blood. The aorta, which was full of blood similar to that in the left heart, appeared perfectly healthy. Abdomen: Spleen rather soft and friable and dark-coloured; liver congested; all the other organs appeared normal except the uterus, which was retroflexed. The right femoral artery at the seat of pain during life was cut down upon and removed for about three inches of its extent. It was easily found, as it was hard and round, almost as though the body had been injected for dissection. Black, tarry blood flowed slowly from the upper end of this section of artery, while the lower end of it was filled by a black plug of coagulated blood, which kept its form on being squeezed out. The wall of the artery was highly injected, had lost to a great extent its natural elasticity, was thickened, and had a harsh, leathery feel. On its being slit up its lining membrane was found to have lost the smooth, glistening surface; it was rough, of dark-red colour, and covered, especially in its lower half, with hard nodules of black coagulated blood, which would not wash off, but remained firmly adherent to its lining membrane. As permission to examine the body was only obtained after it had been duly promised that nothing would be done beyond that necessary to ascertain the cause of death, none of the vessels in the other affected limbs were examined.

*Remarks.*—This case is interesting as being a remarkable example of a most rare disease. There can be no doubt that in former times the post-mortem staining of the inner coats of arteries was often mistaken for the injection of the vasa vasorum found in true inflammation of the arterial walls, and there is equally no doubt that, although idiopathic arteritis was formerly suspected in many cases where no real inflammation of the vessels existed, it may and does occur in rare instances. The disease in this case was marked at its onset by a distinct rigor, for such I consider the "being taken very cold" described by the nurse on the first day. The temperature from the second day was above  $100^{\circ}$ , which is not high considering the extent and acuteness of the inflammation; but with this we must remember that our patient was an acute maniac—that is, one in a state in which the usual effects do not follow disease; one in whom the nervous system, and in fact the whole organisation, is so numbed that causes sufficient to produce marked changes in the ordinary state of the system pass unnoticed. The clot found occluding the artery was made up simply by coagulation of the contained blood. True, this may have only been a clot formed by coagulation above another formed by exudative material further down in the vessel; but this is extremely unlikely, because, in the first place, it was within two inches or less of the line of demarcation between the gangrenous and other tissues, and gangrene rarely extends so high as the point of obstruction in the main artery of a limb; and, secondly, it is an open question whether the lining membrane of an artery can at all pour out an exudation into the blood current. Virchow proved by experiment that a vein empty of blood might be irritated and no exudation take place from its lining membrane although its wall became infiltrated, and we know of no reason why the same rule should not apply to an artery. It is quite possible that the tissues of the arterial wall may participate in the inflammatory state, and without exuding any morbid or other material into the cavity of the vessel, conduct to the blood some coagulating influence. Again, given an artery filled with coagulum, and the patient continuing to live, we have, as one mode of termination, contraction of the vessel, a gradual change in the clot and the vessel's walls like that known to occur in other parts of the

body, and ultimately nothing left but the fibrous cord which is sometimes found, and upon which the theory of the pouring out of exudation was to a considerable extent based. As to the cause of the affection, I believe no more can be said than that it is a morbid state of the system, which expresses itself in this particular way, as pneumonia depends upon some other morbid state, which makes its presence known by solidification of the lung. All the authorities I have consulted agree that arteritis generally appears in persons beyond the middle age and of broken constitution. That the disease should in this case attack more than one vessel or limb, though strange, is not any more wonderful than that pneumonia should in some cases attack both lungs, or that rheumatism may in one case attack a single knee or shoulder-joint, and in another case both knees or both shoulders. Had not the heart and aorta been examined there would have been room for grave suspicion of embolism, but I think the autopsy, incomplete as it was, excludes at once all but arteritis.

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## THE PRIMARY STAGE OF ANEURISM (SUBCLAVIAN) AND ITS DIAGNOSIS DURING LIFE.

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CLINICAL authorities in writing and teaching so frequently ignore the possibility of the detection and diagnosis during life of an aneurism in its early and pre-sacciform stage, that I have thought the following interesting case, illustrating as it so well does the opposite view, well worthy of publication. With the advanced state of auscultatory science the modern physician has, perhaps, a tendency to attach more importance to the objective than to the presumptive signs of intrathoracic disease. In the alternative that presents between two diseases more might assuredly be done in diagnosis than often is by patiently weighing and considering carefully the *pros* and *cons*. The case I write of is that of a man who consulted me on July 31st, 1876, and the fact of his having died some days ago in the Bristol Royal Infirmary has led me to overhaul and publish extracts from my notes as entered at the time in my clinical diary.

J. M.—, aged twenty-eight years, consulted me on July 31st, 1876. States that he has been under the care of a local surgeon for a couple of months, and that he has been treated by that gentleman for functional disease of the liver (that much maligned organ) and other ailments, considered trivial, and attributed to cold. Influenced by what the patient told me, I did not, on this occasion, institute any special examination, merely prescribing a mixture with chloric ether and compound tincture of camphor. I desired the patient to call again, so that I might more particularly examine him.

August 3rd, 1876: Patient called. Reports himself no better. Complains of pain under the left clavicle when he moves his arm. States that the pain shoots down his arm in twitches. Tells me that the pain is not in any way aggravated by percussion or pressure. Complains particularly of pain over the costal cartilages of the right side, about two and a half inches below the right nipple, "a severe beating and swelling sort of a pain," to use his own words, "on the breast." A whiffing bruit is heard and visible pulsation is obvious, at the outer part of the left subclavicular region. Auscultation fails to show any pulmonary or cardiac mischief, save that the second sound of the heart is sharp. Taking all things into consideration, I suspect aneurism.—5th: In conjunction with my friend, Dr. Inlay, of Clifton, to whom I had explained in detail the several symptoms elicited, we both agreed in the validity of the following reasons that aneurism of the third portion of the subclavian artery was the nature of the disease: 1st, that the second sound of the heart is sharp; 2, that the patient complains of pain at the outer extremity of the left infra-clavicular region; 3, because neuralgic twitches of pain shoot down the left arm, evidently from some pressure on the brachial plexus; 4, that the venous radicles on the left shoulder are enlarged much more than on the corresponding shoulder; 5, much greater fulness, apparent to the eye, under the left than

under the right clavicle; 6, that there is distinct visible pulsation in the last-named site; 7, that there is uniform bulging of the artery on applying the finger; 8, that a distinct whiffing bruit is audible under the left clavicle on applying the stethoscope, as also the ear, by immediate auscultation; 9, that there is striking arrest of the radial pulse on the left side, almost approaching to complete suppression, and obviously pointing to some obstruction on the cardiac side. We want, however, two links to complete the diagnostic chain of argument for aneurism: (1) Dulness, which, by tactile percussion on the affected site, we fail to demonstrate; (2) the presence of a distinct aneurismal tumour. The two absent symptoms do not, however, militate against aneurism, but against aneurism in an advanced stage. Bruit, pressure symptoms, such as pain, venous congestion, and fulness under the clavicle, may be caused by primary dilatation of the artery, or by fusiform aneurism so-called, just as congestion of minute arterial capillaries may by pressure on nervous filaments in any part of the body cause pain. Taking into consideration the possibility of the cure of aneurism, especially in its earlier stages, by iodide of potassium, as advocated by the late Drs. Begbie and Bennett, of Edinburgh, and surmising that the co-operation of the patient himself would be a necessary accessory to the cure, I deemed it better to acquaint the patient and his friends with the serious nature of the affection, as by so doing I could inculcate on the patient's mind habits of the strictest temperance, and successfully enjoin on him the necessity of avoiding any exciting or violent exercise. I remembered that my patient had a penchant for quoit-playing, and occasionally for wrestling. I postponed, however, and withheld from him the result of my diagnosis and prognosis consequent thereon, till another examination should quite preclude the possibility of any fallacious assumption.—7th: Dr. Imlay and I again subjected the patient to a strict examination, with the result of mutually confirming our former observations. Strange to say, by means of the percussion hammer of Hughes Bennett, of Edinburgh, and a pleximeter, I demonstrated on this occasion, to the satisfaction of Dr. Imlay and myself, marked dulness over the suspected site; tactile percussion, as stated August 5th, 1876, having failed to elicit this important symptom. The dulness exists in a circumscribed patch at the outer extremity of the left subclavicular region. At this date the absence of a distinct tumour alone is wanting to complete the diagnostic chain; yet in the face of so much affirmative evidence for aneurism, albeit that one solitary symptom is absent, it is impossible to refrain from concluding that we have to deal with the first stage of a fusiform aneurism, involving the third portion of the subclavian artery on the left side.

*Treatment.*—The patient must desist from quoit playing and any violent exercise, as also from any excitement; to observe perfect rest and quiet, and to abstain from stimulants; to take half an ounce of the following mixture in water night and morning for six weeks: tincture of digitalis, two drachms; iodide of potassium, three drachms; clove water to eight ounces.

Oct. 9th: Symptoms still present. One symptom, the whiffing bruit, is perhaps not so marked on this inspection; it can, however, still be heard. The pulse at the left wrist is all but suppressed. The patient has been in Scotland, but instead of consulting, as I advised him, Dr. Gairdner, of Glasgow, has taken the opinion of a country surgeon in the North, who told my patient that he had no aneurism, but that "his blood had got glued and sticky in his veins from cold." It is to be regretted that such rough-and-ready diagnostic opinions are but too commonly given. Sir Wm. Fergusson says of aneurism, p. 147, "Practical Surgery," third edition: "I have myself watched one of undoubted character on the axillary artery for several years, and could observe no perceptible increase in its size; and examples where spontaneous cures have occurred within a certain period might also be adduced." That there is a possibility of the cure of aneurism, even in advanced stages, many well authenticated cases attest; much more, then, are we entitled to hope for a cure when the aneurism is in its pre-sacciform phase.

At this date (Oct. 9th) I am satisfied that the case has been (if it be not now) a genuine case of the diagnosis of aneurismal dilatation in its initial stage, and I am likewise satisfied that if the patient do not present to subsequent examiners the symptoms of an aneurism, he has to thank me for my diagnosis of Aug. 7th, 1876, and the drug called iodide of potassium for his recovery.

Bedminster, Bristol.

## REMARKS ON BILHARZIA.

By DR. JAMES F. ALLEN.

THE bilharzia is of peculiar interest to the colonists of South Africa. All our streams and rivers are more or less infested with it; it is to be found in persons resident widely apart, in the Cape Colony, Free State, Transvaal, and Natal, not only in these colonies and States, but also far in the interior; indeed, it is pretty evident that it is to be found in the rivers of the whole continent, from Egypt to the Cape of Good Hope. Some time ago I was consulted by a gentleman who had returned from a hunting expedition in the interior, several hundred miles beyond the regions occupied by white settlers. He was first troubled with hæmaturia, due to the bilharzia, while camped on the banks of the Zambesi.

In this part of Africa (Natal) the persons principally affected are the children of the white settlers and natives. The reason is very evident; they are the largest consumers of unfiltered water. It is not so often found in girls, they staying at home more than as a rule get filtered water; boys and natives, living much in the veldt and drinking copiously from the first stream they come across, soon imbibe it. The symptoms produced by the bilharzia are therefore so common that almost every lad suffers or has suffered from hæmaturia. So general is this symptom among boys that they often do not think it necessary to mention it to their parents. Unfortunately the medical profession in this part of Africa, in common with the profession in general, have as yet failed in their efforts to eradicate this parasite. For these reasons one is not often consulted primarily about the bilharzia, therefore to obtain any information one must collect it by close inquiry, and if possible by adopting some successful means of treatment; the best that could be done up to the present was but a kind of expectant treatment: support the patient's general health and wait. It was more than probable he would be quite free from the parasite before he was twenty. In the majority of cases this would be correct, but in the meantime the child's growth is going on. This constant loss of blood sets its stamp on his appearance; tall, perhaps, but narrow-chested, pallid, without energy, mental or physical, they become a source of great uneasiness to their parents. It is at this period we are generally consulted. Sometimes no mention of the real cause of the mischief is made until after close questioning. It is not uncommon to hear parents express their surprise at hearing for the first time that their children are suffering from this parasite; others know of it, and, as I have said, think nothing can be done; the loss continues. Soon, in this warm climate, the majority of colonial-bred lads of pure European descent assume a cachectic appearance with weakened frames, which will seriously affect the physique of the future pure white race in South Africa. I mean by pure white those persons who have not the blood of one or other of the black races in their veins. Most of the Dutch of the Cape, Free State, and Transvaal would find it hard to clear their pedigree of "black blood." The result is that at the present day these men, although they suffered from the bilharzia in their youth, have an immunity from its after-effects, due in all probability to their being on that account better able to bear the climate. The natives, to judge from their appearance, are also blessed in this way.

Finding this little parasite likely to become of great importance in the future of this country, I set about making attempts to destroy it. I also inquired closely into the history of those who had become free from it, especially the time immediately before its disappearance, and the circumstances which they believed led to this happy result; also into the symptoms the presence of the parasite produced. These consisted, in the great majority of cases, in the passage of a few drops of blood after urination. Sometimes this hæmorrhage is increased to several ounces, and is nearly always accompanied with a rigor, sometimes also with pain and irritation of the bladder. This is followed by anæmia and all its consequences; most of the persons were affected "as long as they could remember." When the hæmaturia had disappeared they could not recall; perhaps when they were fifteen or sixteen years old. They had never paid much attention to it, having suffered from their early

childhood, as long almost as they could look back upon; they had nearly come to regard it as a natural sequence to the passage of urine. Their friends were afflicted in a like manner, and had recovered; they also hoped to become free from the unpleasant symptoms as they grew older. Such is the sum of the information generally received. It is a remarkable fact that in by far the greater number of cases the parasite does disappear at puberty.

The history in other cases pointed to something much more definite: an acute illness of some kind, chiefly the typho-malarial fever sometimes prevalent here, had intervened. When the child recovered the parasite was destroyed. In girls the appearance of the menses and disappearance of the hæmaturia are often apparently simultaneous; if not, should the girl become pregnant, the parasite is almost certain to disappear. Changes of residence and climate have sometimes the desired effect. In this country the parasite is very liable to re-enter the vascular system. Even those who have suffered for years from it are very careless and unguarded. This reoccurrence, "or relapse of the disease," as it is commonly called here, adds to the evidence in the mind of the sufferer of its incurability.

There is one important fact with regard to persons afflicted with this parasite which must not be overlooked, as it is not without consolation to them. I have never known or heard of anyone in this part of Africa dying from its effects, and although it circulates throughout the whole body with the blood, as we are led to believe by authority on the subject and by observation of the history of individual cases, I have never heard of its taking up a permanent position in any other part of the body than in the bladder. I have been for the past six years surgeon to Grey's Hospital in this city, and have never seen a case in which it was found elsewhere. It is quite certain that if it did take up other positions, it would at once call attention to its presence. There is hardly an internal organ in which it could be less dangerous, and there are others, such as the heart and brain, in which it would be fatal.

When it is taken into consideration how common it is, and, of course, the great number of people who suffer from it, this persistent and only appearance in the bladder is an important fact; it may be the case that the bilharzia, though free of access to all parts of the body, can only exist in its final state in the bladder. If such is the case, and I think we have good grounds to believe it is, much of the formidable history connected with this little animal is at once deprived of its terror. It is clear that the parasite is perfectly harmless while circulating in the blood—at least, there are no symptoms which point to its presence there; in fact health is perfect until the hæmaturia appears, and thus shows it has taken up its final settlement in the bladder. It is, therefore, in its final state dangerous, and that only in a remote degree. This was brought prominently forward in the last case I treated.

A boy came for advice suffering from profuse hæmaturia; he had had it as long as he could remember; was weak and pallid; he described the blood as running from his urethra after micturition. This was accompanied with much pain and rigors; the boy was thin, but tall; every bone in his body was painfully visible. After I had killed the parasite in this boy's bladder his appetite, which had left him, quickly returned; he ate ravenously, regained his health and spirits, and continued to improve steadily, although I did not attempt to poison the parasite in his blood for some time after the hæmaturia had disappeared. Not once during that time had he a symptom of any kind that pointed to the presence of anything abnormal in his blood. This fact I must bring forward prominently as it gives to the local symptoms much more importance. I fear we have been more or less entirely taken up by the thought of the parasite circulating in the blood, and in our hopelessness about it in that situation it seemed to us of little use destroying it locally in the bladder when it was present in the general vascular system. We took the hæmaturia as the continued evidence of its presence there after all kinds of different treatment, which really never affected the parasite in the bladder in the least, though it may have killed it in the blood. The truth is that if we had first poisoned it in the bladder and then tried constitutional treatment we would have been more successful. As the local deposit and its results cause the cachexia, if we could get rid of them by any means we would relieve our patients of their worst symptoms, and as far as the parasite is concerned (the only one perhaps in some cases) effect an entire cure, especially in persons who have left Africa for a

colder climate. This I offer as a suggestion to those who may undertake the treatment of such cases in England.

It is very evident from the foregoing that anything which alters the condition of the blood, changes so subtle as to escape all detection, and yet the most fatal to it, are those which take place at puberty. More material alterations, those that take place during pregnancy, or, in acute illness, the specific poison of fevers, or perhaps the increased temperature or changes in the specific gravities, it may be through the laws of osmose and exosmose, are quickly fatal to this little animal. Whatever it is, we know as a result that the bilharzia is often killed by spontaneous causes. I think, therefore, we may fairly come to the conclusion that this parasite is not all-tenacious of life. This fact once proved gives a much more hopeful view to our position; the whole case assumes quite a simple appearance. That which nature so easily performs sometimes, as far as we can tell, without any external influence or material change in the blood, ought to be within the limits of our power, possessing as we do poisons fatal to insect life; we have only to bring the parasite and the poison together, without prejudice to the rest of the body, and we will succeed in all we desire. I have tried to bring the different points in this subject gradually forward as they have come before me in actual practice. I was in despair at first at the thought of this animal living and thriving in the blood of unfortunate people. It may live there; but I think that the history of the persons affected with it prove beyond any doubt it does not thrive there.

Having slowly and carefully arrived at these conclusions, after sifting a mass of evidence, I at last determined to adopt some of the hints I had received from nature. I had wasted much time in treatment. I had as yet only administered remedies by the mouth—astrinents, ergot of rye, and tonics of different kinds; of these the tincture of the perchloride of iron gave the best results, only as a tonic, not affecting the hæmaturia. Lastly, anthelmintics, of which I used oil of turpentine and santonine only; with the former I produced strangury, and nothing else, as far as I could see. Santonine I gave in full doses, five grains every morning, until I brought on the therapeutical effects of the drug, some of my patients seeing everything yellow, in a more or less degree, and nausea and vomiting being produced in others, without the least benefit to the local symptoms in the bladder. I have since learned that in those to whom I gave santonine in full doses I killed the parasite in their blood, although its presence in the bladder remained, and was still the cause of all the distress. Finding the hæmaturia remain in this obstinate manner I determined to try the effect of injections into the bladder. I resolved to use santonine in the first instance, as I believed it would be fatal to the bilharzia; for this purpose I made a saturated solution of santonine in absolute alcohol, knowing the spirit would be very efficacious for the purpose I required. I selected the case of a lad who applied for treatment at Grey's Hospital. He had suffered from hæmaturia as long as he could remember. In appearance he was very thin and anæmic. He was born in the colony, but was of pure European parentage. He was apprenticed to a carpenter, and found he was getting too weak to work at his trade. I injected into his bladder half a drachm of the solution of santonine and alcohol, using for the purpose a subcutaneous syringe from which the needle had been removed, and a small gum elastic catheter, filling the end of the syringe to the catheter so that none of the solution should escape. I then made him lie on his back for about an hour and retain the solution. The injection was followed by acute inflammation of the bladder; this subsided quickly under the influence of tincture of hyoscyamus and infusion of buchu, with as much barley water as he could drink; he passed considerably more blood during the first attack of cystitis than he had done before. I repeated the injection in this case four times; each time it was followed by acute cystitis; each time the quantity of blood discharged became less, until at last it disappeared. I then gave him five grains of santonine every morning with the intention of poisoning the parasites in his blood. The symptoms of cystitis lasted only twenty-four hours; in other cases I have treated since it has continued much longer, sometimes for three or four days. I attribute this to the fact that I had used larger quantities of the injection in my later cases. I had the satisfaction of discharging him cured, to all appearance, after a treatment which had lasted only fourteen days. He went away to the Free State, promising to write if the blood reappeared. I

have not heard from him since, and therefore conclude that he has continued well. Since then I have treated many cases, so that I have ceased to take note of them, and I have been invariably successful.

I can confidently recommend this treatment; the cure is well worth all the suffering consequent upon the inflammation of the bladder. The only difference I have since made in the treatment is that I inject two drachms of the solution at a time; the patient sometimes complains of feeling drunk, the alcohol affecting the brain.

The points to be careful about are (1) the bladder must be empty of urine; (2) the solution must be injected into the bladder; it sometimes escapes unless care is taken to make the joining of the syringe and catheter secure; (3) the patient must retain it as long as he possibly can. I have never treated a woman or girl in this way, but I have no doubt it would be as successful as in men and boys. As yet this is but a crude statement. I would like to be able to tell more about the parasite after it is ejected from the bladder in the urine. I have as yet failed in making any satisfactory investigations in this direction; in the future I may be able to finish my inquiry. I have never found anything more serious than the inflammation resulting from this treatment; it is painful and requires great resolution on the part of the patient. I adopt it always without fear, and as yet have had the best results.

Pietermaritzburg.

## ACUTE STRANGULATION OF THE SMALL AND LARGE INTESTINES.

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A. N.—, aged ten years, was admitted into this hospital on February 6th, suffering from a compound fracture of his right forearm, a wound over his left eye, and a slight contusion below the left Poupart's ligament. On admission he complained of pain in the hypogastric region, which was relieved at once by drawing off his urine. The wound of forearm and eyelid healed in six days. He had no pain after the first night. His bowels were regular, he passed his urine, and appeared ready for sending home. He was sent out on Feb. 18th. On arriving home he had some cakes and tea given him; this would be about six in the evening, and at one o'clock the following morning he was seized with pain, followed by sickness and diarrhoea. I saw him the next morning. He had been sick all night; no diarrhoea or motion then complained of. He had pain in the right iliac fossa; the pain was not very intense. Nothing could be felt. I saw him again on the following morning. The symptoms had increased: hiccup; abdomen tense; vomited food and medicines; no pain. I saw him again the next morning, being the fourth of the disease. He vomited a great deal; hiccupped; abdomen tense; no pain. He had not had a passage since the first attack of diarrhoea. He died during this visit. His temperature was never more than 99.4° F.

I made a post-mortem examination, and found the following morbid changes:—A piece of the small intestine, ileum, was perforated (no escape of feces), and had formed adhesions to the ascending colon. It was also strangulated here by recent inflammatory bands, and also slightly twisted. The bowel here was empty. The commencement of the large gut was constricted by bands of fibrous tissue crossing it, and connected to the iliac fossa, and thickened by inflammatory products. It was completely strangulated by one of the bands of fibrous tissue, and closed off from the general peritoneal cavity by local peritonitis. A collection of pus was also enclosed by the peritoneum around the upper portion of the cæcum. There was not general peritonitis; it was localised entirely to the right iliac fossa. There was no other visceral mischief or disease of the bones or a previous history of strumous disease.

*Remarks.*—This was a very obscure case from the beginning of the sickness and diarrhoea. It could not possibly be connected with the accident. He had only a slight pain below the left Poupart's ligament during the first night after injury. His bowels were quite regular, no sickness, and could pass his urine during the twelve days he was in the hospital. One is bound to believe that his intestinal trouble

was due to some irritant, possibly the cakes, as he had only taken them six hours when sickness and diarrhoea set in. It is remarkable in this that severe diarrhoea should precede the strangulation.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla enim est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

### ST. THOMAS'S HOSPITAL.

SOME CASES IN WHICH OVARIOTOMY WAS PERFORMED.

(Under the care of Mr. SYDNEY JONES.)

CASE 1. *Unilocular Cyst of Left Ovary; Recovery.*—H. M'C—, aged twenty-five, single. During the last twelve months has lost flesh; six months ago was told by her friends that she was getting stouter, but until two months since did not notice anything herself; she then noticed a swelling chiefly on the left side of abdomen, and a fortnight later had severe cramping pain, not accompanied by vomiting, which lasted three days. Catamenia regular; rather profuse. On admission a very large ovarian tumour completely filled up abdominal cavity, apparently unilocular. Eleven days after admission ovariectomy was performed under antiseptic precautions. One adhesion of recent origin was found, and the cyst, which proved to be unilocular and connected with left ovary, was removed, the pedicle having been secured with silk ligature. A suppository containing half a grain of morphia was given immediately after the operation, and the patient had a good night, being only disturbed by occasional vomiting consequent on the ether. Next day still some vomiting and much flatulence, also pain in region of left clavicle. Pulse 124. Third day: Vomited greenish fluid at intervals. Pulse 120. Allowed iced milk and soda water. Temperature at 4 P.M., 101.6°. Hypodermic injection of a quarter of a grain of morphia given six times during the day, also a dose of medicine containing seven minims of sedative solution of opium. Fifth day: The opium, which had been given on the fourth day, was discontinued. Still suffers from flatulence. Pulse 88; temperature last night 102°, this morning 98.8°. Sixth day: Allowed four ounces of wine, extract of meat, chicken jelly, and barley water. Wound dressed, and deep stitches removed, the parts being supported and approximated by broad strips of strapping. No discharge. Seventh day: Simple enema given. Ninth day: Urine contained albumen and a few blood corpuscles. After the fifth day the temperature did not rise above 99.6°, and the patient rapidly recovered, was allowed to get up on the sixteenth day, and left cured on the twenty-sixth day after operation.

CASE 2. *Tumour of Right Broad Ligament; Recovery.*—E. E.—, aged thirty, married; one child, aged eleven. Catamenia regular; noticed a swelling on right side of abdomen about ten months ago, this gradually enlarged without pain; large ovarian tumour projecting more to right side of abdomen. Four days after admission antiseptic ovariectomy was performed, adhesions extensive and numerous, the tumour first emptied of its fluid contents (twelve pints, claret colour), and then gradually separated from the abdominal wall in front and intestines behind, most of the adhesions, which were firm, being divided between a double ligature; the sac appeared to be enclosed in a fibrous capsule, and was found to have been developed in the right broad ligament, the left ovary was free. A morphia suppository was administered after the operation, but she became very restless later in the day, and had a subcutaneous injection of a quarter of a grain of morphia. Vomited three times during the day, and twice during the following night; urine drawn off by means of catheter. Next day urine drawn off every eight hours; pulse 142; two injections of morphia given. Catamenia came on; no vomiting. For some days she was troubled by a cough, which was relieved by ipecacuanha wine and bromide of potassium. The wound was dressed on the eighth, eleventh,



and fourteenth days after the operation, on the second occasion there was slight discharge, but wound looking well, and almost healed. The temperature, which on the third day was  $102^{\circ}2'$  (mid-day), did not fall below  $100^{\circ}$  until the ninth day after operation, when it fell to  $99^{\circ}2'$ ; after that it varied from  $99^{\circ}4'$  A.M. to  $102^{\circ}4'$  P.M. on the twenty-fourth day, when a swelling which had been gradually forming in the right side of abdomen, above Poupart's ligament, was aspirated, and seventeen drachms of offensive pus removed. The following evening the temperature rose to  $102^{\circ}6'$ , but there was no re-collection of the fluid, and patient left the hospital cured fifty-four days after the operation.

**CASE 3. Multilocular Cyst of Left Ovary; Recovery.**—J. S—, aged thirty-two, married, six children, youngest twenty months old. For six or seven months gradual enlargement of abdomen, and an attack of pain four months ago. She was tapped nine days before admission, and over five pints of thick viscid fluid withdrawn. Much distension of abdomen; distinct very movable tumour, chiefly on the left, with large smooth nodules on surface; indistinct thrill, and evidences of fluid in peritoneal cavity. Antiseptic ovariectomy was performed. On opening the abdominal cavity, a quantity of fluid, similar to that withdrawn fourteen days before, escaped. A multilocular cyst, connected with the left ovary, was removed after ligature of pedicle in two parts, and previous separation of slight adhesions. The large smooth nodules were found to be very tense cysts, which had perforated the wall of the large one and allowed of the escape of fluid into the abdominal cavity. Next day she complained of slight pain in the abdomen and thirst, had slept well, and only vomited three times. Temperature in the morning was  $99^{\circ}$ ; pulse 96. In the evening, temperature  $101^{\circ}$ ; pulse 100. For the first six days urine was drawn off by catheter every eight hours, and the patient allowed only fluids. On the fourth day the temperature had gradually fallen to normal, and continued so afterwards. Bowels opened by enema on the seventh day; wound dressed on the eighth, and deep stitches removed, the abdomen being supported by strapping. Without any further symptoms, she left cured forty-one days after operation.

**CASE 4. Solid Tumour of the Right Ovary; Recovery.**—S. K—, aged twenty-five, married, three children, noticed a small lump, the size of an egg, three years ago on the right side, after the birth of her first child. When first admitted she was suffering from peritonitis and anæmia. She was in hospital fifty-five days, and left cured. She came in again five days afterwards suffering from peritonitis, which had commenced the previous night; the attack was acute and lasted seven days. A rounded tumour was found in the lower abdomen, not connected with the uterus. Eleven days after admission antiseptic ovariectomy was carried out, and a solid tumour connected with the right ovary removed. After the adhesions in front had been peeled off, and some fresh ones divided between a double ligature, there were some still more recent ones on the upper and right side. The left ovary was healthy. The surface of the tumour was of a yellowish hue and suggested inflammatory softening. She had four injections of morphia during the night, from one-third to one-fourth of a grain, and slept for five hours. Next day the temperature was  $100^{\circ}4'$ , and the pulse was 140. She had no vomiting. The urine was drawn off by catheter for six days. The wound was dressed on the seventh day, when it had firmly united, and the sutures were removed and the parts supported by strapping. There was no further rise of temperature, and the patient left the hospital thirty-five days after the operation, having had no bad symptoms.

**CASE 5. Multilocular Cyst of both Ovaries; Recovery.**—C. S—, aged forty-seven, married; three children. Two years ago noticed a swelling above her left groin, which gradually increased in size. Has been tapped twice, seven and a half pints and twenty four pints having been removed. Great abdominal distension; no tumour could be defined, but pressure below umbilicus seemed to displace fluid, and a nodular mass could be felt indistinctly; there were evidences of fluid in peritoneal cavity, and patient suffered somewhat from incontinence of urine. When antiseptic ovariectomy was performed, a quantity of dark-coloured fluid, measuring fifteen pints, escaped from abdominal cavity. A multilocular cyst connected with the left ovary was removed after separation of firm pelvic adhesions; one cyst was much larger than the others and contained a ruddy-brown grumous fluid. A second tumour, also multilocular, but smaller, was removed from the right side after separation of some firm adhesions. Each

tumour was covered with a number of papillomatous nodules. A number of hard, firm, pea-like bodies were scattered over peritoneal surface of abdominal wall. Was weak and collapsed after operation, and an enema with one ounce of brandy was given; five hours after operation half a grain suppository of morphia was used, and six hours later a quarter of a grain was administered subcutaneously; she slept four hours. The temperature, which fell to  $95^{\circ}6'$ , rose to  $100^{\circ}1'$  at ten P.M., but became normal next day, and continued so throughout. On the third and fourth days bowels acted, motions loose. For two or three days she complained of pain in abdomen, and suffered from flatulence. Wound was dressed on eighth day, deep stitches removed, and parts supported by broad strips of plaster; it had quite healed, and there was no discharge. From this time she made an uninterrupted recovery, and left thirty-six days after operation.

**CASE 6. Tumour of Left Ovary; Recovery.**—E. B—, aged thirty, married, no children. Six or seven months ago had pain, and first noticed a swelling in the lower part of the abdomen; this gradually increased in size, and pain continued until about three weeks ago, when it ceased and did not recur. Menstruating every fortnight; always regular before appearance of swelling. Firm, tense, elastic tumour, smooth on the surface and with a distinct thrill of fluid on palpation, occupying chiefly the left side of abdomen, and causing considerable distension. Seven days after admission antiseptic ovariectomy was performed and the tumour removed; some slight adhesions were easily separated by the finger, but in one part a loop of intestine was firmly adherent, and the uterus also required to be separated; the pedicle, which was broad, was secured by a double ligature of silk. Next day suffered slightly from pain in abdomen and flatulence; had slept at intervals during the night, and had vomited once; two morphia injections of one-third of a grain had been given. In the evening, temperature rose to  $102^{\circ}2'$ , and continued above  $101^{\circ}$ , rising on evening of the fourth day to  $102^{\circ}6'$ , until 8 P.M. of the seventh, when it fell to  $99^{\circ}6'$ , and did not exceed it again. Was troubled only by flatulence until the fourth day, and then vomiting and hiccough came on, and she was fed by means of nutrient enemata, each containing half an ounce of brandy. Wound dressed on sixth day; a little redness about edges, but otherwise healthy; strapping applied and some of the stitches removed. Allowed to pass urine, without use of catheter; hiccough still troublesome. Fifteenth day after operation complained of abdominal pain, and vomited twice, and had much flatulence. Was better next day, and made a good recovery, leaving hospital forty-one days after operation.

### VICTORIA HOSPITAL FOR CHILDREN, CHELSEA.

WEBBED ARM, THE RESULT OF SCALD; PLASTIC OPERATION.

(Under the care of F. CHURCHILL, M.B.)

FOR the following notes we are indebted to Dr. WELDON, registrar:—

Alice B—, aged twelve, was admitted on March 21st, 1882. Two years previously she had fallen into boiling water, scalding severely the right arm and shoulder, which caused a firm cicatricial contraction of the skin and cellular tissue and muscles, so that the right arm became bound down to the chest-wall in the process of healing, forming a firm fibrous web, which, though not entirely, yet very considerably impeded the movements of the right arm, the muscles of which were a good deal atrophied from disuse. Fig. 1 represents the arm at the extreme point of tension from the side, after a drawing and tracing taken by Miss Will, the Sister of the Ward, shortly before the operation. The girl in other respects was remarkably strong and robust for her age. The primary operation was performed on March 31st, the final one on April 25th.

**Remarks by Mr. CHURCHILL.**—Carefully reviewing the past history of this case, the cause of the contraction of the tissues, and the wasting of the muscles of the upper arm, it became needful to determine the plan of operation which would best secure the permanent use of the arm with as little constraint as possible. The girl was altogether disabled from her occupation, that of domestic service. She could neither raise her arm to sweep, nor could she carry a child. By referring to the woodcuts it will be seen that the chief impediment to the liberation of the arm was a firm thick band of cicatrix tissue resembling a piece of

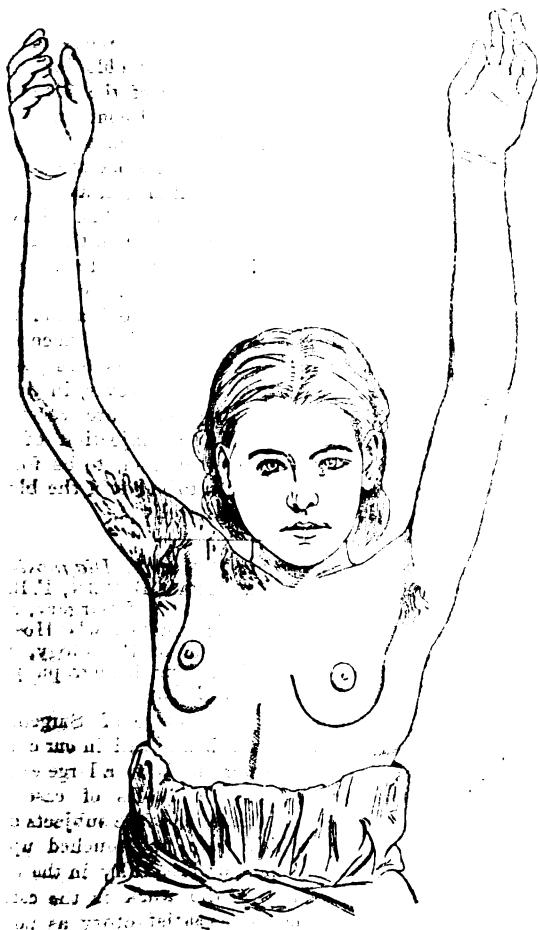
indiarubber, which bound the middle of the upper arm to the chest close to the right mamma. Just above this there was some fairly sound skin, which was thin, elastic, and adjustable, extending up to that which originally constituted the floor of the axilla, as evidenced by the growth of hair. In this situation was a small pouch of integument

FIG. 1.



about the size of a thimble. By stretching this pouch with the index-finger backwards, it could be brought into relation with the posterior part of the double web, which was dense and hide-like, and about four inches in depth. The first object was to form a new floor to the axilla by uniting together at the upper part these two widely separated folds

FIG. 2.



of integument, thus constituting a base of operation somewhat resembling the preliminary operation for webbed fingers. (Mr. Churchill makes a new septum between the roots of the fingers by perforation before dividing the web.) For

this purpose a large trocar and cannula were passed through the pouch, and after piercing this it was forced through the hide-like integument at the back, having its exit below the glenoid fossa of the scapula. The trocar being withdrawn a piece of elastic tube was passed through the cannula as a guide, and the cannula was then removed. To keep up the approximation of the divided edges the elastic tubing was strained by being passed through two small reels, one placed in front and the other behind. Both were fixed by a knot at the end. After ten days the tubing was cut away, and measurements were taken for clamping the remainder of the web, so as to form by a plastic operation a new arm-piece and a new chest-piece; the web to be divided vertically through the centre and the cut edges embraced by the clamps severally approximated. These clamps were designed for a double purpose—first, to arrest the hæmorrhage, and then to hold together the tissues which otherwise would have retracted and left a wide gap leading up to the axilla. Instead of the ordinary clamp with a hinge and screw, it was proposed to curve both arms of the clamp and to fix them at both ends with adjustable screws, so that the tension might be uniform throughout. As there was some delay with the instrument maker, and moreover as pus from the granulations was gravitating to the lower part of the double web, threatening cellulitis, Mr. Churchill proceeded to extemporise a pair of clamps with stiff wire bent upon itself and the ends tied together; one clamp being on the arm side of the web and the other towards the chest. Harelip pins were then passed through the web, close to and parallel with the clamps, and the double flap of integument was divided up to the sinus which formed the new floor to the axilla, and which was found to be granulating over nicely. The cut edges were drawn together and the harelip pins fixed with silk, in the usual way.

As might be expected, some of the cicatrix tissue sloughed, but on the whole the wounds healed very rapidly, and the girl went out with her arm quite liberated from her side twenty-six days after the operation. Fig. 2, taken by tracing from a photograph, shows how she could on July 1st raise the arm to the same height as the other, without any straining or stiffness of joint or muscles. It will, of course, require constant use and some gymnastic exercise in order to develop the deltoid and scapular muscles, which have become wasted by disuse for so many months.

#### QUEEN'S HOSPITAL, BIRMINGHAM.

SUICIDAL PISTOL WOUND OF PERICARDIUM, HEART, AND STOMACH; DEATH IN TWENTY-THREE HOURS.

(Under the care of Mr. WEST.)

E. E—, a bank manager, was admitted April 20th, 1892, at 7 P.M., with a circular gunshot wound on the left side of the chest one-third of an inch in diameter, three inches below the nipple, and one inch to its sternal side. Patient suffered from slight shock, but was quite sensible, and remained so till he died. There was no external hæmorrhage, and only slight traces of blood on his shirt. He twice vomited after a pint of blood. Death occurred about 6 P.M. next day, nearly twenty-four hours after the infliction of the injury.

*Necropsy.*—A wound existed over the fifth intercostal interspace, with blackened inverted margin. The course of the bullet was as follows:—Through the fifth interspace into the pericardium, lacerating a few fibres of the apex of heart over the posterior interventricular sulcus, emerging from the pericardium close to the wound of entry, it passed through the diaphragm into the stomach at its cardiac end, through the cavity and out again by its posterior surface. It then passed again through the diaphragm into the posterior mediastinum, and lodged in the body of the tenth dorsal vertebra about half an inch to the left of the median line. Heart healthy. Lungs healthy and uninjured by bullet. Right pleura natural; left pleura contained a large quantity of bloody fluid. Liver cirrhotic. Kidneys slightly granular. Intestines full of black blood; abdominal aorta extensively atheromatous. Spleen soft and friable.

The rarity of wounds of the heart, pericardium, and stomach, and the fact that the man lived nearly twenty-four hours after so serious a complication of lesions of important organs, will, perhaps, be deemed a justification for this case being recorded.

## Reviews and Notices of Books.

*Catalogue of the Pathological Museum, Medical College, Calcutta.* By J. F. P. MCCONNELL, M.B. Calcutta: Printed at the Bengal Secretariat Press. 1881.

A GOOD catalogue is a necessary adjunct to every museum, and the thanks of all workers in the subject which the collection illustrates are due to him who undertakes the laborious task of its compilation. In the present instance the author has been engaged on the work for several years, and has succeeded in producing a catalogue which for skillful arrangement and careful description is admirable of its kind. Glancing through the pages of this handsome volume, one is struck by the systematic manner in which the work is planned and also by the terse but explicit paragraphs in which the specimens are severally described. The author has thus enabled those of us who have no personal acquaintance with the collection to judge of its quality and, indeed, to marvel at its very complete character. The Calcutta Museum contains, we may venture to say, many specimens the like of which are not to be found anywhere else in the world. It is, of course, rich in specimens of diseased conditions peculiar to tropical climates; but it also abounds in well-marked instances of the results of injury and disease which are common to all regions. The whole collection, numbering nearly 3000 specimens, has been subdivided into twenty series, commencing with fractures and dislocations, then diseases of bones, diseases of joints, injuries and diseases of muscles, diseases of the spine, and, in turn, the injuries and diseases of each several system of organs. Then come tumours (a very complete collection, well arranged), malformations, &c., entozoa, and calculi. In an appendix is contained a catalogue of the casts, wax models, and drawings belonging to the Museum.

The first catalogue of this valuable collection was made in 1865 by Dr. Jos. Ewart. Since then, thanks to the contributions of medical officers in all parts of the country, the specimens have nearly trebled in number. Selecting some almost at haphazard, we may mention specimens of syphilitic hypertrophy of the skull, those of rupture of the heart (a considerable number), of aneurism of the heart, of aneurism generally (a complete series), of nerves in leprosy, intestines in dysentery, and abscess of the liver; some specimens of mycetoma or madura foot; and among parasites, specimens of amphistoma and of the *dochmius duodenalis*. The collection of urinary calculi is a special feature of the Museum.

The art of catalogue-making requires special attributes, and demands much assiduity and a wide knowledge of the subject. Mr. McConnell has shown himself particularly suited for the work, and the result is a catalogue which is a thorough guide to the Museum. The very full index at the close of the book adds much to its value and utility.

*De la Lithotritie Rapide.* Par le Dr. RELIQUET, Lauréat de l'Institut, Vice-Président de la Société de Médecine de Paris, &c. Paris: Adrien Delahaye. 1882.

DR. RELIQUET is the author of several treatises, small and great, on the diseases of, and operations on, the urinary organs, but he had not hitherto written on the new form of lithotrity introduced by Bigelow. Nor, indeed, can we say that he has now done so. In the paper before us Bigelow's original lithotrite and evacuator are figured and described, but his recent improvements of them are not so much as mentioned, and it does not appear that Dr. Reliquet has tried either of them. In this and other points it bears marks familiar to us in a good deal of the current French medical literature; the author is eminently theoretical, and deems it not improper to discuss instruments and methods of the value of which he has not had personal experience.

The main points dwelt upon by Dr. Reliquet are these: First, the necessity of so placing the patient that the lithotrite at once seizes the stone on entering the bladder; or, in other words, having the lowest part of that viscus in a line with the axis of the membranous and prostatic portions of the urethra. Pointing out that the position necessary for this varies with the shape of the bladder, he urges the necessity of trying before the operation what position secures this object. He himself uses a special apparatus, which, placed on the bed under the patient's buttocks, can be used to raise the pelvis to any desired height, and to rotate it laterally. He then describes his own form of lithotrite—*brise-pierre à pignon*—the special features of which are a female blade fenestrated in its whole length, with three small wedges of steel projecting from either side into the fenestrum; a male blade, with wedge-like projections, serrated on their fine edge, which can not only be driven into, but actually made to project beyond the female blade. It is used with a mallet or a rack and pinion. It is claimed for this instrument that it cannot possibly become clogged with debris, that it has not to be withdrawn from the bladder until all the crushing is complete, and that the portion of calculus caught between the two blades is completely ground up between their wedges. With this instrument it is alleged that stones of two to two and a half centimetres in diameter can be crushed completely in from one to three minutes. In cases where the bladder possesses contractile power Dr. Reliquet is opposed to "aspiration" to extract the fragments, but prefers to rely solely upon repeated injections of fluid through a full-sized catheter with a double large eye. Where, however, the expulsive power of the bladder is deficient, he uses an aspirator, and prefers Thompson's model to Bigelow's. Thus he assents in the main to Bigelow's propositions, and advocates crushing the stone at once, and removing all the fragments by artificial means, as the safest mode of emptying the bladder of a calculus. That his instrument will be preferred to those in use in this country and America we cannot anticipate. It is to be urged, however, in support of his preference for evacuation of fragments by the contractile power of the bladder rather than by aspiration, that it causes less disturbance of the bladder itself, but on the other hand it is less powerful and slower. It may be worth a trial, however, in cases of phosphatic calculi where the fragments are very light. Further, Dr. Reliquet recommends an injection of weak carbolic lotion at the end of the evacuation, to be followed by injection of boracic acid solution to be left in the bladder, but neither of these suggestions is novel.

*Sarcoma and Carcinoma; their Pathology, Diagnosis, and Treatment.* By HENRY TRENTHAM BUTLIN, F.R.C.S., Assistant-Surgeon and Demonstrator of Surgery, and of Diseases of the Throat, St. Bartholomew's Hospital; lately Erasmus Wilson Professor of Pathology, Royal College of Surgeons. With four lithograph plates. London: J. and A. Churchill. 1882.

MR. BUTLIN's lectures at the College of Surgeons in the years 1880 to 1881 were published in full in our columns at the time. The volume before us is to a large extent a reprint of those lectures, but the tables of cases have been enriched by a few additions, and the subjects of diagnosis and treatment, which were not touched upon in the lectures, are discussed more or less fully in the volume before us. The chief feature of the work is the care that has been taken to have the data as satisfactory as possible: the cases utilised have all been submitted to microscopical investigation, and the structure of the new growths in every instance has been ascertained with precision. This accounts for the limited number of cases to be found in the tables; but it gives to Mr. Butlin's work a value that would be

unattainable by any other means. The connective tissue or epithelial origin of a tumour is the test upon which Mr. Butlin relies to distinguish a sarcoma from a carcinoma. His classification of the species of these two great families of malignant tumours is simple, and at the same time satisfactory; its chief peculiarity is that it groups scirrhus and encephaloid cancer together as spheroidal, or glandular-celled carcinomas. The tumours of each bone are considered separately, and a broad line of distinction is drawn between those starting under the periosteum and those having a central origin. Mr. Butlin shows that this distinction has more than a mere pathological interest, for his cases prove that central sarcomata are less malignant than the subperiosteal. The testicle, tongue, œsophagus, and tonsil are the other organs whose malignant tumours are discussed. The plates, drawn by Mr. Butlin himself, are a great addition to the text, for they are faithful representations of the actual appearances, and will prove of great service to those who are not familiar with morbid histology.

## Analytical Records.

### AERATED CLARET-AND-LEMONADE.

(J. PROSSER & Co., BURY-STREET, ST. MARY AXE.)

CLARET-AND-LEMONADE has of late years become deservedly popular. No more wholesome or pleasant summer drink could be devised. The idea of uniting the two ingredients in the same bottle is a good one, and the product will be welcome at picnics and in yachts, as well as in private houses.

### EMBLIC MYROBOLANS.

(WM. MARTINDALE, NEW CAVENDISH-STREET.)

The fruit of the Indian *Phyllanthus emblica* preserved in syrup. It is said to be a mild diuretic and purgative, and a pleasant confection. We cannot honestly endorse the latter description. The fruit, though not exactly "nasty," is dry and somewhat harsh.

### ESSENCE OF MALT, PREPARED BY DENCE AND MASON'S PATENT PROCESS.

(BRAND & Co., MAYFAIR.)

As might have been expected from Messrs. Brand and Co.'s high reputation, this is an excellent and trustworthy malt extract. The essential condition of evaporation at a low temperature, so as to avoid alteration of the diastase, has evidently been attained.

### CONCENTRATED WATERS.

(ROBINSON, RICHMOND-STREET, PENDLETON, MANCHESTER.)

Among the samples sent to us, we find Aq. Anethi, Anisi, Cinnam. ver., Rosæ, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopœia. They are excellent in quality, and will be very useful, especially in country practice.

### SOAP LEAVES.

(WILLERINGHAUS, KLINKER, & Co., 13, HAMSELL-STREET.)

We have received samples of a newly patented invention that promises to be of some service, especially to members of our profession. It consists of small thin soap tablets, arranged in the form of leaves in a book. Each leaf suffices to make a good lather, and the convenience as well as portability of the article are great recommendations in its favour. The makers are Messrs. Reithoffer and Neffe, of Vienna, to whom the above-named firm are the London agents.

## THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

TUESDAY, JULY 4TH.

DR. ACLAND, PRESIDENT, IN THE CHAIR.

THE Council considered the case of John Wise Wilson, who had been convicted and sentenced to fourteen days' imprisonment for being found wandering about without visible means of subsistence. There being not sufficient evidence of identification, the Council did not direct the name to be removed from the Register.

The Council then took into consideration the case of David Beatson Murdoch, who was summoned to attend to answer a charge of "infamous conduct in a professional respect."

Mr. FARRER, the solicitor of the Council, explained that there were three imputations against Mr. Murdoch. The first was that of employing unqualified practitioners to attend patients at various dispensaries, and also at their own houses; the second was a charge of allowing an unqualified practitioner to sign his name to a false certificate of death; and the third was that in cases in which unqualified practitioners attended he himself appeared at the last moment and signed certificates of death so that it should appear that the patients had been attended by a qualified practitioner. With reference to the last charge there was no sufficient evidence of continued practice to support it. As to the charge of signing a false certificate, Mr. Murdoch himself alleged that Mr. Griffin, the unqualified practitioner who signed his name, did not sign it by his authority, and that the signature was a forgery; and there was no evidence to support the allegation that Mr. Griffin had authority to affix the signature. The evidence with regard to the first charge, that of employing unqualified practitioners in dispensaries, was in the depositions taken at a coroner's inquest, coupled with his own written statement to the Council.

Mr. FARRER then read the evidence at the inquest on Martha Elizabeth Bailey Chatfield on the 7th of July last, and the statement that "Mr. Murdoch is seriously to blame in allowing Colonel Griffin to practise in his name, and that the deceased was unsatisfactorily treated by his dispensary attendant."

Before Mr. Murdoch was called in,

Dr. HAUGHTON called attention to the serious aspect of the case, and to the remark of the Home Secretary with reference to it in Parliament, to the effect that the proper course was to bring it before the attention of the Medical Council with a view of putting the Act into force against the offender. It should be regarded, he said, as a typical case of a most serious character, and it demanded the most serious consideration of the Council.

Mr. MURDOCH was then called in, and stated, in answer to questions by Mr. Farrer and several members of the Council, that he was the owner of the dispensaries at 149, St. Leonard's-road; at 37, Ben Jonson's-road; at 135, East India-road; and at 165, Kingsland-road; and he had a qualified practitioner at East India-road, but not at the other dispensaries. His own residence was at 200, Dalston-lane. He had attended the inquest, and heard the evidence of the witnesses. Asked whether he had any statement to make in reply to the charge brought against him, Mr. MURDOCH said he desired to express his sorrow for what had happened, and to assure the Council that they would have no cause to complain of his conduct in the future. He had never authorised Mr. Griffin, or anyone else, to sign his name to certificates. He was very sorry for having employed unqualified assistants. He had already closed one dispensary, and he intended to dismiss his unqualified assistants, and not employ them any more. A great deal of what Mr. Griffin said at the inquest was untrue. It was not true that he had ordered the issue of handbills announcing the reopening of the dispensary at 149, St. Leonard's-road,

Poplar, conducted by physicians and surgeons. The bills were issued by Mr. Griffin. He (Mr. Murdoch) had issued a bill with reference to another dispensary, stating that it was "conducted for the public benefit by David Beatson Murdoch, assisted by other medical attendants." By "other medical attendants" he meant his qualified assistant (Mr. W. A. Hope) and Mr. Griffin, who had informed him that he had a Canadian diploma. He had never asked Griffin to show him the diploma, and had never suspected him till after the inquest, when he told him that he had been deceiving him. He (Mr. Murdoch) could produce satisfactory evidence as to character from medical men and others, but he was not then prepared with it. The handbill stating that his dispensary was conducted for the public benefit by David Beatson Murdoch and other medical attendants was intended to be an answer to a libel that had been previously issued. He had used the term "provident dispensary," but it was not strictly so. The patients paid 2s. 6d. a week for attendance at their homes, and 1s. a week for attendance at the dispensary. The attendant visited the patients as often as necessary, according to the nature of the case. He wrote the prescriptions, and a dispenser made them up. His attention had not been called by Griffin to the case of the child Martha Chatfield. The number of out-door patients visited was about ten daily, and about twenty at the dispensary. The statement that there were as many as seventy-eight patients in a day was untrue. No list of patients was kept. There was a book showing the names, ages, and amounts paid by the patients. The 1s. and 2s. 6d. covered the cost of medicines. There was only one dispenser, and he was at St. Leonard's-road. The assistants at the other dispensaries made up their own mixtures. He (Mr. Murdoch) attended about an hour daily at each dispensary. The worst cases were kept for him to see. He trusted to the assistants to call his attention to them; he had no check upon them. The dispenser was not a qualified person. He had a knowledge of drugs, and was on the Dental Register. Mr. Hope began to be his assistant in November last. The two most distant dispensaries were about a mile and a half apart. The words in his handbill stating that the author of the libel was a "liar" were used with his (Mr. Murdoch's) sanction. The "hospital doctor" referred to in one of the depositions was a hospital student named Elliott, of St. Bartholomew's. He knew nothing of the "young lady" referred to as being kept at the dispensary; that was an affair of Mr. Griffin's. The house in St. Leonard's-road was leased to Mr. Griffin at a rent of £40, and he (Mr. Murdoch) rented the ground-floor, for which he paid 10s. a week. He had bought the dispensary of Mr. Griffin for £120, of which he had paid £50. It was kept by Dr. Shackleton before Griffin had it. He (Mr. Murdoch) was now making an arrangement with the landlord to take the whole house, with a view of carrying on the dispensary at least for a short time. He had never had anything to do with dispensaries till the last few weeks, having always been engaged in private practice.

Mr. FARRER then read the depositions of the witnesses at the inquest on Henry Arthur Parker, at which a similar finding was given by the jury.

Mr. MURDOCH said the certificate of death was not in his writing, and he had given no authority to Griffin to sign for him. The "dark gentleman" who saw the child was Griffin, and the "fair gentleman" himself (Mr. Murdoch). He had never signed any blank forms for certificates.

The Council then deliberated on the case for three hours in private. On the readmission of the public,

The PRESIDENT, addressing Mr. Murdoch, said: The General Medical Council has deliberated with the greatest care upon the case of yours that has been submitted to them. They have heard and read all the depositions, and the inquiries which were presented to them. They were read in your presence, and they heard all you had to say or wished to communicate to them. This is the decision at which the Council has arrived: "That, acting under the 29th Section of the Medical Act, the General Medical Council, after due inquiry, adjudges that you have been guilty of infamous conduct in a professional respect; but the Council does not now direct the Registrar to erase your name from the Register." They have come to the conclusion, after the fullest consideration, being compelled to form a distinct conclusion on the point submitted to them under Clause 29 of the Act; and they have not desired or intended to remove your name from the Register, believing that you have undertaken to discontinue the various acts which have been com-

plained of in the allegations presented to them. That is the decision of the Council.

Mr. MURDOCH: I am much obliged to you, gentlemen, for the lenient view that you have taken of my case. I can assure you that I will endeavour in future to abide by the strict rules of the Council.

WEDNESDAY, JULY 5TH.

Sir WM. GULL gave notice of the following motion: "That for the putting into action Section 29 of the Medical Act, three-fourths of the votes of the whole Council must be in the affirmative."

The Council proceeded to take into consideration the communications with regard to Mr. Dixon of South Australia.

Mr. MACNAMARA said that every fact connected with the case was now before the Council, and it was clear that the attendance required by the Council had not been enforced. He simply called attention to the matter, and would make no motion till the answer of the representative of the Apothecaries' Hall had been heard.

Mr. COLLINS said that the communication from the South Australian Branch of the British Medical Association contained two serious accusations against the Apothecaries' Hall of Ireland. One was that of carelessness and the second that of informality. As one of the four members of the court of the Apothecaries' Hall who examined Mr. Dixon's papers and took part in his examination, he could assure the Council that there was no ground for the charge of carelessness, and he never recollected any case that came before them that received more deliberation. Mr. Dixon commenced his professional studies three years before the Medical Council came into existence, and therefore the Apothecaries' Hall considered that the responsibility of acceding to or rejecting his memorial rested upon them. Mr. Dixon stated that having lived for twenty years in the warm climate of Australia his health was so greatly injured by his residence for six months during the previous winter in Scotland, that under no circumstances could he endure a second winter in the north of Europe, as he was threatened with pulmonary disease, and would be absolutely obliged to leave before the winter commenced. With regard to the charge of informality, the court of the Apothecaries' Hall certainly departed from their own curriculum of 1855 and from the educational rules laid down by the Medical Council. Mr. Dixon did not pass the preliminary examination; did not serve any apprenticeship to a licensed apothecary; and did not go through the entire course of education; but the court regarded it as a special case, similar to one which arose twelve or fifteen years previous to the time when Mr. Dixon commenced his education, and when they were called upon by Her Majesty's Government to admit to their examination a considerable number of gentlemen practising in the north of Ireland. Those gentlemen were chiefly retired naval surgeons; they took upon themselves not only to compound medicine for their own patients, but to open shops for the sale of drugs. The licentiates of the Apothecaries' Hall required the court either to insist upon those gentlemen ceasing to violate the law or else to put the law in operation against them. The persons complained of memorialised the Government, and the Government sent an official communication to the Hall, informing them that by the 22nd and 23rd Section of their Act they were authorised to examine the candidates simply and solely upon their knowledge and competency. The opinion of some of the highest legal authorities in Ireland was obtained, and they all agreed that the 22nd clause gave the Hall very considerable liberty of action. Virtually it enabled them to grant licences *sine curricula*, but they had endeavoured at all times and under all circumstances as far as possible to conform their regulations and conduct to the desires of the Medical Council. In the case of Mr. Dixon, they considered that justice to an individual was consistent with the public good, and that they were doing what was fair and right by admitting him to an examination, and, on his passing it satisfactorily, giving him the licence of the Hall to practise as a general practitioner. Under these circumstances he proposed "that having considered the communication from certain members of the South Australian Branch of the British Medical Association, with regard to the case of Mr. Hartley Dixon, and the reply of the Apothecaries' Hall of Ireland thereto, and having now heard a further statement on the subject from the representative of the Apothecaries' Hall of Ireland, the Council is of opinion that it is unnecessary to take further steps in the matter." If they had acted in an informal



manner in this case they had only done what they were obliged to do, in accordance with the direction of the Government on a previous occasion.

Mr. MACNAMARA seconded the motion. He said he thought it only right to inform the Council that no mercenary motives could have influenced the governor and Company of the Apothecaries' Hall, for the fee did not cover the expenses of the examination.

The resolution was agreed to.

The Council then proceeded to consider the petition of Mr. George Stratten Symmons, for the restoration of his name to the Medical Register.

Dr. CHAMBERS moved that the name be restored to the Register.

Dr. PITMAN said the Council had no power to restore the name in such a case unless the person obtained from one of the bodies another qualification, or the renewal of his former qualification; but in accordance with the desire of the Council all the bodies had agreed not to give such a qualification.

Mr. TURNER said that the petitioner appeared to have had two qualifications: membership of the College of Surgeons, England, and the licence of the Apothecaries' Society. He only asked for the restoration of the latter, from which it might be suspected that he had not been struck off the roll of that Company. If, therefore, he presented his licence could the Council refuse to register him?

The PRESIDENT said it was manifest that a legal point was raised in this case, and it might be advisable to obtain legal opinion with respect to it.

After a short discussion, Dr. CHAMBERS withdrew his motion, and

Dr. PITMAN moved, and Dr. CHAMBERS seconded, "That the opinion of counsel be taken as to whether the Council has power to restore to the Medical Register the name of a person erased under Section 29 of the Medical Act."

The resolution was agreed to.

The next subject taken into consideration was that of Wm. Story of Linsdale, Bedfordshire, who had been sentenced to five years' penal servitude for setting fire to his house "with intent to injure and defraud." The Royal College of Surgeons of England had removed his name from the list of Fellows and Members.

Mr. SIMON said he should have no hesitation in voting that the name be erased from the Medical Register, if he knew that at the end of the five years the Council would have the option of restoring it. Where a man had committed a crime, and the law had given him what was deemed a proportionate punishment for his offence, he (Mr. Simon) was not sure that the Council ought, in addition, to take from him the means of earning his livelihood when he was released. Undoubtedly the name ought to be struck off while the period of imprisonment lasted, but it would be better to reserve a decision upon the case till counsel's opinion had been obtained in the previous case.

On the question being put from the chair it was resolved, by eight votes to five, "That the Council direct the Registrar to erase from the Register the name of Wm. Story."

The next matter for consideration was that of Dr. Hoar, respecting whom a letter was read from the Registrar of the Divorce Court, stating that a jury had found that he had committed adultery with Mrs. Stenning. The record had been obtained by the direction of the English Branch Council.

Dr. QUAIN said that the case could only be gone into as one of infamous conduct in a professional respect, and must be dealt with in the regular way. It was, therefore, a waste of time to talk about it now. Dr. Hoar must be summoned before the Council, and tried by them.

Dr. HAUGHTON moved, "That the case of Wm. Hoar be left for the present in the hands of the English Branch Council."

Mr. MACNAMARA seconded the motion, which was agreed to.

#### DENTAL BUSINESS.

Dr. QUAIN gave a short historical outline of the proceedings of the Council with regard to the Dental Register, and referred to the various opinions of counsels which had been obtained in regard to it.

Mr. FARRER (the solicitor of the Council) referred to the opinions that had been obtained from Sir John Holker, Mr. Bowen, Mr. Vaughan Hawkins, Mr. Fitzgerald, and Sir Farrer Herschell.

Dr. STORREAR moved, "That the opinions of Mr. Bowen,

Mr. Fitzgerald, the Solicitor-General, and Sir John Holker, in regard to the registration of dentists under the Dentists Act, 1878, be entered in the General Council's minutes." He considered that in order to enable the Council to arrive at a proper decision, the opinions of counsel should be placed upon the minutes.

Dr. PYLE seconded the motion.

A long discussion ensued as to the practice in such cases, and the advisability of making counsel's opinions public.

Ultimately Sir Wm. GULL moved, "That the opinion of counsel, for the guidance of this Council for the registration of dentists, be considered confidential, and be not entered in the Council's minutes."

Dr. LYONS seconded the amendment, which was carried—15 voting in its favour and 6 against.

The Council then entered upon a prolonged discussion on the question of the erasure of certain names from the Dental Register, and it was finally agreed, "That the Council are not prepared to take steps, as suggested by the Dental Association, to erase names from the Register which have been placed therein by the Council under legal advice."

A motion by Dr. PITMAN, seconded by Mr. TEALE, to suspend the standing orders, and "That the Council meet at twelve o'clock to-morrow," was negatived.

The Council then adjourned.

#### THURSDAY, JULY 6TH.

#### VISITATION OF EXAMINATIONS.

After some formal business, the Council proceeded to consider the report of the Committee of the whole Council on the conclusions of the visitors of examinations, 1881 and 1882.

On the motion of Mr. TEALE, the first seven recommendations in the report were adopted by the Council. Clause 8, with reference to the limitation of time in oral examinations, and Clause 9, with reference to hygiene and preventive medicine, were not adopted; but it was resolved that the attention of the medical corporations be directed to them, and also to the subject of mental disease, which had not been mentioned in the report of the Committee of Council.

Mr. TEALE then moved, "That a copy of the visitors' report, the remarks thereon, and the resolutions of the Council be transmitted to such teachers in the medical schools of the United Kingdom as the Executive Committee might select, inviting their opinions on the subjects of medical education referred to in the reports."

Dr. QUAIN asked what was the object of inviting the opinions of the teachers. If it was intended to reopen the subject it would be a monstrous waste of time.

Dr. WATSON said that no further inquiry was needed; the work was done, and there was no necessity for communicating with the teachers on the subject.

Dr. HUMPHRY suggested that the documents should be forwarded to the medical schools without asking their opinions.

Mr. TEALE assented to that suggestion, and his resolution was passed accordingly.

#### REMOVAL OF NAMES FROM THE REGISTER.

Dr. PITMAN moved, pursuant to notice, "That it would be desirable that in any amendment of the Medical Acts provision be made as regards persons whose names may be struck off the Medical Register (under Section 29 of the new Act) that every such person shall *ipso facto* forfeit any medical title which he may at the time hold from any of the medical authorities, subject, however, to the further provision that any authority, if it see fit, may afterwards renew to such person the forfeited title, on condition of its not being again registrable under the Medical Acts, except with the consent of the General Medical Council." He said that the fact had come before the Executive Committee that there were cases in which names might be removed from the Register while the authorities granting the qualifications had no power to strike the names off their lists. The Executive Committee had passed a resolution upon the subject, which, he thought, did not require confirmation by the Council; but, as it dealt with certain powers and privileges of the medical authorities, it appeared to him that it was desirable that the Council should have the opportunity of knowing and confirming the view which the Executive Committee took in the matter. When a person was struck off the Medical Register it was within the power of some of

the bodies to erase his name from their list, but other bodies had not that power. The Council could only recommend that those bodies should not grant their qualifications again to the same person; but it was sought by the resolution that the power to grant those qualifications again should be taken from them, unless the Medical Council consented, so that the Council would have in its own hands the power of not allowing a medical body to reissue a qualification which had been forfeited to any person whose name had been erased from the Register under Clause 29. He believed there was no medical authority that did not wish to have the power of erasing names from their lists, and it was therefore proposed that in any amended Medical Act all the authorities should have such power, and that when a person's name was struck off the Register his qualification should be *ipso facto* forfeited.

Mr. SIMON seconded the motion.

Mr. TURNER said that there were bodies that undoubtedly possessed the power of striking names off their lists, but he questioned whether any university had the power to remove the name of a graduate.

Dr. HAUGHTON said that no university had such power.

Mr. CHAMBERS said that he believed the University of Oxford had exercised such a power.

Mr. TURNER said that the Scotch universities had no power to degrade a graduate. The resolution opened up a very grave question, and he thought they should have a little more light upon the legal aspects of the case before adopting it. When once a graduate's name was removed, it might be that it could not be restored without a renewal of this examination. He should like to know what the lawyers had to say upon the subject. If the motion were adopted it might throw enormous difficulties in the way of a person who desired to get his name restored on the Register, because his qualification would be actually destroyed. He would have to go through a double ordeal—that of asking the Body to renew its degree and also that of asking the Council to re-register his name. It was a question how far the Council would be justified in putting that additional difficulty in the way of the licentiate.

Dr. STORRAR said that the University of London never supposed that it could deprive a man of a degree once conferred upon him. The motion proposed to give such power of deprivation to a body quite outside the university, and such a proposal he thought would be demurred to by the university authorities. When a man's name was removed from the Register for unworthy conduct he was deprived of all the privileges of the Medical Act, and he (Dr. Storrar) was inclined to think that that was a sufficient punishment, and that it was not necessary to interfere with the universities or any of the other bodies in reference to their qualifications.

Dr. HAUGHTON sympathised with Dr. Pitman's object in bringing forward the resolution, but thought it would be impossible to carry it out. Not only had the universities no power to take away a degree once given, but Parliament itself could not take it away any more than it could unbaptise a child who had been once baptised. The university of Dublin had expended a great deal of money in endeavouring to take away the degree of D.D. from an unworthy person, but the final decision of the court was that the degree, having been once conferred, could not be taken back.

Dr. HALDANE thought it would be desirable that the motion should be postponed, as there were difficulties in the way of carrying it out, and there was no urgency in the matter, since there was no prospect of a Medical Bill being brought forward before the Council had an opportunity of meeting again. In the meantime it might be desirable to obtain information as to the legal bearings of the case.

Dr. BANKS thought that the removal of a name from the Medical Register answered all practical purposes. No doubt, however, bodies ought to possess the power of removing names if they saw fit.

Mr. MACNAMARA said that the College of Surgeons in Ireland had such a power, and suggested that those who did not possess it should adopt some means of obtaining it. The Apothecaries' Society of England had recently obtained the power by Act of Parliament. He was quite sure that the College of Surgeons in Ireland would look with a very jealous eye upon any proposal to transfer to any other body the power of removing names from the list of licentiates.

Dr. BANKS said that the King and Queen's College of Physicians, Ireland, possessed and had exercised the power.

Dr. LYONS hoped that Dr. Pitman's motion would not be

pressed to a division. The object was a good one, but, like many other desirable objects, it could not be accomplished by legislation. The power of removing names should be exercised, if at all, by each of the bodies on its own responsibility, and there was no probability of Parliament entrusting such a power to another body.

Dr. HUMPHRY did not believe that the universities would assent to their graduates being placed in any way under the authority of the Medical Council. If legislation took place upon the lines of the report of the Royal Commissioners, the several bodies and their titles would be removed further from the influence of the Council than they were at the present time.

Mr. SIMON thought that it would not be desirable to press the motion, and that Dr. Pitman's object would be answered by the discussion that had taken place. Notwithstanding Dr. Haughton's metaphor with regard to baptism, he thought that every university should have the power of striking names off its register in the case of infamous conduct.

Dr. QUAIN thought it would be sufficient to propose that, in any amended Act, all the authorities should have the power of removing names from their registers.

Dr. PITMAN said he had thought it desirable to bring the motion before the Council because the rights and privileges of universities and corporations were concerned in the question. With regard to the difficulties placed in the way of persons desiring to get their names restored, he maintained that such difficulties ought to exist. It ought not to be easy for a man to get on the Register again when once he had been struck off under Clause 29. Dr. Humphry might have spared his observations, because he was certainly in favour of the resolution when it was before the Executive Committee. Under the circumstances he was willing to withdraw the motion.

The motion was withdrawn accordingly.

#### THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

Dr. SMITH brought before the Council a correspondence between the King and Queen's College of Physicians in Ireland and the Registrar of the Branch Council for England, with reference to a licentiate of that body, Mr. O'Leary, who had been charged with malpractice by a fellow practitioner. On April 8th, 1881, a letter was written from the College to the Medical Council stating the facts of the case. At an inquest held at Birmingham Mr. R. A. Prosser, after having at a post-mortem examination examined the kidneys and abdominal viscera, swore that the kidneys were healthy, and gave it as his opinion that death was caused by negligence on the part of Mr. O'Leary, who had attended the patient but one day before her death. On that evidence Mr. O'Leary was committed for manslaughter. It was, however, subsequently shown that the kidneys had not been disturbed in their place, and that the examination of the viscera had been incomplete. That fact was disclosed before the stipendiary magistrate, and the prisoner was discharged. The grand jury also threw out the Bill at the Warwick Assizes. The King and Queen's College of Physicians desired that the Medical Council should inquire into the facts of the case, and if necessary deal with it under the powers conferred by Section 29 of the Medical Act. The Medical Council, according to standing orders, referred the matter to the English Branch Council, which body decided that the case did not seem to be one in which they could usefully take action. The College again wrote to the Medical Council directing its attention to the case. It then went before the Executive Committee of the Council, who decided that the course taken by the Branch Council for England was in conformity with the standing orders and according to the advice of the solicitor to the Council; but that under the circumstances of the case the whole subject should be thoroughly investigated. The matter again came before the Branch Council, which came to the conclusion that as there was a conflict of evidence, and as there had been no action for perjury against Mr. Prosser, it was not considered necessary to send the letter of the College, as requested, to the General Medical Council. Dr. Smith added that the College complained of the indisposition of the Branch Council to give assistance in the matter. As far as he could ascertain, the Branch Council had not taken the slightest trouble to inquire into the case so as to obtain additional information respecting it. He begged to move, "That the Branch Council be directed to make due inquiry forthwith as to the conduct of Mr. Richard Albert Shipman

Prosser, M.R.C.S. Eng. and L.S.A. Lond., in the case brought under the notice of the General Medical Council by the King and Queen's College of Physicians in Ireland in two letters dated April 8th, 1881, and May 24th, 1881; and that the Branch Council submit to the Medical Council the result of the inquiry." [At the suggestion of several members Dr. Smith modified the first part of the resolution thus: "That the Branch Council of England be requested to make further inquiry," &c.]

Mr. TURNER thought that Dr. Smith was out of order in bringing forward his motion, as the Branch Council, to whom the matter was properly referred under the standing orders, had given its decision.

Dr. LYONS said that the matter had not been brought before the Council itself, and he thought Dr. Smith was quite right in adopting the course he had pursued.

Dr. BANKS said that the King and Queen's College of Physicians had done everything it could to support the dignity of the profession, and the case it had submitted to the Council ought to be thoroughly investigated.

Sir WM. GULL said that the whole matter had been inquired into, and the Branch Council came to the conclusion that the case did not seem to be one in which it could usefully take action. There was no indisposition on the part of the members of the Branch Council to do their duty, and he complained of the imputation thrown upon them by Dr. Smith. He (Sir Wm. Gull) could judge of the kidneys without taking them out of their place.

Mr. SIMON said that the matter had been thoroughly discussed, and he should be glad if Dr. Smith would point out what kind of inquiry the Branch Council could have instituted.

Dr. LYONS said that an inquiry had been made into the circumstances of the case by the Local Government Board, and suggested that the Branch Council might have obtained a report of the inquiry. The case was one of very great hardship to Mr. O'Leary, and he (Dr. Lyons) was strongly of opinion that some action should be taken in the matter. He therefore supported Dr. Smith's motion.

Mr. MACNAMARA thought it was very much to be regretted that the Branch Council had not pursued the case farther.

Mr. SIMON suggested that if there were any depositions or other documents in the case which had not been forwarded to the Branch Council they might be sent to that body with the object of making further inquiry. As a member of the Branch Council he should cordially concur in that course being adopted.

The PRESIDENT said that Dr. Smith was in order in bringing the matter before the Council. The question, however, had been considered by the Branch Council and by the Executive Committee, whose decision had been based on the opinion of the solicitor to the Council. The motion, as originally worded, would have been a distinct vote of censure upon the Branch Council, by whom "due inquiry" had been made into the circumstances of the case; but if Mr. Simon's suggestion were adopted, no vote of censure would be implied.

Dr. SMITH and Dr. BANKS stated that they had no intention of proposing a vote of censure on the Branch Council or the Executive Committee.

After some further discussion, Dr. Smith's motion was agreed to, and the Council adjourned.

FRIDAY, JULY 7TH.

#### REGISTRATION OF MIDWIVES.

The following report was presented by the Committee on the Draft Bill for the Registration of Midwives in England and Wales.

Three meetings have been held by the committee appointed by the Council to consider and report on a Draft Bill for the Registration of Midwives in England and Wales, recently forwarded to the Registrar from the Privy Council office with a request that "the Medical Council would favour their Lordships with any remarks it might think desirable to make thereon." At the request of the chairman of the committee, Dr. Aveling and Mr. Ernest Hart attended before it, to give such information as they might wish to offer. The members of the committee were present when the Council received a deputation appointed by the Parliamentary Bills Committee of the British Medical Association, consisting of Mr. Ernest Hart (Chairman), Dr. Aveling,

Dr. Holman, Dr. Playfair, and Mr. Sibley. The committee has also referred to the record of the previous action of the Council on this question, contained in vol. xiv. of the Minutes (p. 198), and to a paper upon it by the Obstetrical Society of London, which is given on pages 51 to 54 of the Appendix to the same volume of Minutes. The committee now submits the following report, the opinions and suggestions in which are arranged under three heads—viz., (1) those which relate to the expediency of legislation on this subject, and to the chief aims of such legislation; (2) those which relate to proposals in the Draft Bill referring to the General Medical Council; and (3) those which relate to other proposals contained in the Draft Bill.

1. On the expediency of legislating on this subject, and on the chief aims of such legislation. A. That, in view of the absence of any complete and satisfactory provision for the proper training and due qualification of the women who now act as midwives amongst the poorer classes of the community in England and Wales, it is—as expressed in a resolution of the Council, agreed to on the 24th May, 1877 (Minutes, vol. xiv., p. 198, Clause 15), and communicated forthwith to the Lord President of Her Majesty's Privy Council—"desirable to provide by legislation for the following two objects: first, that means under legal sanction should be provided for giving credentials of qualification to competent midwives; and, secondly, that the lives of women in labour should, as far as practicable, be protected from the incompetent." B. That, for the attainment of these objects, the essential conditions of any legislative enactment are the due training, examinations, certification, and registration of a class of qualified midwives, subject to this further condition, that women now practising as midwives may, if certified to be of good moral character, and to possess a competent knowledge and experience, be granted certificates under the enactment and be placed upon the register. C. That, whilst all registered midwives should be entitled to certain privileges, they must also be subject to supervision and control. D. That, though agreeing with the limitation of the proposed enactment for the registration of midwives, in the first instance, to England and Wales (Sect. 2) the committee does not see any objection to the subsequent extension of legislation for a similar purpose to Scotland and Ireland. 2. On the proposals in the Draft Bill which refers to the General Medical Council. A. That the several functions and duties which, under the proposals of the Draft Bill, are assigned to the General Medical Council, might be better performed by the Branch Council; and, therefore, that in the several sections defining those duties and functions, for the words "General Medical Council," the words "Branch Council for England" be substituted. These functions and duties are as follows:—(a) The appointment of a midwifery board and its maintenance by the filling up of vacancies (Sect. 4); (b) the reception of an annual report from the midwifery board, as to money received and expended, as to the proceedings of the board, and as to any suggestions made by the board (Sect. 5); (c) the power to request or demand information from the board (Sect. 5); (d) the duty of transmitting the annual report of that board, with comments approving or disapproving it, to the Privy Council (Sect. 5); (e) the duty of receiving from the Privy Council the examination rules framed by the Midwifery Board, and giving an opinion to the Privy Council upon them; (f) that of receiving notices of and commenting on any modifications made in those rules by the Privy Council (Sect. 18); and, lastly, (g) that of giving an opinion to the Privy Council on the scheme for regulating the duties and practice of registered midwives (Sect. 28). B. That, as regards the proposition made in the Draft Bill, that any of the funds at the disposal of this Council, or of any branch Council, might be devoted to the purposes of an enactment to secure the registration of midwives, the Council is of opinion that this is undesirable, and that such portion of Sect. 34 as relates to those funds should be omitted from the Bill. 3. On other proposals contained in the Draft Bill. A. That it deserves consideration whether the objects of the proposed legislation could not be attained by equally effectual but more simple and economical means than those indicated in the Draft Bill. Thus: that the number of members on the Midwifery Board might, instead of being from seven to eleven, be five, of whom two should be general practitioners (Sect. 4). That the proposal to appoint a General Registrar (Sect. 8), and annually prepare and print a correct copy of a complete register of midwives for the whole of England and Wales (Sect. 9), should be reconsidered; whether, in fact, local registers and

local registrars would not suffice, these last-named officers (preferably some existing county or district officials, such, for example, as registrars of births, deaths, and marriages), to have charge of the registers, and to have the power of making alterations in and erasures from the registers, in consequence of change of residence, cessation from practice, or death, assigned in the Draft Bill to the proposed General Registrar (Sect. 14). *B.* That, as proposed in Sect. 9, women who have obtained a certificate of having passed an examining board, duly recognised under the enactment, should be registered in a list (A), and those who have not passed such a board in another list (B). *C.* That, as proposed in Sect. 11, persons so registered should be allowed to practise in any part of Her Majesty's dominions. *D.* That, in agreement with the principle laid down in Sect. 9, the persons described in the second part of Sect. 12, as having passed an examination before a competent board, supposing it to be duly recognised as such under the enactment, and having received a certificate from such competent board in any part of Her Majesty's dominions, as well as in any British colony or foreign country, entitling her to practise, &c., &c., may be admitted to be registered in list A, and not merely in list B, as proposed in line 19, Sect. 12. And, accordingly, that the words "in any part of Her Majesty's dominions, or" be inserted after the word "certificate" in line 14 of the section, and in line 19, the letter "A" be substituted for the letter "B." *E.* That Sect. 14 must be amended, so that the names of persons shall be removed from the local registers, as well as from the general register (if such a general register be kept), or so that they should be removed from the local registers, if only local registers be kept. *F.* That in Sect. 15, line 33, the word "twice" should be omitted; that in line 35, the words "or neglect" should be inserted after the word "conduct;" that in line 36, for the word "practice" the words "the register" should be substituted—this last change being in accordance with the terms used in Sect. 24, line 6; that, if this last change be adopted, the words "be suspended or to," at the end of line 41, be omitted, and the words "suspended or" be inserted after the word "name" in line 42; that the lines contained in a parenthesis in this section, on page 9, relating to the publication of suspensions or removals from the registers, be erased; and, lastly, that in line 14, the word "practice" be omitted. *G.* That in Sect. 18, line 16, the words "and training" might be introduced. *H.* That in Sect. 28 power should be given to the medical authorities to have an opportunity of informing themselves of, and objecting to, the rules for regulating the duties and practice of midwives, just as, according to Sect. 18, lines 25 to 29, they are to be consulted on the examination rules. *I.* That in Sect. 29, line 10, the words "as far as possible" might be omitted. *K.* That in the Form D, page 16, line 12, the word "ordinary" be struck out. *L.* The committee has further to observe that a few suggestions of verbal alterations, not involving the principles of the proposed enactment, have been made in a copy of the "Draft Bill" handed in with this report. In conclusion, the committee, whilst offering no opinion as to the appropriate time for legislating on this subject, recommend that, in the event of a Bill being brought before Parliament when the Council is not sitting, a copy of the measure, and notice of changes in it, should be submitted to the Branch Council.

July 4th, 1882.

JOHN MARSHALL, Chairman.

Mr. MARSHALL, in bringing up the report, said that the committee were very anxious that the session should not pass over without something being decided upon the subject by the Council. The question had been brought before the profession, the Government, and the Council on many occasions, and as far back as 1877 the Council took the matter into its serious consideration, mainly in consequence of the exertions of Mr. Simon. After deliberately considering the question, the committee had come to the conclusion embodied in the report, that the Council ought not to shirk the responsibility of taking some part in the proposed measure. Its responsibility would be merely that of appointing a midwifery board and receiving reports from it, the Council merely reserving to itself the power of approving or disapproving of the reports, and of reporting the board, if necessary, to the Privy Council. They were appointed to protect the public in medical matters, and if there was one medical or surgical matter that concerned the whole community, it was the safety of the women of the country. If the Council declined to accept any responsibility in such a matter, it would be a derogation from its high duties, and a shrinking

from what it might reasonably be called upon to undertake. It had been suggested that the proposed action of the Council should be permissive and not obligatory, but he thought it would be better to grapple with the subject in a bold and decided way. It involved no degradation to the Council, but it would be an honourable and creditable thing for it to do. The board appointed by the Council would have to undertake the duty of appointing local examiners, and he thought that an arrangement of that kind would be the very best to do away with local jealousies and antagonisms. He could hardly conceive a case arising in which there would be any friction in consequence of the action of the Council or the central board. If the Council declined the small amount of responsibility proposed to be given to it, it would be placing itself in a perilous position, and the Privy Council might, after all, declare that the Medical Council ought to undertake the duty from which it shrank.

Dr. HAUGHTON seconded the adoption of the report, and alluded to the importance of the question to the general public.

Mr. SIMON said the Council was much indebted to the committee for their labours and observations, but he thought they would have acted more wisely if they had contented themselves with laying down the principles on which legislation should proceed, instead of entering into a minute criticism of the clauses of what, after all, was nothing more than an amateur Bill. What had taken place with reference to the Dentists Bill promoted by Dr. Quain was enough to show the desperate mess they were likely to get into if they proceeded on the lines of a non-official Bill. He was ready to accept the first three or four resolutions of the committee, but not the subsequent proposal with regard to the functions of the Council. The committee did not appear to have realised the immense gravity of the peremptory character of the proposed measure. It had been assumed that the responsibility of the Council in regard to matters of detail would be got rid of by the appointment of a central board, but that would not be the case. The board would still be the agent of the Council, and the Council would be responsible for all that it did or omitted to do in regard to its appointment, its expenditure, and the like. He besought them, before taking any further step in the matter, to take legal advice in regard to the effect of the Bill in respect to any demand which might be made on the Council. It would not be sufficient to strike out, as proposed, the financial clause of the Bill, because if the Council were directed to do certain things or to cause them to be done, and if the funds fell short, could anyone doubt that the Council would be called upon to pay the expenses? It was possible that the board might work satisfactorily for a time, but it was possible that the board might not work satisfactorily, and in that case the work would have to be done by the Council. A similar thing might happen to the obstetrical "tiff" at the College of Surgeons, when the examiners struck and the College was left without the means of fulfilling its obligations. If there happened to be any disagreement between the Council and the proposed board, what means would the Council have of carrying on its administrative business in anything like continuity? If they could not do that they ought not to accept a legal position in which they would be called upon to undertake it. His contention was that legislation on the subject ought to be permissive only. The relation of the Council to the board should be similar to its relation to the medical examining bodies. The Council did not appoint the examiners of those bodies, but only exercised a general sanctioning power with reference to their proceedings. If the Council had to undertake the management of midwives, there would be a tremendous hypertrophy of one particular section of its work, which would grow to such a magnitude as really to prevent their doing justice to other matters. The dental business had taken up a great deal more time than was expected, and work relating to midwives would occupy still more. What was wanted was that the Council should have power to approve any scheme that might be brought forward by other associations interested in the subject. He should prefer to see the scheme promoted by one of the medical authorities, or by a combination of those bodies, and then submitted to the Council. That would be much better than the tremendous machinery proposed by the committee, which would involve the consideration of minute details that ought not to be brought under the consideration of the Council. He thought that the Council should not recommend the proposed Bill as a basis of legislation, but rather lay down certain general principles and then ask the Government to deal itself with the subject.

Sir WM. GULL supported the views expressed by Mr. Simon. There were, he said, no universities, authorities, or schools specially connected with the education of midwives, and if the Council had to take the matter under its supervision, it would be in very much the same position as it would occupy if required to legislate for the education of medical men in the absence of the existing universities and medical corporations.

Dr. QUAIN denied that he was a promoter of the Dentists Bill, and said he believed that he was the only member of the Council who in the first instance saw the terrible difficulties they were likely to get into by having anything to do with the dentists. That being the position, it was not likely he was going to ask the Council to interfere in reference to the midwives. The proposed arrangements involved no trouble or responsibility on the part of the Council. In 1877 the Council had resolved, at the instance of Mr. Simon and Sir William Gull, that legislation was desirable, but nothing more would have been done if the gentlemen who were specially interested in the question had not brought it forward. Nothing could be more simple than the Council nominating five or seven persons to undertake the necessary work. The Council would only have to receive a report of what the board had done; the ultimate responsibility would be in the Privy Council, and not in the Medical Council. If the appointment of a board were not placed in the hands of the Council, he believed there would be endless jealousies and antagonisms at work.

Mr. MARSHALL said it appeared that the Council were agreed as to Subsections A, B, and C of Clause 1 of the Committee's Report. He would therefore move the adoption of those clauses before proposing the others, on which a difference of opinion existed.

The clauses were then put and agreed to.

On the motion of Mr. MARSHALL, seconded by Dr. HAUGHTON, Subsection D, with reference to the extension of legislation to Scotland and Ireland, was adopted as a resolution of the Council.

Mr. MARSHALL proposed Section A of Clause 2 of the Report, declaring that the functions proposed to be assigned to the General Council might be better performed by the Branch Council. He hoped that the Council would not timidly hesitate and procrastinate, but would resolve that something definite should be accomplished.

Dr. HAUGHTON seconded the motion, and said there was no body in the United Kingdom competent to undertake the responsibility except the Medical Council. After full consideration, the committee was of opinion that, with the view of facilitating the working of the Act, the functions of the Council should be assigned to the English Branch Council, in whose transcendent wisdom he was quite sure they all had the greatest confidence.

Sir WM. GULL stated that in that case the Branch Council would be independent of the General Council.

Mr. TURNER said that the Branch Council only existed as part of the General Council; and there was a proposition that it should be abolished altogether. He thought it would be better to assign the proposed duties to the General Council itself, because it was that body that would be responsible.

Dr. QUAIN said it would be more economical if the work were carried out by the Branch Council. If it should cease to exist, its place would be taken by a divisional board, or some other body. If the Act of Parliament placed the duties in the hands of the Branch Council, there would be no difficulty in the matter.

Dr. WATSON said if the motion were carried and acted upon, it would establish an *imperium in imperio*, and the General Council would have no power of directing or controlling the proceedings of the Branch Council. He doubted, however, if the Legislature would assent to any such arrangement.

After some further discussion, the following resolution was adopted: "That it may be made competent to the General Medical Council to delegate to the English Branch Council any functions and duties which, under the Draft Bill, are proposed to be assigned to it, except that of making representations to the Privy Council."

Mr. MARSHALL then moved that Subsection A of Section 2 of the report, describing the functions to be assigned to the Council, be adopted as a resolution.

Dr. HAUGHTON seconded the motion.

Mr. SIMON moved, as an amendment, "That as regards the proposals made in the Draft Bill to assign

certain functions and duties to this Council, the Council is not prepared to accept the responsibility in unconditional and obligatory terms such as are used in Clause 4 of the Draft Bill; but that the Council would not object to be made, under permissive law, the sanctioning medical authority in the proposed matter, with duty in that capacity to approve or disapprove any scheme which the Obstetrical Society (or others) might bring before it for such purposes as are in question." The Council, he said, should undertake responsibilities only in proportion to what it could do. According to the committee's proposal, the Midwifery Board would be as much the agent of the Council as a secretary would be the agent of his employer. The best arrangement, he thought, would be that if at any time within the passing of the Act any college or combination of colleges, or if at any later time any voluntary society of medical practitioners, prepared a scheme and presented it to the Medical Council, the Medical Council might report it to the Privy Council, with any amendments, and the Privy Council might, if it saw fit, affirm it; and such confirmation should give it legal effect.

Sir WM. GULL seconded the amendment, and protested against legislating in undue haste.

Dr. HAUGHTON thought that Mr. Simon's suggestion was an excellent one, and if adopted would bring all Ireland under the Bill.

Mr. TURNER said that the amendment gave no guarantee that any machinery would be established; it only provided that the Council should take action if other bodies provided schemes.

Mr. SIMON said that if no outside body acted the matter would fall to the ground, but under the proposed Compulsory Clause the Council might itself have to administer the Bill.

Dr. LYONS: *Quod absurdum est.*

Dr. QUAIN said if the Council approved the nomination of an outside body it would be responsible for it. He protested against having anything to do with schemes or regulations of other bodies.

Dr. HUMPHRY said the matter was one of public importance, and therefore deserved the fullest consideration, involving as it did the lives and happiness of a large part of the population, and also the interests of the profession. It was improbable that the medical bodies would take the matter up, and the only body to which Parliament could look to undertake the work was the body which it had created for the purpose of regulating medical affairs. According to the proposal of the committee the Council would have to institute a board and lay down regulations for its guidance; but it would not be responsible for all its proceedings. The Privy Council would have the ultimate authority and the chief responsibility. The duty proposed or assigned to the Council was no more than it ought to undertake, and if it refused it would be putting off *sine die* the practical application of the rules and principles which it had declared to be of great importance.

Dr. LYONS maintained that the work could be best carried on by means of the medical colleges, lying-in institutions, obstetrical societies, and other bodies of a like nature.

Dr. PYLE called attention to the resolution passed by the Council as far back as 1877, and said that the effect of Mr. Simon's amendment would only be to create still further delay.

Mr. Simon's amendment was then put and negatived.

Dr. LYONS moved a second amendment: "That this Council is desirous to see established an efficient system of education, examination, and registration of midwives, for the care during labour of the women of England and Wales; but the Council is of opinion that the duties should be discharged, as in Ireland, by the various teaching and licensing authorities, chartered lying-in hospitals, obstetric societies, and such-like bodies; and that this Council is prepared to accept the general supervision of this great work, but is not prepared to accept administrative or accounting functions in regard to a scheme which will probably include from 10,000 to 20,000 persons, over whom it would not be possible for it to exercise the requisite supervision and control."

Mr. COLLINS seconded the amendment, which was put and negatived.

The original motion was then put and carried.

The following resolutions were also agreed to without discussion:—

"That as regards the proposition made in the Draft Bill



that any of the funds at the disposal of this Council might be devoted to the purposes of an enactment to secure the registration of midwives the Council is of opinion that this is undesirable, and that such portion of Section 34 as relates to those funds should be omitted from the Bill." "That the Council, whilst offering no opinion as to the appropriate time for legislating on this subject, recommend that in the event of a Bill being brought before Parliament a copy of the measure, and notice of the changes in it, should be communicated to the Council."

The Council then adjourned.

#### SATURDAY, JULY 8TH.

On the motion of Mr. MARSHALL, seconded by Dr. HAUGHTON, the report on the Draft Bill for the Registration of Midwives in England and Wales, adopted by the Council yesterday, was ordered to be transmitted to the Lord President of the Privy Council, together with the minutes of the Council.

Dr. SMITH moved, "That the Visitation of Examinations in the Universities be postponed until the year 1883." He said that in July, 1880, the Council decided to carry on the visitation of examinations systematically from year to year. As a matter of fact only a partial visitation of the universities could be made this year, and therefore he thought it desirable that it should be postponed till next year. His own feeling was that such visitation was not at all necessary, for it was generally admitted that the universities were in the habit of discharging their duties satisfactorily in the matter of the minimum qualification.

After a short conversation the motion was withdrawn.

On the motion of Mr. MACNAMARA, seconded by Dr. HAUGHTON, a resolution was agreed to calling the attention of the Executive Committee to a case reported in the *Daily Telegraph* of June 30th, of a medical student who was summoned at the Dublin Police Court for seeking to bribe a London practitioner to personate him, and pass his examination for him.

Dr. LYONS moved, "That a committee be appointed to inquire into and report upon the alleged probable deficiency of subjects for anatomical and surgical examinations, if fully carried out on the dead body, in London, Edinburgh, and other places, and to suggest such remedies as they may deem expedient." He said the Council was agreed that it was essential that students should be examined on the dead subject, but there seemed to be a difficulty about obtaining the bodies. It had occurred to him that, perhaps, the horse and the ox might be utilised. In that way, indirectly, a good deal of comparative anatomy would be acquired by the majority of the profession, and this would lead to a more humane treatment of the lower animals. Mistakes of the most frightful kind were common in the practice of farriers and others, and a vast amount of cruelty was unnecessarily caused when the intention was only to do good. The committee might also consider how far it was possible to establish an interchange of dead subjects between one portion of the kingdom and another.

Dr. PYLE seconded the motion.

Mr. MARSHALL suggested that the resolution should be altered to read as follows:—"That a committee be appointed to inquire into and report upon the deficiency of subjects for anatomical and surgical teaching and examinations, and to suggest such remedies as they may deem expedient."

Dr. LYONS consented to this alteration, and the resolution was then agreed to. Mr. Turner, Mr. Marshall, Dr. Humphry, Dr. Fergus, Dr. Pyle, Dr. Heron Watson, Mr. Macnamara, Dr. Haughton, and Dr. Lyons (chairman) were appointed to constitute the committee.

Dr. STORRAR moved, "That the Registrar of the Medical Council be instructed to address a letter to the Registrar of the University of Durham suggesting for the consideration of the university whether the time has not arrived when it is expedient for the university to discontinue their 'registration examination for medical students.'" He said that great exertions had been made by the Council from time to time to bring all the examinations in Arts under boards for general education, and do away with Arts examinations of a special character. When these examinations were first instituted the University of Durham, seemingly with a view to meet the demands of the time, established a special examination for medical students. It was not in the proper sense of the word a university examination that led up to any degree. Men from any part of the United Kingdom might attend it,

pass, and then go off to any other school. At first there was a great rush to it. After a few years it was thought expedient that the Council should hold an inquiry into the nature of those examinations, and it proved to be a farce. Dr. Hamilton, who at that time represented the university, was indignant about it, and said it should be stopped. A remonstrance was made, and the result was a great diminution in the number who presented themselves; but gradually it had crept up again, and in 1881 there were thirty-three who passed the examination. At the same time only one man passed in any other examination of the university. Dr. Pyle had informed him that the Oxford and Cambridge local examinations in the north were preferred to those of Durham. Perhaps, then, it was not too extravagant a conjecture that it was the weak men who went up to the examination in question. There was really no necessity for it, and therefore he thought the Council should ask the university whether the time had not come for abolishing it altogether.

Dr. PYLE seconded the motion. There would not be a Senate meeting till October, but he would bring the subject before them on that occasion. He believed that the examination had been a very good one lately, but the inquiry was a proper one to make.

The resolution was agreed to.

On the motion of Dr. STORRAR, the report of the Committee of the whole Council on the conclusions of the visitors of examinations was received and ordered to be placed on the minutes.

Dr. QUAIN moved, "That it be remitted to the President of the Council to bring under the notice of the Registrar-General the case of G. H. Griffin, an unqualified person, who in certain death certificates forged the name of a registered practitioner named D. B. Murdoch." He said that in 1877, when a somewhat similar case arose, the Registrar-General assured the Council that if a clear case were reported to him of an unqualified medical man forging for his own purpose the name of a registered practitioner, he would take the opinion of the legal authorities serving under the Lords of the Treasury as to whether proceedings should not be instituted. There never was a clearer case than the present; for Mr. Murdoch swore that he had not given Griffin any authority to sign his name.

Dr. BANKS seconded the motion, which was agreed to.

Dr. STORRAR moved, "That the examinations of the Intermediate Education Board of Ireland—junior grade, middle grade, and senior grade—be placed in the list of examinations recognised by the Council, provided the certificates contain all the subjects required by the Council." These intermediate examinations, he said, were the outcome of Lord Cairns' Act for encouraging secondary education in Ireland, and they appeared to be of a very high character. The only reflection he had heard made upon them was that they were too high; but that was not a complaint that the Council would give much weight to. They were exceedingly desirous of doing away with all special examinations conducted by medical bodies, or under the superintendence of medical bodies. The only two bodies in Ireland which continued to superintend such examinations were the College of Surgeons and the Apothecaries' Hall; and it would greatly facilitate the discontinuance of those examinations if the intermediate examinations were recognised by the Council.

Dr. HAUGHTON seconded the motion.

Mr. COLLINS said the Apothecaries' Hall of Ireland was perfectly willing to transfer its preliminary examinations to the Intermediate Commissioners.

The resolution was agreed to.

Dr. STORRAR moved, "That the Registrar be instructed to address a letter to the following bodies: the Apothecaries' Society of London; the Royal Colleges of Physicians and Surgeons of Edinburgh; the Faculty of Physicians and Surgeons of Glasgow; the College of Surgeons of Ireland; and the Apothecaries' Hall, Ireland, calling their special attention to the following recommendation of the Council: 'It is desirable that the examinations in general education should be left to the universities, and to such other bodies engaged in general education and examination as may from time to time be approved by this Council.'" He was happy to say that the only body in England which now conducted its own preliminary examination was the Apothecaries' Society, while in Ireland there were only two bodies that did so—namely, the Apothecaries' Hall and the College of Surgeons. Thus the special examinations were both gradu-

ally got rid of. As regards Scotland, there were special difficulties, but the motion would strengthen the hands of those who had to deal with them, and enable them, whenever an opportunity offered, to get examinations established in the country to which the Arts examinations might be transferred.

Mr. SIMON seconded the motion.

Dr. HALDANE said that so far as the College of Physicians and Surgeons in Scotland was concerned they would be quite willing to give up their preliminary examination, provided there were a perfectly open examination in the universities, but as matters stood at present they could not do so.

The motion was agreed to.

Dr. STORRAR moved a resolution instructing the Registrar to send a circular to each of the Indian, colonial, and foreign universities and colleges, asking for information on the following points with respect to their examinations recognised by the Council:—(1) Percentage of highest marks; (2) percentage of pass marks; (3) number of candidates at examination referred to; (4) copies of the examination papers set. He said that seventy-five universities and colleges were specified in the list embracing the universities of India and British North America, some in the United States, one in the West Indies, some in Australia and New Zealand. The question was naturally asked what was the value of those examinations, and that was what they wanted if possible to find out. For himself, he had no positive suspicion that the colonial examinations were a sham; from all he could learn the authorities there had done their best to promote higher education in Arts.

Dr. HAUGHTON seconded the motion, and said that several of the bodies were not teaching bodies at all in the proper sense of the term. He had no knowledge whatever of the Arts examination of the Medical College of Michigan, for instance. He knew that the University of Michigan was a highly thriving and advanced university; and therefore it appeared odd that the university should not be on the list while the college was. Again, the University of California, which was in a very weak condition, was on the list, while all the great universities of America were conspicuous by their absence. The reason given was that these latter bodies never asked to be put on because none of their students ever wanted to come here and register; but that excited a suspicion as to the reason why the other bodies wished to be on the Register.

Dr. FERGUS cordially supported the resolution, and reminded the Council that two years ago he drew attention to the same subject, and proposed several additions to the standing orders, which he was then told it was impossible for the Council to pass.

Dr. TURNER said that in 1879 there were 10 medical students registered from the University of Calcutta, 6 from the University of Madras, 2 from the University of Bombay, 1 from the Medical College at Halifax, Nova Scotia, 9 from the University of Melbourne, 9 from the University of Sydney, 1 from the University of Adelaide, 17 from the University of the Cape of Good Hope, 1 from the University of New Zealand, and 1 from Christ's College, New Zealand—making a total of 57; while in 1881 there were 89 students registered from the corresponding bodies.

The PRESIDENT said there was a strong feeling on the part of the medical men of the United States to ally themselves with this country, and to send students here especially in connexion with clinical study.

The resolution was agreed to.

The following report by the Dental Committee was then read:—"With reference to the cases of John Thomas Lambert and Joseph Walker, referred back to them by the General Council, the Committee find that John Thomas Lambert and Joseph Walker have now answered the communications addressed to them, and that they are in the same condition as regards qualification as other persons who are on the Dentists' Register, and who answered in due time the letters sent them by the Council. The Dental Committee report these facts to the General Council."

On the motion of Dr. E. PITMAN, seconded by Dr. SMITH, the Council resolved:—"That the report of the Dental Committee not having put the Council in possession of evidence to show that John Thomas Lambert and Joseph Walker were not *bonâ fide* engaged in the practice of dentistry, the Council is not, therefore, prepared to order the removal of their names from the Dentists' Register."

Mr. TURNER moved, "That one year's *bonâ fide* apprenticeship with a registered dental practitioner, after being regis-

tered as a dental student, may be counted as one of the four years of professional study." He said the resolution would bring the education for dental students into conformity with the arrangements for medical students.

Dr. WATSON seconded the motion, which was agreed to.

Mr. TURNER also moved, and Dr. WATSON seconded:—"That the three years of instruction in mechanical dentistry, or any part of them, may be taken by the dental student either before or after his registration as a student; but no year of such mechanical instruction shall be counted as one of the four years of professional study unless taken after registration."

An amendment, proposed by Dr. LYONS, to substitute the following:—"That in the opinion of this Council it is desirable that the dental student should spend a period of three years in the study of mechanical dentistry," for the first three lines of the motion, was negatived, and the resolution was then carried.

Sir WM. GULL, in moving "That any or all of the qualifications in Schedule A of the Medical Act be registrable in the Dentists' Register," said that Mr. Simon and himself, as Crown nominees, reserved to themselves, if they considered it desirable, to lay before the Government their views with regard to the registration of midwives. Mr. Bowen had given his opinion that the Council ought not to enter in the Dental Register other than dental qualifications. He entirely demurred to that view, for Section 11, Subsection 6, of the Dental Act gave that power. The Council, therefore, ought to exercise the power first *pro bono publico*. The public, on looking over the Register, ought to be able to see the full status of the people whose names were registered there.

Dr. STORRAR seconded the motion.

Dr. HAUGHTON said that he had many friends among dentists who were graduates in medicine and surgery, and they were all dissatisfied because their qualifications did not appear on the Register. Such persons were entitled to differentiate themselves from barbers who practised dentistry.

Dr. QUAIN expressed a hope that this was the last time the dentist question would ever be brought before the Council, for they had had more trouble about it during the last two or three years than about any other subject since the Council had been in existence. The Register had been altered four times, and now it was proposed to alter it again. He was not going to oppose the motion, because it would be contrary to his views to vote against the advice given by the legal adviser.

Mr. TURNER said his opinion was generally in favour of Sir William Gull's motion, but he felt a difficulty with reference to the Apothecaries' Society, because he did not think that the L.S.A. of that Society represented a "higher degree of knowledge." He would suggest as an amendment, "That any or all of the qualifications in Schedule A of the Medical Act, granted by any of the medical authorities who had power to hold examinations for testing fitness of persons to practise surgery or dental surgery, be admitted to the Register." The Apothecaries' Societies were not examining bodies.

Mr. MACNAMARA said that the amendment would not satisfy him, nor would it proceed at all on the lines that Sir William Gull wished to guide the Council in. The conferring of degrees in dentistry was strictly limited to bodies capable of giving surgical qualifications, and if those qualifications showed a higher degree of knowledge they were capable of being inserted in the Register. The aim of the Council should be to make the dental profession a more respectable body of practitioners, and he had seen so much injury inflicted on patients by the purely mechanical dentist that he wished to encourage as much as possible the obtaining of additional qualifications. That encouragement would be given to them if their qualifications were registered. He hoped Sir Wm. Gull would press his resolution.

Dr. LYONS said that the clause in question had been widely drawn for the purpose of including any qualifications which might be afterwards given on examination, but if the medical authorities chose to give the qualification without examination, such qualification would not be capable of registration. He regretted that the Act in certain of its clauses was not drawn in a more stringent way, and that it had been possible to register persons who pursued other than strictly professional callings. That defect, he thought, ought to be cured in future. But because certain persons were able to get through the back door into a professional body it did not follow that they were justified in neglecting another

portion of the Act, which was clearly mandatory. He had no doubt that the clause was framed with a view of classifying and marking out those who had a superior education, and therefore ought to occupy a superior scientific professional position. He supported Sir Wm. Gull's motion, but he concurred in the view expressed by Dr. Quain, that an effort should be made to exclude mere tradesmen from the profession.

Dr. BANKS supported the motion, which he said the Council ought to pass as an act of common justice to the educated portion of the dental profession. There certainly ought to be some means of distinguishing high-classed dentists from those who followed the calling as an ordinary trade.

Mr. SIMON thought that Sir William Gull's motion ought to be supported, and that it followed almost of necessity from what the Council had already done, but he could not vote for it because the original step taken fourteen months ago was in the teeth of legal opinion.

Dr. SMITH seconded Mr. Turner's amendment. He had no objection to having the qualifications registered with the restrictions therein proposed. He did not think that the clause in question was mandatory, but only permissive, as was evident from the words "if they shall think fit."

Dr. HUMPHRY said his position was the same as that taken by Mr. Simon; he should not therefore vote for Sir William Gull's motion, because he thought the whole thing was an illegal transaction, and that the Council was acting in the face of legal opinion. If, however, the lawyers were correct, the Council ought to insert in the Register theological as well as other degrees.

Dr. PITMAN and Dr. STORRAR spoke in support of the motion.

Sir WM. GULL having briefly replied,

Mr. TURNER said it was evident that his amendment was not likely to meet with acceptance, and he would, therefore, withdraw it.

The motion was then put and carried.

A memorial was read from the British Dental Association calling attention to the completion of the time during which in accordance with the terms of the Council's minutes (July 16th, 1879), examinations should be conducted *sine curriculo* by the Royal College of Surgeons in Ireland. The memorialists reminded the Council that by Section 22 of the Dentists Act it had power to supervise the examinations, and suggested that such power might now be usefully exercised.

No action was taken upon this memorial.

A letter was read from Mr. Barnard Lee, of 130, Lancaster-road, Notting-hill, stating that at 199, Portobello-road, Notting-hill, there was a man evading the provisions of the Dentists Act by announcing himself as a dentist and practising as one, but using no name. The writer inquired whether the Council was disposed, in the interest of the profession, to take up the case. Another letter was read from J. W. Sadler of Burton-on-Trent, calling attention to the fact that a late pupil of his had commenced practice without being qualified, and enclosing his advertisement from the *Burton Evening Gazette*.

No directions were given by the Council with reference to these cases.

A letter was read from the Business Committee of the British Dental Association asking permission to prosecute Mr. T. L. Callender of Bridge House, Burton-on-Trent, and Mr. Godding, representing himself as a member of the Royal College of Surgeons, whose proper address was not known to the Committee, but who was supposed to be Mr. J. R. Godding of 67, Oakley-square, London, for infringing the Dentists Act. The Committee also asked the Council to consider the propriety of granting to the Representative Board of the Association or to the Honorary Secretary, power to take up any case which might arise in the intervals between the sittings of the Council.

Permission was given to Mr. J. S. Turner, honorary secretary of the Association, to prosecute Mr. Callender and Mr. Godding.

Votes of thanks were then passed to Dr. Acland for presiding; to the chairman of the Business Committee, Dr. Pitman, and to the treasurers, Dr. Quain and Dr. Pitman.

The PRESIDENT expressed his high sense of the value of the Registrar's services, and trusted that the Council would allow him to tender him their best thanks for the able and assiduous manner in which he had discharged the complicated duties of his office.

A vote of thanks to the Registrar having been passed by the Council, the session terminated.

## THE BRIGHTON SEWERAGE.

[LETTER FROM MR. ROBERT RAWLINSON, C.B.]

To the Editor of THE LANCET.

SIR,—I have read your article in THE LANCET of the 17th of June last, and have learned that the Town Council have served notice of action for libel upon you for that article. I have also read the report by Sir Joseph Bazalgette upon Brighton Sewerage and Sewer Ventilation. In my opinion the report in a great degree, if not altogether, justifies your article. I have known Brighton for a good share of thirty years. I know the condition it was in, and I also know something of the condition it is now in, and I fear that a full and searching report on the sanitary condition of the town and its suburbs might startle the local authorities, and induce them to spend their subscriptions in improved works rather than on law. I would not write to you, or in any way interfere in this matter, if I did not feel that those who wish best to Brighton would desire to stop the threatened action, which will only waste time and money, and do no good to Brighton. Your articles extend beyond England, as the Mayor of Cannes was over a short time ago making inquiries as to modern sanitary works in England, preparatory to sewerage that town. I think you have written quite as strongly about Cannes as about Brighton, and apparently with less threatening results.

Yours truly,

ROBERT RAWLINSON.

London, July 11th, 1882.

## RECENT BRIGHTON MORTALITY STATISTICS.

THE health of Brighton, judged by the mortality statistics issued weekly by the Registrar-General, although showing a considerable improvement upon that in the preceding quarter, was far from satisfactory during the thirteen weeks ending on the 1st inst. It is true that the death-rate from all causes fell from 29.2 per 1000 in the first quarter to 21.8 in the one just ended; but even this reduced rate exceeded the mean rate for the same period in the twenty-eight large English towns dealt with in the Registrar-General's Weekly Return, and showed a still larger excess upon the mean rate for the whole of London. If we look to the figures for the first half of this year, we shall find that the annual death-rate in Brighton was 25.5, against 22.8 in the twenty-eight towns (which include seven Lancashire towns in which the waste of life is notorious) and 22.6 in London. The statistics of fatal zymotic disease are still more adverse to Brighton. Following the outbreak of enteric fever in the latter part of 1881, Brighton has suffered severely from the epidemic prevalence of measles, whooping-cough, and scarlet fever during the first half of this year. The annual death-rate from what are called the principal zymotic diseases was equal to 6.5 per 1000 in Brighton during the first half of this year, while it did not average more than 3.5 in the Registrar-General's twenty-eight large towns. No less than 25.6 per cent. of the deaths recorded in Brighton during the twenty-six weeks ending the 1st inst. were referred to these "principal zymotic diseases," while the mean proportion of such zymotic fatality in the twenty-eight towns did not exceed 15.5 per cent. A marked reduction in the death-rate has, however, taken place in the past few weeks, and during the fortnight ending the 8th inst. the rate has not exceeded 14.5 per 1000, having been in the first of these two weeks as low as 13.3, while the fatal prevalence of measles, scarlet fever, and whooping-cough has all but disappeared.

# THE LANCET.

LONDON: SATURDAY, JULY 15, 1882.

THE Medical Council showed good taste in abstaining from any discussion of the Report of the Royal Commission on the Medical Acts. Mr. MACNAMARA withdrew a motion expressing a hope on the part of the Council that they might have an opportunity of considering any Bill for the amendment of the Medical Acts founded on the important Report of Her Majesty's Commissioners before it is introduced into the Houses of Parliament. We cannot but think that Mr. MACNAMARA exercised a wise discretion in withdrawing this motion, especially after what has happened. The Government, with excessive regard for the Medical Council, imported two of its members into the Commission, who have done what was perhaps natural on their part, but which does not add to the force of the Report or the impression of impartiality of the Commission. As our readers know, Mr. SIMON and Professor TURNER have signed a joint memorandum against direct representation. Not content with expressing their own opinions, they have imported into their memorandum the dreary commonplaces of all the leading past members and presidents of the General Medical Council against a reform that would immensely add to the efficiency of the Council, and to the scanty confidence with which it is regarded by both the public and the profession. The Government, we venture to believe, will know how to appraise the objections of members of the Council to a reform of that body. Mr. SIMON cannot have strengthened his position as a Commissioner by putting himself so eagerly into that of a witness. Under these circumstances, Mr. MACNAMARA does well to abandon a request that Her Majesty's Government will submit any Bill to the Medical Council before introducing it; in other words, will take the Council into co-operation in framing the measure. If the Council, in addition to its representation on the Commission, were further to be invited to dominate the coming legislation, we need scarcely say that the result would be entirely unsatisfactory to the profession, and disrespectful to the independent members of the Commission, including a Judge so able as Sir GEORGE JESSEL, and a representative of the profession so complete as Sir WILLIAM JENNER.

The Council gave its assent to the general principles of the Bill for the Registration of Midwives, sent down to it by the Lord President of the Council. There were some lively differences of opinion as to certain questions of detail. Mr. SIMON showed a tendency to repeat discussions of the principles on which such a measure should be framed rather than the actual proposals of the draft Bill. He was even more impractical still, for he tried hard to induce the Council to make the measure permissive, or rather to make the Council's responsibility in the matter permissive. Surely we have had enough of permissive legislation; and of all objects to which permissive law is inapplicable, one of the most obvious is the provision of registered midwives for the poorer classes of the community. Mr. SIMON completely

failed to carry the Council with him. He and his seconder, Sir WILLIAM GULL, were almost alone in wishing to resolve "that the Council would not object to be made, under permissive law, the sanctioning medical authority in the proposed matter." Dr. LYONS was scarcely more successful in moving that the duties connected with a system for educating, examining, and registering midwives in England and Wales should be discharged, as in Ireland, by the various teaching and licensing authorities, chartered lying-in hospitals, obstetric societies, and such like bodies. Such a proposal is best met by remembering that what is everybody's business is nobody's. It would be a great evil to have such a multiplicity of bodies for this purpose. The duty to be discharged, though simple, is very urgent, and the sooner it is made the care of a responsible board, under the supervision of a reformed Medical Council or not, the better. The Council has quite enough on its hands already. Its most ardent admirers will not say that it has any authority in obstetrics. Most of its members would probably be a good deal embarrassed with the care of a case of natural labour; and there is much to be said for creating a board for this purpose entirely independent of the Medical Council.

This view is strongly supported by the unprofitable and undignified appearance made by the Council in connexion with the administration of the Dentists Act. Its action in this matter has been very much disapproved by all who have watched it. The registration of anybody who could boast of ever having drawn a tooth, even a tooth that should not have been drawn, was felt at the time to be a scandal. The loose definition of the word "dentist" brought about a rush to the Register from which the dental profession will not recover for many years to come. All respectable members of the profession feel this acutely, and, naturally enough, the British Dental Association urges the Council to erase names which have been entered on such slight grounds. But it is more easy to register than to de-register, and the Council escaped too easily from its difficulties by moving, "That the Council are not prepared to take steps, as suggested by the Dental Association, to erase names which have been placed therein by the Council under legal advice." This reference to legal advice is scarcely fair. For there seems no doubt that if the Council registered the thousands of names in the Dental Register under some legal advice, it did so contrary to a large body of legal opinion, including that of Sir JOHN HOLKER and Mr. (now Mr. Justice) BOWEN. Great efforts were made, which seemed to have a very exciting effect on Dr. QUAIN, to have these opinions elicited and published in the Minutes, but the Council, with more prudence than candour, ruled "that the opinion of counsel be considered confidential." We protest against the Medical Council being occupied in registering dentists, midwives, &c. Its business is to register fully equipped medical men, and this occupation is enough for it.

MANY a time and oft during the past seven years the question of instituting a compulsory examination in Elementary Anatomy and Physiology at the end of the first year of professional study has been discussed at the Royal College of Surgeons of England, at the General Medical Council, at the Royal College of Physicians, and elsewhere.

This journal has given up scores of columns to the publication of editorial comments and criticism, of notices, advocacies, complaints, and letters relating thereto. As long ago as Nov. 11th, 1875, Mr. MARSHALL, at the Council of the Royal College of Surgeons, proposed an elaborate scheme for compelling all candidates for the diploma of Member or Fellow to pass a compulsory and authoritative examination at the College in elementary anatomy and physiology at the end of the first winter, or immediately after the beginning of the succeeding summer session. That scheme we criticised in great detail in our issues of Nov. 20th and 27th and Dec. 4th of the same year. In the year 1877, the General Medical Council, on the motion of Dr. HUMPHRY, approved the principle of holding compulsory elementary examinations at the end of the first winter session; and in February, 1880, the Royal College of Physicians did institute such an examination. On May 13th of the same year (see THE LANCET, May 15th, 1880, p. 784), Mr. MARSHALL brought the matter once more before the Council of the Royal College of Surgeons. Sir JAS. PAGET seconded Mr. MARSHALL'S motion, which was carried with only one dissident. The purport of the motion was to the effect (1) that the Council should proceed, as soon as practicable, to institute an examination in elementary anatomy and physiology, and in such other subjects as the Council should from time to time determine to be passed by all candidates for the diploma of Member or Fellow, at or after the expiration of the first year of study; and (2) that it should be referred to the Committee on Examinations in Anatomy and Physiology to prepare the necessary regulations for defining and conducting such examinations. The report of this Committee was presented to the Council two years later (see THE LANCET, May 13th, 1882, p. 807). This Committee, in conference with the Committee on Additional Examinations, reported that, however desirable such an examination might be, it was not practicable to conduct it at the College; and suggested that, in lieu of the proposed examination at the College, an examination should be held at the various recognised medical schools, at the end of the first year of study. This suggestion was duly commented on and otherwise noticed in our columns on May 20th (p. 830), and June 17th (p. 993.) On June 10th (p. 971) we announced that the Council of the Royal College of Surgeons had decided to call the attention of the authorities of the various medical schools to the recent resolution on the establishment of the examination at the end of the first year, and had resolved to invite the teachers of anatomy and physiology to confer with the Joint Committee of the College with the object of devising the best means of carrying the resolution into effect. On June 24th (p. 1049), we published the interrogations that had been addressed by the Committee of the College to the teachers of anatomy and physiology on the subject of the proposed examination. Lastly, on the 1st instant (p. 1085) we gave a report of the Conference held on the 26th ult. between the teachers of anatomy and physiology in the various medical schools of England and the Committee of the College. At that conference nearly every one of the metropolitan and many of the provincial teachers were present. "The scheme," we stated, "was subjected to a long and full discussion, and finally certain resolutions were all but unanimously agreed to by the teachers present.

These resolutions were to the effect that it is desirable to hold such an examination in elementary anatomy and physiology at or after the end of the first winter session devoted to anatomical and physiological study; that the examination should be conducted at the various medical schools by the teachers of those schools; that the subjects of the examination should be elementary anatomy and physiology, but that the definition of these terms should be left to the discretion of the individual teachers; that the examination should be conducted by means of written papers, and also orally or practically; that the exact time at which to hold the examination should be left to the discretion of the teachers, but that no student should be allowed to present himself for the Primary Examination for the membership of the College of Surgeons until at least six months after passing this preliminary examination. The purpose of the conference was abundantly fulfilled, for the College authorities have obtained the sanction and promise of co-operation of the whole body of the teachers," &c.

We have been at the trouble to prepare the brief *résumé* of the history of this examination in elementary anatomy and physiology, because in some quarters there is an affectation of surprise and a pretence that the matter has been clandestinely matured. Mr. BUTLIN, for example, who is intimately associated with the tutorial departments of one of the largest metropolitan schools, assures us in a letter published in another column—"I gather from conversations held during the past few days, that the large majority of the members of the various hospital staffs are not aware of the real character of the first year's examination proposed by the College of Surgeons." If Mr. BUTLIN means that he finds the majority of the general staff of hospitals to be ignorant of the real character of the examination, we have no hesitation in accepting his statement, inasmuch as physicians and surgeons do not, as a rule, trouble themselves with the details of the arrangements made for teaching first year's students elementary anatomy and physiology; but if, on the other hand, Mr. BUTLIN means that a large majority of members of the hospital staff whose business it is to teach anatomy and physiology are not aware of the real character of the examination, we must either impugn the correctness of his conclusion, or hold the teachers thus referred to guilty of an inexcusable disregard of those events that should concern them most closely. We can believe that the lecturer, say, on obstetrics, or medicine, or botany, or medical jurisprudence, might, if asked to give his views on the subject, manifest not only profound ignorance but profound indifference likewise. He might fairly reply that he had enough to do in taking care of his own proper subject without meddling with those outside his domain. But we are wholly unable to understand how the lecturers and teachers of anatomy and physiology can excuse themselves if it be true that they are not aware of the real character of the examination.

The arguments that Mr. BUTLIN adduces against the proposed examination are equally unsatisfactory. He alleges that the examination "involves an entirely new principle, and a serious departure from the custom of the schools." Even if it be granted that both these propositions are true, it would not follow that the objections are valid. It



may, however, be replied that there is neither a new principle nor a new departure. The Royal College of Surgeons has for many years insisted that the certificates of attendance on the several courses of lectures for the primary examinations "must include evidence that the student has attended the practical instructions and examinations of his teacher in each course." The only novelty in the regulation for the first year's examination is that the attendance on the examinations shall be a fact and not a mere form, that the student shall not only be present at the examination, but shall show proficiency. In this way the regulation acquires a high disciplinary and educational value of which the best teachers will, we believe, be eager to avail themselves. Though the new examination may increase the responsibility of the teacher, it also enhances his dignity and power. But without this countervailing advantage there are not a few educationalists who would welcome any reasonable augmentation of the responsibility of the teachers of anatomy and physiology. These teachers are always well paid, either directly or indirectly, and have usually the first charge of the training and character of the embryo practitioner. On them must in a large measure depend the moulding of the student's mind and habits, and it is right that they should be made fully conscious of their responsibility.

When Mr. BUTLIN formulates specific objections he enters upon troubled waters. In the first place, he affirms that "the business of the schools is to teach, and not to examine for diplomas." This statement includes at once debatable doctrine and, so far as it has reference to the examination in question, a travesty of fact. Neither the Royal College of Surgeons nor any other licensing body is likely to relegate its examining functions to the schools. At most the innovation the College now seeks to introduce is intended to give better effect to existing regulations for the education of its candidates. As to the propriety of teachers examining their pupils, Mr. BUTLIN entertains opinions which are not shared by many of the best authorities on education. For some years the opinion has been steadily growing, that in order to make examinations thoroughly useful as an educational agency they should be carefully correlated with systematic teaching, and that for this purpose the examinations should be conducted by those who actually teach, and only rarely by independent persons. Mr. HENRY LATHAM, among many excellent observations in his work "On the Action of Examinations," says: "It makes all the difference whether the teaching is subordinate to the examination or the examination to the teaching. .... As long as examinations were conducted only in the schools and universities the educational effects were kept in view, and the range of the examinations was made to correspond with that of the work" (p. 11). And again: "When an educating body has the control of the examinations, they can take precautions for preventing the evil arising from over-eagerness in competing. Hence the performances of a pupil in a series of examinations connected with a definite course of instruction afford a better criterion for judging of him than does a display in an examination open to all comers; and they also enable us to judge, in some degree, of moral qualities, such as application and perseverance" (p. 404). Nothing could be easier than to quote volumes from the best writers in support of this view of the educational value of examinations.

For the recognition of this sound principle the College of Surgeons deserves praise. In the second place, Mr. BUTLIN maintains that "it is very undesirable that schools should be placed under the control of any licensing body." Will he, then, contend that the schools should be independent of such control? If the College of Surgeons have the power to frame regulations, to impose restrictions, to recognise or refuse to recognise a teacher, it is a waste of words to discuss whether or not it have a prescriptive right to test the quality of the teaching. Moreover, while Mr. BUTLIN urges that the schools should be free from the control of the licensing bodies, he insinuates in another portion of his letter that the College should itself conduct the examinations. If an inquisitorial examination were forced on the schools by the Royal College of Surgeons, or any other licensing body, at the end of the first year of professional study, it is not obvious that the dignity and independence of the schools would thereby be preserved. Thirdly, Mr. BUTLIN argues that, "if the schools undertake to hold an examination in certain subjects for one licensing body, they may fairly be required to hold examinations in special subjects for all licensing bodies." If the word *properly* be substituted for *fairly* we shall cordially agree with Mr. BUTLIN. It is eminently desirable that those who are responsible for the regulations of the medical curriculum should not only insist that certain courses of instruction should be followed, but that guarantees should be furnished that these courses have been *profitably* pursued. Attendance on lectures should be made to include also proficiency in the class and sessional examinations. This is all the College asks. With Mr. BUTLIN's fourth objection we should prefer not to deal. Questions of money payments and other remuneration for work or duty performed are always tender, and require delicate handling. It may, however, be mentioned, that of all those who are engaged in teaching medicine and its allied branches of art and science, none have such large stipends and such fat emoluments as the lecturers, teachers, and demonstrators of anatomy and physiology. The teachers of these subjects by sessional fees, by private classes, by "coaching," and in other ways, enjoy a peculiar and exceptional position among those who are engaged in the education of medical students. None but them can earn a livelihood by teaching, and they can do it easily. It does not seem a very great hardship that they should, without extra remuneration, give proof that their efforts and their industry have been commensurate with the liberality of their professional and pecuniary rewards. Mr. BUTLIN's letter concludes with a minatory reminder that "the teachers of anatomy and physiology do not constitute the schools, whose opinion of the scheme has not been sought." At the conference of the teachers of anatomy and physiology with the Committee of the Royal College of Surgeons there were over thirty representatives from the nineteen medical schools of England. Mr. BUTLIN seems to imply either that the invitations were too narrowly limited or that the wrong persons were asked. As there are probably between forty and fifty persons, including demonstrators, comprised in the constitution of each of the medical schools, it follows that nearly one thousand persons should have been invited to the

conference, instead of forty. What proportion of this host is likely to give effect to Mr. BUTLIN'S threat that the opinion of the schools "probably will be given unasked; and if it be adverse," whether or not "the College will scarcely care to push its authority so far as to force this examination on the schools," must be left in anxious and perplexing uncertainty. We know the opinions of the lecturers on anatomy and physiology; we await with trepidation the decision of the "schools."

THE Memorandum on Vaccination which has recently been prepared by Mr. R. D. SWEETING, resident medical officer to the Fulham Small-pox Hospital, and which has been issued by the Metropolitan Asylums Board, is a document of considerable interest and one which is well calculated to remove doubts as to the value of vaccination from the minds of those persons who, having been disquieted by some of the arguments of anti-vaccinationists, are still capable of estimating the value of trustworthy statistics bearing upon the subject.

Dealing first with the general history and the physiological theory of vaccination, Mr. SWEETING goes on to show, by reference to mortality statistics, how enormous has been the reduction in the small-pox death-rate since the introduction of vaccination, and he proves conclusively that such decrease has not, as is often alleged, gone hand in hand with a similar decrease in general mortality, but that, on the contrary, it has been maintained even during periods when the general mortality has undergone a distinct increase. Examination of the figures bearing upon this point indicate clearly that since the general adoption of the practice of vaccination as the result of JENNER'S remarkable discovery, the saving of life which has been effected by the prevention of small-pox far outweighs any corresponding diminution either of the general mortality or of the mortality from those specific fevers which are known to be principally affected by general sanitary improvements. So also, Dr. GUY, F.R.S., in his recent paper before the Statistical Society has already shown that the progressive decrease of mortality from small-pox not only commenced before the introduction of general sanitary measures, but that, apart from vaccination, no other cause has been in operation, coincidently with that decrease, to which it is possible to attribute the effect brought about.

Reviewing the facts which have come under Mr. SWEETING'S own observation, we find that since the establishment of the hospitals provided by the Metropolitan Asylums Board the mean small-pox mortality has been at the rate of 8 per cent. of admissions amongst the vaccinated, and 44 per cent. amongst the unvaccinated. And we are further informed that a patient is never entered as "unvaccinated" merely because no indication of vaccination can be found, but only when, in addition to this, the fact itself is admitted either by the patient or by a near relative on his behalf. This explanation will, we trust, finally dispose of the assertion so frequently made that some of the fatal cases grouped amongst the "unvaccinated" had as a matter of fact occurred in patients whose vaccination was rendered either indistinct or altogether invisible by reason of the eruption of small-pox.

The well-known immunity from small-pox experienced by

the hospital staff is another matter with regard to which most erroneous statements have often been made, and the argument in favour of vaccination which has been very properly based upon it has frequently been met by the statement that these officials, and especially that the nurses, owe their protection not to vaccination but to antecedent attacks of small-pox, many of them having been hospital patients. The actual facts as to this are now before us, and they are of the highest value. Mr. SWEETING admits in the first instance that there has been no absolute immunity from attack amongst the officials; that is to say, he claims no more for vaccination in the hospital than can be claimed for it when it is properly performed outside the hospital—namely, that primary vaccination followed by successful revaccination gives an almost complete immunity from an attack of small-pox even under circumstances of constant and direct exposure to infection, and that, as far as known, it confers an absolute immunity from a fatal attack. He next shows that out of a total of 1061 officials who have been connected with the various small-pox hospitals belonging to the Metropolitan Asylums Board during a series of years, only 81 had formerly been patients, and that hardly any of these had been appointed to act as nurses. Indeed, at the Fulham Small-pox Hospital not a single nurse had ever been chosen from among the patients, and out of a total of 295 officials of various grades, only 42 had suffered from small-pox before appointment, thus leaving 253 unprotected by a prior attack of the disease. Grouping all the information on this point as regards all the small-pox hospitals, together with the hospital ships *Atlas* and *Endymion*, it appears that since they were opened thirteen officials in all have had small-pox. Four of these had, owing to an oversight, not been revaccinated, and the disease seized upon them with unerring aim; two others had contracted small-pox before the date at which revaccination could have protected them, and the remaining seven had attacks of a very mild description. In other words, out of a total of over 1000 officials, many of whom had been by day and by night exposed to a highly infected atmosphere, only seven contracted small-pox, and in these exceptional instances the disease was disarmed of all its worst features.

The anti-vaccinationist has, however, often met the inference which is naturally drawn from such facts by alleging that the hospital officials are a picked body of healthy persons, and that they are hence not liable to contract infection. Such an argument will, we trust, be finally silenced by some further facts recorded in the memorandum, and which are to the effect that in the hospitals devoted to the reception of specific fevers other than small-pox no less than 133 of a similarly selected staff of officials had, during the past ten years, been attacked with fever. The attacks were also of a severe type, for no less than 25 attacks terminated fatally. Thus infections against which there is no such protection as vaccination affords in the case of small-pox, were not held in check by the condition of healthiness referred to.

One other important matter is worthy of note. It is well known that, owing to vaccination, attacks of small-pox occurring when the protective influence has somewhat subsided, are often so modified that it becomes extremely difficult to diagnose them correctly, and that, in consequence, many patients have to be kept under observation for some

days before it can be decided whether an eruption under which they are suffering is that of small-pox or not. Now many patients who, at the end of their period of observation, are found not to have small-pox are, in the absence of isolation wards, regularly admitted in the general small-pox wards. So, again, mothers not suffering from small-pox are at times admitted with children having the disease, and healthy infants are also occasionally taken in with their mothers who are suffering from the malady. In all these cases the individuals in question are vaccinated, either on admission or directly it is ascertained that they are not suffering from small-pox, and the result of many years' experience is to the effect that, provided the vaccination can be effected not later than the third or fourth day following an exposure to infection, the protection afforded them has never failed. And, on the other hand, in cases where an incorrect diagnosis as to small-pox has been made and acted on, the patients have contracted the disease, because the immunity conferred by vaccination was not afforded them. The evidence brought forward on this point is similar to that which has been observed in other small-pox hospitals, and even if it stood alone it must be regarded as affording a crucial test of the protective influence of vaccination.

## Annotations.

"Ne quid nīmla."

### THE COLLEGE ELECTION.

THE result of the election of Members of Council of the Royal College of Surgeons held last week rather tends to confirm the idea that the College Council is fast becoming a strict oligarchy. The only provincial candidate was a gentleman who at a considerable sacrifice of time has served the College faithfully for eight years. He sought for re-election, but has been displaced by a surgeon on the staff of a Royal Hospital. Mr. Baker was very unfortunate. A general impression seemed to prevail that the opposition to the re-election of the three retiring candidates would not be pressed; and Mr. Baker's friends were evidently deceived by the apparent absence of interest or of excitement. The supporters of his opponent embraced the opportunity and scored a victory. We have no wish to excite jealousy and rivalry among the various sections of the Fellows, either metropolitan or provincial, or those who are connected with medical schools and those who are not; but it is extremely undesirable that the majority of the Members of the Council of the Royal College of Surgeons should be attached to a few of the largest schools. The result of the late voting will hardly encourage either of the candidates representing the smaller schools to again seek election on the Council. Nothing could be more detrimental to the welfare of the College than that the impression should grow into conviction that only Fellows connected with big schools may hope to be elected. There are many Fellows representing the interests of the profession outside the influence of those large schools. These will decline to come forward as candidates if the result of the election is always to be a foregone conclusion. There can be no question that our large schools by working together and playing into each other's hands may, if they wish, secure all the seats in the Council. Such machinations must, however, be met by strong combinations of independent voters. An analysis of the voting last week throws an unpleasant light on the way in which an election may be won. Two hundred and forty-five Fellows recorded their votes, of

which one was declared to be invalid through informality. Three members had to be elected, so that each Fellow was expected to make a selection of three out of the six candidates. Fifty-six of those who voted, or 22·86 per cent., exhibited their intelligence and capacity for this duty by "plumping," that is, giving all their support to one friend. We are glad to record another confirmation of our persistent contention, that the best candidates can always dispense with the silly help of "plumping." Of the 165 votes polled by Mr. Marshall, only 3·03 per cent. were "plumpers," and of the 144 votes given to Mr. Power, only 2·08 per cent. were "plumpers." On the other hand, Mr. Croft's 103 votes included not less than 20·38 per cent. of "plumpers," and the three unsuccessful candidates received from 13·43 to 16·6 per cent. It is useless to pretend that so large a proportion of the Fellows stultify themselves unasked. We do not wish to insinuate that any of the candidates encouraged "plumping" in their behalf; but their friends were not equally scrupulous. Mr. Croft's case is a specially hard one, and those who know this gentleman best will sympathise most heartily with him in the painful position into which his zealous but injudicious friends have forced him. Mr. Croft is deservedly held in high esteem as a surgeon and teacher. His election will, however, not be without its use if it gives the death-blow to the foolish and undignified practice of wholesale plumping.

### THE EGYPTIAN EXPEDITION.

THE medical arrangements for the force to be despatched to Egypt have been very carefully considered by the War Office authorities, and ample provision will be made for the troops in the way of assistance, both regimentally and in the field hospitals. Two bearer companies of the Army Hospital Corps, eight field hospitals, general hospitals at suitable localities, and hospital ships to convey the sick and wounded without delay to the base of operations or to England will be provided. The *personnel* of a bearer company, when complete, consists of eleven officers and 213 men, including the Army Service Corps, with full equipment in the matter of tents, ambulances, surgery waggons, water carts, &c.; those furnished with mountain equipment are given litters and cacolets, carried by mules or ponies, instead of ambulance waggons, as for a campaign in a sandy desert like the neighbourhood of the Suez Canal they are more suitable than wheeled carriages. Each field hospital is equipped for 200 beds; its staff is seven medical officers, one officer (Army Hospital Corps), and a proportion of non-commissioned officers and men for nursing and hospital duties. Medical and surgical appliances are carried in pharmacy and store waggons. Large quantities of reserve medical stores, medical comforts, disinfectants, and lime-juice are being shipped by the Commissariat Department, and as the medical service of the army contains numerous officers who have experience of the recent Afghan and South African campaigns, we feel confident that nothing will be omitted or neglected.

### "SURVIVAL OF THE FITTEST:" A PARADOX IN THE SCIENCE OF HEALING.

WHY, if it be natural and expedient that only the "fittest" should survive, are we as a profession chiefly interested in prolonging the lives of those who have been rendered unfit by disease or accident? This question, which apparently points to a paradox in science—supposing the art of healing to be in a philosophic sense scientific—has been referred to us by Mr. Harold G. Dixon, B.A., for discussion, and it certainly suggests considerations which it may be worth while to set before our readers as subjects of thought at leisure. It is not necessary to be "of a speculative turn of mind" in order to be a sound and useful prac-

itioner, but it is desirable, as far as possible, to satisfy the inner conscience that what we are doing in the practice of our art is in harmony with the purpose and plan of Nature. If it were really a fact that the whole business of our lives, the work to which we devote the best of our strength and intelligence, had for its object to antagonise the natural course of progress as regards the race, although compassion for the individual might impel us to continue the effort, it would certainly damp the ardour of our enterprise to reflect that those we are striving to keep alive ought in the interests of posterity to be left to die. The seeming paradox is in truth a fallacy.

"Survival of the fittest" is not the same thing in its result as "adaptation to circumstances." Development through, and by, the environment, is the method of Nature, but this does necessitate that man should be "the creature of circumstances." The environment is not a constantly progressive agency of development. It is itself subject to the law of survival. It cannot therefore be absolutely or abstractly true that the fittest for the existing conditions of life in any particular place or epoch ought to survive! For example, it is possible to conceive of a state of physical circumstances which should for a time render a part of the earth's surface so obnoxious to the higher grades of animal life that only the lower forms could live. This state of matters, atmospheric and meteorological, might continue a mere moment in the history of the planet and yet seem to be for ages in the history of organism. Obviously it would not be in harmony with the law of Nature and development that only those animals which were fittest to live amid the transitory circumstances should survive. We, too often, forget that our knowledge of fact is not the measure of truth. The horizon may seem to extend as our powers of sight are enlarged, but we can never do more than scan a limited province of fact from our own low and little standpoint. It is wholly out of our power to determine whether the particular type of development which seems to be making way in the world and asserting its superiority by survival, and is for a time regarded as normal, is the best type or that which is destined to endure and be perfected. It may well be that what we call good and true and beautiful may be only relatively and temporarily so, as regards the momentary surroundings and conditions of life. It is not for us to prescribe the course of natural selection. All we can be quite sure about is the simple axiom that life is in itself excellent. The underlying principle of Nature is "live and let live"—in a scientific sense. Whatever tends to shorten or impair life must be treated as an enemy. We do not know the plan of the campaign as a whole, but we may feel quite sure of the fact that "survival" is the aim of Nature, and all that tends to oppose survival ought to be antagonised.

The fallacy of the paradox which has been submitted to us lies in the fact that only part of the truth is stated. The law of "survival of the fittest" applies to the environment itself not less than to the living organisms within it. The surroundings of life are progressively changing as well as the subjects of life. There is a perpetual struggle for supremacy between the two, and it is always an open question whether the resultant of this struggle will be found to embody a greater or less modification of subject or circumstance. Our duty as practitioners of the art of healing does not relate to the surroundings, except in so far as these may be regarded as tributary to the central fact of life. If we can modify the conditions and circumstances of existence so as to render life easier, it is in our day's work to do this, and to do it heartily; but the commission we hold is to prolong life, and to fight against all that tends to destroy or weaken it. In so doing, we are not merely benefiting the individual, but the race, because, so far as we know, man is the highest

created organism, and as such he is destined to dominate circumstances. For us "man" takes the form of *men*. The race may be higher than the individual, but it is with the latter we have to deal. We are only cognisant of life in its individual manifestations. As regards the total amount of life in the world, or its destined distribution, we are and must remain in ignorance. As men, we have to help men, and to help them to live in spite of the diseases and weaknesses which threaten them with death, and which too often put an end to existence notwithstanding our efforts to prolong it. Science, not less than humanity, bids us look to the individual, and strive for the saving of *his* life. It is in this enterprise alone that our labour can be worthy of Nature and our work useful and sound.

### THE BACILLI OF TUBERCLE.

FOR the demonstration of tubercle bacilli in the sputum of phthisical patients Baumgarten recommends the following method as more convenient than those of Koch and Ehrlich. A little of the sputum is dried on the cover-glass, as recommended by the latter, and then treated with potash—one or two drops of a 33 per cent. solution of caustic potash added to a watch-glass of distilled water. The tubercle bacilli can then be readily seen with a magnifying power of 400 or 500 diameters, and a little pressure renders them still more distinct from the enclosing detritus of tissue. In order to preclude the possibility of confounding the bacilli of tubercle with those of other species, the cover-glass may be raised and placed aside until the layer of fluid on its under surface is dry, and then passed two or three times through a gas flame, and then on it may be placed a drop of an ordinary watery solution of aniline violet or any other nucleus-tinting preparation of anilin. All the putrefaction bacteria then appear under the microscope as an intense blue or brown (according to the testing agent and its strength), while the tubercle bacilli remain absolutely colourless, and can be seen with the same distinctness as in the ordinary potash preparation. The whole process does not occupy more than ten minutes.

In a recent lecture to the Berlin Reichsgesundheitsamte, Professor Billroth discussed some of the practical aspects of Koch's discovery. He pointed out how the accumulating knowledge of the coarser pathological relations of tubercle have led to the conviction that the discovery must shortly come, and he paid a tribute to the investigations of Villemin as having constituted the first and greatest step in the discovery—the step of demonstrating that tubercle is inoculable. This proved its dependence on a transferable virus, although we are only now able to eliminate the possibility that the virus might be of simply chemical nature. The various degrees of individual proclivity to suffer, observed in man, render it very important to study the variations of proclivity which are observed in animals. As a rule it appears that the carnivora are less susceptible than the vegetable feeders (an unpleasant fact, by the way, for vegetarians). In the case of man, the only safeguard is the normal unsuitability of the soil, apart from the existence of inherited fitness. But another reason why local tubercle often exists without general infection—why, for instance, scrofulous caries of a rib so often exists without a general infection—is due to mechanical conditions. At the periphery of such a tubercular focus, in a bone or a lymphatic gland, there is an induration which probably hinders the exit of the tubercular organism and its passage into the blood current. The necessity of a high temperature, such as that of the blood, for the growth of the organism probably lessens very much the extent of the disease in man, since, if the germs could develop out of the body, they would probably be ubiquitous. While the discovery of Koch raises into even greater importance than before the inherited predisposition, it will probably lead to some modification of our views as to the

influence of that predisposition. Cases may be due to infection which are now regarded as the result of inheritance only. A consumptive mother, for instance, may infect a child through a pocket-handkerchief; moreover, the germs may be received by eating the flesh of infected animals. Certainly the conclusions are sufficiently probable to make it incumbent on us to treat consumption as in a measure an infectious disease.

### THE DEARTH OF MORTUARIES.

THE urgent want of mortuaries in the central districts has been brought prominently before the public this week by the sudden death of a gentleman while ascending the staircase of the new Law Courts. He fell just as he had reached the room No. 96; and when application was made to remove the body to the mortuary adjoining St. Clement's Church, the applicant was informed that the mortuary was "full of rubbish, and there was no room for any more." This irreverent comparison, if the report be true, must have greatly aggravated the horrors of the case. We can scarcely believe that even the meanest parish official would be satisfied with such an excuse. The London mortuaries are few and far between; but if these are to be filled with rubbish, and bodies compelled to lay where they fall till after the coroner's inquest, the fact had better at once be known and other measures taken. Certainly the dead-house, as it now stands behind the cab station to the east of St. Clement's Danes, and in the very centre of all the traffic of the Strand, is a disgrace to the parish; but the body would be better placed there than left in one of the offices of the Law Courts. In the neighbouring parish, St. Mary-le-Strand, the mortuary is admirably calculated to facilitate the spread of disease, being situated under the church, and so built that the effluvia has, it is stated, often caused serious inconvenience to the congregation. There was consequently a good reason for closing this mortuary. While this difficulty was occurring at the Law Courts another similar case happened close at hand in a common lodging-house in Portugal-street, Chancery-lane. Here an old woman was found dead in her bed, and, there being no mortuary available, will have to remain there for four or five days. As the death was not due to a contagious disease, we presume that the other lodgers, who sleep in the same room, will not be compelled to leave, though the sanitary condition will not be improved by the prolonged presence of a corpse in a dormitory where a maximum of 300 cubic feet is allowed per bed. So much has been said and so little done on this subject, that we must resign ourselves to the feeble hope that our great grandchildren will perhaps live to see London properly organised in this respect.

### COLLEGE OF PHYSICIANS IN IRELAND.

Two important appointments in the gift of the Fellows were filled on the 7th inst.—viz., the King's Professorship of the Practice of Medicine, and the Professorship of Midwifery in the School of Physic of the University of Dublin. Dr. J. Magee Finny, a graduate in medicine of Trinity, Fellow and Registrar of the College of Physicians, and physician to the City of Dublin Hospital, was elected King's Professor of Medicine. Dr. Finny, we may add, has well earned the reputation he is held in as an accomplished physician, and there can be no doubt his election will be approved by the profession. For the chair of Midwifery there were six candidates—Dr. J. Rutherford Kirkpatrick, a Fellow of the College of Physicians, and an ex-Fellow of the Royal College of Surgeons in Ireland, being successful. So far back as the first week in April (see THE LANCET, p. 581) we mentioned this gentleman as a probable successor to Sir E. B. Sinclair, a prognostication which has been justified by the result.

### LIGATURE OF THE INNOMINATE ARTERY.

OUR last report of Mr. Thomson's case of ligature of the innominate artery is to the twenty-seventh day after the operation. The patient continues to do well, temperature normal, pulse 86; the track of the drainage-tube has healed, and only a small superficial sore now remains unhealed. The aneurism is without pulsation and is becoming smaller. This case will no doubt revive the oft-discussed question of the justifiability of this operation. Of late years the general opinion has been against it, and in most of the surgical textbooks this view is strongly expressed. It is doubtful how often the operation has been carried out. There are five cases attributed to Dupuytren, Lynch, Pirogoff, Bergelsky, and Peiscotto, which do not rest on sufficient evidence to enable us to include them in our list of cases; in all of these cases the operation, whatever it was, proved fatal. But there are twelve undoubted cases performed respectively by Mott (1818), Graefe (1822), Norman (1824), Arendt (1824), Hall (1830), Bland, Lizars (1837), Hutin (1842), Cooper (1859 and 1860), Gore, and Smyth. Of these, eight cases perished from hæmorrhage, one from acute pericarditis, one from inflammation of the sac of the aneurism and pleuro-pneumonia, and one from blood-poisoning. Smyth's case is the only one that recovered, and this only after the patient had experienced four attacks of secondary hæmorrhage, and had had his vertebral artery ligated. In many of the fatal cases, although death took place many days after the operation, the aneurisms did not show any evidence of consolidation. We shall be very glad if Mr. Thomson's case prove ultimately successful, as it now promises to do. But although a month has elapsed since the operation and all looks well, we cannot forget that in two cases—Graefe's and one of Cooper's—death occurred from hæmorrhage on the sixty-seventh and forty-first days respectively. Recent surgical advances have altered the position of this operation to some extent, for they have provided us with several materials which, while successful in leading to the permanent occlusion of the artery, do not cause suppuration of its coats. This removes one great source of danger. But the deep position of the artery, its shortness and its relations to other important structures, render the procedure a very difficult one. There are at least four cases reported where the surgeon has been unable to complete the operation.

Since the above was written Mr. Thomson has forwarded the following particulars of the progress of his case:—"My case has now reached its thirty-fourth day. On the thirtieth day there was some bleeding through the sinus, which reopened. Bleeding stopped spontaneously, and has not recurred. Patient has still normal temperature—in morning, pulse 88. Tumour perfectly still and much reduced in size. Some pulsation apparent in region of the ligatured vessel. No carotid, temporal, or radial pulse."

### A GOOD EXAMPLE.

AT the recent annual inspection of the 2nd North Yorks Volunteer Rifles, the medical staff, with their detachment of sick-bearers, marched past with the regiment. After the usual manœuvres had been completed, the inspecting officer, Col. Mockler, reviewed the ambulance corps, which consisted of Surgeon-Major J. W. Taylor, Scarborough; Acting Surgeon W. T. Colby, Malton, and Acting Surgeon R. Bruce-Low, Helmsley, together with one sergeant and twelve bearers. The equipment comprised three stretchers, Lieut. McLure's patent, a field companion, a field haversack, water bottles, &c. Dr. Taylor put them through the stretcher drill, lifting and carrying the wounded, after which the improvised methods of aiding wounded men on the battlefield were shown. The supposed wounded were laid on the grass in front of the detachment, and the



lifting and carrying of these men in various postures excited great interest in the minds of a large body of spectators. Col. Mockler then presented to each of the men the certificates of proficiency which they had obtained after examination before an Army Medical Board some weeks previous to the inspection. These certificates were signed by Surgeon-General Shelton and Brigade-Surgeon Tippetts, and certified to the knowledge of the bearer in stretcher and ambulance drill and in field dressing. Each man wears on his right arm a brassard on which is the Red Cross. The highly efficient state of this ambulance detachment is entirely due to the unwearied efforts of Surgeon-Major Taylor, who has devoted much time to the teaching of these men. Col. Mockler complimented Dr. Taylor and his corps upon their smartness and efficiency. It would be well if every other volunteer regiment was prepared with such a necessary and important addition to their *personnel*.

### THE POISONS OF THE DAY.

THE current number of *Macmillan's Magazine* contains an important and interesting article by Dr. Hubbard, Vice-President of St. Mary's Hospital, on "The Poisons of the Day—a new Social Evil." In this country we find the curious anomaly of the sale of poisons being governed and restricted by two distinct series of Acts of Parliament having diverse interests and objects. The Pharmacy Act was intended to restrict the sale of drugs for the safety of the public, whilst the Medicine Stamps and Medicine Licence Acts foster and facilitate their sale chiefly in the interests of the public exchequer. The result of such fortuitous legislation has been unfortunate, and nowadays a child or other unauthorised person experiences no difficulty in obtaining an almost unlimited quantity of some of our most active poisons. In proof of this statement Dr. Hubbard says: "I made an expedition, accompanied by a child under twelve years of age, into a region of shops. I sent her alone into grocers' oilmen's, linendrapers', and other stores, where intimations existed that 'patent medicines' were sold. Without hesitation or inquiry of any kind, this child was supplied with any quantity of chloral or chlorodyne and other articles she asked for, and in a short time we returned home largely supplied with various poisonous drugs and compounds of deleterious and lethal substances. Had we extended our journey onwards with the same object, this little child could have procured sufficient poisons to have converted any parish in London into a city of the dead." It is estimated that there are now in this country nearly twenty thousand holders of patent medicine licences, of whom at least half are not chemists, and have no knowledge of medicine or pharmacy of any kind. During the year 1880-81 duty was paid by stamps on not less than 16,627,131 packages of patent medicine. Probably the most dangerous and insidious of all patent medicines are those containing chloral. It generally happens that the victim's attention is attracted by some skilfully worded advertisement of the miraculous effects of medicine bearing the "Government stamp," and to be obtained "of all respectable chemists, oilmen, and grocers." The effect of the first dose surpasses expectation, and another dose on the next occasion is equally satisfactory. No dangerous effects being indicated on the label, no danger is suspected; it is resorted to again and again, and by degrees becomes a nightly necessity. After a time the customary result is not experienced, "and not unfrequently in the middle of the night, by familiarity become bold, the *habitué*, after hours of weary tossing, with trembling hand pours out another half-teaspoonful or a few more drops, as the label directs, and drinks it off. The desired effect, and *more*, is now produced: coma ensues for sixteen, twenty, or even more hours, greatly to the alarm of surrounding friends; and not unfrequently the consequences

are such as to necessitate the services of the coroner." There is no subject connected with the health and welfare of our nation which requires more thorough and searching investigation and more prompt and stringent legislation than restrictions to the sale of deadly poisons.

### THE DRAINAGE OF BRIGHTON.

IN another column we print a letter addressed to us by Mr. Robert Rawlinson, C.B., of the Local Government Board, on the above subject. The opinion expressed by this authority is one with which the common-sense judgment of all who really desire the prosperity of "London-on-the-Sea" must coincide. A grave mistake has been made in regarding what we have done and said in this matter as prompted by feelings and wishes other than those of goodwill to the town and neighbourhood whose sanitary condition we have felt bound to criticise. Happily for the resident populations of other towns, our counsels are not wont to be treated as Brighton has treated them. The issue now lies before a legal tribunal, but we think it right to publish the letter to which we now direct attention, because it is a representative specimen of the communications we are almost daily receiving, and which show only too clearly the error of policy into which the ratepayers of Brighton have fallen.

It is fair to the town we have criticised to reproduce the following passage from a speech by the mover of the resolution recently passed by the Town Council. It proves that the combined effect of our remonstrances and Sir Joseph Bazalgette's "eminently satisfactory" report has been to stir the authorities to action:—

"They were now erecting ventilating shafts at the sides of houses to relieve the sewers of any gas which might be generated, and he would take that opportunity of asking owners and occupiers to bring common sense to bear on the question and assist the Council by giving permission to erect such shafts. The whole question with regard to sewer gas, so far as he could learn, rested on the temperature of the sewers. If they lowered this to a certain point there was no generation of sewer gas; and the question was how to do it. They had had the advice of Sir John Hawkshaw, Mr. Rawlinson, and Sir Joseph Bazalgette upon the ventilation of sewers in the streets, but in addition to that they were asking to ventilate by shafts at the sides of houses, and if they sufficiently ventilated the sewers they would do away with sewer gas to a large extent."

### STAMPING-OUT SMALL-POX.

ATTENTION has been drawn to a practice which is being adopted in Leicester with a view of "stamping-out" small-pox, the town being referred to as one where there are more prosecutions for non-compliance with the vaccination laws "than in all the other towns of England put together," and the practice is stated to excite great interest in medical circles. Directly a case of small-pox is heard of under the provisions of a local Act requiring the notification of infectious diseases, arrangements are made not only for the isolation of the person attacked, but also for the removal to the borough infectious hospital of all persons who live in the same house or have come into contact with the patient, these persons being subjected to a species of quarantine, during which they can be kept under supervision and their homes can be disinfected. The plan, it is alleged, is thoroughly successful, and this in a town where vaccination is notoriously neglected. The experiment is, however, by no means a novel one; and although there can be no doubt that there are distinct advantages in adopting it wherever it is practicable, yet it would be wrong to draw the inference that such action can be looked upon as sufficing to stay the infection of small-pox in a badly-vaccinated community. The Leicester health reports since 1879 show that the few attacks of small-pox which have occurred during the past three

years have been successfully arrested, although the isolation carried out appears to have been limited to the persons attacked, and hence we doubt if any sufficient experience has been acquired with regard to the quarantine system as would suffice for the formation of an opinion as to its general applicability to an ordinary population. Indeed there is no power by which a sanitary authority can compel the removal to hospital of any but the actually sick, and, even where such removal is voluntarily submitted to, there are no legal means by which such an authority can compensate persons who are thus compelled for a time to discontinue their ordinary avocations. Excellent as the practice may be under the circumstances of Leicester, and wherever it is found to be practicable, we cannot but regard its application as being very limited. We would therefore urge that the efficient vaccination and revaccination of the public generally are far more efficacious protections against small-pox than the mere isolation of the few who are known to have come into contact with infection, and we feel that in the long run it will be far safer to rely on a strict compliance with the provisions of the Vaccination Acts than on a system which may at any moment fail by the refusal of persons to subject themselves to it.

#### HOSPITAL ACCOMMODATION IN THE NORTH OF LONDON.

WE are glad to see that the Great Northern Hospital is alive to its responsibility in connexion with the general demand for a larger hospital accommodation in the north of London. "A meeting to consider the position of this hospital, and the need of increased hospital accommodation for North London," is to be held in the Athenæum, Highbury, on Wednesday, the 19th inst., and will be presided over by Lord Cowper, an ex-president of the hospital. It certainly does seem as if the Great Northern Hospital only wanted to be transferred to a better site, and reconstructed on a larger scale, to meet the wants of North London. Whether its representatives have the power of gathering into one focus all the energy that is now abroad in this cause remains to be seen. We hope the result will show that they have. At any rate, the Great Northern comes before the public with a good claim and with a good chairman, and we shall regard the meeting of the 19th with much interest.

#### THE MURDER OF KENNY IN DUBLIN.

THE following were the results of the post-mortem examination in reference to the injuries received by the deceased, who was assassinated in Seville-place last week. In addition to six wounds inflicted by a cutting instrument, and which were of little importance, four bullet wounds were found. One penetrated the left shoulder, passing upwards and inwards under the bone, the bullet lodging in the back of the neck. There were two on the back of the skull: one passed into the bone, from which it glanced downwards into the muscles at the back of the neck, where it was found close to the right ear; while the other penetrated the skull and passed in through the brain, tearing the right posterior lobe and the front left lobe. The fourth bullet wound was under the left arm, and had entered between the sixth and seventh ribs, penetrating the left lung; it then passed through the right lung out to the fifth rib through the muscles, broke the angle of the right scapula, and finally lodged in the muscles of the back. By this last bullet the aorta was penetrated, and a large quantity of blood filled the right pleural cavity.

#### METROPOLITAN HOSPITAL SUNDAY FUND.

THE amount collected for this fund has already reached £32,625. Many contributions have yet to come in, including that of Kensington parish church.

#### OPENING THE ŒSOPHAGUS.

AN opportunity has recently occurred at the London Hospital to test the correctness of the views advocated by Mr. Reeves in a paper on gastrostomy read at a late meeting of the Clinical Society. A man, aged sixty, under the care of Dr. Stephen Mackenzie, was referred to Mr. Reeves on account of malignant obstruction of the Œsophagus, and as Dr. Mackenzie and Mr. Adams concurred with Mr. Reeves as to the advisability of a cervical incision, the operation of Œsophagotomy was undertaken and successfully completed. It was difficult to recognise the Œsophagus, whose walls were cancerous, and on account of their friability the attempt to secure it to the skin was abandoned and a large elastic catheter was introduced and tied in. A complete account of this unusual and surgically important case will appear when all details are complete, but in the interim the attention of surgeons is drawn to it because it serves to dispel the belief which has hitherto existed in the professional mind as to the danger and difficulty of the operation when undertaken for stricture.

#### REMARKABLY LOW DEATH-RATES.

DR. JACOB recently presented to the Rural Sanitary Authority of Chertsey his annual report for 1881, which affords the strongest evidence of the satisfactory condition of this sanitary district, notwithstanding the local prevalence of scarlet fever in some of the parishes. The aggregate population of this district is now not far short of 30,000 persons, and the death-rate last year in some of the nine parishes constituting the union and rural sanitary district was exceptionally low; it was only 13.3 in Chertsey, 12.8 in Walton, and 11.5 in Weybridge. The highest parish rate during the year was 17.7 in Chobham, and even this scarcely exceeds the mean rate for such districts according to Dr. Farr's Healthy District Life Table. Dr. Jacob expressed the hopeful conviction that the prejudices which had stood in the way of the due utilisation of the hospital for infectious diseases are now nearly overcome.

#### SUMMER DIARRHŒA.

THE recent unseasonably cold and wet weather has hitherto repressed the usual increase of diarrhœa fatality at this season. In London the deaths referred to diarrhœa, principally infantile, which had been 32 and 41 in the two previous weeks, rose to 73 in the first week of July, but were no fewer than 42, or 37 per cent., below the corrected average number in the corresponding week of the last ten years. These 73 deaths were equal to an annual rate of 1.0 per 1000. In the twenty-seven provincial towns embraced by the Registrar-General's Weekly Returns, with an aggregate population somewhat exceeding that of London, the deaths attributed to diarrhœa were 67, equal to a rate of 0.8 per 1000. The highest death-rates from diarrhœa in these provincial towns last week were 2.9 in Bolton and 1.7 in Leicester.

#### HEALTH OF HOVE.

THE Medical Officer of Health for Hove, an urban sanitary district adjoining the borough of Brighton, and forming an integral part of that town, has just issued his report for the quarter ending June 30th last. The population of the parish and sanitary district is estimated at 21,000 persons, and the annual death-rate during last quarter is reported to have been only 13.2 per 1000, while the zymotic death-rate in the same period was equal to 1.6 per 1000. It is, moreover, stated that no death during the quarter was referred either to typhoid fever, scarlet fever, or diphtheria.

THE President of the Local Government Board has appointed Dr. Frederick W. Barry to be one of the medical inspectors of the Board, in the place of Dr. Beard, who has resigned. Dr. Barry for several years held the appointment of medical officer of health for the combined sanitary authorities in the Craven district, in the West Riding of Yorkshire, and during that period he distinguished himself, both in his work and in his reports, as an active and able officer. He was later on appointed to be Chief Medical Officer and Sanitary Commissioner to the Government of Cyprus, and in the numerous duties which devolved upon him there he gave further evidence of his ability in administrative work.

MR. E. G. SCOTT, Colonial Medical Officer stationed at Port Louis, Mauritius, states that in the cases of gangrene resulting from fever, so common in the island, he has found a superficial incision into the skin around the sphacelus succeed better than anything else in limiting the sloughing process and in hastening the separation of the slough.

AT a meeting of the Council of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt-court, Fleet-street, on the 6th inst., it was resolved that the annual meeting of the Association should be held at Worcester during the meeting of the British Medical Association.

THE report of the Committee on the Contagious Diseases Acts is expected to be ready for consideration on the 27th inst. The evidence is very voluminous, no fewer than forty thousand questions having been put to the various witnesses.

MESSRS. LIPPINCOTT, of Philadelphia, announce the forthcoming appearance of a work entitled "A Treatise on the Physiological and Therapeutical Action of the Sulphate of Quinine," by Dr. F. Otis Manson.

WE understand that Dr. Joseph Coats, of Glasgow, has in preparation a Text-book of Pathology, including General Pathology and Pathological Anatomy.

WE are asked to state that the museum of the Royal College of Surgeons will be closed from August 1st till further notice, in order that it may undergo the necessary repairs.

THE small-pox epidemic at Cape Town is reported to be assuming larger proportions.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF INSPECTORS TO THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*Sherborne (Enteric Fever).*—In 1873 a widely spread and fatal epidemic of enteric fever took place at Sherborne, in Dorsetshire, and it was shown by Dr. Blaxall, of the Local Government Board, to be due to the direct communication which then existed between waterclosets and the town water-mains, an arrangement which, during intermissions in the water service, had led to the forcible suction of foul air into the mains. Early this year Sherborne was again visited by a prevalence of this disease, and although in this instance the outbreak was localised and on a much smaller scale, yet it has been ascertained to have been due to very similar circumstances. Some of the attacks occurred where the

admittedly excellent supply of town water was laid on, but in these cases the drinking water was derived from cisterns which not only supplied waterclosets, but which, through their overflow-pipes, were also to some extent subject to the risk of pollution. Indeed, chemical analysis indicated that by one or other of these methods the cistern-water had become to some extent contaminated. Special interest centres, however, in one group of houses where several cases occurred, and to which an independent water-supply was delivered through a main which also supplied water to the water-closets without the intervention of cisterns. The contents of the main were thus brought into direct communication with any foul effluvia rising from the closetpan or forced up from the sewer, which at the time had received specifically poisoned evacuations. Many important sanitary improvements had been carried out in Sherborne after Dr. Blaxall's first visit, but the principal faulty condition then pointed out had been allowed to remain in this group of houses, the result being that it was specially seized on by the disease in question. Since the original Sherborne epidemic occurred, and the remedy for it was pointed out, other towns having intermittent water services, and having the supply to water-closets laid on direct from the mains, have also suffered in a similar way from outbreaks of enteric fever; and yet Sherborne had not sufficiently profited by the lesson to rid the town of all such dangers. Hoping that other towns may take heed in time, we would again urge upon sanitary authorities the extreme importance of insisting upon the service to waterclosets being invariably delivered through the intervention of a cistern, so as to secure a complete break between the interior of the closetpan and the water main, and further, of seeing that no water for domestic purposes can ever be drawn from the cisterns supplying waterclosets.

*Holywell (Sanitary State).*—Holywell, an old market town in Flintshire, was officially inspected in 1875 on account of the prevalence of scarlet fever and other epidemic disorders. A severe outbreak of diphtheria occurred there in 1878 in association with defective sanitary conditions, and the general death-rate for the last five years has been at the rate of 23.5 per 1000, as compared with a rate of 21.0 for England and Wales. Early this year the town was again visited by Dr. Franklin Parsons of the Local Government Board, who states that, with regard to the conditions calculated to affect health injuriously, the state of matters described in 1875 remains substantially the same. Holywell stands at the head of the ravine down which flows the stream proceeding from St. Winifred's Well, a remarkable spring said to yield at the rate of 100 tons a minute, and which is resorted to for bathing on account of its supposed healing virtues. Others, therefore, than the ordinary residents are unfortunately interested in the sanitary condition of the district. But Holywell is "decaying"; its population has decreased from 3540 in 1871 to 3091 in 1881; only one new house has been built for twenty years; and the cost of adopting effective sanitary measures and administration would probably ruin the place. And Holywell by no means stands alone in this respect; for the country is dotted here and there with urban districts far too small and too sparsely populated to be capable of bearing the cost of the sanitary works which are necessary for their well-being. Such districts should be done away with as separate sanitary areas, and they should be again included in the rural districts from which they once emerged. Dr. Parsons, indeed, hints in his report that such a course is the only practicable one to relieve Holywell of its present sanitary disadvantages.

#### REPORT OF MEDICAL OFFICER OF HEALTH.

*Portsmouth (Urban).*—The main interest in Dr. Walter J. Sykes' report upon the sanitary condition of the borough of Portsmouth during 1881 centres in the remarkable epidemic of diphtheria from which the town suffered throughout the year. The birth-rate was equal to 34.2 per 1000; it was higher than in any previous year since 1873, and was 1.1 above the mean rate in the ten years 1871-80. The death-rate was 19.6, which, although showing an increase upon the low rates in recent years, was 2.1 per 1000 below the mean rate during the year in the twenty large towns dealt with in the Registrar-General's weekly return. The death-rate from the principal zymotic diseases was equal to 3.4 per 1000, and corresponded with the mean rate in the twenty towns. The zymotic death-rate in the borough exceeded that recorded in any year since 1876, when scarlet fever was severely epidemic. The low death-rate from dis-

cases other than zymotic was fully as remarkable last year as in recent years. Dr. Sykes, in reporting that 205 fatal cases of diphtheria were recorded during the year, remarks that "such a serious epidemic of this disease seems to be unprecedented in the annals of Portsmouth." Diphtheria fatality was exceptionally quiescent in Portsmouth during the three years 1877-8-9, and in the first half of 1880, whereas the recent epidemic broke out in the autumn of that year. It is to be regretted that the causation of this remarkable epidemic receives little or no elucidation from Dr. Sykes' report, most of the information there given being mainly of a negative character, excepting only the expressed conviction that the public elementary schools played an important part in the distribution of the disease. The evidence adduced seems to prove that the disease spread by personal contagion rather than by the distribution of the contagium by means of the sewer system, or of the water or milk supply. It would seem that nothing short of prompt notification of the cases of attack, and a systematic removal to hospital of all cases in which house isolation was impossible, would have repressed this fatal epidemic. The interesting and important question, however, still remains unanswered, Why did diphtheria become so fatally epidemic in Portsmouth last year, while in other towns, in all of which sporadic cases occur from time to time, the disease did not assume an epidemic character? It appears that only 27 cases of diphtheria were admitted to the infectious diseases hospital during the year, of which 8, or nearly 30 per cent., proved fatal. Dr. Sykes speaks hopefully of a "large sphere of usefulness for the new hospital" for infectious diseases, and expresses a belief that hospital isolation is gaining in popularity. The tables in this report give much that is valuable in the way of statistical information, but we regret to see no attempt to assimilate the forms of any of the tables to those adopted in any of the other annual reports for large urban sanitary districts. We notice, too, that no attempt has been made to correct the statistics for years prior to 1881 for errors in the estimates of the annual population in use up to the date of the recent census. One of the results of this oversight is an apparent reduction (Table I.) of nearly six thousand in the population of the borough between 1880 and 1881. We need scarcely point out that the population of the borough is not declining, or that the birth- and death-rates for the ten years 1871-80, republished by Dr. Sykes (Table II.), are all more or less fallacious on account of these errors in the estimated population. The value of such reports is much increased by a map. Dr. Sykes' map, however, would be improved if the boundaries of the borough, and the registration subdistricts, or other statistical subdivisions of the borough, were marked thereon.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5620 births and 2984 deaths were registered during the week ending the 8th inst. The annual death-rate in these towns, which had been equal to 19.1 and 18.1 per 1000 in the two preceding weeks, was 18.4 last week. The mean rate during last quarter was 20.9, against 20.4 and 20.5 in the two previous corresponding periods. The lowest rates in these towns last week were 13.5 in Norwich, 14.4 in Derby, and 15.1 in Bristol. The rates in the other towns ranged upwards to 22.5 in Huddersfield, 23.2 in Manchester, and 24.8 in Nottingham. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 470, showing a further slight increase upon recent weekly numbers; 140 resulted from diarrhoea, 125 from whooping-cough, 69 from measles, 63 from scarlet fever, 29 from "fever," 20 from diphtheria, and 14 from small-pox. The lowest death-rates from these diseases occurred in Cardiff and Halifax, and the highest in Portsmouth and Nottingham. Whooping-cough was proportionally most fatal in Bristol and Birkenhead; measles, in Huddersfield and Birkenhead; scarlet fever in Nottingham and Wolverhampton; and "fever" in Portsmouth. Of the 20 deaths from diphtheria in the twenty-eight towns 16 occurred in London. Small-pox caused 8 deaths in London and its suburban districts, 4 in Birmingham, 3 in Nottingham, and one in Manchester. The number of small-pox patients in the metropolitan asylum hospitals, which had steadily declined in the ten preceding weeks from 350 to 233, further fell to 214 on

Saturday last; 30 new cases of small-pox were admitted to these hospitals during last week, against 44 and 29 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 198 and 212 in the two previous weeks, declined to 173 last week, and were 25 below the corrected weekly average. The causes of 64, or 2.1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Wolverhampton, Derby, Birkenhead, Manchester, and Preston; while the proportions of uncertified deaths were largest in Hull and Leeds.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 22.4 and 21.9 per 1000 in the two preceding weeks, further declined to 20.5 in the week ending the 8th inst.; this rate, however, exceeded by 2.1 the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 91 last week, and showed a decline of 9 from the number in the previous week; they included 38 from diarrhoea, 20 from whooping-cough, 10 from diphtheria, 9 from "fever," 7 from scarlet fever, and 7 from measles. The 38 deaths attributed to diarrhoea were 11 above the number returned in the corresponding week of last year; 19 occurred in Glasgow and 9 in Dundee. Diarrhoea was proportionally more fatal last week in the Scotch than in the English towns. The 20 fatal cases of whooping-cough were 5 fewer than those in the previous week, and included 12 in Glasgow and 4 in Edinburgh. The 10 deaths referred to diphtheria corresponded with the number in the previous week; 4 were returned both in Glasgow and Edinburgh. It is noticeable that Dr. Littlejohn in his weekly return only reports one fatal case of diphtheria in Edinburgh last week, instead of the 4 reported by the Registrar-General. It would appear from Dr. Littlejohn's letter, in another column, that the classification of diseases for the Registrar-General's returns is not always entirely trustworthy. The 9 deaths from "fever" in the eight towns were 3 fewer than in the previous week, and included 4 in Glasgow and 3 in Edinburgh. The 7 fatal cases of measles included 4 in Dundee and 2 in Aberdeen; while 3 and 2 of scarlet fever were respectively returned in Glasgow and Edinburgh. The deaths referred to acute diseases of the lungs in the eight towns, which had been 111 and 97 in the two preceding weeks, further declined to 92 last week, although they exceeded by 5 the number attributed to these diseases in the corresponding week of last year.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 23.2 and 20.7 in the two preceding weeks, further declined to 20.5 in the week ending the 8th inst. During the thirteen weeks of last quarter, however, the death-rate in the city averaged 26.8 per 1000, against but 19.5 in London and 20.5 in Edinburgh. The 137 deaths in Dublin last week showed a further decline of one from recent weekly numbers, and included 6 which were referred to fever, 5 to diarrhoea, 3 to scarlet fever, and not one either to small-pox, measles, diphtheria, or whooping-cough. Thus 14 deaths resulted from these principal zymotic diseases, corresponding with the number in the previous week; these 14 deaths were equal to an annual rate of 2.1 per 1000, against 3.4 in London and 8.8 in Edinburgh from the same diseases. The 6 deaths referred to "fever" exceeded the numbers in the two previous weeks; while the 5 deaths attributed to diarrhoea corresponded with the number in the previous week. The 3 fatal cases of scarlet fever exceeded the number returned in any week since March last. The deaths of elderly persons showed a considerable decline from recent weekly numbers, as did also the number of uncertified causes of death.

#### MORTALITY STATISTICS OF TRINIDAD.

A report recently addressed by the Registrar-General of Trinidad to the Colonial Secretary gives just enough facts concerning the vital statistics of this West Indian island to make us wish for further information. It appears that the population of the island at the last census was 153,128, and that during last year the births were equal to a rate of 35.2,

the deaths 32.7, and the marriages only 3.7 per 1000 of that population. We are told that the birth-rate showed a small increase, while the marriage-rate had considerably decreased. Considering the excess of the death-rate, the baldness of the Registrar-General's report upon the mortality is disappointing. The tables show, it is true, the number of deaths in the different subdivisions of the island, but no clue is given to the population of these several subdivisions, so that the bare numbers given are entirely devoid of interest or utility to the statistician. Not a figure is given bearing upon either the causes of death or the ages of the decedents. The Registrar-General says: "The large increase of deaths is evidently attributable to some cause of an unusual character, and this is found to arise in some measure from the late fever." It is suggested that but for this "fever" the death-rate would probably not have exceeded that which prevailed in the previous year, which was 26.9 per 1000; but not a word is added as to the nature of the fever or its local distribution, although the disease would appear to have caused nearly 900 deaths. The report has been laid before Council in obedience to an Ordinance bearing date in 1847, and it therefore seems probable that these reports have been presented for some years, in which case it is much to be regretted that the report contains no summary of the statistics for a series of years. It is quite time that some attempt should be made to secure more uniformity in the reports on the vital statistics of our various colonies. All such reports should contain, at any rate, a minimum number of uniform tables.

#### CENSUS REPORTS: COUNTY ANTRIM.

The population of this county in 1881 amounted to 421,943, being an increase of 4.4 per cent. over the previous decade. There was an increase in the number of those receiving poor law relief as compared with 1871. For example, in 1871 the number was 4761, or 1 in every 85 of the population (3811 in-door and 956 out-door), while in 1881 the total was 6320, or 1 in 67 (4445 in-door and 1875 out-door). The average annual rate of mortality was 21.0 per 1000, the corresponding rate for the whole of Ireland being 18.3; the number of births registered during the ten years was 125,189, and the number of deaths 86,592. A natural increase of 38,597 would thus appear to have taken place in the population, but the emigrants during the same period having amounted to 59,431 the net result shown is a decrease of 20,834, whereas an increase of 17,930 is exhibited by the census returns, a disparity to be accounted for by immigration, of which no record is obtainable.

#### THE SERVICES.

Surgeons Irving and Lewis embarked on board H.M. troopship *Malabar* on the 8th inst., in charge of the troops proceeding to Gibraltar.

Deputy Surgeon Generals A. C. De Renzy, C.B., and S. Townsend, C.B., Bengal Medical Service, have been selected for good service pensions by the Government of India.

ARMY MEDICAL DEPARTMENT.—Deputy Surgeon-General John Gibbons, C.B., has been granted retired pay, with the honorary rank of Surgeon-General.

RIFLE VOLUNTEERS.—5th Devonshire: William Henry Webb, Gent., to be Acting Surgeon.—1st Dumfries: Acting Surgeon Alexander Dale Macdonald, M.D., to be Surgeon.—1st Durham: Surgeon John Farquharson resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement.—2nd Glamorgan: Acting Surgeon John Llewellyn Trehearne resigns his appointment. Frederick William Evans, Gent., M.D., to be Acting Surgeon.—15th Middlesex (the Customs and the Docks): Surgeon Robert Gordon Tatham is granted the honorary rank of Surgeon-Major.

ADMIRALTY.—Fleet Surgeon Matthew Coates has been placed on the Retired List, with permission to assume the rank and title of Retired Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet.

The following appointments have been made:—Fleet Surgeon James F. Parr, to the *President* (additional), for temporary service; James Hunter, M.B., Surgeon and Agent, at Queensferry, vice Dewan; Staff Surgeon Matthew Fletcher Ryan, to the *Familiars*, vice Edward T. Lloyd; Surgeon Richard G. Brown, M.B., to the Portsmouth Division of the Royal Marines, vice Lucas.

#### ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

A MEETING of the Association for the Advancement of Medicine by Research took place at the Royal College of Physicians, on Wednesday, the 12th inst. There were present Sir James Paget (in the chair), Sir Risdon Bennett, Sir Joseph Fayrer, Dr. Andrew Clark, Mr. Bowman, Professor Humphry, Cambridge; Professor Michael Foster, Cambridge; Dr. Samuel Wilks, Mr. Lister, Professor Gamgee, Manchester; Dr. Burdon Sanderson, Dr. Balthazar Foster, Birmingham; Dr. Lauder Branton, Professor Gerald Yeo, Dr. Pye-Smith, Dr. Payne, Dr. Matthews Duncan, Sir Henry Thompson, Dr. Buchanan, Dr. B. Barrow, Ryde.

The Treasurer reported that he had received from Sir Wm. Mac Cormac £300 from the surplus funds of the International Medical Congress, and that the funds of the Association now exceeded £1200.

The Secretary reported that many eminent men in the provinces had consented to act as corresponding members, and that branch committees were being established in some of the principal towns.

The Executive Committee recommended that, as a first step in the direct promotion of research, Mr. Watson Cheyne should be requested to undertake the verification of the results lately obtained by Koch on the subject of tuberculosis, and the comparison of these with the results obtained by Toussaint and other observers.

The following resolution was proposed by Dr. Burdon Sanderson, seconded by Dr. Barrow, of Ryde, and carried unanimously: (1) "That the Council approve the recommendation of the sub-committee to raise funds for the payment of competent persons engaged in researches in medical science; that they regard the subject selected (tubercle) as peculiarly eligible, and sanction the expenditure recommended." It was proposed by Professor Lister, seconded by Professor A. Gamgee, and carried unanimously: (2) "That the Treasurer be requested to issue a circular asking for subscriptions or donations for the object of the first resolution, and that the corresponding members be requested to further this effort."

The Executive Committee reported that they had selected several papers explanatory of the methods and objects of scientific research in physiology, pathology, and therapeutics, and recommended that they be reprinted. They also mentioned that some papers which they desired to reprint, having appeared in certain journals the rules of which did not allow reprinting until a year had elapsed from the appearance of the papers, they had been obliged to defer the reprinting of these papers.

It was proposed by Sir Risdon Bennett, seconded by Sir Henry Thompson, and carried unanimously: (3) "That the Council authorise the publication of the various pamphlets and papers selected or to be selected by the Executive Committee, and direct that they be distributed as widely as possible by the corresponding or ordinary members of Council, and also sold in such manner and at such prices as the Executive Committee may determine."

The Executive Committee reported that communications with the Home Office had led to what promised to be a more satisfactory arrangement with regard to the issue of licences and certificates under the Act 39 and 40 Vict., cap. 77.

It was proposed by Sir Joseph Fayrer, seconded by Dr. Balthazar Foster, and unanimously carried: (4) "That the Council congratulate the Executive Committee on the promising results of their representations to the Home Office, and begs them to continue their efforts in the same direction."

The Executive Committee reported that effectual steps had been taken for meeting the Bill for the Total Abolition of Scientific Experiments on Animals, which was down for the second reading on the 21st of June last. The pressure of public business had prevented the Bill being discussed, but it had been useful in showing the strong support which



medical science may count on in the House of Commons. A memorandum, which had been prepared for this occasion, setting forth the necessity and utility of experiments in physiology, pathology, and therapeutics, was laid before the Council and discussed.

It was proposed by Dr. Matthews Duncan, seconded by Sir Risdon Bennett, and unanimously carried: (5) "That the memorandum as amended be distributed, with the sanction of the Council, among Members of Parliament or others who are interested in the advancement of Medical Science."

## Correspondence.

"Audi alteram partem."

### THE FIRST YEAR'S EXAMINATION IN ANATOMY AND PHYSIOLOGY.

To the Editor of THE LANCET.

SIR,—I gather, from conversations held during the past few days, that the large majority of the members of the various hospital staffs are not aware of the real character of the first year's examination proposed by the Royal College of Surgeons. The College desires that an examination in anatomy and physiology shall be held at each school at the end of the first winter session, and will not admit any student to the first College examination until six months after he has obtained a certificate of having passed the first year's examination. The lecturers on anatomy and physiology, who were summoned to a meeting at the College, were told that the Council wished to strengthen their hands in holding the sessional examinations which have been instituted at most schools during the last few years. At first sight the scheme appears harmless, and the object good. Probably on this account it has attracted much less attention than it deserves. But a careful consideration shows that it involves an entirely new principle, and a serious departure from the custom of the schools. For this examination is, to all intents and purposes, a qualifying examination for the M.R.C.S., and is to be held, not by the College examiners, but by the hospital teachers of anatomy and physiology. It is as certainly a qualifying examination as any now held by the College of Surgeons, inasmuch as a student cannot obtain his diploma without passing it, and it will cast upon the teachers of anatomy and physiology, in certain cases, the responsibility of excluding students from the profession. It behoves the schools to consider seriously whether they will permit their teachers of anatomy and physiology to accept this responsibility. I confess I can scarcely see any reason why they should do so, while I can find many reasons why they should not.

First, the business of the schools is to teach, and not to examine for diplomas.

Second, it is very undesirable that the schools should be placed under the control of any licensing body.

Third, if the schools undertake to hold an examination in certain special subjects for one licensing body, they may fairly be required to hold examinations in special subjects for all the licensing bodies.

Fourth, it is not proposed to remunerate the schools or the teachers for the trouble and responsibility of holding repeated examinations in anatomy and physiology on behalf of the College.

I have been told that the College will leave the "first year's examination" entirely in the hands of the school authorities, who may make it as easy or as difficult as they choose. Can any worse argument be used in favour of it? It may be easy in one school, difficult in another: it may be very unequal for different students in the same school; it may be a farce or a very disagreeable reality. From one or other of these causes complaints will soon be numerous and urgent, and who is then to guarantee that the College and the Medical Council will not insist on visiting the examination, and practically changing it from a private into a public ordeal. That the College, deeming a "first year's examination" necessary, should be pleased with this scheme is perfectly intelligible, for it will save them the expense and trouble of conducting it. But why the teachers of anatomy and physiology should have accepted it is incomprehensible.

Fortunately, the teachers of anatomy and physiology do not constitute the schools, whose opinion of the scheme has not been sought. It will, however, probably be given unasked; and if it be adverse, the College will scarcely care to push its authority so far as to force this examination on the schools.

I remain, Sir, yours obediently,

Queen Anne-street, W., July 10th, 1882. HENRY T. BUTLIN.

### DESTRUCTIVE OPHTHALMIA.

To the Editor of THE LANCET.

SIR,—As ophthalmia is endemic in Egypt, I think it may be useful to draw the attention of my brother officers ordered there to a terribly destructive form of that disease which assailed us in Ceylon, and of which I have never been able to find any description in the usual text-books, though, no doubt, the dusty archives of the Army Medical Department contain information on that and many other items of valuable experience, buried (upon our blessed system) and useless to the successors of those who laboriously gained it, leaving them to work in the dark and learn for themselves at the expense of unfortunate patients. The form of disease in question manifested itself at the season of intensely hot and glaring days, followed by cloudless cold nights, just what is likely to be met with in Egypt. A man would appear in the morning sick, report with what looked an ordinary smart attack of simple conjunctivitis; by evening visit the eyelid affected would be found greatly swollen, almost as dark as a piece of liver, extending far down on the cheek, hiding the globe completely, while from beneath it flowed a thick puriform discharge; the pain in the eyeball being described as excruciating, and such as to prevent any sleep. Next morning the man would relate that he had so remained, suffering acutely, till long past midnight, when all at once he fancied something like a "gathering" broke, a great flow of hot fluid followed, and he experienced immediate and continued relief, so that he would tell his little history with great satisfaction, and fancy his eye was on the high road to recovery. Some days would elapse before the subsidence of swelling allowed one to see the globe, and then it would be found the cornea had burst, and the poor fellow's sight was gone for ever! Some unfortunates lost both eyes in this way, to my intense regret and mortification. Having been a pupil of old Jacob's, and having emptied eye wards handed over to me full, I had rather a good opinion of my skill in that line till the disease I have described presented itself and defied all the recognised methods of treatment. No abstraction of blood, either local or general, relieved it; the use of nitrate of silver and all other collyria seemed, to say the least, quite useless, if no worse. Fomentations and the injection of tepid solution of muriate of ammonia beneath the lids gave some relief; but the real severe cases, if they did not end by altogether destroying vision, seldom left a useful, perfectly sound eye after them. The trouble, worry, and annoyance that this outbreak gave, even in quiet cantonments, were very great; but how much worse would they be on service in Egypt! The moral of my story is, that rather too late in the day I found out that full doses of quinine and of opium were the proper remedies for this horrible ophthalmia, it being apparently caused by the malarious poison which shows itself in so many protean forms; and I hope that this dearly bought experience may now be of use to my younger brethren whose troubles are all before them.

I am, Sir, yours truly,

Junior United Service Club, July 8th, 1882. J. C. CAMERON.

### ANÆSTHETICS.

To the Editor of THE LANCET.

SIR,—I can fully confirm Mr. Bendelack Hewetson's observations as to the superiority of methylated ether as an anæsthetic over that made with rectified spirit. The trial of it was suggested to me some two years ago by our analytical chemist here, Mr. Young, on the ground that as it was more volatile it would probably act quicker and safer as an anæsthetic. These conditions I have found fulfilled, and laryngeal spasm and troublesome sickness have seldom occurred.

Shortly after the adoption of the methylated ether by my colleagues and myself at the Infirmary, Clover's inhaler was introduced; and we calculate etherisation costs the Infirmary now 3s. 4d. less than formerly. In order to ensure obtaining the right article I would advise my readers to ask for “absolute methylic ether, specific gravity ‘717,” as ordinary methylated ether is an abominable and unsuitable compound.

As regards deaths from ether, I make no doubt many occur which are never reported, for the simple reason that the death, instead of being instantaneous (as in the case of chloroform), occurs some hours later from bronchitis. At any rate, there have been two such deaths from ether at the Leicester Infirmary during the last nine years, against two from chloroform in the same period. I have felt it my duty to put this statement in print, as there is a growing tendency to hold a man guilty of homicide if he has the misfortune to lose a patient from chloroform; whereas a careful examination of all deaths occurring within three days of the administration of an anæsthetic might show that ether is not so very much safer than our old friend chloroform.

I am, Sir, yours faithfully,

FRANK H. HODGES, F.R.C.S. Ed.

Leicester, July 5th, 1882.

*To the Editor of THE LANCET.*

SIR,—Your article on “Chloroform,” under date July 1st, once more calls the attention of our profession to the grave risk attendant upon the use of chloroform as an anæsthetic. I would at once put the question, Why use it when a far safer and more preferable agent is within reach? How many deaths would have been avoided had it been the universal practice to adopt Mr. Jonathan Hutchinson's golden rule—“Ether for all patients over six years of age and under sixty”? Does not this rule cover such cases as those recorded last week, and many others from time to time reported?

The history of the fatal case is practically the same. It is a young or middle-aged patient, in fair, or even robust health, who is about to submit to some minor but painful operation. Chloroform is administered; the first stage is protracted; in the second stage suddenly the pulse becomes weak, then stops; a few embarrassed attempts at respiration are made, and all is over. The horror-stricken attendants send galvanic shocks through the thorax, and vigorously perform artificial respiration, but all to no purpose. The autopsy reveals a healthy or slightly fatty heart, with uncontracted ventricles. Would all this have happened had ether been the anæsthetising agent employed? I venture to say emphatically, No. Ether stimulates instead of depresses the heart's action. Ether never caused the heart to fail in a young or middle-aged patient in fair or robust health. Why should chloroform then be used for such cases? Is it because, though acknowledged to be infinitely more dangerous, it is claimed to be more manageable and quicker in its action? This excuse does not hold good since Ormsby and Clover have placed in our hands their simple and efficient inhalers. Of the two I much prefer Ormsby's.

As house-surgeon to Mr. Jonathan Hutchinson, and house-physician to Dr. Palfrey, I had very great opportunities of testing various anæsthetising apparatus and agents. From an analysis of one hundred cases taken haphazard, where Ormsby's inhaler was employed, I find that complete anæsthesia is obtained in a shade under two minutes, and that the quantity of ether required is an ounce and a half for an operation lasting twenty-five minutes. The stage of excitement is very short. The secretion of mucus and consequent frothing about the mouth, and troublesome accumulation in the larynx, are reduced to a minimum.

The mask is so readily removed and replaced that operations about the mouth and nose are but little interfered with by the anæsthetiser. Since the Ormsby inhaler has been taken into general use at the London Hospital I am informed that the saving in ether has been enormous, and what I consider far more important is that chloroform is being gradually banished from the wards.

One word more and I have done. From my practice of the last six months I can fully endorse Mr. Hewetson's

remarks as to the advantages of ether prepared from methylated spirits. On the other hand, I have observed no disagreeable results from its use.

I am, Sir, yours, &c.

Duke-street, W., July 4th, 1882.

W. H. FENTON JONES.

*To the Editor of THE LANCET.*

SIR,—In sending you an account of the inquest on the unfortunate man who died during the administration of chloroform at the Kent and Canterbury Hospital, I beg to make the following remarks.

James S—, aged forty-nine years, had formerly been a butler and accustomed to excessive alcoholic indulgences. He was admitted on June 9th for caries of the right fifth metatarsal bone, which was preventing the union of a wound caused two months previously by the removal of the little toe. His left great toe had also been removed five years ago for disease. He looked somewhat feeble, but bore no physical signs of cardiac disease; his urine was normal and his appetite fairly good, though he did not eat all the meat of his “full diet.” After six days' rest in bed, chloroform was administered to him by the house surgeon in the ward, by means of a conical wire gauze inhaler covered with flannel, such as is used at St. Mary's. The patient breathed very quietly, but was slow in getting under the influence of the anæsthetic. I made one short quick incision down to the dead bone, and he said he felt it. Fresh chloroform was sprinkled from the drop-bottle on to the cone, after which the patient talked loudly in a drunken manner, struggled, and tried to sit up in bed; then his pulse fluttered, his face became livid, his jaw fell, his heart ceased to beat, he gave a few superficial and irregular sighing respirations, and all was over. The administration of the chloroform was stopped immediately the pulse fluttered. Artificial respiration, the tongue being drawn out, was at once resorted to, and a Stöhrer's battery was applied within two minutes, but the heart would not respond. The patient died within ten minutes from the commencement of the administration, which was most carefully conducted. The amount of chloroform used was nearly two drachms and three-quarters. The man was never fully under its influence, but died in the stage of excitement from sudden arrest of the heart's action.

Unfortunately the coroner did not order a post-mortem, and the friends would not give their consent to any examination of the body afterwards. Ether was the anæsthetic first employed at our hospital, and introduced there by my father; during the last thirty-two years chloroform has been administered (sometimes in various forms of inhalers, but chiefly on lint) with an interrupted success. For the last five years I have occasionally used ether again, in a Clover's inhaler, but chloroform has been given as a rule.

I am, Sir, yours truly,

Canterbury, June 21st, 1882.

T. WHITEHEAD REID.

**“DOCTOR OR DRUGGIST?”**

*To the Editor of THE LANCET.*

SIR,—I have no doubt that the letter of “M.D.” on this subject in your last week's issue will lead to some further correspondence, and that we shall have the pros and cons of the matter fully discussed. Whether or not “M.D.” has during the natural course of his professional life wandered over the face of the globe, or whether he has even settled down to general practice, is a matter not quite clearly to be made out from his letter, although one cannot but hope that the former has been the case, for I take it that, from a practical point of view, no more irrational or illogical letter on any subject has ever been before inserted in your valuable paper. If your correspondent had waged war against the “counter” or “open shop” practices in most of the towns of these isles, he would doubtless have had the whole body of the respectable men of our profession with him. If he had started an agitation against that now almost constant and universal practice of chemists prescribing for their customers, a general crusade against this formidable evil might have owed its origin to his pen. But how can he for one instant sit down and attempt to bring before the medical world the sweeping so-called medical reform—that no

respectable practitioner, under any circumstances whatever, should dispense medicine for his patients? What would become of those inhabitants of our numerous small villages, situated, as many are, some miles from a town where they could find a chemist to dispense a prescription given them by their medical man for some urgent case? "Oh," says your correspondent, "Dr. Apothecary Brown or Smith would be practising in such places." How could we expect the poorer classes, the artisans, or the mechanics to pay not only the doctor's charges for visits, advice, and prescriptions, but also the druggist's bill for medicines required for one of their children, say, during an attack of rheumatic fever? "Oh," says your correspondent, "Mr. Apothecary Brown or Smith would attend such as those!"

Again, how would the country general practitioner, who represents such a large proportion of our profession, fare if for all his club patients and his paupers, to say nothing of his other patients among the poorer classes, he had to make arrangements with some chemist to dispense all his prescriptions? "Oh," says your reforming correspondent, "Mr. Apothecary Brown or Smith would hold such appointments." So, Sir, the inhabitants of our hundreds and thousands of country villages are to be handed over to the tender mercies of men who are content with having passed the examination for a licence to act as an apothecary, and all other practitioners must search for new fields afar or betake themselves straight, with their wives and families, to the nearest union, there to be supported at their country's expense until the utter idiocy of such a reform were found out. These and numerous other difficulties rise up before me on reading such an effort to bring about what is considered by your correspondent as a necessary social reform. Anyone starting such an utterly unfeasible and impracticable theory should surely be prepared with the ways and measures necessary to carry such out, and unless he can conscientiously do so, I for one take it that he had better employ his time and his pen in some more worthy and essential form of social medical reform.

I am, Sir, yours truly,

LIONEL A. WEATHERLY, M.D.

Portsmouth, Somerset, July 3rd, 1882.

To the Editor of THE LANCET.

SIR,—Your correspondent "M.D." has hit upon a subject of great interest to the body of general practitioners of this country. But he has not considered the difficulties that surround a general practitioner with a large number of lower middle-class and poor patients, who are able to pay a fee inclusive of charges for medicine, but utterly unable to find money for a fee for the doctor, and also for the cost of the medicine at ordinary prices. For instance, an artisan with an income of thirty shillings per week cannot possibly pay a daily fee of half-a-crown, and a further sum of a shilling or eightpence every two days for medicine. And however much we may appreciate our professional dignity, it is well to have an eye to the practical bearings of the subject. For myself, and I find it the usual custom in this town, I make an arrangement with a druggist to dispense medicine for me at a moderate rate, and I supply my patients and make an inclusive charge. With the better class of patients, who are able to pay both doctor and chemist, I write prescriptions, and they send them where they please.

The system of provident dispensaries, which are a great boon to the working classes, tends to throw the bulk of that class of practice into the hands of a few men who are lucky enough to obtain the appointments. To obviate this, the rest of the junior practitioners are bound, in self-defence, to form medical clubs at about the same rate of pay. Under these circumstances it is impossible to make money at all without some arrangement of charges with a chemist or supplying medicine from a surgery. And as to the question of medical men dispensing their own drug, I have heard from several friends in country districts that they are literally obliged to do so, owing to the absence of druggists, or to the unsatisfactory dispensing of those that exist, and that their patients prefer to have their medicine from the much-abused surgery.

It is surely hardly fair to class all practitioners who dispense their own medicine with the individuals who parade the cheapness of their physic, and who send round circulars calling attention to their giving advice at sixpence, visits at

a shilling, and night visits, according to a recent production here, from two shillings. No expression of public opinion can touch such men, and it is to be hoped that they have their reward, for they eat much dirt in their attempts.

A great objection has been made to the giving of prescriptions to patients, owing to the habit which obtains of their not only dosing the members of their own family with the same medicine under apparently similar illnesses, but of their handing over the prescription to any of their suffering friends. Thus, a medical man may be the means of rendering benefit (?) to a vast number of his fellow creatures with the gain to himself of, perhaps, a five-shilling fee. Now, this is decidedly philanthropic, but hardly lucrative. When we are all physicians or surgeons pure and simple, and all obtain large fees for our advice, then we shall be able to throw up all contact with the base drugs; but until that time many of us who have to attend the poor and needy will have to shape our arrangements accordingly, for surely it is better to allow the poor members of the community to pay a fee in accordance with their circumstances, and thus to feel independent, than to pauperise them or make them recipients of public charity, which is the only alternative.

With regard to the sneer at a certain licence, your correspondent should remember that many English students take a journey to Edinburgh so as to avoid some of the regulations of the body that examines for and grants that same licence.

I am, Sir, yours, &c.,

July 3rd, 1882.

A GENERAL PRACTITIONER.

### URÆMIC CONVULSIONS AND COMA SUCCESSFULLY TREATED BY HYPODERMIC INJECTIONS OF PILOCARPINE, CHLORAL, AND BENZOIC ACID.

To the Editor of THE LANCET.

SIR,—An account of the treatment pursued in the following case may be of interest to certain of your readers, taken in connexion with a similar case described in your issue of June 24th. The patient, a boy of twelve, was suffering from acute nephritis, urine so scanty as almost to approach complete suppression, deeply tinged with blood, and highly albuminous. The treatment adopted at the outset consisted of a brisk purge of compound jalap powder, leeches to the lumbar region, warm blanket bath, and mild diuretic mixture. For two days the case progressed fairly well, but on the early morning of the third day being hastily summoned I found my patient in convulsions, perfectly unconscious, pupils dilated and insensible to light. At this juncture the treatment resorted to was the hypodermic injection of a third of a grain of the nitrate of pilocarpine and an enema of chloral hydrate. Copious perspiration was thus produced; the convulsions continued, however, as frequent but not so severe. On the forenoon of the following day the pilocarpine was repeated, likewise the chloral; similar diaphoretic effects resulting, with decided abatement of the convulsions. With considerable difficulty I now managed to give a dose of jalapine. As soon as the ability to swallow returned, benzoic acid in two-grain doses was administered every hour, and the strength supported by small enemata of beef-tea, to some of which was added a little brandy. From the time the power of swallowing returned benzoic acid was the only remedy used, and its use was continued for six days. It was given as above for the first forty-eight hours of that period and after that in five-grain doses every three hours. During these six days the patient, though free from convulsions and able to swallow, lay in a semi-conscious state, requiring to be spoken to loudly and shaken to get him to take anything. His vision was completely lost. He knew no one, could see nothing held up before him, not even a bright light, pupils still continuing slightly dilated. Under the steady use of the acid the urine increased in quantity, grew lighter in colour, and the albumen lessened daily. His mind became clear and vision once more distinct, convalescence being gradually established. Whether the theory regarding carbonate of ammonia circulating in the blood being the cause of uræmia be correct or not (and the recent experiments of Oppler and Zalesky seem to indicate that it is not), this is the second time within my own limited experience of such cases in which benzoic acid has done good service. Whether its mode of action be the conversion of the

poisonous alkali into a harmless acid and salt, or in what other specific way it acts, I am not prepared to say, but the above is strictly in accordance with facts.

I am, Sir, yours truly,

W. BROWN MOIR, M.D.

Belford Hospital, Fort William, N.B.

## EDINBURGH MORTALITY RETURNS.

To the Editor of THE LANCET.

SIR,—Your intelligent criticism of these returns has already borne fruit. The Registrar-General has acknowledged the inaccuracy of the weekly statement issued from his office, and he explains that, *per incuriam*, the clerk in charge failed to recognise a certified case of diphtheria and one of whooping-cough. The discrepancy in the population return is accounted for by the fact that the annual increase is made by us in the first week of July; and further, that for registration purposes a portion of the extra urban population is included by the Registrar-General in the population of Edinburgh.

I differ from you as to your objection to our custom of eliminating the deaths of strangers in our infirmary, which, from its world-wide reputation, attracts all and sundry, and I submit that, in a small population like ours, it would be misleading to debit Edinburgh with these deaths, which have no connexion with the sanitary state of the town. As to the definition of diseases, which appears to you to be imperfect, it must be remembered that the statement is issued weekly, and that the only abdominal disease of interest to the sanitarian—viz., diarrhoea,—is specially noted.

Your space is too valuable to admit of a discussion of what to officers of health and the public is important—viz., the structure of these weekly reports, and the advisability of similar documents being issued on Monday mornings in all the large centres of population. It is, in my opinion, simply a question of time. I trust to live to see these returns as eagerly scanned by the ratepayers as the price of stocks and the state of the funds.—I am, Sir, yours truly,

HENRY D. LITTLEJOHN, M.D.

Edinburgh, July 11th, 1882.

## PERSONATION AT MEDICAL EXAMINATIONS.

To the Editor of THE LANCET.

SIR,—I am sorry to be obliged to inform you that in a paragraph in your issue of July 8th, you have been misinformed as to the statement of facts. The real condition of affairs is as follows: A person wrote me from Dublin offering me the amounts mentioned if I would personate him at an examination. I thought it my duty to the profession and also to the public to communicate with the Secretary of the General Medical Council at Oxford-street; and, he having referred me to the Branch Council in Ireland, I wrote to them, and the Secretary requested me to continue the correspondence on behalf of the Council there, which led to an exposure of an individual assuming a false name (though I believe a registered medical student) in order to gull me into the belief that he was really the person so registered—e.g., Smyth is very like Smith, and if Smyth were registered as Albert Smyth in the students' register, an Albert Smith might easily pass himself off as the former.

My sole object in exposing this contemptible affair was to save some unfortunate and impecunious brother professional from disgracing himself by receiving a bonus for a contemplated fraud.

I venture to hope this may be a warning to others engaged in like practices.—I am, Sir, your obedient servant,  
York, July 8th, 1882. G. DE COURCY MORRIS, M.D.

## EDINBURGH.

(From our own Correspondent.)

### MORISON LECTURES ON INSANITY.

IN his fifth lecture Dr. Hamilton completed his exposition of the connexions between the several parts of the brain and between these and the spinal cord. He then proceeded to sum up, in the form of an elaborate diagram, the principal points to which he had directed attention. Passing then to

speaking of the functions of the basal ganglia, so far as they are at present known from the results of experiments on the lower animals and pathological lesions in man, he said he could not help thinking that the functional importance of all these ganglia had been very much over-estimated. They were formed in exactly the same way as the convolutions were, simply by thickening of the walls of the various cerebral vesicles. In the lower animals they were very much more highly developed than in man, relatively to the extent of the cortical substance. Destruction of the caudate nucleus produced, so far as was known, very little effect, provided that the inner capsule was uninjured. In one case in which he made a post-mortem examination nearly the whole of the nucleus was destroyed, the inner capsule, however, remaining untouched. The person had no paralysis of motion. The symptoms were of the most obscure nature, and there was nothing in them to indicate that the lesion was situated in that particular part. He thought therefore that the statement which had often been made, that the corpus striatum, or the caudate nucleus, was the centre for motion, was incorrect. With respect to the lenticular nucleus there was a case under the care of the late Professor Sanders in which both lenticular nuclei were destroyed. The person suffered from partial paralysis of the lower extremities, but what was extremely curious was that there was very considerable atrophy of the optic nerve on both sides, and also of the olfactory. The explanation of that was the band connecting the optic nerve with the lenticular nucleus loop. With regard to the optic thalamus, there was a case in which the whole of the ganglion on one side was destroyed except the posterior part. There was no loss of sensation; nothing to indicate that the thalamus was the seat of disease. What, then, Dr. Hamilton asked, could be said of these ganglia? All that could be said was that certain functions, which, apparently, were situated in the basal ganglia, had been transferred to the cerebral cortex by a process of evolution. When it was considered that these ganglia were produced simply by thickening of the brain vesicles, it surely was not a very great stretch of imagination to say that in process of evolution a certain thickening would occur in the cortex, and that gradually functions, which primarily were situated in the basal ganglia, became transferred to that particular part of the brain. It had been found that if the motor centres of the cortex in the dog were excised the animal in the course of time recovered, if not the whole of its motor power, a considerable deal of it. Now, in the dog the basal ganglia were of enormous thickness; and he thought it was by no means unreasonable to suppose that in the lower animals the ganglia had a very much higher function than in man, that they had certain motor functions which in man were transferred to the cortex. He thought everything showed that in man the motor centres had been in great part transferred to the cortex of the cerebrum, whereas in the lower animals the basal ganglia have to be looked upon as discharging, if not the whole, at least a considerable part of that service. The higher we got the more evidence there was that the motor centres, which were seated in the basal ganglia in the lower animals, were transferred to the cortex in man, the monkey, and other animals high in the scale.

The sixth and concluding lecture consisted of a demonstration by means of the limelight of a series of preparations illustrative of the different points which had been described in the previous lectures. It is impossible to speak too highly of the beautiful preparations, and Dr. Hamilton deserves the greatest credit for having introduced a method which promises to clear up many obscure points in the coarse anatomy of the brain. I am glad to hear that Dr. Hamilton intends shortly to publish his method in full, and to lay the results of his researches before the profession in the form of a book.

## GLASGOW.

(From our own Correspondent.)

DR. ANDREW BUCHANAN, late Professor of Physiology in Glasgow University, died on Sunday last, at the advanced age of eighty-four. One of the best known and most highly respected of the members of the medical profession in the city has thus passed away. He graduated in Glasgow University exactly sixty years ago, and thus may be said to belong to that past generation of surgeons

of which we have so few representatives now remaining. During his long career he distinguished himself in many departments of professional work: as a physician in his earlier days, when he fought energetically in the struggle with fever and cholera, at a time when the post of district surgeon in the poorer localities was as full of danger as a prominent post in the field of battle; as a surgeon in the Royal Infirmary here; and finally as teacher of physiology in our University, an office he held for thirty-five years. His name will be associated mainly, however, with the rectangular staff for lithotomy, which he invented and which bears his name. His operation is still frequently practised in Glasgow. On retiring from his professorship he was elected President of the Faculty of Physicians and Surgeons, an honour which he keenly appreciated, coming as it did at a time when his life was clouded, and when he felt despondent at being thrown out of active work. He made a most admirable president, and fulfilled the duties of that high office with a grace and dignity peculiarly his own. The news of his death will be received with extreme regret by hundreds of his former students in all parts of the world.

The scheme for the erection of a hospital in the southern part of Glasgow may be said to be now fairly before the public, and to have a tolerably good basis from which to appeal for support. The Town Council of Glasgow have agreed to let the committee have a piece of ground connected with the Queen's Park, measuring four acres and a quarter in extent, for the purpose of the proposed hospital, the price to be practically a nominal one. Should the hospital not be in process of erection, or otherwise established before Whit Sunday, 1884, the ground is to be reconveyed to the Council.

An outrage, as cowardly as it is fortunately rare, was perpetrated on Dr. Whitelaw, of Kirkintilloch, last Monday night. Shortly after eleven o'clock a woman called at his house and stated that he was wanted at a neighbouring villa, whither he at once set out along with her. When he had gone a short distance he heard footsteps behind; he was then attacked by two men, who knocked him down, garrotted him, and robbed him. One of them kicked him on the ankle, fracturing the bone and causing dislocation. The thieves got but little, as Dr. Whitelaw had left his watch and valuables at home, a small pocket thermometer and a knife forming the chief part of their booty. Dr. Whitelaw was able to crawl back a little way, when he obtained assistance and was carried home. The greatest sympathy is felt for him in the district, where both in public and private life he is known for his kindness and activity in every philanthropic work in the community. No apprehensions have been made, but the police are said to be on the track of the ruffians.

## SCOTTISH NOTES.

(From a Correspondent.)

NEW arrangements with regard to the medical charge of Elmhill Asylum, Aberdeen, have just been completed. Dr. Jamieson, who has acted as superintendent for over forty years, and whose services fully justify the high eulogium of the Lord Provost, will now share the responsibility with Dr. Reid, who has been appointed joint-superintendent. The demand for accommodation in this institution is so great, that at present the propriety of converting the chapel into a female ward is under consideration. The inmates now number 543 in all.

Considerable difference of opinion exists among the profession in Aberdeen regarding the application of £2000 offered to the Directors of the Royal Infirmary by Mrs. Allan's trustees, for the provision of a new consumption hospital. Several members of the staff do not consider the climate of Aberdeen as suitable for the treatment of consumption, and are evidently disposed to utilise the legacy for the purpose of sending sufferers further south, while others are equally convinced of the advantages to be derived from the proposed hospital, and only differ with regard to its site. Probably, an addition to the present infirmary will be made, and the new wing used for chest diseases. In connexion with this scheme Dr. Smith-Shand urges the appointment of an assistant-physician, who would take temporary charge of wards during the absence of any of the

physicians, and possess the same status and privileges as the assistant-surgeon recently appointed.

Two cases brought before the Perthshire Medical Association by Mr. Fergusson, M.B., at the last meeting appear to advance the study of sponge-grafting in wounds, recently proposed by Prof. Hamilton. The first was seen in the practice of Dr. Graham, and brought out some facts not previously noted. The ulcer over the tibia was deep, callous, the size of half-a-crown, with edges hard bound down, and had resisted all treatment for three months. Stimulating lotion made no impression. The unhealthy surface was scratched with a knife until it bled rather freely, when a portion of sponge, prepared according to Hamilton's plan, was applied. In two days this was adherent, but a slight erysipelatous rash had appeared which Dr. Graham feared might be due to the absorption of the decomposing sponge. He removed the sponge, but found that this process caused much pain, and a good deal of bleeding, showing that an intimate connexion with the wound-surface was already established. Repair proceeded quickly, and was complete in three weeks. Mr. Fergusson's case in the infirmary was a most unpromising one. The surface was of varying depth and condition, at one part presenting a deep and slowly separating slough. When this was ultimately removed, a circular, clean-cut, deep depression remained, and this site was chosen for planting the sponge, after the same treatment, both of wound and sponge, as in the last case. On the fourth day a good connexion was established and a healing surface seen. Part of the sponge was removed with the scissors, and on the eighth day the remaining portion was also separated. The same good results noticed in the other case were found here, and the hitherto obstinate ulcer proceeded quickly to repair, especially in the neighbourhood of the sponge. Two minute particles of skin were grafted on that portion of the wound first denuded of sponge, as this was found to heal less quickly, and since then very rapid progress has been effected. Whether it is advisable or not to leave the sponge sufficiently long for incorporation with the tissues may be doubtful, but these cases go to prove that Dr. Hamilton is right in saying that they afford a scaffolding for the uprising tissues.

By the death of Dr. Taylor, Deputy Inspector-General of Fleets, which occurred at Portobello last Saturday, the University of Aberdeen has lost one of its most munificent patrons. Some time ago he purchased the estate of Grena-skare, in Banffshire, at a cost of £10,000, and the proceeds allowed the University to form eight bursaries of £30 each, for the encouragement of secondary education in that his native county. He was eighty-five years of age, and retired about twenty-five years ago.

## PARIS.

(From our Paris Correspondent.)

PROFESSOR GERMAIN SÉE has brought to the notice of the Academy of Medicine a new substance, which promises to be of great therapeutic value. It is an alkaloid extracted from the *Convallaria majalis*, or the lily of the valley. This new alkaloid has been discovered by Dr. Hardy, an eminent chemist, who also discovered the alkaloid from the *jaborandi*, to which he gave the name of "pilocarpine." *Convallarine*, the name of the new substance, has been experimented with by Professor Sée, at the Hôtel Dieu in conjunction with Dr. Hardy, of which hospital the latter is the *chef du laboratoire*. Its therapeutic action is compared with that of digitalis, for which it may be with advantage substituted, as it has none of the inconveniences attributed to digitalis. Dr. Hardy was led to make researches with this plant from the fact of its being generally used by the peasants in Russia, who employ the herb in dropsies, and in all cases requiring increased diuresis. According to Professor Sée, the convallarine is a powerful diuretic, and it has a marked influence on the contraction of the heart, which it regulates, while it lowers the pulse in a remarkable manner.

Oxygenated water, otherwise called the binoxide or the protoxide of hydrogen, which was discovered by M. Thénard, was lately brought to the notice of the Academy of Sciences. M. Paul Bert recommended it some time ago as a powerful antiseptic, and it may be advantageously substituted for car-



bolic acid, which is a powerful caustic, and possesses other toxic properties. Advantage has been taken of this by M. Péan, who has been experimenting with the oxygenated water at the Hôpital Saint Louis with the happiest results. According to M. Péan the water must be absolutely neutral, and it may, according to circumstances, contain from twelve times to twice its bulk of oxygen. This eminent surgeon employed it externally in the dressings of wounds and ulcers of various kinds; he even administered it internally in certain cases of anæmia, septicæmia, diabetes, tuberculosis, and particularly after operations in tuberculous subjects. Even in cases where other means had been unsuccessfully employed, and in which the patients had been threatened with septicæmia, M. Péan obtained the best results in employing it externally and internally. From these experiments M. Péan concludes that as a dressing oxygenated water is far superior to camphorated alcohol and carbolic acid. M. Péan had tried the water in his out-patient practice with the same beneficial results, and it is much preferred by patients themselves to carbolic acid, owing to the objectionable odour of the latter; but the objection to the oxygenated water is its unfixedness, as it decomposes and readily gives off the excess of oxygen, in which case the water becomes like any other common water.

In turning up the earth for laying the foundations for the new General Post Office, which is situated almost at the foot of Montmartre, the workmen came upon some antediluvian remains, consisting of the mammoth or the giant elephant with a mane, to which palæontologists have given the name of "*Elephas primigenius*." It is known that with the hippopotamus and the rhinoceros the giant elephant once inhabited these parts. M. Gaudry submitted to the Academy some fossilised remains of the mammoth, which he found lying deep in these grounds; it was a fragment of the humerus, which gives some idea of the enormous size of this gigantic animal. He also submitted a portion of a tooth which presented some peculiarities of tissue. M. Gaudry also stated that analogous remains were found in other parts of Paris, and on some of the plateaux in the neighbourhood the remains of an elephant approaching more to the modern elephant were also found.

Paris, July 11th, 1882.

## ROYAL COLLEGE OF SURGEONS.

At the quarterly meeting of the Council, held on Thursday last, Mr. Thomas Spencer Wells was elected President of the College, in the vacancy caused by the retirement of Sir Erasmus Wilson; and Mr. John Marshall, F.R.S., and Mr. John Cooper Forster, were elected Vice-Presidents for the ensuing year. Messrs. J. Hutchinson, W. H. Flower, and W. K. Parker were re-elected to their respective professorships, and Mr. H. Power was elected Arris and Gale Lecturer.

The minutes of the previous meeting were confirmed, except that portion of them which related to the one course of lectures on anatomy. The confirmation of this portion was deferred until the reception of a further report from the Nomination Committee, to whom the memorial of the teachers of anatomy against the limitation of the lectures was referred for consideration and report.

A letter was read from the Medical Committee of St. Bartholomew's Hospital, objecting to the institution of a compulsory examination in elementary anatomy and physiology, to be conducted by the teachers at the school at the end of the first year. This letter was referred to the Joint Committee to report thereon when it presents its report on the recent conference of teachers of anatomy and physiology.

Mr. Stone asked, on account of the state of his health, that he might not be nominated for re-election. The matter was referred for consideration to the Presidents and Vice-Presidents.

ON July 5th, the first of the lectures on Natural Science in course of delivery at the College of Practical Engineering, Muswell Hill, was given in the new science theatre at the Alexandra Palace by Mr. Hanks. One of the subjects treated of was the Constitution of Matter, touching which the results of recent investigations were given. The lectures are to be continued daily.

## MEDICAL NOTES IN PARLIAMENT.

In the House of Commons, on Friday, the Lunacy Regulation Bill was brought down from the House of Lords, and read a first time.

### Coffee Mixtures.

Some discussion took place early on Saturday morning upon a Treasury resolution, which was proposed in Committee of Ways and Means, with the view of inserting in the Budget Bill an excise duty on coffee mixtures of twopence per pound, or a penny per half pound packet. The definition contained in the resolution is as follows:—"Any article or substance called by any name of coffee or chicory, or prepared or manufactured for the purpose of being in imitation of, or in any respect to resemble or to serve as a substitute for coffee or chicory, which is sold or kept for sale in the United Kingdom, and also any mixture of such article or substance as aforesaid with coffee or chicory, which is sold or kept for sale in the United Kingdom."—Mr. Courtney, in proposing the resolution, stated that the Treasury had been induced to reconsider their previously intended prohibition of the sale of these mixtures, in consequence of representations of the inconvenience to trade, and of the deprivation which would be caused to persons who had become accustomed to drinking the decoctions in question. Moreover, the makers and vendors were quite willing to pay the proposed duty, which would help to make up to the Revenue for the decline in the receipts from the coffee duty.—Mr. Magniac, on behalf of the London Chamber of Commerce, strongly opposed the resolution, and complained that the Government had brought it on without notice at a very inconvenient hour. He severely criticised their disposition to favour adulteration, and entered into a detailed exposure of the composition of various so-called "coffees" which are now upon the market, which he stated contained only from 6 to 25 per cent. of coffee, added to burnt dates, malt, and other vegetable matter. He sarcastically commented on the undoubted willingness of the vendors of these "horrible compounds" to pay a twopenny duty on an article which cost them twopence, and which the Government recognition implied in the duty would enable them to sell to a credulous public at tenpence or a shilling per pound. In this case, as in the case of patent medicines, the Government stamp would be regarded as a kind of guarantee.—Mr. Gladstone, in reply, said it was the hard fate of the Treasury to be dragged into these questions of adulteration, with which that department had nothing to do. This was merely a preliminary resolution, which, if adopted, would enable the question to be fully discussed on the Budget Bill.—Mr. G. Russell, in an amusing speech, intimated that he held a brief on behalf of his constituents at Aylesbury, who were interested in the manufacture of some of these compounds, particularly "dandelion coffee," which was a substance of a very wholesome and invigorating character. He claimed on behalf of the Aylesbury manufacturers their "time-honoured freedom of adulteration," but intimated that they would be prepared, if required, to abandon the name of coffee in connexion with their products.—Mr. Magniac answered that if that were done his objection would be removed, as the false pretences would cease. As to dandelion coffee, he felt bound to say that it was the only one of these compounds which contained no coffee at all.—Mr. Whitley offered some observations in the interest of malt coffee, and Sir H. Peek and Mr. Warton also took part in the discussion. The resolution was then agreed to.

### Illegal Certificates.

Mr. H. B. Samuelson gave notice of the following question:—To ask the Secretary of State for the Home Department whether his attention has been called to reports in the daily papers of July 6th of an inquest held before Mr. W. J. Payne, on July 5th, in the High-street, Borough, upon the bodies of some children, at which a physician of Guy's Hospital deposed that "it was the common practice to sign 'certificates of death' on the reports of the students, and without seeing the child at all;" and witness further said, in reply to the coroner and jury, that "they were quite aware that by the Act of Parliament they rendered themselves liable to a fine and two years' imprisonment by taking this course. He could see also that for the staff to sign certificates on mere information might sometimes lead to serious results;" and whether, in case of the recurrence of such illegal practices, he will direct the institution of a prosecution of the offenders by the Public Prosecutor.

*Shadwell Fish Market Bill.*

On Monday, Mr. Ritchie, on behalf of the promoters of the Bill for establishing a fish market at Shadwell, stated that the project would be abandoned if the new clauses were allowed to remain which had been inserted by the House of Lords in the interest of the City Corporation. After some debate, the House resolved, without a division, to disagree with the Lords as to the new clauses; and a committee was appointed to draw up reasons to be submitted to their Lordships.

Leave of absence for a week, on account of illness, was granted to Mr. Whalley.

The Lunacy Regulation Amendment Bill, and the Lunacy Districts (Scotland) Bill, were read a second time.

Mr. Shaw-Lefevre stated to Sir R. Cross that the Government intended to introduce a Bill this session to carry out the general recommendations of the Artisans' Dwellings Select Committee.

Mr. Trevelyan, in reply to Mr. Healy, said one of the Irish suspects, named Edward Jennings, had been specially examined at Kilmainham by two eminent medical men, who were of opinion that continued detention would not be dangerous to his health. Further inquiries, however, would be made.

On Tuesday, Mr. Chamberlain replied to Mr. Moore that papers were ready on the subject of the Scandinavian emigrant traffic; but the papers relating to lodging-house accommodation at Hull were not yet completed.

A petition was presented from Mr. A. C. Pipe, for prohibition of the use of arsenic in the manufacture of wall papers.

*Medical Act Amendment Bill.*

Dr. Lyons obtained leave to introduce a Bill to amend the Medical Act, 1858, and the Bill, which bears the names of Dr. Lyons, Mr. Trevelyan, the Attorney General for Ireland, and Mr. Gibson, was subsequently brought in and read a first time.

On the order for the second reading of Colonel Barne's Beer Adulteration Bill, Mr. Courtney objected to the proposal to prohibit the use of sugar, and also to the idea that the Inland Revenue authorities were to be held responsible for the detection of adulteration. The Bill was thrown out by 77 to 47.

On Wednesday, the Royal assent to the Public Health (Fruit-pickers' Lodgings) Act was reported. A petition for exemption of medical men from carriage duty was presented from W. H. Garrington and others.

*Treatment of Irish Prisoners.*

Mr. Sexton gave notice of a series of questions imputing grave misconduct to the Irish police in their treatment of eleven men recently arrested in Galway—viz., that they were marched seven miles through a drenching rain; that they were then kept for hours in a "black hole," which had a "sickening stench"; and that they were refused food or water, although one of them (who had congestion of the lungs) fainted for want of air.

Mr. M. Scott has "blocked" the Committee stage of the Lunacy Regulation Bill.

*Anti-Vaccination Complaints.*

On Thursday, Mr. P. A. Taylor gave notice that he would ask the President of the Local Government Board whether he had received a memorial from the inhabitants of Norwich, giving a list of eight children, four of whom had died, and the rest of whom were at present in a dangerous condition, resulting from vaccination; and whether he would cause a searching public inquiry to be made into all the circumstances of the case.

*Certificates of Death.*

Sir W. Harcourt, replying to Mr. H. B. Samuelson, said that proceedings of a criminal character with regard to signing certificates by medical men "on the reports of students" could not be undertaken without a previous official inquiry. The question, however, ought rather to have been addressed to the President of the Local Government Board.

Mr. Samuelson gave notice that he would repeat the question on Friday.

HICKEY, a caretaker, who was shot in the legs by "Moonlighters" on the 8th ult., died in the Castleisland Infirmary last week, after amputation had been performed.

# Medical News.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**

The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 7th, 8th, 10th, 11th, and 12th inst.:

J. R. Wilson, E. Bryceson, R. P. Mitchell, T. E. Hornby, and A. W. Popert, London Hospital; G. F. Sydenham, G. C. Henderson, B. J. Innliss, W. M. Gabriel, E. Jessop, F. C. Evill, J. A. Cones, J. J. Hemming, E. E. Gould, and A. G. R. Foulerton, St. Bartholomew's Hospital; H. Vallance, H. M. Addison, W. Lansdale, E. W. Goodall, Charles Fryer, G. C. Stamper, M. W. Oldham, W. F. Tronson, J. D. Howe, J. W. Sindol, and E. S. Marder, Guy's Hospital; G. M. Binett, S. L. Woolner, W. G. Earle, R. F. Bowie, C. D. Hamilton, E. H. Thane, H. C. Smith, C. H. Evans, J. Malpas, H. L. Kempthorne, F. J. Butt, and A. G. M. Creagh, University College; W. G. Weaver and C. R. Davidson, Westminster Hospital; H. J. Roberts, Relfast and Guy's Hospital; J. F. H. Clarke and A. J. Wright, Charing-cross Hospital; A. H. Burns, St. Thomas's Hospital; L. E. S. Beer, Middlesex Hospital; R. Evans, King's College; H. T. Marriott and W. E. Evans, St. George's Hospital; G. A. G. Simpson and Edward Nason, London Hospital; R. Levi, McGill College, Montreal; E. J. Bower, W. M. Hardy, and A. W. Harris, Charing-cross Hospital; Spencer Harbutt, F. L. Mann, and J. B. Drew, St. Mary's Hospital; T. R. Rolston, P. C. G. Billups, Reginald Koettlitz, E. C. Greenwood, and H. G. Hilbers, Guy's Hospital; B. F. Hartzborne, F. G. Armon, and T. H. Maddison, Middlesex Hospital; F. St. John Bullen, Julius Lebay, W. H. Baker, and A. Wilson, St. Thomas's Hospital; F. J. Malden, H. C. Halsted, W. R. Woodall, and S. H. Youel, St. Bartholomew's Hospital; H. A. Seagrove, C. G. Stutchell, George Cornick, C. B. d'E. Chamberlain, A. F. Smith, and H. Marriott, University College.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on July 6th:

Adkins, George, South Devon Hospital, Plymouth.  
Graham, George Hubert, Croydon.  
Harris, Frederick William H. Davis, Ivy Bridge, Devon.  
Samut, Richard Philip, Trinity-square, Brough.

The following gentlemen also on the same day passed the Primary Professional Examination:

Percy Alfred Rigby, St. Thomas's Hospital; Daniel Wm. Donovan, Stevens's Hospital, Dublin.

THE foundation stone of a Children's Hospital at Derby was laid this week by Mr. Bass, M.P.

ALEXANDER BECKETT, M.D., of Moneymore, has been placed on the Commission of the Peace for the county of Londonderry.

DR. F. PORTER SMITH, late of Hankow, China, has been elected a Member of the Asiatic Society of Paris, in consideration of his researches in Chinese medical science.

At Oldham two families, including seven persons, are reported to have been poisoned through eating tinned meats. None of the cases are likely to prove fatal. The police authorities have seized the meat affected.

THE Royal Commission on Metropolitan Sewage Discharge met on Tuesday, at 20, Great George-street. Present—Sir John Coode (in the chair), Professor A. W. Williamson, F.R.S., Dr. De Chaumont, F.R.S., Dr. Thomas Stevenson, Mr. James Abernethy, F.R.S.E., and Dr. W. Pole, F.R.S., secretary.

At the quarterly meeting of the directors of the Naval Medical Supplemental Fund held on the 11th inst., Sir W. R. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of £70 was distributed among the several applicants.

**BRADFORD MEDICO-CHIRURGICAL SOCIETY.**—The twentieth annual meeting of this Society was held in the board-room of the Infirmary on the evening of June 6th. The annual report expressed satisfaction at the number of members and the work of the Society for the closing session. A report of the Commission upon Woolsorters' Diseases, appointed eighteen months before by the Society, was read and ordered to be printed for private circulation amongst the members previously to its general discussion at a forthcoming meeting. Votes of thanks were accorded to the retiring officers, and the following gentlemen were elected to serve for the succeeding year. President: H. Butterfield. Treasurer: T. C. Denby. Secretary: D. Goyder, M.D. Committee: J. Craig, M.D.; W. H. Ellis; J. Appleyard, M.B.; W. G. Barrie, M.D. Pathologists: T. Wilmot; J. Appleyard, M.B. Auditors: S. C. Hirst; J. Dunlop, M.D.

A NEW Cottage Convalescent Home has been opened at Newhills, N.B.

**ROYAL COLLEGE OF SURGEONS IN IRELAND MEDICAL SCHOOL.**—The following prizes were recently awarded: First Year's Class: First prize (£10), Geo. E. Greene; Second prize (£5), Richard H. Fetherston. Second Year: First prize (£12), Wm. L. Symes. Senior Class: First prize (gold medal and £10), Austin N. Cooper; Second prize (£10), Myer J. Dutch.

**CATHOLIC UNIVERSITY MEDICAL SCHOOL.**—The following prizes have been awarded at the termination of the summer session:—Practical Chemistry: John Buggy, F. W. McCauley. *Materia Medica*: Frederick Mandel. Medical Jurisprudence: Peter O'Connell, Alexander Stewart. Botany: Daniel McDonnell (first); Bernard Forde and John J. Tobin (equal). University Exhibition (£20) in Practical Chemistry, *Materia Medica*, and Medical Jurisprudence combined: Francis W. McCauley.

**NORTHERN COUNTIES ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.**—The annual meeting of the Association was held in the Library of the College of Medicine, Newcastle-upon-Tyne, on the 7th inst., Dr. Clarkson, President elect, in the chair. Among other business transacted, it was resolved that twenty guineas be given to the funds of the Newcastle Infirmary, the donation to be in the name and at the disposal of Mr. Henry E. Armstrong, in recognition of his services as secretary, and with the view of constituting him a life governor of the institution.

**PRESENTATIONS.**—Mr. David Richards, the surgeon to the "Tower" Philanthropic Society, Brighton, has been presented by the members of that institution with an illuminated address, in acknowledgment of his many services in connexion with it as chairman, from which post he had recently retired in consequence of ill-health.—Some of the friends and patients of Dr. R. G. Jack presented him with a farewell address expressive of their regret at his departure from Hampton Court to take up a practice at Kensington. Accompanying the address was a handsome gold watch, with his monogram and presentation inscription engraved on the back.

Two adventurers, named Sutton and Brownrigg, who advertised a work by "Sir John Fleming, M.D.," upon hypophosphites as a cure for all diseases, and who appear to have constituted as their head-quarters a third floor back room in Sidmouth-street, Gray's-inn-road, which they styled "Phosphate Hall," were each sentenced at the Central Criminal Court last week to five years' penal servitude. With the advertisements were issued fictitious notices, purporting to be extracted from THE LANCET and other medical journals, lauding the wares offered to the public by the culprits.

**POOR CONVALESCENTS.**—The annual meeting of the Association for the After-care of Poor and Friendless Female Convalescents on leaving asylums for the insane was held on the 5th inst. at the house of Dr. Ogle, Cavendish-square, when the Earl of Shaftesbury presided. The chief object of this Association is to facilitate the readmission of poor and friendless female convalescents from lunatic asylums into social life—1, by obtaining for them, when needful, a brief interval of change of scene and air, often so beneficial on recovery from ordinary illness; 2, by assisting them to obtain suitable employments.

**CHILDREN'S HOSPITAL, PENDLEBURY.**—The half-yearly meeting of the Board of Governors was held at the hospital on the 8th inst. The medical report stated that during the past six months 478 new patients had been admitted to the hospital, including 70 fever cases, being three in excess of the corresponding period of last year. At the dispensary (Gartside-street) 3621 new cases had been admitted, 708 being home patients. There had been 21,331 attendances in all, including 2143 visits to the homes of the patients. The attendances were 7000, and the new patients admitted 1009, more than during the first half of 1881. This increase had largely taken place in consequence of the continued prevalence of measles and whooping-cough this year. There have been 288 cases of measles, against 22, and 289 of whooping-cough, against 125 during the corresponding period of last year.

## BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, London.

Manual for the Physiological Laboratory. By V. Harris, M.D. Lond., and D'Arcy Power, M.A. Oxon. Second Edition. pp. 213, with 40 Illustrations.

BLACKIE & SON, London, Glasgow, Edinburgh, & Dublin.

The Imperial Dictionary of the English Language. By John Ogilvie, LL.D. New Edition, edited by C. Annandale, M.A. Vol. III. pp. 793, illustrated.

CHURCHILL, J. & A., London.

The Medical Man's Handy Book. Edited by Wm. Shepperson. pp. 52.

The Student's Guide to Diseases of the Eye. By Edw. Nettleship, F.R.C.S. Second Edition, with Additions. pp. 395, illustrated.

Clinical Lectures on Diseases of the Nervous System. By Thomas Buzzard, M.D. Lond. pp. 406.

FISCHER, G., Jena.

Lehrbuch der Vergleichender Anatomie der Wirbelthiere. Bearbeitet von Dr. Robert Wiedersheim. Erster Theil.

JOHNSTON, W. & A. K., Edinburgh.

The Botanical Atlas. By D. McAlpine, F.R.C.S. Part 8.

KEGAN PAUL, TRENCH, & CO., London.

Catechism of Modern Elementary Chemistry. By E. W. v. Volckxson, F.R.C.S. pp. 286.

Animal Intelligence. By Geo. J. Romanes, M.A., LL.D., F.R.S. pp. 520.

KIMPTON, HENRY, London.

The Etiology, Pathology, and Treatment of Baldness and Grey-ness. By Tom Robinson, M.D. pp. 44.

LEA'S SON & CO.

Transactions of the American Gynecological Society. Vol. VI., for 1881. pp. 542, with Illustrations.

LONGMANS, GREEN, & CO., London.

Experimental Physiology. By Richard Owen, C.B., M.D., F.R.S. pp. 216.

MURRAY, JOHN, London.

Winters Abroad. Intended for the use of Invalids. By R. H. Otter, M.A. pp. 236.

RENSHAW, HENRY, London.

Diseases of the Ear. By Geo. P. Field, M.R.C.S. Third Edition. pp. 335, illustrated with coloured plates and woodcuts.

SMITH, ELDER, & CO., London.

Legal Medicine. By C. Meymott Tidy, M.B., F.R.C.S. Part 1. pp. 636.

A Treatise on Surgery, its Principles and Practice. By T. Holmes, M.A. Cantab. Third Edition. pp. 935, with 418 illustrations.

SPON, E. & F. N., London.

Cyclopedia of Industrial Arts, Manufactures, &c. By C. G. W. Lock, F.L.S. Two vols. pp. 2142, profusely illustrated.

STOCK, ELIOT, London.

Faith the Life-root of Science, Philosophy, Ethics, and Religion. By H. Griffith, F.G.S. pp. 171.

WREDEN, F., Braunschweig.

Die Acuten Infektionskrankheiten. Bearbeitet von Dr. B. Knessner und Dr. R. Pott. Tn. 460.

Lehrbuch der Krankheiten der Peripheren Nerven und dem Sympathicus, f. Aerzte und Studierende. Von Dr. A. Seeligmüller. Tn. 398, mit 56 Abbildungen in Holzschnitt.

Index Medicus, Vol. IV., No. 5. (Leypoldt, New York).—Report of 1088 Cases of Ear Disease, treated in the Glasgow Western Infirmary; by Thos. Barr, M.D.—American Journal of Neurology and Psychiatry, May. (Westermann, New York).—The Physiological and Therapeutical Action of Ergot; by E. Evetzky, M.D.—Rachitis; von Dr. Adolf Baginsky.—Mittheilungen aus der Ophthalmiatrien Klinik am Tübingen; herausgegeben von Dr. A. Nagel.—Sul Valore del Permanganato di Potassa quale antidoto del Veleno del Serpenti (Ofidi); rapporto del Dott. Cav. G. Badaloni.—Della Estrazione della Milza; dal C. Dott. F. Franzolini.—The Uselessness of Vivisection upon Animals as a Method of Scientific Research; by Lawson Tait, F.R.C.S.—Unqualified Medical Practitioners; by D. E. Flinn, L.K.Q.C.P.L., &c.—The Oration delivered before the Medical Society of London in 1882; by Dr. E. S. Thompson.—The Leisure Hour, Sunday at Home, Boys' Own Paper, Girls' Own Paper, for July (Religious Tract Society).—Good Words, Sunday Magazine, for July (Isbister and Co.).—Fraser's Magazine, for July.—Contemporary Review, July.—Knowledge, June.—Hothouse Education; by J. A. Digby.—Quarterly Journal of Microscopical Science, July.—Un Cas de Dermatose Parasitaire observé pour la première fois en France; par le Dr. M. Nielly.—Journal of the Portal Microscopical Society.—Der Uranismus; von W. Bernhardt.—Westminster Review, July.—Dickens's Continental A B C Railway Guide, July.—The Russian Persecution of the Jews; and the approach of the Time of the End; by Wm. O'Neill, M.D.—Facts about Manitoba; reprinted from The Times; with two maps (Chapman and Hall).—Letts's popular Maps of Egypt and Alexandria.—Hare's Life Tables.

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

- BENTHALL, ALBERT, M.R.C.P. & L.M. Edin., M.R.C.S., M. & L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator to the Twickenham District of the Brentford Union.
- COSHAM, W. RAYMOND, M.D., C.M. Aber., M.R.C.S., has been appointed Medical Officer to the Central District of the Cirencester Union, vice Hodges, resigned.
- DEKLEY, AMBROSE W., L.K.Q.C.P.I., has been appointed Medical Officer to the Sherburn District of the Scarborough Union.
- FENWICK, BEDFORD, M.D., M.R.C.P., has been appointed Assistant Physician to the City of London Hospital for Diseases of the Chest, also a Consulting Physician to the British Orphan Asylum.
- GEM, WILLIAM, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Assistant Medical Officer to the Workhouse Infirmary, City of London Union.
- GILL, JOHN WALLIS, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the First District of the St. Germans Union.
- HEYGATE, FRED. NICHOLAS, M.R.C.S., L.S.A. Lond., has been appointed Medical Officer to the Finedon District of the Wellingborough Union.
- HOLLIS, ELPHINSTONE, M.D., C.M. Edin., has been elected House-Surgeon to the East Suffolk Hospital, in the place of Mr. Wilmot, resigned.
- JONES, W. PRICE, M.D. Lond., F.R.C.S. Eng., has been reappointed Medical Officer of Health for the Kingston-on-Thames Rural Sanitary District.
- LIMONT, WILLIAM, M.B., C.M. Edin., has been appointed Lecturer on Physiology at the Western Medical School, Glasgow.
- MAPOTHER, EDW. DILLON, M.D. Q.U.I., F.R.C.S.I., has been appointed one of the Physicians to the Maison de Santé, Dublin, vice Duncan.
- MCCNICOLL, ROBERT, M.R.C.S., L.S.A. Lond., has been reappointed Medical Officer of Health for the Borough of St. Helen's.
- REDWOOD, THEOPHILUS, Ph.D., F.R.C.S., has been re-appointed Public Analyst for the St. Giles's District.
- REVELL, RICHARD CARTER, M.R.C.S., L.S.A. Lond., has been appointed Medical Officer to the Fourth District of the St. Germans Union.
- RICH, DR. CRESWELL, has been appointed Honorary Medical Officer to the Liverpool Dispensaries, vice Dr. Shearer, resigned.
- SECCOMBE, GEORGE S., L.R.C.P. Lond., M.R.C.S., Senior Assistant Medical Officer, Metropolitan District Asylum, Caterham, has been appointed by the Secretary of State for the Colonies Medical Superintendent of the Colonial Asylum, Port of Spain, Trinidad, West Indies.
- SINCLAIR, J., M.R.C.S., L.S.A. Lond., has been appointed Resident Medical Officer to the Queen Adelaide Dispensary, Bethnal-green, vice Leonard Grant, M.B., resigned.
- VAN BUREN, ERNEST HAWARD, L.R.C.P. Ed., M.R.C.S., has been appointed House Surgeon to the Buckinghamshire General Hospital, vice Valsey, resigned.
- WILLMOTT, JULIUS J. E., M.D., has been appointed Hon. Physician to the Hospital for Sick Children, Melbourne, Victoria, vice Wigge, M.D., resigned.
- YEO, I. BURNIE, M.D., F.R.C.P. Lond., has been appointed Physician to the Life Association of Scotland.

## Births, Marriages, and Deaths.

### BIRTHS.

- DALY.—On the 12th inst., at 185, Amhurst-road, Hackney-downs, the wife of Frederick H. Daly, M.D., of a son.
- DAVIES.—On the 5th inst., at Albert-terrace, Jarrow-on-Tyne, the wife of Hugh Walter Davies, M.R.C.S., L.R.C.P. Ed., of a son, stillborn.
- DAWSON.—On the 8th inst., at Hyde-park-street, the wife of Yelverton Dawson, M.D., of a daughter.
- GRAHAM.—On the 28th ult., at Madeira, the wife of Michael C. Graham, M.D., F.R.C.P., of a son.
- WILLIS.—On the 8th inst., at Gascony House, West End-lane, N.W., the wife of Arthur K. Willis, M.R.C.S., of a daughter.

### MARRIAGES.

- BARR—WOOLLEY.—On the 12th inst., at Holy Trinity, Walton, Breck, Liverpool, by the Reverend Richard Postance, Vicar of St. Titus, Liverpool, assisted by the Rev. F. Grier, Incumbent, James Barr, M.D., of 1, St. Domingo-grove, Liverpool, to Belle, second daughter of the late J. Woolley, Esq., of Springfield, Everton.
- COATS—KNIGHT.—On May 24th, at Ladysmith, Natal, James Coats, M.B., Surgeon, A.M.D., to Augusta Emily, second daughter of the late Humphrey Evans Knight, formerly M.L.C. for Kilp River County, and granddaughter of the late John Baverstock Knight, Esq., of West Lodge, Dorsetshire.
- STAMPER—SMITH.—On the 6th inst., at St. Luke's, Chelsea, J. F. Stamper, M.D., of Pembroke Dock, to Ellen Angela, only daughter of E. A. Smith, Esq., R.N., of Winchester-terrace, Chelsea.

### DEATHS.

- BUDGETT.—On the 19th ult., at Gildridge-road, Eastbourne, John Burgess Season Budgett, M.D., L.R.C.P., aged 72.
- POTTER.—On the 7th inst., at Chipping Ongar, Essex, Frank Dobson Potter, M.R.C.S., L.S.A. Lond., in his 72nd year.
- TAYLOR.—On the 9th inst., at West Brighton-crescent, Portobello, N.B., James Taylor, M.D., Deputy Inspector-General of Hospitals and Fleets.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### PROPORTION OF MYOPICS IN GERMAN SCHOOLS.

DR. NOBIS, of Chemnitz, has recently published statistical information on the above subject, founded on his experiences at the Chemnitz Gymnasium (or public school). Normal sighted pupils were found in the following proportions:—Sixth grade, 90 per cent.; fifth grade, 83 per cent.; fourth grade, 80 per cent.; lower third grade, 75 per cent.; upper third grade, 65 per cent.; lower second grade, 56 per cent.; upper second grade, 56 per cent.; first grade, 36 per cent. He attributes this result (which embodies a progressive evil) in some degree to the bad paper and small print of the school-books in general use, and in particular to the microscopic characters employed in some Greek works. For this reason he advocates the universal introduction of Roman type, even for the Greek language. The result of his investigations show that on an average 35 per cent. of the pupils at the Chemnitz Gymnasium are short-sighted. The favourable local circumstances of Chemnitz make this average lower than is the case in many German institutions of a similar class, the rate over all Germany being 30 to 55 per cent. The connexion between advancement in study and loss of visual range, which is indicated in the figures we have quoted in reference to the Chemnitz Gymnasium, is (according to the details published) fully confirmed by the returns of German schools in general. In the ordinary Government schools the rate is 20 to 24 per cent., in the higher girls' schools 10 to 24 per cent., and in the elementary schools 5 to 11 per cent., while in the village schools the low rate of 1 per cent. represents the proportion of short-sighted children.

*Omega.*—We regret that the pressure of events led to the communications of "Omega" being mislaid. He should consult his lawyer on the subject.

*E. M. T.*—We have already exposed one of the greatest culprits named in our correspondent's letter, for which we cannot find room.

### "SOUTH AFRICA AS A FIELD FOR MEDICAL PRACTICE."

*To the Editor of THE LANCET.*

SIR,—In some numbers of THE LANCET I have lately received, several letters appear under the above heading. As a general practitioner here of a few years' standing, I think I can pretty nearly state what are the present prospects of a medical man contemplating a trial at the Cape.

In the first place, all the chief towns, such as Cape Town, Port Elizabeth, Graham's Town, and King William's Town, are over-done, and the struggle is quite as severe as at home. At Kimberley or the Diamond Fields there is also a long list of medical practitioners. Now, as to the outlying districts. In the first place, for this work a man must be capable of great physical endurance; able, in case of necessity, to do in the saddle sixty, seventy, or even eighty miles in the day over wagon tracks (not roads). He must be prepared to act in any emergency, entirely upon his own resources, surgical and medical, and in case he fails in one instance, his work is done. He is expected to be a thorough gentleman, but it is advisable that he cast aside all notions of those refined and frequent social gatherings to which men of standing in the profession are generally accustomed in the old country. An individual combining the above requirements, and who, when professional work becomes dull, can turn his attention to shooting (here called hunting) spring-boks and guinea-fowl, may make his 250 a month and his existence endurable.

I should say that of the entire number of medical men who come to this colony, one half return in a very short time to the old country or seek some other field for practice, one half of the remainder go to the bad (drink), and the other half—I.e., one-fourth of the entire number—do fairly well.—I am, Sir, your obedient servant,  
June, 1882.

EIGHT YEARS A COLONIAL.

## USE OF COD-LIVER OIL FOR YOUNG CHILDREN.

*Dr. Frank Nankivell* asks for information as to the age at which a child becomes able to assimilate cod-liver oil, and states that in no case has he known it produce its full effect before the age of eighteen months or two years. We are sure *Dr. F. Nankivell's* results must be exceptional. If diarrhoea or vomiting be present—speaking generally, though by no means absolutely—the use of cod-liver oil internally is contra-indicated in young children, but if neither of these symptoms be present, we cannot recall a more useful agent in the marasmic conditions of infancy. We cannot fix any limit of age, but we have seen infants of a month old distinctly improve whilst taking it, and we should have thought the enormous benefit of this agent to rickety children, both under and over twelve months old, had become a truism in medicine. Even in hereditary syphilis, although it will not take the place of grey powder, in our experience cod-liver oil is a most valuable adjunct in treatment. Also, besides generally helping in the nutrition of a feeble infant, observant mothers often point out that the regular employment of cod-liver oil assists in overcoming the occasional difficulty of constipation.

## AFTER-ATTENDANCE IN MIDWIFERY CASES.

*P. P.*—Certainly not. The ordinary fee is for the usual amount of attendance in an ordinary case. Where puerperal disease arises, requiring special visits or prolonged attendance, it is proper to charge for them specially.

## VIVISECTION.

To the Editor of THE LANCET.

SIR,—It will oblige me if you will give a place to the enclosed correspondence.—I am, Sir, yours very truly, W. C. MACLEAN.  
Army Medical School, Royal Victoria Hospital,  
Netley, July 12th, 1892.

"Society for the Abolition of Vivisection, Henbury,  
"Macclesfield, Cheshire, July 10th, 1892.

"SIR,—The report in the *British Medical Journal* of the 8th inst. leads to the inference that you have not perused the evidence given before the Royal Commission on subjecting live animals to experiments for scientific purposes. The 'crushing exposition' is, we think, on the other side. By this post we forward for your kind acceptance and perusal our controversies with Mr. T. Spencer Wells and Professor Owen.

"I remain, Sir, your obedient servant,

(Signed)

"GEORGE R. JESSE, Hon. Sec.

"To Dr. W. C. Maclean, C.B., Netley,  
Southampton."

"Army Medical School, Royal Victoria Hospital,  
"Netley, July 12th, 1892.

"SIR,—I found your courteous letter here this morning. What appeared in the *British Medical Journal* was nothing but a meagre outline of my discourse to the Southern Branch of the British Medical Association, and gives about as much notion of my argument as a brick would give of the structure of a house.

"I am well posted up in anti-vivisection literature, and I do not think it at all likely you and I are ever likely to agree on which side the 'crushing' has taken place. I dare say Arabi is not convinced that he was 'crushed' yesterday, although perhaps Admiral Seymour may have another opinion on that subject. With regard to Mr. Spencer Wells, I know that the operation he has perfected has saved and is daily saving hundreds of women who, but for him, would have perished miserably. On Saturday last a much valued domestic of my own was operated on by his method, and is now far on her way to a perfect recovery. When Mr. Spencer Wells tells me that the sacrifice of a few of the lower animals assisted him in the work of perfecting an operation that has resulted in such splendid success, you must excuse me for saying that the 'arguments' of anti-vivisectionists, on the other side, count for nothing with me.

"I add that it is nothing less than a scandal that a man who has rendered such noble services to humanity should be assailed as he has been by the Society of which you are the hon. secretary.

"I have only to add, in conclusion, that, so far as I am concerned, this correspondence must end here.—I am, Sir, yours faithfully,

"W. C. MACLEAN, M.D.

"P.S.—You are quite at liberty to publish this correspondence if you please. I hold myself at liberty to do the same.

"To George R. Jesse, Esq."

*Mr. Julius Caesar.*—The subject is noticed in a letter in our present issue.

## INVETERATE BOILS.

To the Editor of THE LANCET.

SIR,—I should feel greatly obliged if any of your correspondents could give me any hint as to the treatment of a case under my care, in which boil after boil appears in different parts of the body. I have tried most of the remedies recommended, but these seem to have no power in averting the above tendency. Glandular swellings also appear in the axillæ and elsewhere, which soon break down into pus, but in a slow, chronic manner.

I remain, Sir, yours obediently,

July 8th, 1892.

SUBSCRIBER.

## EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

The following were the questions submitted to the 252 candidates now undergoing their Primary Examinations for the diploma of membership of the College in Anatomy and Physiology:—

## Anatomy.

1. Describe the lachrymal gland, with its position, relations, and coverings.
2. Describe the movements of which the knee-joint is capable, and give the muscles by which these movements are severally effected.
3. Describe the clavicle, and mention the various structures attached to and in relation with it.
4. Describe the œsophagus, its course, relations, and structure.
5. Describe the prostate gland.
6. Give the dissection required to expose the quadratus femoris muscle, and mention the parts in immediate relation with it.

## Physiology.

1. Describe the cycle of the heart's action, stating the relative duration of the different stages, and the events that occur in each stage.
2. State the composition and mode of secretion of the gastric juice. What are its functions? How have these functions been determined?
3. Describe the structure of a large, a medium-sized, and a small artery; and explain the manner in which the circulation of the blood is influenced by the modifications of structure in these different-sized vessels.
4. Describe the structure of nerve-fibres. Of what is their essential part composed? How may the functions of a nerve be determined?
5. Give the structure of unstriated muscular tissue. State the principal situations in which it is found. Compare its mode of contraction with that of striated muscle.
6. Describe the structure of the iris. State in what conditions, and for what purposes the pupil is physiologically contracted.

Candidates were required to answer four, and not more than that number, out of the six questions on each subject.

## INHERITED IMMUNITY FROM ZYMOTIC DISEASE.

To the Editor of THE LANCET.

SIR,—Your annotation of June 24th on Anthrax inoculations leads me to communicate the following stray experiences, which present a certain parallelism with some of those of the French savants, and at the same time are not devoid of obvious practical bearing. My attention was first directed to the subject by my failure to vaccinate successfully an infant whose mother had a mild attack of modified small-pox two months before its birth. When three months old I vaccinated it, arm to arm, three times in successive weeks, without eliciting any sign of invasion. This constitutes my sole experience of infantile insusceptibility, and my stock of lymph at the time was above suspicion. I felt assured of the child's immunity from small-pox, but, as regards the persistence of this immunity, my assurance has been dissipated by my next to be related experience.

Last autumn I attended a fine child of three years through a virulent and, I regret to add, fatal attack of unmodified small-pox, with the leaden-hued, depressed, umbilicated pustules. The mother, whose face presented numerous small pits, explained that, when seven months pregnant, she had a severe attack of small-pox (modified), and that in due course her infant had resisted three successive vaccinations, and been returned as insusceptible. She bore in her arms her next baby, a well-developed child of fourteen months, wanting in vaccine marks. It had been twice ineffectually vaccinated with preserved lymph by the same practitioner, who, concluding doubtless that it, too, had inherited immunity from its mother, thereupon certified insusceptibility. I vaccinated this child on the day of my first visit, after expressing my belief that it must already have contracted its sister's disease. On the eighth day it presented four typical vaccine vesicles, and at the same time a copious variolous eruption of creamy hemispherical pustules, with, on the face, a common florid basis. Recovery was rapid, without a bad symptom. The two cases may be regarded as a crucial test of the antidotal power of vaccinia over variola. The vaccination seemed in no way modified, but presented a curious illustration, no doubt illusory, of the less overcoming the greater.

More recently I attended a patient through a sharp attack of modified small-pox, and six weeks thereafter through her confinement. Four months subsequently I vaccinated her infant, together with four others, from the same arm. All five "took" in every insertion, but, whilst the other four presented large areolæ, in this there was none at all.

I am, Sir, yours truly,

London, July, 1892.

WM. M'LAURIN, M.B., C.M. Glas.

*Krankheit* is referred to a general notice in another column.

*Martin* has not enclosed his card.

*M. G. E.*—The matter is under consideration.

## WHOOPIING-COUGH.

To the Editor of THE LANCET.

SIR,—I write as briefly as possible to recommend the use of sulphate of quinine in large and frequently repeated doses, even for very young children, in uncomplicated whooping-cough.—I am, Sir, yours faithfully,  
July 9th, 1892. M.B.



## RHUS TOXICODENDRON.

DR. G. B. DUNMIRE relates, in the *Philadelphia Medical Times*, a severe case of proctitis and peritonitis by contiguity of tissue by way of the pelvic organs, occasioned by the local contact of the leaves of the *Rhus toxicodendron*.

## THE MEDICAL SERVICE OF BRITISH GUIANA.

To the Editor of THE LANCET.

SIR,—I know something of the medical service of this distant colony and the great good you are likely to do in directing public attention to it. It is one of the many subjects I think which should occupy the attention of the Medical Council, for it is "a public service," employing a large number of medical men. Your able article of the 8th instant points out many of the defects and grievances under which the service labours. The enormous General Hospital of Georgetown affords a most extensive field for practice and study of diseases peculiar to a tropical and most unhealthy region, and its inhabitants, as varied as are the diseases, consisting of negroes, East Indians, the Aboriginal Indian (Malay), Europeans from almost every country of Europe, and Americans of the United States. At my visits to this hospital and the adjacent leper establishments it struck me that the medical and surgical staff was quite inadequate to the wants and requirements of so extensive an institution. The wards of the hospital, especially the surgical division, were very much overcrowded. There is one other point which needs special mention, if only for the protection and encouragement of the qualified medical practitioner. There are men in practice there whose names are not to be found in the Register, and some of them holding public appointments. This point surely is worthy the attention of the Council, as in any scheme for the organisation of a public service the candidates for appointment should be required to possess the qualifications which would enable them to hold public appointments in this country.

I am, Sir, your obedient servant,  
UNITY.

July 11th, 1882.

Mr. S. Coombes.—The statement is scarcely credible.

Mr. Thos. Smith (Darlington).—We regret we cannot assist our correspondent. The name is not in the list in our possession.

## THE AUDITORY METHOD OF DETECTING STONE IN THE BLADDER.

To the Editor of THE LANCET.

SIR,—I have read with much pleasure Mr. Davidson's suggested method of detecting stone in the bladder in to-day's LANCET. I merely write to say that an excellent "lithophone" can be very readily made by attaching one end of an "otoscope" (first removing the vulcanic ear piece) to an ordinary sound, the other end resting on the ear of the surgeon. The otoscope is in such constant use, both for purposes of diagnosis and treatment, with aural surgeons, that the wonder is the method recommended has not suggested itself sooner. Having made experiments, I can corroborate Mr. Davidson's statements as to the utility of the "lithophone," and beg to congratulate him on his discovery.—I am, Sir, your obedient servant,

WM. CAIRNS WICKS, M.B., M.C., &c.

Newcastle-on-Tyne, July 1st, 1882.

To the Editor of THE LANCET.

SIR,—If your correspondent will be good enough to refer to THE LANCET of October 14th, 1876, he will find the same instrument fully described by Dr. Leftwich, for whom we originally made them.

We are, Sir, your obedient servants,

London, July 11th, 1882.

ARNOLD & SON.

## LORD DALHOUSIE AND LORD CHELMSFORD ON THE DESIGNATION "NON-COMBATANT."

To the Editor of THE LANCET.

SIR,—I beg you will give a place in your journal to the following extracts:—

1st. Lord Dalhousie's minute on the Indian Medical Service, 1856.—"The medical officer in respect of real rank, dress, honours, and promotion should be placed on a footing with his brother officers. The absurdity of regarding the medical officer as a non-combatant is, I believe, abandoned."

2nd. Lord Chelmsford's speech at the Grocers' Company in 1879, on his return from South Africa.—"I trust that the designation by which it is usual to stigmatise (for I can call it by no other name) those who belong to the several army departments—viz., non-combatants—may now be changed. Everyone must know how dependent an army in the field is upon the efficiency of its commissariat and transport, its medical and pay arrangements, and it seems to me most unfair, because, as a general rule, on active service duty does not call to the immediate front those who belong to those departments, that a name should be given to them which seems to imply an inferiority of position to the other branches of the service. The late war in Zululand has shown, what must have been known before, that when occasion requires it departmental officers can exhibit the highest personal courage, and can win for themselves that proud distinction which is principally gained by the so-called combatant officers."

I would ask, how long are these objectionable terms to be used?

I am, Sir, yours, &c.,  
N. A. T.

July 11th, 1882.

## A MISSING LINK.

A UNIQUE fossil found amongst the mammalian remains in the phosphorite deposits of Quercy has been brought before the Académie des Sciences by M. Filhol. The fossil is one in which the characters of the pig and the monkey are united, and is the first perfect one of the kind on record, though part of an upper jaw very like it was found some years ago in the upper eocene strata near Apt. It is surmised that during the late eocene period a class of animals existed which might be described as "Pachysimlae."

## VACCINATION: P. A. TAYLOR v. DR. CARPENTER.

To the Editor of THE LANCET.

SIR,—I have read the articles by Dr. Carpenter and Mr. Taylor in the *Nineteenth Century*. Neither time nor space will allow me to say what I should like to on the subject, yet I should be glad if you could allow me to make a few remarks very briefly.

First, the saying as to the fallacy of statistics seems exemplified here, for both bring forward figures so fully that I am confused, and I must leave others to prove them. I prefer being guided by my experience as a public vaccinator lasting over thirty-four years. Page 785, Mr. Taylor says, "any taint in the blood of a person from whom the lymph is taken is communicable to the person into whose system the diseased matter is conveyed." My experience gives no proof of this, and if blood is not taken I think it is impossible. Mr. Taylor insinuates that the medical profession advocate vaccination from selfish motives. This is unjust, for if vaccination were not followed I should get hundreds a year, whereas I now only get twenty pounds from public vaccination. A severe case of small-pox may last for weeks, and leave blindness and other ailments requiring treatment for years.

Page 790, Mr. Taylor confuses vaccination and proper vaccination. If the patient is "without the faintest mark" I should consider him unvaccinated or unprotected for all practical purposes. That proper vaccination will prevent and mitigate small-pox I am, from my own experience, as much convinced as I am of any fact—say of the circulation of my blood. I have seen in a family of ten the only unvaccinated person take confluent small-pox, and I have also seen in a family of six only one escape, the one who alone had been vaccinated; three of the five unvaccinated died.

I wonder that there should be any dispute about a fact which can be demonstrated. Let Mr. Taylor try this experiment:—Bring three children into a room with small-pox; let one be properly vaccinated first, the other two not at all. In twelve days or so the two unvaccinated will show symptoms of small-pox; then let one of them be vaccinated properly. From my own experience I can confidently predict this result. The vaccinated child will escape; the other two will take small-pox; they will seem to have it equally badly, but after the eighth day the child vaccinated (when the seeds of small-pox were in him) will suddenly recover and ask for food; the unprotected child will then begin to be in greater danger.

A tramp brought a child to my surgery lately. The rash was in the first day's stage. It had never been vaccinated, so I did it at once. The child was dangerously ill afterwards, and we all expected it to die. The vaccination seemed to outrun the small-pox, and the child suddenly began to improve after the eighth day. I could quote many such cases. There is a popular fallacy I should like to mention; it is that unsanitary conditions would create small-pox. Without the seeds of a previous case you could no more get a case of small-pox than you could get an oak without an acorn. Take the small-pox seeds to the palace or the cabin, and it will equally spread to all who have not already had small-pox or who have not had the modified form of it, called vaccination. Many expect too much from vaccination. It only gives the same immunity from small-pox that small-pox does to a second attack; no more, no less.

I am, Sir, yours truly,

Herts, June 30th, 1882.

ALFRED THOMAS BRETT, M.D.,  
Public Vaccinator.

A. J. S.—The fittings of a water-closet should never alone be trusted to keep sewer air out of a house. This should be effected by means of two openings in the house drain, so as to secure a through current of fresh air, supplemented by a trap between the house-drain and the sewer. A valve-closet with a syphon trap is the best to procure. Above all, closets fitted with either a "container" or a "D trap" should be avoided.

R. M.—We are not aware.

A Resident and A Sanitary F.R.C.S. will oblige by forwarding name and address in confidence.

A Reader of The Lancet.—Our advertising columns frequently contain the information desired.

## READY TEST FOR SEWAGE IMPURITY IN WATER.

To the Editor of THE LANCET.

SIR,—Permit me to say that Messrs. Negretti and Zambra have carried out the suggestion which I threw out in a letter to THE LANCET last year, and have made hermetically sealed glass capsules enclosing the test. A box of these, with directions for use, will be found serviceable for travellers in enabling them to detect sewage impurity in drinking water.

I am, Sir, yours truly,

Lynn, July 8th, 1882.

JOHN LOWE, M.D.

*The Schoolmaster, Mauritius Argus, Surrey Comet, Mexbro' and Swinton Times, Charity Organisation Reporter, Sheffield and Rotherham Independent, Western Morning News, Citizen, The Christian, &c, have been received.*

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Advertisements (to ensure insertion on the same day) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

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Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom, and all other Advertising Agents.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

**Agent for the Advertising Department in France—J. ASTIER, 87, Rue Caumartin, Paris.**

(Taken daily at 5.30 a.m. by Steward's Instruments.)

**THE LANCET OFFICE, July 13th, 1832.**

Date.	Barometer reduced to level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia- tion Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 a.m.
July 7	29.36	W.	62	56	120	69	51	.19	Cloudy
" 8	29.48	W.	63	57	112	66	50	..	Cloudy
" 9	29.55	S.W.	64	58	116	70	51	.35	Cloudy
" 10	29.73	W.	61	55	118	70	49	.08	Bright
" 11	29.60	S.	57	55	91	68	51	.33	Raining
" 12	29.73	N.W.	61	57	112	72	52	.30	Cloudy
" 13	29.91	W.	59	57	..	62	54	.02	Raining

**Monday, July 17.**

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.  
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.  
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

**Tuesday, July 18.**

**GUY'S HOSPITAL.**—Operations, 1½ P.M., and on Friday at the same hour.  
**WESTMINSTER HOSPITAL.**—Operations, 2 P.M.  
**WEST LONDON HOSPITAL.**—Operations, 3 P.M.

Wednesday, July 19.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
MIDDLESEX HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday  
at the same hour.  
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the  
same hour.  
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.  
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday  
at the same hour.  
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.  
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations,  
2½ P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday  
at the same hour.—Skin Department: 1.45 P.M., and on Saturday at  
9.15 A.M.

**Thursday, July 20.**

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.  
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.  
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on  
Friday at the same hour.  
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.  
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

**Friday, July 21.**

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.  
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.  
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

**Saturday, July 22.**

**ROYAL FREE HOSPITAL.**—Operations, 2 P.M.

## ADVERTISING.

Books and Publications .. .. .	20	5	0
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Trade and Miscellaneous Advertisements .. .. .	0	4	6
Seven lines and under (each averaging ten words).			
Every additional Line .. .. .	0	0	8
Front Page .. .. . per Line	0	1	0
Quarter Page .. .. .	1	10	0
Half a Page .. .. .	2	15	0
An entire Page .. .. .	5	5	0

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**NOTICE.**—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

## Clinical Lecture

ON

## THREE CASES OF SEVERE INJURY TO THE HEAD.

By ROBT. JOHN GARDEN, M.D., C.M.,

LECTURER ON CLINICAL SURGERY AT THE ABERDEEN  
ROYAL INFIRMARY, SURGEON TO THE HOSPITAL  
FOR SICK CHILDREN, ETC.

GENTLEMEN,—The first case I bring under your notice to-day is the man I now show you, who has been under observation for some time in the wards. His history is as follows. He was admitted on October 16th—that is, fully three weeks ago. The account given of him was that when drunk he fell down a stone staircase, lighting on the back of his head with considerable force. He was brought to the hospital, and his condition was found to be this. On the back of the head there was a contused wound of the scalp running crossways and about one and a half to two inches in length. The bleeding was considerable. The wound extended in depth to the bone, the pericranium being laid bare. On examining with the finger there was no slit or depression in the bone. Blood was issuing in moderate quantity from the nose and left ear. Generally, the patient was insensible and lay on his back with the muscles of the extremities relaxed. The face was pale, the skin generally blanched, with the surfaces cold (temperature lowered). The pupils were regular, rather dilated, acting slowly to light. The breathing was shallow and quiet, with occasional sighing. The pulse was 60, small, empty, and uneven. The treatment adopted was simply application of warmth to the surface of the body, and attention to the wound, which was washed with a solution of carbolic acid and dressed with antiseptic dressings.

October 17th: Pallor on left face and skin; patient beginning to be restless; insensibility not so deep; can be more easily roused; is irritable when disturbed, especially if his eyes, which are kept firmly closed, be opened; speaks incoherent when roused. Retention of urine, catheter had to be used. Pulse 100, fuller, quicker, and more even; temperature 101°. Wound doing well.—18th: Patient still restless and irritable; lies on his side with legs and arms flexed; face flushed and head hot. Pulse 102; temperature 102°. Cold applied to head. Wound doing well.—19th: Patient still restless, irritable, confused, and incoherent. Pulse 108; temperature rose in the evening to 103.5°. Patient had an enema of house medicine and soap. Use of catheter no longer necessary. The high temperature continued for several days, and gradually subsided; the patient gradually regained consciousness and became rational. Pain in the head was complained of and deafness. He is now as you see him, almost well. He complains occasionally of pain in the head, and feels dizzy when he stands up. His memory is somewhat defective, and his manner generally is peculiar. Temperature and pulse are normal. On the left ear he is very deaf. On examination with the speculum, there is a raw line extending across the membrana tympani, pointing to a rent having been present.

The second case I shall relate is a most interesting one. About two years ago I was called to see a youth, aged seventeen, who had sustained a severe injury to the head. The history I got was that the lad was standing with his hands in his pockets near some companions who were throwing the hammer. His back happened to be to the thrower. The hammer swerved from a straight course, and made directly for the boy's head. He was called to, ducked his head, but only so far as to bring it exactly athwart the parabolic course of the weapon, which felled him bleeding to the ground. When I saw him he was lying on the floor of a house into which he had been carried. On the upper and back part of the head to the left side there was a wound surrounded by a considerable swelling of a soft, doughy nature with hard edges. Generally, he was insensible, or could be roused slightly when spoken to very loudly; the face was pale, and the surface of the body cold; the

breathing was shallow, quick, and tolerably regular with occasional sighing; the pupils were unaffected, sensitive, though somewhat slowly, to light. On consultation with Dr. Rodger it was resolved to enlarge the existing wound, and evacuate the blood effused into or below the scalp. This was done in order to examine the state of the bone. On doing so, and getting rid of a large quantity of effused blood, there was found a large, deep, circular depression of the skull, with a diameter of at least three inches, and corresponding to the globular hammer which struck it. The outer table of the skull was shattered, several large fragments were removed, and these I now show you. The inner table was depressed but regular—that is to say, there appeared to be no spicula projecting into the brain likely to give rise to irritation. As the symptoms were solely those of concussion, and no signs whatever of compression manifested themselves, the edges of the wound were brought together, except at the centre, where a sufficient opening for the escape of any discharge was left. Cold water dressings were applied. Some time after this the patient vomited. Now, gentlemen, it would but weary you to detail the course of this case. Suffice it to say that it ran uninterruptedly towards recovery. Under the influence of warmth to the surface of the body the symptoms of collapse gradually wore off. The mental symptoms disappeared, and consciousness was slowly recovered. There was no great reaction. The temperature at no time rose much above 100°. From first to last there was no unequivocal sign of compression. The wound healed slowly by granulation. The youth is now in perfect health, bodily and mental—bereft, it is true, of a large piece of the outer table of his skull, and having a permanent depression of great depth and size of the inner table.

The third case is that of a dyer, aged fifty-three, who was admitted into Jacob's Ward on the forenoon of Saturday the 22nd of May last. The account was that when drunk he had, that forenoon about 10 o'clock, fallen down a stone staircase and alighted on the top of his head. At the visit at 12 o'clock his condition was as follows. He was lying on his back, insensible but not profoundly so, for he could be roused when spoken to loudly, but only roused. His face was pale, surface of body cold. The pulse was about 80, small and empty. The breathing, though slow, was shallow. The pupils were slightly contracted but regular. On the top of the head, on the right parietal and frontal bones, there was a slight swelling, but no wound or depression. That was at 12 o'clock. In about an hour and a quarter—that is, about three hours and a quarter after the receipt of the injury, matters had very much changed. The insensibility had increased and developed into profound coma. The pupils were now irregular, the left was much dilated and right still contracted. The breathing was slow, deep, stertorous, with puffing of the cheeks. The pulse was fuller and slower. The left arm and leg were rigid as compared with the right. The urine was retained and contained albumen. The swelling on the top of the head was much more distinct. Rapid intracranial effusion of blood was diagnosed. A consultation was held to consider the propriety of an operation. It was concluded not to operate on the grounds that the patient appeared to be moribund, and it was impossible to say in what part of the brain the bleeding was taking place, whether on the surface or at the base. This decision I afterwards had reason to regret. Meanwhile the symptoms progressed. The rigid muscles of the left side became paralysed. The face became flushed, and perspiration poured from it. The pulse was now full and very slow, but immediately before death small and quick. The temperature rose, and immediately before death was 104°. The patient died thirty-eight hours after the receipt of the injury. At the post-mortem examination there was extravasation of blood in the scalp over the right frontal and parietal bones. There was simple fissure of the skull, at the anterior part being separation of the inter-parietal suture, and, as it extended backwards, diverging into the right parietal bone. There was no depression. The upper surface of the brain was lacerated, and a large quantity of blood effused below the dura mater. The kidneys were granular.

Injuries to the head have always had and always will have a peculiar interest to the surgeon. In the literature of surgery affections of the head and brain occupy a very prominent place. Since the classical writings of Pott and Abernethy much has been written on these, as they have received the most careful attention from all surgeons of

C

note. For this there are many obvious reasons. Extremely liable to injuries of various degrees of severity, from slight cut or bruise of the scalp to severe compound fracture of the skull and laceration of the brain, it falls to the lot of every surgeon, nay, every practitioner, to treat many of these, and on the judicious or other management of even the apparently most trivial cut may depend to the patient consequences of the gravest kind. In these the possible dangers immediate or remote are very many, and in these more than in any other affections that I know of is the unexpected wont to take place. A patient comes to you with a slight cut on the head the result of a fall or blow. You, thinking the matter trivial, assure your patient that the injury is of no moment, and dismiss him after a two minutes' consultation, occupied mainly with general remarks. You hear nothing of him for a day or two, when you are sent for to see him and find him in bed. A rigor and it may be sickness have seized him. The wound looks angry, a suspicious redness surrounds its edges. Great general depression characterises your patient, and despite all your precautions your patient, especially if he be an elderly and debilitated individual, is dead within a week of receiving his injury from erysipelas of the most malignant type. On the other hand, you are called to a case where very severe injury has been received. You find severe contusion to the scalp and soft parts, unmistakable fracture of some part of the skull, and with it very great depression, while the general appearance of the patient is alarming in the extreme. You rapidly form and express a prognosis of the worst kind. Notwithstanding this the patient may take a turn, reaction set in, and complete recovery take place. Now these are no fancy pictures, they occur in practice every day, and the fact that they do teaches these two lessons. In the first place think not too lightly of any injury to the head, however slight it may at first sight appear; warn your patient of the possibility of serious mischief accruing if the wound be neglected, and if serious consequences follow—as they may do in any case—then you are commended for your foresight. On the other hand, however desperate the case may appear, do not too rashly volunteer a bad or fatal prognosis, as you may find yourself very unexpectedly in the wrong. Hippocrates it is, think, who, with his usual sagacity, has a remark to this effect, that no wound of the head is too trivial to be neglected, and no injury too severe to be beyond hope; and Hippocrates undoubtedly is right.

Now, with these general remarks, let us look a little more closely at the cases I have brought under your notice. These are very fair examples of the conditions known as "cerebral irritation," "concussion," or commotion of French writers, and "compression." Now, the first remark I would make is that one of the difficulties we, as clinical teachers, have to contend with is that students straight from systematic lectures, or from reading books, are apt to expect to find cases much more typical, so to speak, than they usually are. For example, take "concussion" and "cerebral irritation," two conditions, each presenting a certain series of symptoms, with which you are familiar in your systematic lectures. Now, you find, and this is only a necessary condition of the systematic exposition of a subject such as the one under consideration, certain symptoms given as characterising the one, and certain symptoms as belonging to the other of these states. From this you would expect to find in actual practice each example of the one condition or of the other sharply defined, so that you would be enabled to say categorically this is "cerebral irritation," or this is "concussion," as the case may be. This is far from what you will really experience. The science of clinical surgery is of the most concrete kind, each case forming a problem to be solved in itself, generalisations being only to a certain extent applicable.

Of the cases I have cited two recovered and one proved fatal. Look particularly at the symptoms of the early stage, and you will be struck with the similarity of these in all three cases. In all there had been a severe blow to the head. In all three there was immediate insensibility; in all three there were paleness of face and pallor of body; in all three there was shallow breathing; in all three there was small, rather slow, empty pulse; in all three the pupils were neither dilated nor contracted, but regular and acting slowly to light. These lasted for a longer or shorter time in all three. Now, what do these symptoms point to? Well, they are just the symptoms of "concussion"—that is to say, they are the symptoms which you find after a severe blow to the head, when either recovery may take place, or death may quickly

follow, and the post-mortem examination may show neither depression of the skull, nor laceration of the brain, nor effusion of blood. In other words, there was in all three, disregarding meanwhile the termination of the cases, a first stage of "concussion." This is what, I believe, happens in the great majority, if not in all, cases of severe injury to the head; indeed it is difficult to conceive of the possibility of force sufficient to cause fracture or laceration of the brain and hæmorrhage being applied to the skull without causing this "concussion," especially when it is remembered that a mere blow from the fist often suffices to cause stunning, which is no other than slight concussion with temporary effects. From this statement it follows that it is, strictly speaking, incorrect to compare or contrast "concussion" with "cerebral irritation" and "compression;" for, as we shall afterwards see, these belong to different stages altogether of the effects of a blow.

Now, what is this "concussion"? What is this obscure, mysterious condition which is accompanied by symptoms so severe, and which may be so transient? Much has been written on this subject, and the older writers were greatly in the dark about it. They were therefore left to assumptions which recent investigations have clearly proved to be untenable. Before referring to the explanations which have been offered, I should like to point out that the one outstanding symptom common to these cases is insensibility of greater or less profundity and of longer or shorter duration. This points to a suspension of the functions of the cerebrum, and the question is, "How does a blow, how can a blow effect this?" The answer to this resolves itself into an account of what pathology and physiology have taught us on the matter. It must be remarked that the pathological changes in the brain are often remarkably slight to appearance and may be overlooked. This it was that misled Pott and writers of his time, and drove them to the first assumption in regard to the condition of the brain—viz., that as a result of the blow vibrations occurred; these reverberated from the side of the skull opposite to that receiving the blow; and thus, by a series of reverberating vibrations, there was caused molecular displacement of the minute elements of the brain. Now, gentlemen, consider for one moment, and do you think it at all probable, having regard to the extremely fine constitution of the brain, that all this shaking can take place without producing laceration and consequent hæmorrhage? But apart from this, is there reason to believe that a blow, however severe, can, in the conditions in which the brain is placed—viz., in a cavity with unyielding walls, and completely filling that cavity—I say is there reason to believe that a blow can produce such a thorough and through shaking and misplacement of molecules as this theory supposes? Experiments of a very interesting kind come to help us here, and, to my mind, settle the question in the negative. Alquié and Gama took a glass vessel, filled it with material of the consistence of brain, suspended in it a number of fine dark threads, and then concussed the vessel. No motion of the threads whatever was observed, showing that, although there may have been motion of the whole mass, the individual particles did not move. Similarly skulls filled with sand, in which an opening covered with a membrane had been made, and into which a long needle with paper on the end had been sunk, gave entirely negative results. There is, in fact, no evidence that such molecular changes as supposed by Pott to take place occur, and his theory consequently falls to the ground.

Another theory is that based on the discovery of Rokitsanski and Nélaton—viz., a number of minute extravasations of blood in the brain. The theory was that the pathology of concussion was just a contusion of the brain with small extravasations. Unfortunately for this theory, it is an undoubted fact that cases occur where these apoplexies are entirely absent; and all, therefore, that can be inferred from their presence is that concussion and contusion occasionally co-exist.

I come now to the third and by far the most feasible theory of concussion—viz., that propounded by Fischer of Breslau.<sup>1</sup> It is shortly stated thus: The blow to the head produces reflex paralysis of the vessels of the brain. Serious interference with the nutrition of the cerebral ganglia is produced, and this it is which gives rise to the symptoms of concussion. In this connexion it is necessary to state that the one constant condition found post-mortem in fatal cases

<sup>1</sup> For a full discussion of this theory see a very interesting clinical lecture, entitled *Ueber die Commotio Cerebri*, by Fischer, forming No. 27 of Volkmann's *Sammlung Klinischer Vorträge*. 1871.

of concussion is an empty state of the arteries and a congested state of the veins. This is the pathology of concussion. Looking at the question from a clinical point of view, and without going minutely into the matter, which would be impossible now, it will suffice to ask, and if possible answer, two questions—viz., 1. Can a blow applied to the head produce this paralysed state of the vessels? 2. Given this condition of the vessels, does it account for the pathological appearances found after death and the symptoms during life? In regard to the first question, there is evidence that a blow can produce such a condition. It is well known that irritation applied to the skin may produce a marked reflex effect on the vessels of the brain and elsewhere. Nothnagel irritated by electricity the skin in the neighbourhood of the crural nerve in rabbits, and thus produced reflex contraction of the vessels of the pia mater. This contraction, however, was always of very short duration, and, as Fischer points out, does not explain the duration of the symptoms of concussion. Other experiments, however, are more to the point. Goltz has shown, in his well-known experiment of giving a blow to the belly of a frog, that paralysis of the heart and vessels can be produced, and that symptoms very similar to those of concussion accompany it, while Koch and Filehne, by concussing the skulls of dogs and rabbits by a series of rapid blows with a hammer, produced the same results. These experiments certainly go very far to answer in the affirmative the first question. In regard to the second question it is sufficient to say that an empty state of the arteries and a congested state of the veins is the only condition which is found constantly to accompany the symptoms which clinical observation discovers to be those of concussion, and that this condition is that which results from paralysis of the vessels and, it may be, a partly paralysed state of the heart. So much for what I have called the first stage of all the three cases, and its explanation. In all three the symptoms were identical; the cases differed only in the duration of this stage.

On following the cases further, they are now found to diverge. What is called reaction sets in. The paralysed condition of the vessels and heart begins to wear off. The tide of stronger circulation sets in. In the first case the symptoms I have described manifested themselves. They were—(1) Patient extremely irritable; (2) patient lying on side, with legs drawn up; (3) eyelids firmly closed; (4) quick pulse and fever, temperature reaching 103°; (5) mental symptoms lasting two or three weeks. Now, what do these symptoms indicate? They are fairly marked symptoms of a condition which has been called "cerebral irritation," and what is that? I believe it to be no other than a variety of the stage of reaction, or more properly perhaps a degree of reaction. It is probably due to a hyperæmic state of the brain, more particularly of the meninges, as evidenced by considerable rise of temperature and febrile symptoms generally. The symptoms of this condition have always appeared to me to be very similar to those found in non-traumatic cases where inflammation of the membranes of the brain is believed to exist. But what of laceration of the surface of the brain? Is that not the pathology of cerebral irritation? There is no positive evidence to show that it is. Experiments on animals prove that the cerebrum can be cut or torn to a considerable extent without giving rise to marked symptoms. Clinical experience points to the same conclusion. In a remarkable case which happened in this hospital, under the charge of the late Dr. Kerr, where a man bending forward in front of a circular saw in motion had his forehead ripped open, and the brain so lacerated or torn that a considerable quantity of brain substance escaped, recovery took place without any marked cerebral symptom whatever. It is extremely doubtful if laceration *per se*, and apart from hæmorrhage and secondary changes, does give rise to any symptoms other than those that would result from destruction of the part of the brain lacerated. It is certainly not rational to ascribe the symptoms of cerebral irritation to superficial laceration. Be the exact pathology of cerebral irritation what it may—and our knowledge of matters cerebral is anything but complete—what I wish to point out is that, looked at clinically, it belongs to the second reactive stage of concussion, and it is therefore unscientific, as inconsistent with observation and fact, to contrast it with this as if it were a distinct condition *ab initio*. One other symptom in this case calls for remark—viz., bleeding from the ear. What did that indicate? In this case probably only rupture of the membrana

tympani. There was no escape of clear fluid, and therefore nothing to point to fracture of the base of the skull.

The second case was a more typical one of concussion, where the symptoms gradually subsided, the general paleness disappeared, the pulse recovered, and consciousness gradually returned. Vomiting took place as reaction began. The reactive febrile symptoms were moderate. Perfect recovery took place. The interest attaching to this case was the depression of the skull. In this case there was about as much depression as well could be, and yet from first to last there was not a single symptom of compression. Now, this raises the important question, Can depression of a fragment of bone, acting as it does on only a comparatively small part of the brain, and apart from any secondary changes which may make place as the result of the blow and depression, give rise to symptoms of compression? If this case teaches anything at all it indicates that it is exceedingly doubtful if it can. Now, gentlemen, I do not wish to speak dogmatically or infer too much from one case, but a case such as this, admitting the possibility of such a thing, forms a very staggering exception, and, I think, has great value attaching to it when weighing facts and evidence *à propos* of this question. When it is remembered that previously symptoms were ascribed to compression which belong to concussion simply because depression was present, and when the fact is taken into account that experiments on animals performed by Pagenstecher and others (which I need not detail) show that distinct symptoms of compression come on only after a large quantity of fluid is forced into the skull and produces great pressure on the brain, then it is extremely difficult to see how a depressed piece of bone, exerting at most a comparatively slight degree of pressure and acting only on a very limited part of the brain, can determine symptoms so marked as those of real compression.

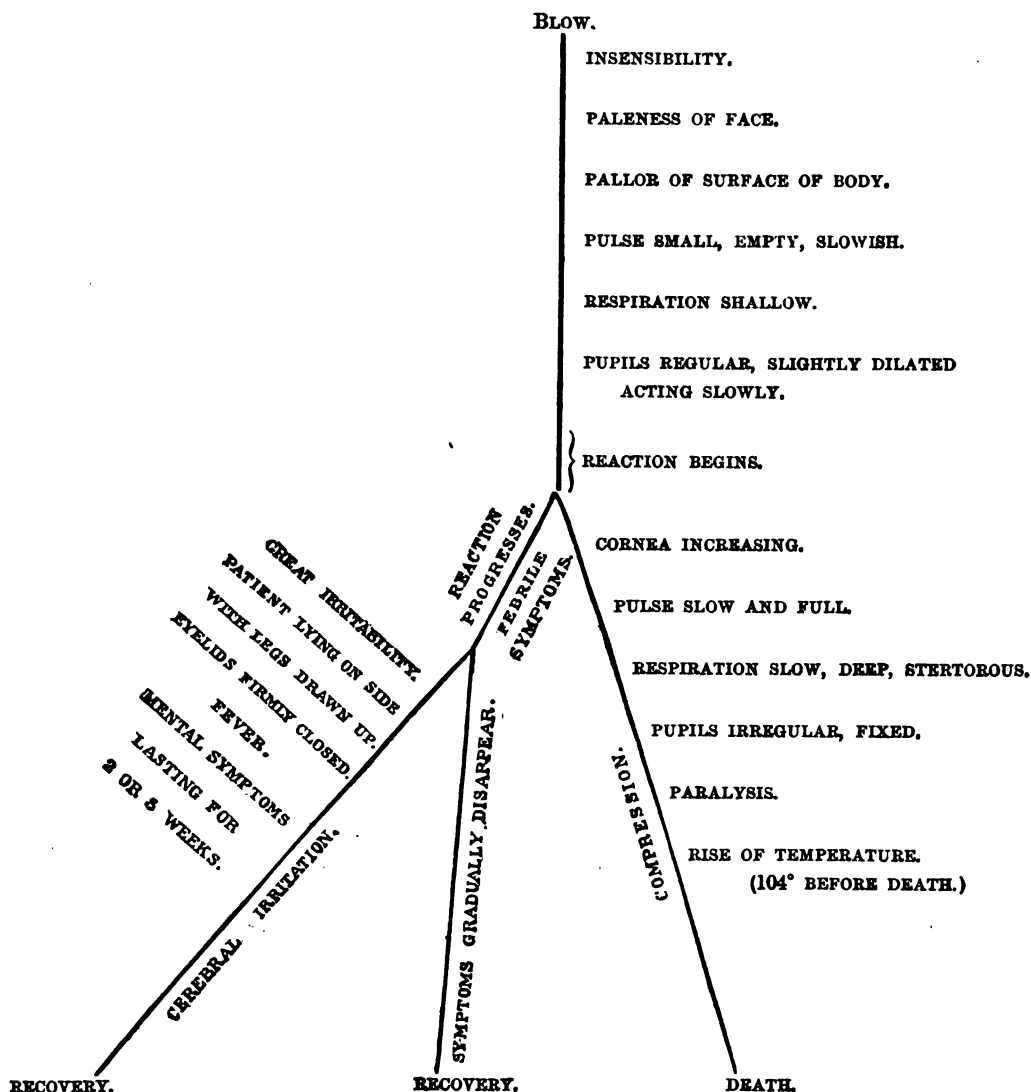
If, then, depression of bone does not produce symptoms of compression, what does? Our third case, I think, goes far to answer this question. Here we had a first stage of concussion, and here, too, reaction set in, but with a very different result. There being considerable laceration of the brain and rupture of vessels, with the recovering circulation hæmorrhage took place. There was found post mortem a very large effusion of blood. Now, apart from an effusion or abscess formation that may occur later in the history of any given case of injury to the brain, it is highly probable that this is the constant cause of real compression occurring early. What, then, are the symptoms of these conditions? Our case gives us them. They are:—(1) Coma increasing in profundity; (2) pulse becoming slow and full; (3) respiration becoming slow and stertorous; (4) pupils uneven; (5) paralysis; (6) temperature rising as symptoms increase. These are unmistakable symptoms, and they come on after symptoms of concussion; and, like cerebral irritation, compression is an outcome of concussion. Instead, then, of putting the symptoms of these conditions, as is usually done, in parallel columns, I have arranged the symptoms in diagrammatic form (see next page), showing at a glance the course any given case of injury to the head may take. Of course this table has not reference to any secondary complication that may arise, such as abscess formation, and it should be remembered that all the stages vary much in duration in any given case. If death take place from concussion *simpliciter*, as it may do, then it is likely to occur very early. So much for the symptoms. As to *diagnosis*, our cases did not present any great difficulty. In the third case, at one stage the question "Drunk or dying?" might have occurred; but the very rapid course of the symptoms very soon made the real state of matters clear.

Now, gentlemen, what do these cases teach us as to the treatment of severe injury to the skull? In other words, suppose you were called to see a case similar to any of these I have described; what would you do? and why? In the first stage the indications would be to restore the enfeebled circulation. This is effected by applying warmth to the surface of the body by means of hot bottles, &c. If the collapse be profound friction to the surface of the body, or the application of an irritant, such as mustard, will do good. It is no use being too officious at this stage, as time must be allowed. During the reactive stage, if there be symptoms such as those we have in the first case—viz., those of so-called cerebral irritation, then cold to the head, shaving the hair, darkening the room to obviate the irritating effects of light, will be beneficial. If there be insomnia bromide of potassium, alone or combined with chloral, will be found useful. In all cases attend to the bladder and bowels,



keeping the latter tolerably freely open. In cases such as the second the indications for treatment are few beyond attention to the bowels. But this case and the third case suggest very interesting questions as to local treatment, and more particularly as to when and what operative procedure should be employed. What are the conditions that render early trephining necessary? This is the great question that has divided surgeons. Pott laid down the law very strongly that this operation should be done in all cases of fracture of the skull with depression, and, after describing the operation and various measures to be employed, he complacently

fracture with depression is not an indication for operating. This is just exactly what would be expected from what I have already said when discussing the symptoms as to depression being a cause *per se* of compression. Depression of a part of the skull, it was argued, cannot give rise to symptoms of compression. Elevation, therefore, is no use. But what of our third case? In this case there were indications for trephining; and I regretted that the operation was not done, although the reasons for not doing it were quite valid. There were distinct indications of compression, although without depression, and it would have been interesting to have



indicates that the surgeon who has adopted these may say to himself, in the words of Pope,—

"Thus far was right; the rest we leave to heaven."

Heaven, however, was not in many cases too propitious. This dictum of Pott's was followed by surgeons at the time blindly. Thus it has been too often in the history of surgery. Many a *hereditas damnosa* has been handed down in this way. Abernethy, however, put a check on it; and from the observation of cases where he found that fracture with depression did not of itself in every case, or in the majority of cases, prove fatal, advised waiting for symptoms. He simply used his own judgment, and he was right. What do our cases teach as to this point? If there be anything that our second case proves at all, it is this, that fracture of the skull with marked depression is not an indication for trephining. But it teaches more: it shows that compound

seen if these would have been relieved by opening the skull. Here, again, we have corroborated what we have previously said as to the cause of symptoms of depression coming on early—viz., that they are probably due in all cases to rapid intra-cranial hæmorrhage. What, then, are the indications for trephining early in severe injury to the skull? They may be, I think, arranged under the two following heads:—

1. When there is reason to believe that there is rapid intra-cranial hæmorrhage going on with or without depression. This fact will generally be indicated by such symptoms as I have described in the third case, but a presumption may be afforded in favour of bleeding from the exact situation of the injury. For instance, if there be a fracture at the anterior inferior angle of the parietal bone, it is quite possible that the middle meningeal artery may be injured. This does occasionally happen, and should be kept in view.

2. When a foreign body has penetrated the skull and is

lodged in the brain, and cannot be removed without enlarging the opening. These are the indications for early trephining. But what, you will say, of stellate fractures, do these not present absolute indications for operating? In answer to this I would say that it is extremely questionable if they do. But granting that they do they come under this second head, for in these the presumption is that the inner table of the skull being shattered the fragments are driven in upon the membranes and are thus for all practical purposes foreign bodies which sooner or later will by their irritation cause inflammation of the membranes of the brain.

Gentlemen, I have touched upon various points of great interest in connexion with injuries to the head. It has not been possible to discuss these fully within the limits of one lecture. I have endeavoured to explain the more salient symptoms of the cases I have described to you and to draw what practical conclusions the facts fully warrant. I trust that what I have said will in some measure stimulate you to the study of these all-important affections.

## ABSTRACTS OF

## Lectures

ON

## DIGESTION.

*Delivered before the Royal Institution of Great Britain,*

By ARTHUR GAMGEE, M.D., F.R.S.,

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### LECTURE IV.

THE acid chyme, when it leaves the stomach, contains a large quantity of undissolved proteids, and of fat totally unacted upon; it also includes the starch that has remained unchanged by the action of the saliva, and undigested cellulose. It becomes mixed with the bile, which is to be regarded as an excretion to a great extent, and as a by-product of important actions going on in the liver. By its alkalinity it helps to neutralise the acid chyme, and thus to establish conditions favourable to pancreatic digestion; it usually contains no unformed ferment.

The principal remaining digestive juice is that afforded by the pancreas, which is one of the compound racemose glands, with a general resemblance to the salivary glands. Its tubular acini contain cells which in the fasting condition have very granular contents, together with an outer clear zone. When the gland has been in action for some time, after food has been taken, the contents of the cells are much less granular, and the clear zone increases in extent. The pancreatic juice is a secretion variable in quantity according as food has been ingested recently or not. It is almost *nil* during fasting, and becomes considerable almost as soon as food has entered the stomach. It attains a maximum about two hours after this time, being secreted in smaller quantities until about the sixteenth hour after food has been taken. It is markedly alkaline, the alkalinity being due to sodic carbonate, which is almost as important an ingredient here as hydrochloric acid in the gastric juice.

Pancreatic juice contains three if not four distinct ferments—pancreatic diastase, trypsin (a proteolytic ferment), a fat-decomposing ferment, often termed “emulsive” ferment, and also a milk-curdling ferment. The action of the diastatic ferment upon starch is exactly the same as that of salivary diastase, the ultimate product being dextrins and sugars (especially maltose.) This power is most important, seeing that in ourselves much starch arrives at the stomach unchanged, and in the herbivora the saliva is not diastatic at all.

Of trypsin, the proteolytic ferment, although it has not yet been prepared in a state of chemical purity, it may be said that it is not so exigent as pepsin in the conditions under which it acts. It will exert its transforming powers in a neutral, a very feebly acid, or in a definitely though not very intensely alkaline liquid. Trypsin seems to cause more profound changes even than pepsin, for after the peptones are formed, some of them appear to split up further into leucine,

$C_6H_{13}NO_2$ , tyrosine,  $C_9H_{11}NO_3$ ; the body indol,  $C_8H_7N$ , possesses a foul smell, which appears in the course of prolonged pancreatic digestion to be connected in its formation with the development of bacteria.

The administration of food which has already been partially digested by pancreatic ferments proves most valuable in certain cases, and relieves much suffering. This is to be noted in favour of pure scientific investigation, for when the experimental researches by which our knowledge of the action of the pancreas has been obtained were commenced, it was not at all obvious that they would lead to the relief of human suffering. The recent wide use of peptonised foods is not a little due to the researches in this direction of Dr. William Roberts, F.R.S., of Manchester.

To Claude Bernard is due the establishment of the fact that pancreatic juice emulsionizes and partially decomposes fats. Both pancreatic juice and minced pancreatic tissue are capable of emulsionising olive oil, which remains in the emulsified condition after standing many hours. The fats, as acted upon by pancreatic juice, are able to enter the lacteals of the small intestine. In an animal killed two or three hours after a mixed meal, the lacteals are found filled with a white liquid consisting very largely of emulsified fat. An argument drawn from comparative anatomy is of interest here. In the rabbit the pancreatic duct is not closely connected with the bile duct, as in many animals, but opens into the small intestine thirteen or fourteen inches below the bile duct; and, in correspondence with the function assigned to the pancreatic secretion, a rabbit killed some hours after a meal has milky chyle only in the lacteals of that part of the intestine below the entrance of the pancreatic duct.

Pancreatic juice further has a saponifying action upon neutral fats, decomposing them into glycerine and a fatty acid. This has been denied by some observers, but the failure to verify this action depends upon the readiness with which the fat-decomposing ferment of the pancreas is itself decomposed by acids. Therefore special precautions are requisite to prevent the destruction of this ferment in making experiments. The addition of a little carbonate of soda, to preserve the alkalinity, is necessary to retain the ferment in activity; otherwise it is killed or prevented from acting by the very acid which it forms. But under conditions which preserve the alkalinity of the digesting mixture, the saponification of fats under the action of pancreatic juice can be most satisfactorily observed.

There is, no doubt, a further ferment in the pancreatic juice, which has, like the gastric juice, the power of curdling milk or precipitating its casein. Thus, if to a neutral or even faintly alkaline emulsion of oil of sweet almonds and gum arabic there be added a sufficient quantity of a blue solution of litmus, and a few drops of a feebly alkaline, freshly prepared glycerine extract of pancreas, and the mixture be rapidly raised to the temperature of the mammalian body, the reaction changes almost instantly from alkaline to acid, as shown by the transformation of the blue colour of the mixture to red. This acidification of neutral fats by the pancreatic juice, which on many grounds is to be connected with an unformed ferment, is doubtless associated with the emulsifying powers of the pancreatic juice, though it is doubtful whether the ferment directly influences the emulsionising process as is implied by the term given to it by Claude Bernard of “ferment emulsif.”

As to the absorption of the products of digestion, that subject does not formally enter into the present course; but it may be said, briefly, that water, soluble salts, peptones, and sugars are absorbed directly into the blood for the most part, while the fats enter almost exclusively into the lymphatics.

The lectures were illustrated not only by diagrams, but also by slides exhibited with the aid of the electric light, and by numerous typical and instructive chemical experiments.

At the second diet of a Sheriff and Jury Court held at Dumfries last week a student of medicine was charged with culpable homicide, in so far as, on April 9th last, having been called to attend the wife of a hostler who was suffering from cramp in the stomach, he administered to her, by hypodermic injection, from twelve to fifteen minims of solution of morphia, whereby death resulted in about fourteen hours afterwards. A plea of guilty was tendered, but it was pleaded that the fatal consequences resulted from an unfortunate mistake. A fine of £20 was imposed, the alternative being a month's imprisonment.

## ON DOCHMIUS DUODENALIS (SCLEROSTOMA VEL ANCHYLOSTOMA DUODENALE) AS A HUMAN PARASITE IN INDIA.

By J. F. P. McCONNELL, M.B.,

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IN Professor Cobbold's recently published treatise on the "Entozoa of Man and Animals," pp. 212-16, a very interesting account is given of the observations made by Griesinger and Wücherer with respect to the geographical distribution and pathological importance of this small nematoid worm. It has been found "by Bilharz and Griesinger in Egypt; by Wücherer, Dr. Moura, Dr. Tourinho, and other physicians in Brazil; by Monestier and Grenet in the Comoros; and by Rion Kérangel in Cayenne." In commenting on "the wide separation of these several localities," Wücherer ventures to predict that "anchylostomes, if duly sought for, will be found in many other countries." This has already been verified in some parts of Europe, as, for example, the numerous instances reported of the infection by anchylostomes

of workmen engaged in the St. Gothard tunnel; and as regards India, the present paper will prove that these parasites are far from being uncommon amongst natives—at least, amongst the natives of Lower Bengal. The description of the anatomical structure of the dochmius given by Cobbold<sup>1</sup> renders its identification easy:—"The males measure  $\frac{3}{8}$ ", or rather more, whilst the females extend to very nearly  $\frac{1}{2}$ " (12 mm.). The head is pointed and tapering, and bent forward, having the mouth directed towards the ventral aspect. The oral opening is armed with four asymmetrically disposed, unequal-sized, horny, conical, converging teeth. The neck is continuous with the cylindrical body, which is  $\frac{1}{8}$ " in thickness. The body terminates in a straight cone-shaped, or rather sharply pointed, tail in the female, the caudal extremity of the male ending in a partially inflexed blunt point. In the male there is a cup-shaped, bilobed bursa, the membranes of which are supported by eleven chitinous rays, ten being simple, whilst the median, or odd one, is bifurcated at the summit. The mode of reproduction is viviparous. Adult males and females occur in the proportion of one of the former to three of the latter."

This description may be supplemented by certain particulars, the results of careful examination of numerous specimens in my possession, from which, also, the drawings in the accompanying woodcut have been made.

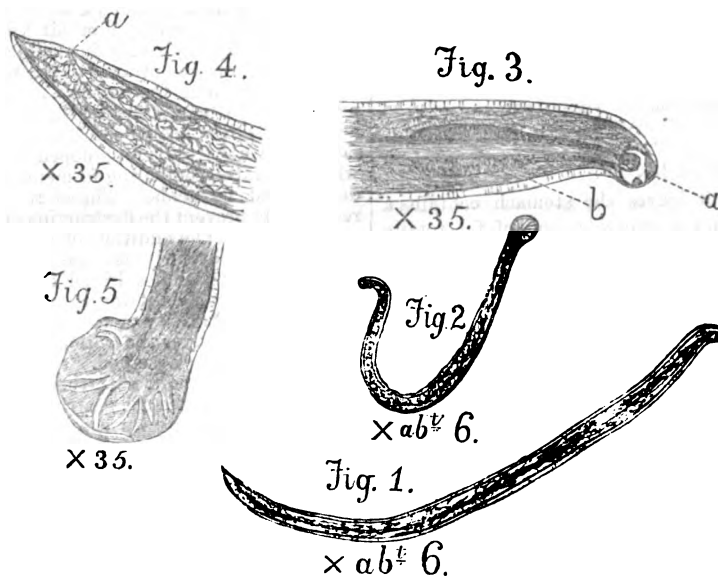


Fig. 1.—Female dochmius,  $\times$  abt. 6. Fig. 2.—Male dochmius,  $\times$  abt. 6. Fig. 3.—Anterior portion of female worm,  $\times$  35; showing the mouth (a) and the oesophagus (b). Fig. 4.—Posterior portion, or tail, of female,  $\times$  35, with termination of intestinal canal at a. Fig. 5.—Caudal bursa of male,  $\times$  35, with pronged chitinous rays, &c.

The average length of the female sclerostomata in my possession is  $\frac{1}{2}$ " (14 mm.), and of the males  $\frac{3}{8}$ " (11 mm.). The breadth of the former, at the thickest part (about the middle of the body) is about  $\frac{1}{8}$ "; of the latter, about  $\frac{1}{16}$ ". The head is not strictly "pointed and tapering," but rounded or somewhat square-shaped, and abruptly truncated. The mouth (Fig. 3, a) is provided with three or four irregular, hard, horny teeth; it measures in the female  $\frac{3}{8}$ ", in the male  $\frac{1}{4}$ ". The oral orifice leads into a pharynx and bulbous oesophagus (Fig. 3, b), very distinct in both males and females, and measuring in the latter  $\frac{1}{8}$ " in length by  $\frac{1}{16}$ " in greatest width. The muscular structure of this portion of the alimentary canal is particularly well marked, and probably forms a powerful suction-apparatus. To the oesophagus succeeds a simple intestine, which terminates in an anal aperture a short distance ( $\frac{1}{16}$ " from the tail in the female (Fig. 4, a), and on the under surface of the caudal bursal expansion in the male. The rest of the body of the worm is occupied by the reproductive tubules and glands, the former of which, especially in the female, have a highly convoluted outline, and very dark granular contents. The caudal bursa in the male dochmius measures about  $\frac{1}{8}$ " (Fig. 5). The chitinous rays which it supports vary in number from ten to twelve; the majority are double, like the prongs of a fork; one or two may be simple or solitary. This evidently constitutes a prehensile organ, and is the chief distinguish-

ing peculiarity (apart from the difference in size) between the male and female sclerostome. Lastly, the body of the worm has a distinct double contour—a transparent interval of from  $\frac{1}{16}$ " to  $\frac{1}{8}$ " existing between the peripheral outline and the dark central structure of the parasite. This transparent portion is composed of muscular fibres arranged in very distinct transverse bundles.

The first specimens of this nematoid observed by me in this country were found on January 6th, 1879, adhering to the mucous membrane of the jejunum of a native (Hindu) male, aged twenty-five, who had died in the Medical College Hospital from chronic dysentery. I mistook them for thread worms, though puzzled to account for their presence so high up in the intestine. On placing some of them, however, under the microscope, the distinctive peculiarities which separate them from the oxyuris vermicularis were readily recognised. Since this period I have met with sclerostomata in nineteen other bodies examined in the dead-house. In some only four or five worms, in others more than fifty were found in the bowel or its contents.

With respect to the pathological significance of this entozoon, Griesinger has described a form of "anæmic chlorosis" in Egyptians, and Wücherer a similar condition (under the designation of "hypœmia") in Brazilian sub-

<sup>1</sup> Loc cit., p. 211.

jects, which both these observers attribute directly to the presence of these worms, and their action as "veritable blood suckers." More recently a similar rôle has been assigned to these parasites in connexion with the epidemic disease which proved so fatal to some of the workmen employed in the construction of the St. Gothard tunnel, and was referred to in an annotation in THE LANCET on April

3rd, 1880, p. 535, headed "Anchylostomosis." There is still, however, some difference of opinion with respect to this interesting question, and, for this reason, I have taken great care to record carefully the causes of death, and the presence or absence of anæmia in all the cases that have come under my own observation. These details, with others, are exhibited in the accompanying table.

TABLE OF CASES OF DOCHMIUS DUODENALIS IN THE HUMAN BODY, WITH NATURE OF DISEASE, PRESENCE OR ABSENCE OF ANÆMIA, ETC.

No.	Race &c.	Sex.	Age.	Disease.	Where found.	Anæmia present.	Remarks.
1	Native (Hindu)	Male	25	Chronic dysentery	Jejunum	Yes	Worms found adherent.
2	Native (Mahomedan)	"	18	Acute dysentery	"	No	Distoma conjunctum in bile-ducts of liver.
3	Native (Hindu)	"	—	Erysipelas	Duodenum and upper part of jejunum	No	One whipworm (trichocephalus) and one threadworm (oxy. vermicularis) found in large intestine. No bowel lesion.
4	"	"	12	Malarial anæmia and exhaustion	"	Yes	"
5	"	"	40	Chronic bronchitis	"	No	"
6	"	"	30	Remittent fever	"	No	"
7	"	"	32	Malarial anæmia and dysentery	Free in contents of small intestine	Yes	"
8	"	"	28	Acute cerebro-spinal meningitis	Jejunum	No	No bowel lesion.
9	"	"	40	Dysentery	Jejunum and upper part of ileum	Yes	—
10	"	"	25	Pneumonia	"	No	No bowel lesion.
11	"	"	26	Traumatic tetanus	"	No	"
12	"	"	26	Cirrhosis of liver &c.	"	Yes	Small puncta where worms adhered.
13	"	"	26	Morbus cordis	Duodenum and upper part of jejunum	No	Worms found adherent.
14	"	"	35	Acute dysentery	Free in contents of small intestine	No	—
15	"	"	30	Pyæmia after compound fracture of the foot	"	No	No bowel lesion.
16	"	"	30	Cirrhosis of liver	Duodenum	No	"
17	"	"	18	Dysentery and cirrhosis of liver	Jejunum	Yes	"
18	"	"	30	Acute dysentery	Duodenum and upper part of jejunum	No	Worms found adherent.
19	"	"	20	Chronic dysentery	Jejunum and upper part of ileum	Yes	Worms found adherent, and when detached and placed in water, exhibited lively movements.
20	"	Fem.	25	Chronic dysentery and splenic anæmia	Jejunum	Yes	Worms found adherent.

While anæmia was a prevailing element in nearly half (8 out of 20) of the cases in which sclerostomata were found, yet it seemed to me that this condition was, in these cases, more directly attributable to dysentery and malarial complications than to the presence of a varying number of these parasites; and, on the other hand, in more than half the number (12 out of 20) not only was there no anæmia, but a positive hyperæmic condition of almost all parts and tissues of the body, as is the rule in acute or sthenic diseases, such as pneumonia, erysipelas, cerebro-spinal meningitis, remittent fever, &c. Not only, therefore, was there no anæmic condition of parts discovered after death in the majority of these cases, but the very nature of the fatal diseases precluded the existence of this condition during life. Hence, while it may readily be conceded that in a certain proportion of the cases now reported the anæmia might partially be attributable to the depletion resulting from the presence of sclerostomata, in the majority their existence was not associated with this state; and, certainly, no facts in this connexion have hitherto tended to show that anything like a specific hypoxæmia or chlorosis occurs in the natives of this country, which can be traced even indirectly to this cause.

In no instance has blood in any quantity been found in the small intestine, and, except in dysenteric cases (and then usually with mucus and other inflammatory products), the same may be said with regard to the colon. A point or minute puncture is observed when an adhering dochmius is detached from the mucous surface of the bowel, and occasionally small red puncta in the duodenum or jejunum have indicated the site of attachment of these parasites, but more frequently the lining membrane of the intestine has been found quite healthy and free from all pathological changes. I have, hitherto, failed to find these worms in the evacuations during life, nor do I know of any specific symptoms by which their existence is to be diagnosed. My opinion is that their presence is to be regarded

in the majority of cases as purely accidental, and their relation to any special disease a coincidence. The lower classes of natives in this country are by no means clean feeders or careful as to the quality of the water they drink, and hence are very frequently infected with intestinal worms, particularly the round worm. The presence of sclerostomata may be attributed to the same causes, and I am inclined to believe that the prevalence of these worms is not very much less common than that of the lumbricus in this class of individuals. It may here be mentioned that up to the present time all the cases in which I found these parasites have been natives, and, with one exception, males. This circumstance may perhaps be due to the fact that comparatively few bodies of native females are brought to the post-mortem room at the Medical College Hospital. In not a single instance has the worm been discovered in a European, Eurasian, &c. The first two of my cases (see table) show that the occurrence of sclerostomata is not incompatible with the existence of other entozoa in the same "host."

In conclusion, I would direct attention to the fact that in the majority of the cases these worms were met with in the jejunum, or even lower down the intestinal canal. In some instances this might have been due to the contents of the bowel being squeezed downwards before the latter was laid open; but in the majority this was not the case, the parasites being found adherent. This circumstance seems of some importance, since one of the specific names of the dochmius, or sclerostoma, is derived from a particular portion of the intestinal canal supposed to be its usual habitat.

THE Royal Commission on Metropolitan Sewage Discharge met on Tuesday at 20, Great George-street. There were present—Lord Bramwell, F.R.S. (in the chair), Sir John Coode, Professor A. W. Williamson, F.R.S., Dr. De Chaumont, F.R.S., Dr. Stevenson, Mr. James Abernethy, F.R.S.E., and Dr. W. Pole, F.R.S. (secretary).

## THE QUESTION AS TO THE IMPORTANCE OF UTERINE DISPLACEMENTS.

By GRAILY HEWITT, M.D., F.R.C.P.

THIS is a question which is not by any means settled or decided by the various statistical data which have been of late adduced on the subject, the latest of all being the statistics recently published in the *Archiv f. Gynæk.* (vol. xix., 1882) by Dr. Vedeler, and commented on in THE LANCET of June 24th. There are two methods of procedure in order to obtain conclusions as to the value or importance of uterine distortions and associated displacements.

A. One is to examine healthy subjects and ascertain the position and shape of the uterus. But it must be certain that these subjects are healthy and do not present symptoms which can be traced to the uterus. This implies an accurate and full knowledge of what the symptoms are which are traceable to disturbed or disordered conditions of this organ.

B. Another is to observe carefully the history, course, symptoms, and effects of particular changes in the uterus, and to procure numerical evidence as to the frequency of conjunction between the particular pathological change and the symptom and effect resulting therefrom. Further to test the effect of treatment capable of removing the pathological condition in also putting an end to the symptom or effect supposed to be due to it. This implies a long course of experimental observation of cases.

Dr. Vedeler's statistics—an attempt to solve the question by the A plan of investigation—by no means comply with the necessary scientific conditions. In the first place Dr. Vedeler starts with the statement that most gynaecologists over-estimate the importance of uterine displacements (implying a bias of judgment on his part to begin with). By a diseased condition, Dr. Vedeler understands that symptoms are complained of which can be traced back to the pelvic organs, or which point to organic changes. He, however, expressly states (though this was not mentioned in THE LANCET commentary on June 24th) that dysmenorrhœa is not included in these symptoms.

But it would appear that Dr. Vedeler must have excluded many other symptoms as well as dysmenorrhœa. It is to be presumed that the patients examined were really patients, and that they made some complaint sufficient to justify the making of the examination. Thus it is stated that 466 virgins were examined, and that of these 332 were found to have ante- or retroflexion of the uterus; of these 332 ante- or retroflexion (virgin) cases the uterus was found to be "sound" in 296 cases, and "diseased" in 36 cases. Now, it may be properly inquired how it happened that the 296 sound cases came to be examined. Dr. Vedeler appears to have found no inflammatory lesions in these cases; he only found the ante- or retroflexion. But he proceeds to draw the very remarkable inference that these 296 patients were "sound"; and his whole conclusions on other displacements, as well as ante- or retroflexions, are based on a similar foundation. Dr. Vedeler argues as if the 296 cases examined were "sound." The inference is that they were not so, or they would not have presented themselves for examination.

I have alluded to "dysmenorrhœa," which Dr. Vedeler (most erroneously, as I consider) excludes as a symptom of uterine disease. There is another class of symptoms of which he makes no mention, but from what I know of the subject I feel certain that very many of the 296 supposed sound cases presented the symptoms in question.

Having been at some pains to arrive at a knowledge of patients' views on the subject of "suffering" in cases of uterine disease, I have come to the conclusion that much misapprehension prevails in reference thereto. The fact is that patients complain in the large majority of cases of "sufferings" which are very often entirely passed over or considered trifling by those who investigate their condition. Leucorrhœa, dysmenorrhœa, menorrhagia, &c., these symptoms are generally noted, and very properly so, but the inconvenience, discomfort, or pain attendant on locomotion, which I have described as uterine "dyskinesia," is a symptom so generally to be noted in some form, and it assumes an importance so great in the estimation of the patient in very many instances, that it stands at the head of the list of symptoms due to uterine disorder in regard to its

frequency and clinical importance. The connexion between this symptom and the various forms and degrees of uterine flexion and displacement is easily capable of substantiation by clinical data, and about the truth of this there can be no manner of doubt.

Nausea or vomiting is also a symptom very frequently constituting one of the "sufferings" of patients affected with uterine distortion. This symptom has much attracted my attention and investigation. Engelmann of St. Louis has expressed views on this subject identical with my own.

Taking these two symptoms, uterine dyskinesia and nausea or vomiting alone, and testing their connexion with flexion of the uterus, observing the marked effect produced by treating the flexion in removing the "sufferings" in question, a mass of evidence is adduced showing the great "importance" of the flexion in such cases. But it does not follow, nor logically would it be expected to follow, that all cases of flexion shall be attended with these symptoms. My contention is that these particular symptoms frequently exist and are overlooked, and before we can consider any individual with a flexed uterus as "sound," there must be clear evidence of absence of such symptoms. It by no means results, even then, that we shall be in a position to admit the "soundness," for further investigation may entirely disprove it.

In reference, therefore, to a vast number of cases considered by Dr. Vedeler to be "sound," so far as the uterus is concerned, it is necessary to inquire whether these supposed sound individuals complained of discomforts attending locomotion or of sickness. In all probability many of them did so complain, or would have done so had they been interrogated. Dr. Vedeler has himself excluded one set of symptoms, dysmenorrhœa, as he apparently does not consider this a symptom of uterine disease at all; and we are at present left to the conclusion that this symptom was present in some, at all events, of the cases which he classes as free from uterine disease. Until dysmenorrhœa is dissociated with uterine flexions—a dissociation which has not yet been effected, though efforts have been made in this direction—this mode of dealing with the symptoms in question renders Dr. Vedeler's statistics of little value as proving the conclusions he proceeds to draw from them.

I have in the foregoing remarks simply pointed out reasons for distrusting the scientific value of Dr. Vedeler's data. No doubt these data have a certain value, and truth will be advanced by a thorough sifting of the question. It will not, however, be found so easy as it has been supposed to be to account for clinical facts by ignoring the influence and importance of uterine distortions and displacements. Sterility, tendency to abortion, various serious reflex nervous disturbances—these and other clinical phenomena have also to be dealt with and satisfactorily explained.

Berkeley-square, W.

### REPORT OF

## ONE THOUSAND CASES OF SMALL-POX IN WEST HAM UNION HOSPITAL.

By J. MOIR, L.R.C.P. EDIN.,  
MEDICAL OFFICER.

THE Small-pox Hospital of the West Ham Union was opened for patients in February, 1877, and consequently has been now five years in operation. At first the accommodation was very limited, being only suited for 20 patients, in two small wards under one roof. This continued for two years, and during that time 493 patients were treated, and considering the limited space and conveniences very good work was done there. At the end of that time, by the death of the former medical officer, I succeeded to the appointment. The two old wards were immensely improved in every respect at considerable expense, and a year afterwards two new wards were built in separate blocks at right angles to the old wards, capable of receiving 30 more patients, 18 males and 12 females, experience teaching that the number of the former was greatly in excess.

I mention this chiefly to show that I do not myself claim credit for the very considerable reduction of the mortality in the second 500 cases as compared with the first, as the great



improvement in the hospital itself sufficiently accounts for that; and considering that of the 1000 cases rather more than 400 have been crowded into the last year, and rather less than 600 in the four previous years, with a remarkable reduction in the rate of mortality, it speaks well for the new buildings, and consequently increased staff, that they have done their work so well.

The following table shows the different districts of the West Ham Union from which the cases have been received, with the total number from each district, and includes 11 from another union, St. George-in-the-East, received last spring, but soon discontinued for want of room for our own cases.

TABLE I.

District.	No. of cases.
1. Canning Town ... ..	337
2. Stratford ... ..	222
3. Plaistow ... ..	199
4. Leytonstone ... ..	80
5. Walthamstow ... ..	44
6. East Ham ... ..	33
7. West Ham ... ..	31
8. Silvertown ... ..	16
9. St. George-in-the-East ... ..	11
10. Woodford ... ..	11
11. Wanstead ... ..	9
12. North Woolwich ... ..	5
13. Little Ilford ... ..	2
	1000

From this it will be seen that the parish of West Ham alone (which includes Canning Town, Stratford, Plaistow, West Ham, and Silvertown) has contributed 805 of these cases, all the other parishes in the union together only 184, and St. George-in-the-East 11. This is of course accounted for by its proximity to London and its completely urban character, the other parishes being chiefly, if not altogether, rural, and with a less population all put together than that of West Ham alone, which is now close on 130,000.

The mortality of the cases is shown as under:—

TABLE II.

First 100 cases ... ..	23 deaths
Second " ... ..	21 "
Third " ... ..	16 "
Fourth " ... ..	18 "
Fifth " ... ..	17 "
Sixth " ... ..	8 "
Seventh " ... ..	23 "
Eighth " ... ..	13 "
Ninth " ... ..	11 "
Tenth " ... ..	13 "
	163 "

From this table we see that the total number of deaths was equal to 16.3 per cent., and dividing them into two groups of 500 each for the reasons I have already stated, it will be seen that in the first 500 cases 95 died or 19 per cent., whilst in the second 500 cases 68 died, 27 less than in the first group, or 13.6 per cent.; this result, as will be seen from the table, is owing to the great mortality in the seventh hundred, chiefly, I believe, from unavoidable overcrowding, as many as fourteen admissions a week occurring, and the numbers in the hospital being for a considerable time over the accommodation, for two or three months in the early part of the year being as many as from 55 to 60, and on one occasion by making up a bed in my consulting room 61. Notwithstanding, the improvement is equal to 5.4 per cent., which is very gratifying. It will be also noticed that the number of deaths in the first hundred cases is the same as that of the seventh, 23, the one occurring in 1877, the other in 1881; that is to say, in each case at the beginning of an epidemic, when the cases are always worst. In the latter case I may say that four were brought in dying, and lived less than twelve hours after admission, eight were hæmorrhagic cases and all died, one was a case of primiparous tedious labour, and died from exhaustion forty-eight hours after delivery. I have little doubt the history of the first 100 cases is somewhat similar. In one case of labour which happened in the hospital the child was born alive and sent home, the mother recovered and left the hospital a month after, and is

still in good health; the infant took small-pox twelve days after birth and died in three days.

The mortality is very greatly increased by the unfortunate and lamentable ignorance and prejudice respecting vaccination. I cannot help thinking that West Ham is exceptionally unfortunate in this respect, as will be seen from the following table showing the number of vaccinated, unvaccinated, badly vaccinated, and revaccinated (badly vaccinated being almost equivalent to unvaccinated).

TABLE III.

	Vac- cinated.	Unvac- cinated.	Badly vac- cinated.	Revac- cinated.
First 100 ... ..	70	13	15	2
Second " ... ..	84	12	4	0
Third " ... ..	78	13	6	3
Fourth " ... ..	81	9	8	2
Fifth " ... ..	81	9	7	3
Sixth " ... ..	80	9	7	4
Seventh " ... ..	73	18	7	2
Eighth " ... ..	84	11	3	2
Ninth " ... ..	82	13	3	2
Tenth " ... ..	79	10	10	1
	792	117	70	21
	1000			

Here we find that out of 1000 admissions, 117 were unvaccinated and 70 badly vaccinated, practically 187 were unprotected, which is a most alarming, and, as we shall see from the following table of mortality under each heading, a frightfully fatal state of matters as regards these unprotected cases.

TABLE IV.

Died in	Vac- cinated.	Unvac- cinated.	Badly vac- cinated.	Revac- cinated.	Total deaths.
First 100 ... ..	9	8	6	0	23
Second " ... ..	15	5	1	0	21
Third " ... ..	6	9	1	0	16
Fourth " ... ..	13	5	0	0	18
Fifth " ... ..	14	4	0	0	18
Sixth " ... ..	3	3	1	0	7
Seventh " ... ..	8	10	5	0	23
Eighth " ... ..	5	6	2	0	13
Ninth " ... ..	6	5	0	0	11
Tenth " ... ..	5*	4	3	0	13
	85	59	19	0	163

\* And 1 small-pox and vaccination concurrently.

From this table, then, we find that from amongst 792 vaccinated 85 died, or a mortality of 10.7; of the 21 revaccinated none died, in striking contrast with the 59 deaths in the 117 unvaccinated cases, a percentage of 50.4, and of the 19 deaths in the 70 cases of badly vaccinated, a percentage of 27.1. Or if we take the 792 vaccinated cases and the 21 revaccinated, 813 cases with their 89 deaths, and compare them with the 117 unvaccinated and 70 badly vaccinated, 187 cases with their 78 deaths, we find a still stronger plea in favour of vaccination than any sentimentalism, prejudice, or ignorance can bring on the other side. In the case of the vaccinated, we find that the mortality is 10.4 per cent., in that of the unvaccinated 41.7 at best. This means a saving of 31 lives in every 100 in favour of the vaccinated. Nothing more requires to be said on this point, but I believe that efficient revaccination affords total immunity from death from small-pox, as the annals of the London and other small-pox hospitals conclusively prove. Some cause must have arisen to create such a lessened mortality from this disease as we find depicted in the Report for 1880 of Dr. Tripe of Hackney to the Local Sanitary Authority, and I agree with him that that cause can only be vaccination; revaccination would prove still more efficient. Dr. Tripe gives the following statement of the annual number of deaths from small-pox in London per 100,000 inhabitants:—

Before vaccination.	After vaccination.
7 years 1829-35 ... ..	189
20 " 1860-79 ... ..	417
30 " 1728-57 ... ..	426
10 " 1771-80 ... ..	502
	10 years, 1871-80 ... .. 48;
	or 8 years, 1873-80 ... .. 17;
	—i.e., after the Compulsory Vac- cination Act came into force.

Or take thirty-three years of vaccination, 1839-1872, 40. Of course anti-vaccinationists may have some sort of answer to

these figures from the Hackney Report, but I fail to see what it can be.

That there should have been 21 cases of small-pox admitted into the West Ham Union Small-pox Hospital after revaccination may seem somewhat at variance with the above remarks; from Table III. it will be seen that 10 of these were in the first 500 cases, and 11 amongst my own cases. Of the first I cannot speak positively, but they were probably like my own; in only one case did I find eight good marks, in none of the others more than four marks, and in some only three. There is reason, then, to think that if the revaccination were genuine, which is highly probable, the primary vaccination must have been very bad, or not have taken at all, but I have no doubt that in all but one case the original vaccination was, to say the least of it, inefficient. Two cases were reported, one in each group of 500, to have had small-pox twice. This is doubtful, but I had a case of small-pox last summer in a child where the mother wished to be revaccinated along with the rest of the household; she is rather markedly pitted with small-pox, and said she had had it twice, twelve and eight years ago, and the pitting was caused by the first attack. I vaccinated her in three places, and they all took well. This is a remarkable instance of idiosyncrasy, which is occurring every now and again, and is difficult to explain, except by the great natural predisposition of certain people to certain diseases, and will account for some cases of small-pox, even after good revaccination; however, only one of my eleven cases was of that character, and in any case the whole twenty-one cases reported as revaccinated recovered.

In the following table is an abstract of the number of admissions and deaths of males and females under and over sixteen years of age; to those acquainted with union work this division will require no explanation.

TABLE V.

	MALES.				FEMALES.			
	Under 16 yrs.	Died.	Over 16 yrs.	Died.	Under 16 yrs.	Died.	Over 16 yrs.	Died.
First 100	14	2	48	15	15	3	23	3
Second ditto	11	2	51	16	17	1	21	2
Third "	26	5	39	7	19	2	16	2
Fourth "	11	5	45	7	21	3	23	3
Fifth "	15	2	50	12	12	0	23	3
Sixth "	26	1	37	3	19	0	18	4
Seventh "	18	4	39	9	20	4	23	6
Eighth "	19	1	40	9	25	0	18	3
Ninth "	25	2	38	5	22	3	17	1
Tenth "	35	3	32	4	15	1	18	5
Totals ..	200	27	417	87	185	17	198	32

Total—1000 cases; 163 deaths.

The total number of the unvaccinated cases under sixteen years of age was 48, and over sixteen 69—total 117, of whom we have seen that 59 died. The admissions under five years of age were 45, ranging from two weeks old, not counting the infant born in the hospital where the mother had been admitted the week before with confluent small-pox. There were 5 cases over sixty, and 1 over seventy years of age. From this table it will appear that there were 200 cases of males under sixteen years of age with 27 deaths, being a percentage of 13.5. Over sixteen years of age 417 male cases and 87 deaths, being equal to 20.8 per cent. Amongst females under sixteen years there were 185 cases and 17 deaths, nearly 9.2 per cent., and of females over sixteen 198 cases and 32 deaths, being just about 16 per cent. Altogether there were in the 1000 cases 617 males and 383 females. Those under sixteen show a less mortality than those above sixteen years of age, and females considerably less than males in both classes, the ratio being 114 deaths amongst 617, a mortality of 18.4 per cent., whilst there were only 49 deaths amongst the 383 females, or 12.7 per cent.; or 3 male deaths to each 2 female deaths. The average mortality of the 114 male to the total of 163 deaths is 70 per cent., and the female 30. During the whole time the hospital has been opened and in the whole 1000 cases this proportion has remained pretty constant, and it would appear from the experience of this Union that females are less susceptible to small-pox and to death from small-pox than males are.

I have stated that the hospital was opened in February,

1877, and in the following table is shown the number of deaths in the 1000 cases for each month.

TABLE VI.

Monthly Mortality from March, 1877, to December, 1881.

	1877.	1878.	1879.	1880.	1881.	Total.
Jan.	No patients	9	No patients	No patients	5	14
Feb.	"	7	"	"	6	18
March	12	5	0	"	5	22
April	6	4	2	"	12	24
May	9	10	0	0	8	27
June	3	2	1	0	5	11
July	8	3	0	0	10	21
August	3	0	0	No patients	6	9
Sept.	4	0	0	"	1	5
Oct.	5	No patients	No patients	"	2	7
Nov.	3	"	0	0	2	5
Dec.	2	"	No patients	1	2	5
Totals	55	40	3	1	64	163

It will be seen from the above table that 1877-78 was an epidemic time for small-pox in West Ham, as there were 493 cases in hospital and 95 deaths. In the two years 1879-80, when I first took charge of the hospital, there were only 48 cases and 4 deaths; but in 1881 alone there have been 459 admissions and 64 deaths, the mortality being 13.9 per cent. for the year. From present appearances I am of opinion that the epidemic of small-pox, at least in West Ham, will run through another year, 1882, and I would strongly recommend as the only means of checking the disease the most efficient vaccination and revaccination; I should then have no fear of a successful result, and should feel certain of as great or greater immunity for West Ham Union than even in 1879-80.

## ECTROPION OF BOTH EYELIDS OPERATED ON BY WOLFE'S METHOD.

By G. H. HUME, M.D.,

SURGEON TO THE NEWCASTLE-ON-TYNE INFIRMARY.

In the following case the plastic operation by transportation of skin from the cornea was tested under very unfavourable circumstances. In the upper eyelid the operation gave entirely satisfactory results. In the lower lid, though the operation was thrice repeated, the result in the end was only partially successful. The case therefore yielded opportunity for observing, on the one hand, the conditions which favour the success of the method, and on the other, those which are apt to cause failure.

J. M.—, a young woman aged twenty-four, was admitted into the Newcastle-on-Tyne Infirmary in March, 1881. Nine months previously the right side of her head and face had been severely burned. At the time of admission her condition was a very distressing one. The forehead had become covered by a thin cicatrix adherent to the bone. The skin of the temporal region had been destroyed and the raw surface was not yet quite healed. Across the infra-orbital region to the side of the nose and down to the upper lip the skin had in great part been replaced by cicatrix. The upper eyelid had been almost completely destroyed, so that the conjunctiva was everted and bound down to the supra-orbital ridge. The lower eyelid was also everted and attached to the bone. As a consequence of exposure of the eye destructive inflammation with ulceration of the cornea had set in, and appeared to be advancing rapidly. The ectropion of the upper lid was first operated on. In performing the operation the details given by Dr. Wolfe were scrupulously followed. The remains of the lid were freed from the bone, and the conjunctiva turned down so that the edge lay in contact with the everted edge of the lower lid. The margins of both lids were pared and stitched together with strong silk sutures. A pattern of the gap which had been made by freeing and turning down the conjunctiva was next taken with a piece of lint, and a piece of skin cut to the shape of this pattern, but somewhat larger, was raised from the forearm. This piece of skin was next prepared by carefully removing from it the subcutaneous tissue till the white surface of the corium was reached. It was then laid in posi-

tion and its margin stitched to the edge of the gap with fine silk suture. After being treated for a few seconds by the application of lint soaked in hot water, a dressing of several folds of warm water lint was applied, and both eyes were bandaged. The dressings were removed on the third day, the transplanted skin was then found to have changed its ashy-white dead appearance for a bluish-red hue. It had become adherent with the exception of a very small portion of its upper and outer edge. As the result of this operation a well-shaped eyelid was formed with complete correction of the conjunctival eversion. Under shelter of the new lid the condition of the eye rapidly improved. The inflammation subsided without treatment, and the corneal ulceration healed.

The patient was readmitted on June 29th to have the lower lid operated on. The proceeding was the same as in the upper lid, but it entirely failed. In October the operation was repeated, with the result that a portion of the flap adhered, producing a partial though decided improvement.

A third trial was made in December. On this occasion the lids were not stitched together; and in order to restrain movement as far as possible, and also to obtain exact contact between the surfaces, a piece of fine sponge was used as a dressing. On the third day the whole of the transplanted skin seemed to have become vitalised; subsequently suppuration set in around the margin, and led to the reparation of the greater portion. A part at the inner angle remained adherent, and seemed to some extent to reduce the eversion.

An explanation of the different results obtained in the upper and lower lid appears to be offered by the following considerations. The principle of the operation consists in the vascularisation of a piece of skin placed in a vascular, non-suppurating bed. It is essentially a process of primary union. That this should take place the necessary conditions are: the removal from the bed of all cicatricial tissue (tissue of low vitality); the removal from the flap of all subcutaneous tissue which would offer a hindrance to the advance of bloodvessels into the corium; and lastly, freedom of the part from movements which would interfere with the process of adhesion. In all points the conditions were favourable in the upper lid. Scarcely any part of the lid remained save the conjunctiva. When this was turned down the external surface of it formed a highly vascular bed, free from cicatricial tissue, and after the operation there was no difficulty in preventing movement. In the lower lid, on the other hand, it was impossible to remove altogether the bands of cicatricial tissue; and there were constant twitchings of the lid, which could not be restrained, and which appeared to be in great part the cause of the repeated ill-success of the operation.

#### NOTES OF A CASE OF

### UNUNITED FRACTURE OF THE LEFT FEMUR; OPERATION; RECOVERY.

By J. C. RENTON, M.B. EDIN., F.F.P.S. GLASG.,  
EXTRA SURGEON TO THE DISPENSARY OF THE WESTERN INFIRMARY,  
AND ASSISTANT-SURGEON TO THE EYE INFIRMARY, GLASGOW.

J. M.—, aged thirty-three, was admitted to the Western Infirmary on July 26th, 1881, and came under my care during the absence of Professor George Buchanan. In November, 1880, he had his left thigh bone broken by direct violence at Pitzburg, but no union took place, and he came to this country early in July, 1881. On examination the left femur was found to have a false joint in the middle third, giving the impression that there had been an oblique fracture, the upper end of the lower fragment being inside and posterior to the lower end of the upper fragment; the limb was two inches shorter than the right, but on extension it was only one inch, the two fragments could not be brought into apposition, the muscles of the limb were much atrophied, and no apparatus enabled the man to walk with any comfort. The following operation was performed on August 8th:—Having made an incision six inches long on the outer side of the limb, the broken ends of the bone were exposed, and were found covered by a cartilaginous material; bands of ligamentous tissue extended between the fragments, the lower one being fixed posteriorly by dense tissue. Half an inch was sawn off the fractured ends, which were turned out-

wards to enable the saw to be more easily applied, and the adhesions separated. The cut surfaces of bone could now be held in contact, but whenever the support of the finger was removed they slipped; to obviate this I drilled two holes with a surgical brace through the divided ends obliquely, and passed a steel peg six inches long and the eighth of an inch thick through the holes; this held the surfaces in contact. At one end of the peg there was a flattened head, which lay at the lower angle of the external wound, into which a drainage-tube was introduced, stitches applied, and Lister's antiseptic dressing used. The limb was placed in a box splint, specially made for the purpose, with an inside lateral splint.

Oct. 7th: The temperature has remained normal since the operation; the dressings were changed six times, the drainage-tube being removed at the fourth dressing, a fortnight after the operation, when the wound was found healed except at the upper and lower angles.—16th: The peg was found loose, and was removed, and as the patient could raise the limb from the bed, and on manipulation the bone seemed quite solid, the splints were not reapplied, but plaster-of-Paris bandages were used to form a firm case for the leg and thigh, and on the 19th the patient was dismissed. On measuring his limbs previous to departure, a difference of one inch was noted.

March 2nd, 1882: Patient now walks without any stick, and expresses himself as perfectly well.

Remarks.—Owing to the displacement in this case any simple subcutaneous operation would have been useless, so that it was decided to expose the broken femur, and either introduce two pegs, according to the method recommended by Dieffenbach, or to adopt the plan detailed above. The result fully justifies the somewhat hazardous procedure, and the entire absence of any constitutional disturbance is another illustration of the value of Lister's antiseptic method.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### GUY'S HOSPITAL.

##### CASES OF ABDOMINAL SURGERY.

(Under the care of Mr. BRYANT.)

CASE 1. *Hydatid of Liver; Paracentesis twice; Relieved.* (Notes by Mr. Masters.)—Mary Ann L—, aged twenty-two, was admitted on Oct. 30th, 1881, into Lydia ward. The patient was married, and had had one child five months before. About three years previously she first experienced morning sickness and faintness as if pregnant, although at this time she was not married. About the same period she noticed a small hard lump in the right lumbar region; this gradually increased, and was taken for ovarian disease. In July, 1880, she was seen by Mr. Bryant, who, considering that she was only recently married, and that the enlargement might be due to hydatids, recommended that no operative interference should then be resorted to. On admission the patient was in good general health, and the tumour only caused mechanical inconvenience. Measurements: Ensiform cartilage to umbilicus,  $7\frac{1}{2}$  in.; left anterior superior spine to umbilicus, 8 in.; right ditto,  $7\frac{1}{2}$  in. On Nov. 4th she was placed under chloroform, which produced vomiting. It was then noticed that a fold of intestine floated over the tumour; it was therefore decided to puncture it. For this purpose an ordinary trocar and cannula were employed, and about twelve ounces of clear fluid were drawn off. With a probe passed through the cannula another cyst could be felt, and when punctured from the same opening a small quantity of fluid, not quite so clear as the first, was drawn off. The fluid, when examined after standing for three or four days, was found to contain some hooklets; these were seen in a field. On the 23rd, the size of the abdominal swelling having increased, a third cyst was punctured, and with an aspirator

fourteen ounces and a half of tolerably clear fluid were drawn off. On the 28th the patient left the hospital. The swelling was entirely gone, and the two sides of the abdomen were about equal. There was normal resonance where the swelling had been. Her general health was good.

**CASE 2. Contused Abdomen; Hemorrhage into Iliac Fossa; Cure.** (Notes by Mr. Gard.)—Emily C—, aged eight, was admitted into Lydia ward on January 2nd, 1882. On December 26th she was walking in the street when she came in contact with the handle of a barrow. The blow was said to have been across the abdomen. She was sick once or twice in the night and complained of great pain. Opening medicines were given and hot fomentations were applied. She seemed to derive benefit from this, but on January 1st she was very ill all day and was unable to stand upright. She consequently applied at the Hospital. On admission, seven days after the accident, there was great fullness in the right iliac fossa. The abdomen was not swollen. There was no pain on pressure of any part of the abdomen, and only a slight abrasion could be seen on the outer side of the right thigh. An ice-bag was applied and milk diet ordered. On January 11th there was still to be felt in the right inguinal region a swelling deeply placed and apparently in connexion with the deep tissues. This swelling was much larger and was considered by Mr. Bryant to be an effusion of blood into the abdominal cavity. There was now a little discolouration of the abdominal wall; no tenderness; no sign of fracture of ilium. On Jan. 12th there was very slight discolouration. The patient had been upon milk diet. No pain on pressure. The swelling in the right inguinal region could still be felt, but it had lessened. Six days later she was discharged convalescent.

**CASE 3. Ruptured Small Intestine, followed by slight Collapse; Death in twenty-five hours.**—Abraham C—, aged forty-five, was admitted on Dec. 3rd, 1881, into Accident ward. At 7.30 A.M. he was lifting a bag of cement weighing about two hundredweight to another man's back, when he slipped and fell about four feet, with the sack upon his abdomen. He was taken to the hospital in a cab. On admission his pulse was feeble, but he was not much collapsed; he felt sick, and laid with his legs slightly flexed upon his abdomen; his abdomen was tender on pressure; he passed water free from blood; his bowels were not opened. He was put on milk diet. At 5 A.M. the next morning his breathing became hurried, and he was almost pulseless. The dresser was called, and found him much collapsed and the body cold. His breathing became more difficult, his legs more flexed, and he died at 8.30 A.M., twenty-five hours after the accident.

**Necropsy, thirty-two hours after death.**—The lungs were gorged with blood; there was hypostatic pneumonia in both lungs, and post-mortem staining of the trachea and of the breast. The heart was normal. There was matting together of the intestines, chiefly in the left iliac fossa. Fourteen feet from the cæcum the bowel was ruptured for two inches, and a rupture of one layer of the mesentery over about two square inches, and ecchymosis beneath the mucous layer of the intestine at the same spot. The right kidney was small and fatty, and weighed  $3\frac{1}{2}$  oz.; the left was normal, and weighed  $4\frac{1}{2}$  oz.

### SHEFFIELD GENERAL INFIRMARY.

CASE OF ECTROPION SUCCESSFULLY TREATED BY TRANSPORTATION OF A LARGE NON-PEDICLED FLAP FROM THE ARM.

(Under the care of Mr. SIMEON SNELL.)

WALTER B—, aged twenty-one, first came under observation at the infirmary in the early part of November, 1881. He stated that eight years ago an abscess had formed on the right side of the face and orbit. For this he was treated at the infirmary; and a short time after another abscess formed underneath the eye; and still later others appeared on the forehead and upper eyelid. Six months subsequently Mr. Laver (house-surgeon) removed from the external and upper angle of the orbit a portion of bone about the size of a finger nail. The wound healed; but the right upper eyelid became fixed and drawn upwards, leaving the eyeball exposed. The patient attributed the abscess on the face to a blow from a cricket-ball he had received in that region. He further

stated that inflammation was constantly attacking the exposed eye, and latterly it had commenced to ulcerate.

The patient was decidedly a scrofulous subject, and on both sides his neck was marked by irritable-looking scars, resulting from suppurating glands. He had also family history of struma.

With respect to the ocular condition it was found that the right eyelid was completely drawn up, and fixed to the bony margin of the orbit at its outer part, exposing the palpebral mucous membrane, which was reddened and hypertrophied. No effort on the patient's part could in any way make the lid cover the globe, and as a result of this exposure well-marked ulcerations of the cornea at its outer part was present. Underneath the integument on the side of the face, and round the margin of the orbit, prominent spiculae and irregularities of bone were easily detected.



Before operation.

Operation for the relief of this deformity was not only desired by the patient for appearance' sake, but was rendered necessary by the peril the eye was in from its want of the protection afforded by the lid. Mr. Snell operated in the following manner:—On Nov. 21st, 1881, an incision was first carried through the integument between the margin of the upper eyelid and the edge of the orbit, and continued in such a manner that the lid fell easily into its normal place without dragging. The edges of the lids were now at two different points vivified and united by sutures to retain the upper one in its new position. The raw surface thus left on the surface of the lid measured one inch and a quarter in length and three-quarters of an inch in breadth. To fill this, after all bleeding had ceased, a large flap, measuring when mapped out two inches by one inch and a half, to allow for shrinking, was taken from the skin on the inner side of the left arm. This, after all the subcutaneous tissue had been carefully removed from its under surface and leaving only the integument, was found to easily fit the wound on the outer side of the upper eyelid. It was then secured by four or five fine sutures and covered with lint wrung out in warm water, over which gutta-percha tissue was placed. The dressings were allowed to remain undisturbed for forty-eight hours.

It will suffice to say that then the new piece of integument looked well and continued to appear so for the first six or seven days. It had become flattened down and its edges fastened to the margins of the wound, except at one point above, where there was a small spot of separation. At the end of the period mentioned, however, at the upper part it assumed a dusky appearance, and almost two-thirds or one-half of the flap sloughed. The remaining portion appeared quite healthy, and from it granulations spread out, but to prevent the possibility of the result of the operation being spoilt a minute dermic graft was placed between it and the upper margin of the wound.

It may be added that one of the points of adhesion between the lids gave way on removal of the sutures some days after the operation; the other portion firmly united,

and was allowed to remain for some considerable time during the cicatrization in the upper lid to counteract any tendency of the lid being again drawn up.



After operation.

The result in this case has been in every way satisfactory; and the lad was exhibited before the Sheffield Medico-Chirurgical Society on Feb. 23rd, 1882. He then possessed a good upper eyelid, and, not only was the appearance of the two eyes rendered alike, but it afforded a good protection to the globe, and the corneal ulceration has for some time healed.

Mr. Snell remarked that the operation here performed was that suggested by Lawson and Wolfe, and which has now been adopted by many operators. The method presented the manifest advantage that, if failure occurred, the patient was in no worse a condition than before the operation was undertaken, and opportunity could be still afforded of treating such a case by transplanting a pedicled flap from a neighbouring region. In the present instance, the patient was a most unfavourable subject for operation. Enough of the flap, however, lived to make an excellent cure; and in a more healthy man there is little doubt that the whole of it would have survived.

The engravings, from photographs, well show the condition "before," and some time "after," the operation.

## Medical Societies.

### OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

*Annual Meeting.—Election of Officers.—Miners' Nystagmus. — Homonymous Hemianopia with Paralysis of Centres for Upward and Downward Movements of the Eyes.—The Movements of the Eyelids in Association with the Movements of the Eyes.—Micrococci in the Interior of the Eyeball.—Tests of Vision best adapted for Service at Sea.—Acute Glaucoma caused by the use of Atropine and cured by Esérine.*

THE annual general meeting of this Society was held on the 7th inst., G. Critchett, Esq., Vice-President, in the chair. Mr. Streatfeild, the hon. treasurer, having read his report of the financial condition of the Society, the chairman delivered a brief address, in which he referred to the position of the Society, its proceedings during the past year, the share taken in them by the provincial Fellows, and the proposals to increase the facilities for the candidature of colonial practitioners. A resolution respecting the last-named subject was submitted to the meeting, and was unanimously approved. It was also resolved in future to

hold seven ordinary meetings annually, the last two to be held on "the first Thursday in June," and "the Friday following the first Thursday in July."

During the evening the ballot was taken, and the following gentlemen were elected to serve on the Council for the ensuing year:—President: William Bowman, F.R.S., LL.D., &c. Vice-Presidents: George Critchett; W. H. Broadbent, M.D.; C. E. Fitzgerald, M.D. (Dublin); Henry Power; Frederick Mason (Bath); Augustin Prichard (Clifton). Treasurer: J. F. Streatfeild. Secretaries: John Abercrombie, M.D.; E. Nettleship. Other members of Council: James E. Adams; Edwyn Andrew, M.D. (Shrewsbury); W. A. Brailey, M.D.; R. Brudenell Carter; W. R. Gowers, M.D.; R. Marcus Gunn; C. Higgins; George Lawson; Stephen Mackenzie, M.D.; Charles Macnamara; J. Vose Solomon (Birmingham); T. Shadford Walker (Liverpool).

Dr. OGLESBY of Leeds contributed a paper on "Miners' Nystagmus," in which he contended that this disease was due to organic cerebral changes which were at first temporary but finally became permanent; these changes were induced by venous engorgement consequent on the constrained position in which colliers were obliged to work. He endeavoured to support this theory by citing cases in which nystagmus was associated with epilepsy. He found that the movements remained in abeyance when the patient was erect and at rest, but returned at once on assuming the attitude of a miner at work. The attacks of epilepsy (petit mal) only came on, he believed, when the nystagmus had been in existence for some time. He did not think that errors of refraction had anything to do with the causation of the disease. In one case only had he found treatment by drugs do any good. In this case the nystagmus ceased after strychnine had been taken for six weeks.—Mr. NETTLESHIP said that from replies to queries he had addressed to practitioners in mining districts it appeared that nystagmus is almost confined to coal miners. Thus Dr. Hudson of Redruth writes that he never sees nystagmus among the Cornish miners except in those who have come from the coal mines in the north, and after a time they lose the affection. Dr. Evan Jones of Aberdare believes that miners' nystagmus is due to the combined influences of foul air, insufficient light, and straining of the sight in coal mining. Dr. Thomas of Swansea connects it with injuries to the head.—Dr. BRAILEY thought the evidence of central lesion was very slight, and attributed the nystagmus to weakening of ocular muscles from working in a constrained position and in a dim light. Nystagmus can be induced by looking constantly in one direction, and therefore it was a "fatigue" disorder.—Dr. S. MACKENZIE remarked that Dr. Hughlings Jackson believed nystagmus to be allied to writer's cramp.—Mr. SNELL of Sheffield had seen many cases of miners' nystagmus, and had never met with any evidence of organic disease. He coincided in the view expressed by Dr. Brailey, and pointed out that the coal miner has mostly to work lying on his side, so that he has for long periods to look obliquely, producing fatigue of the muscles. Internal remedies and galvanism do very little for the affection; but nearly all cases are curable by the man leaving off pit work, as Dr. Bell pointed out some years ago. He had never noticed any ophthalmoscopic appearances indicative of congestion. The best means of diagnosis was to get the individual to look downwards.—Dr. GOWERS pointed out that the same influences might excite nystagmus and epileptiform seizures without the same lesion being present in the two instances. It was difficult to draw the line between muscular fatigue and fatigue of the centre. If nystagmus be due to muscular fatigue, it was difficult to explain why it recurred on the patient assuming a certain posture.—Mr. MCHARDY had observed in some cases that the nystagmus was absent unless the patient looked above the horizontal line; so that many miners do not apply for relief until the condition is advanced. Dr. Priestley Smith devised a simple means of testing the degree of nystagmus by noting the different angles above the horizontal line at which the man could look without becoming giddy; and improvement was marked by increasing power to look above this line.—Mr. NETTLESHIP said that Mr. Oglesby in his paper states that nearly all the miners told him that they first noticed the symptoms when looking upwards.

Mr. LANG and Dr. W. A. FITZGERALD communicated a paper on a Case of Homonymous Hemianopia with Paralysis of Centres for Upward and Downward Movement of the Eyes; recovery, leaving Homonymous Insular Scotomata.



The patient was a man, aged forty-two, previously healthy, and presenting no signs of cardiac or renal disease, or of diabetes. When seen, three days after an attack of faintness and giddiness, without hemiplegia or loss of consciousness, there was total paralysis of upward and almost total of downward movement. No ptosis, but the lids did not move upwards when he endeavoured to look up, though they accompanied the slight downward movement of the eyes to a corresponding extent. Associated lateral movements, convergence, pupillary reaction, and accommodation normal; no diplopia. There was left homonymous hemianopia. A week later the movements of the eyes and lids had been partly restored, and the fields were normal, both for white and colours, except for the presence of insular negative defects at corresponding positions in each field, downwards and to the left. Four days later the movements were perfectly normal, and vision was with the right eye  $\frac{2}{3}$  and Jaeger 1, and with the left  $\frac{3}{4}$  and Jaeger 1. The condition has since remained unchanged in every respect.

Mr. LANG and Dr. W. A. FITZGERALD also communicated a paper on the Movements of the Eyelids in association with the Movements of the Eyes. They contested certain conclusions arrived at by Dr. Gowers, who believes that the movements are due to the fact that the lids are closely moulded to the globes, the edges of the upper and lower tarsal cartilages fitting into the "sclero-corneal sulcus." The authors endeavoured to show that this explanation is not correct, by pointing out that the movements still continue if the lower lid be withdrawn from contact with the globe, or if the eye be reduced to a mere stump. They described a fascia which connects the inferior tarsus with Tenon's capsule, and which explains the downward movement of the lower lid on looking down, and called attention to the close connexion between the upper and lower lids at the inner and outer canthus, the result of which is, that whatever depresses the lower must also depress the upper, and, conversely, whatever elevates the upper must also elevate the lower lid. The relaxation, or rather inhibition, of the levator, which is necessary in order to permit the descent of the upper lid, is, in Dr. Gowers' opinion, probably due to a reflex action set up by contraction of the inferior rectus, or by stretching of the fibres of the levator by the movement of the globe. This the authors endeavoured to disprove by quoting cases in which both upper lids descended normally on looking down, although the inferior rectus on one side was paralysed, and the globe motionless, and they suggested that the phenomenon was owing to the existence of associated centres for the movement of eyes and lids together.—Dr. GOWERS thought the authors weakened their case by affirming a universal negative to their assertion that it was impossible, under any circumstances, that the sclerotic and cornea can move the eyelids. The sclerotic bulges forwards the lower lid in looking upwards; and his explanation of this was that, besides the simple rotation of the eyeball on its own axis, there is an actual movement forwards of the globe. If this be so, it would be more easy to understand that the prominence of the sclerotic should move the lid. The authors' statement that the downward movement of the lower lid is effected through the connexion of the inferior rectus with Tenon's capsule did not accord with the fact that the movement of the lid takes place at the commencement of the rotation of the eyeball, when, on their theory, the movement should be at its minimum. The movement of the lower lid is a rotation on its attachments at the canthus. At any rate, he had not observed any movement of the canthi. If there were any real movement, it should be greatest at the latter part of the lid movement, instead of the early part. If, on the other hand, the movement of the lid be due to the pressure of the sclerotic, the increased degree of movement at the latter part of the period would be explained by the increasing resistance. In the cases he had described in his paper in the Medical and Chirurgical Transactions, there was no reason to believe the paralysis was central; one was a case of total paralysis of the third nerve trunk of one side. More observations were required. Similar objections as to the movement beginning at the canthus applied to the descent of the upper lid, and it was difficult to see how the slighter movement of the lower lid could influence the greater movement of the upper. In facial paralysis the movement of the lower lid may be very variably affected, the differences depending on the degree to which it falls away from the eyeball. In young persons, where there was more elasticity of tissues, the impairment of the lid was very slight, as com-

pared with old persons where there was loss of tone. When in paralysis of the orbicularis the eyelid is kept in apposition by its elasticity it moves with the eyeball.—Mr. COUPER said that Dr. Gowers' suggestion that there is a forward movement of the eyeball was new; he thought it was proved by Graefe that all its movements were round an axis. In support of this Mr. Couper mentioned the case of a persistent opacity in the hyaloid canal, where a spot of the string in the vitreous behind the lens could be seen to remain stationary in all movements of the globe, whereas the portions of the string in front of that point varied in position with the cornea.—Mr. HORROCKS had never found the fibrous expansion from Tenon's capsule described by the authors of the paper. If the upper eyelid be gently raised mechanically the lower lid is quite stationary; and if the lower lid be moved away from the eyeball there is not the slightest movement when the eye moves downwards. He asked whether the authors had seen cases of paralysis of the superior or inferior rectus only.—Mr. LANG, in reply, attributed the bulging of the lower lid to the fat in the lower part of the orbit coming forward in contact with the skin. The reason why the chief movement of the lid occurs at the beginning is because its area of movement is limited. Tenon's capsule is a layer of connective tissue separating the fat from the globe. If in the dead subject the lid be pulled away from the globe and, the orbit being opened from behind, traction be made on the inferior rectus, the lid makes a movement backwards. Again, if during life there be no globe in the orbit the movement takes place just the same. The case of paralysis of the superior rectus was under Mr. Nettleship's care; it was not seen by the authors of the paper.

A short paper, by Mr. JAS. F. RUDALL of Melbourne, upon Micrococci in the Interior of the Eyeball, was read by the hon. secretary. The eye had been destroyed as the result of a neglected gonorrhoeal ophthalmia, and was accordingly enucleated by the author. The cornea had ulcerated away; the lens was absent; and the iris adhered to the remains of the cornea by granulative material in which micrococci were found. Similar organisms were also found in the optic nerve; but it was doubtful whether they had not been accidentally introduced during preparation.

Dr. W. A. BRAILEY read a paper upon Tests of Vision best adapted for Service at Sea. After referring to the practical importance of defects in sailors in distinguishing form and colour, and the frequency with which such defects might be presumed to be present, the author stated that there was no test of sharpness of sight for form for either officers or sailors of the British mercantile marine; and that the examination for colour vision, which applied to officers only, was very imperfect. The Board of Trade, however, had made one step in advance when, about two years ago, it refused to admit to his first step as officer anyone failing to pass the colour examination. He thought the best course would be to create a superior class of sailors, who should occupy responsible positions as "look-out men" and helmsmen; such a class already existed in the French Navy. The tests recommended by the International Medical Congress were the best with slight modifications; he advocated the use of coloured spots viewed by reflected daylight, and coloured glasses of transmitted artificial light on the principle of Donders. Dr. Brailley concluded by describing a modification of Donders' lamp, which he found more convenient, and made some suggestions with regard to ships' lights.

Mr. SIMEON SNELL of Sheffield related a case of Acute Glaucoma caused by the use of atropine, and cured by eserine. The patient, a lady, aged thirty-five, consulted him on May 15th last. The right eye tension was +2, the vision equal to fingers, and the pain intense. The attack had commenced on the 13th, she having on the 9th consulted another surgeon elsewhere, who, in order to test her refraction (high degree of hypermetropia), had ordered strong atropine drops to be frequently applied until next day. Iridectomy was declined, and eserine was therefore employed in form of "discs," followed by almost immediate relief of pain, lessening the tension to normal, and in a short time restoration of perfect sight. The patient complained also of discomfort in the left eye, "coloured rings," and some increase of tension; eserine afforded relief to this eye also. The gentleman who first saw the patient asserts the absence then of any indication of glaucoma; on the other hand, the patient mentions symptoms which appear like the prodromata of the affection.

The following cases and specimens were shown to the

meeting:—By Mr. Nettleship: Case of Recovery from Multiple Growths in the Iris. One eyeball, which had been the seat of such growths, had been removed (see Ophthalmological Society's Transactions, p. 19). The growths on the remaining eye subsequently disappeared under iodide of potassium; but there was no evidence of syphilis. By Mr. M'Hardy: (1) Sequel to a case of Retinitis following injury to the head; (2) Spectroscopic Analysis of a Black Cataract. By Dr. S. Mackenzie: Microscopical Preparation of Retinal Hæmorrhages in Pernicious Anæmia. By Mr. H. Juler: Extensive Central Choroiditis in a Hypermetrope, aged twenty-two, with history of syphilis. By Dr. Brailey: (1) A peculiar form of Cyclitis, pigmented fibrinous exudation occupying a portion only of the internal (vitreous) aspect of the ciliary body; (2) Cyst-like Detachment of the pars ciliaris retinæ; (3) Colour Chart of Magnus and Joy Jeffries, consisting of nine rows of coloured discs, each row containing five shades of the colour.

### OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on July, 5th, 1882, Dr. Matthews Duncan, President, in the chair.

*Extra-uterine Gestation.*—Dr. DALY exhibited a specimen of tubal gestation, in which rupture of the cyst had taken place in the third month. The patient lived four days after the rupture. The nature of the case was diagnosed during life, and the question of opening the abdomen discussed, but decided against on account of the collapsed condition of the patient. Douglas's pouch was aspirated, and eight ounces of blood drawn off. On autopsy, about two pints of blood were found diffused in the abdomen, but no peritonitis. Dr. WILTSHIRE advocated prompt operative interference in cases of internal hæmorrhage from ruptured tubal gestation, or rupture of varicose veins in the broad ligament, especially where, as in this case, the diagnosis was reasonably clear. Mr. LAWSON TAIT agreed with Dr. Wiltshire. In case of doubt an exploratory incision would settle the diagnosis, was safe, and more satisfactory than tapping. Dr. ROUTH observed that a decidua was present. By dilatation of the cervix, the presence of such decidua might be ascertained and the diagnosis in a doubtful case settled. Dr. CARTER thought operative interference advisable in these cases. The specimen showed how easily the cyst might have been removed. Dr. CHAHBAZIAN (Paris) described the case of an actress who died in Paris from rupture of an extra-uterine gestation so suddenly that poisoning was suspected. In such a case no operation could have been performed.

*Removal of the Uterine Appendages.*—Mr. LAWSON TAIT showed fifteen specimens of Uterine Appendages removed by him since December, 1881, for hydro- or pyo-salpinx. The symptoms were pain aggravated by walking, by marital intercourse, and at the menstrual period. Five cases were due to gonorrhœa, and four either due to, or aggravated by, pessaries. In most the operation gave immediate and complete relief; in all there was improvement; none had died. He objected to the terms "spaying," "castration of women," "normal ovariectomy," because they implied that healthy ovaries were removed, an operation which he had never done. He thought the operation of doubtful value in neurasthenic cases; of these he had only done four, and at present was not disposed to go farther. For myoma its mortality was less than that of lithotomy in the male, and its results more certain. For the class of cases from which the specimens exhibited were taken, it was the only means which offered a hope of relief.

*Uterine Tumour.*—Dr. CARTER showed a Uterine Tumour weighing sixteen pounds and a half removed by him. The pedicle had been secured by Koberlé's serra-nœud.

*The Relation of Backward Displacements of the Uterus to Painful Menstruation.*—A paper on the above subject by Dr. HERMAN was read. It was admitted that there were cases of backward displacement of the uterus, accompanied with dysmenorrhœa, in which the menstrual pain was relieved when the uterus was elevated and straightened. The author found, from his own experience, and that of others, that such dysmenorrhœa was slightly commoner with retroflexion than with retroversion. The object of the paper was to inquire into the explanation of these facts. Three theories had been advanced to explain them. a. That the dysmenorrhœa was due to narrowing of the canal at the point of flexion, and consequent obstruction to the outflow of

menstrual blood. The author pointed out that there was anatomical evidence that the uterus might be bent to any extent without causing any hindrance to the escape of menstrual blood; that there was no anatomical evidence that flexion ever obstructed the canal, except when the uterus was fixed by adhesion, or its wall thinned by senile atrophy; and that this theory did not explain clinical facts. b. That the dysmenorrhœa was due to congestion from strangulation of vessels at the point of flexion. The author found no anatomical evidence that any such strangulation ever occurred; and said that the theory did not explain clinical facts. c. That the dysmenorrhœa was due to congestion produced by the pressure of the utero-sacral ligaments upon the veins running in the broad ligaments. The author found that the disposition of the parts concerned was such as to permit such pressure; that one case had been recorded in which there was anatomical proof that such pressure had actually occurred; that this theory was therefore supported by anatomical evidence; and that it explained clinical facts. The author's general conclusion was the following: "That while dysmenorrhœa accompanying retroflexion is often, it may be generally, dependent upon other concomitant conditions, yet that there are cases in which it is simply the result of the displacement, and that in such the dysmenorrhœa is probably entirely due, not to the flexion, but to the veins of the broad ligaments being compressed against the utero-sacral ligaments."—Dr. HEYWOOD SMITH thought that the symptoms accompanying retroflexion were generally due to other concomitant conditions, the flexion only in the minority of cases causing symptoms. The constriction at the point of flexion was apparent only, not real. In one case he had divided per rectum the utero-sacral ligaments; a low form of peritonitis followed, but the uterus had since remained in the normal position.—The PRESIDENT said that Dr. Herman had finally disposed of two great and unduly prevalent errors. The first was that in flexion of the uterus there was a projecting spur, or stricture, obstructing the passage of blood or fluid; the second was that behind the imaginary obstruction the uterine cavity was dilated. Much of the reasoning, both in this paper and in the one discussed at the last meeting turned on pain. Pain was too ill-defined a term to be wisely made the basis of conclusions; we had no good means of measuring its degree or kind, and nothing was more wanted. One woman would call excruciating what another would speak of as trivial. The utero-sacral ligaments could in many women be felt by the finger. Descent of the uterus so as to be grasped by the utero-sacral ligaments was a rare event. Ever since the paper of Dr. John Williams which had pointed out their action, he had attended to this matter clinically; but his observations had yielded him nothing of sufficient importance to lay before the Society.—Dr. HERMAN said it was impossible to avoid reasoning from pain; and he thought that errors due to the incorrect statements of a few individual patients became neutralised by taking a large number of cases. He did not think that the cases in which the utero-sacral ligaments caused congestion of the uterus were more than a small minority.

### Reviews and Notices of Books.

*Hospitals; their History, Construction, and Hygiene.* By J. F. SUTHERLAND, M.D. Edin. Edinburgh: E. and S. Livingstone: 1882.

THERE are so few English works which treat the question of hospital construction and management in a comprehensive manner, that every addition to the list is welcome, for there is no branch of practical medicine in which the profession as well as the public, stand in greater need of instruction.

The work of Dr. Sutherland is the graduation thesis of the year of his doctorate, to which a gold medal was awarded. Although it contains nothing new or original, does not deal exhaustively with any branch of the subject, and omits much that is necessary to its right understanding, it is a creditable performance. The author has collected and grouped with care and discrimination the leading facts and principles now accepted regarding the structural arrangements, ventilation, warming, lighting, and the other conditions to be observed in the location and building of hospitals,

as well as the proper means of dealing with the accessory agencies essential to their effective working; and has, in our opinion, correctly apprehended what the Germans have termed the "new view," in this all-important matter.

The most original portion of the work is that devoted to the Hertford Hospital in the immediate neighbourhood of Paris, of which Dr. Sutherland was, we believe, the first house-surgeon. It was built and endowed by Sir Richard Wallace for the sick and hurt of his own nationality in the metropolis of France. An accurate and detailed description of it appears in our issue of the 1st inst. It is a bijou institution, elegant in design and excellent in execution, and is said to contain "all that man could suggest, and money procure." This shows it to be unfitted for imitation and guidance in the construction of larger institutions of the same character, even were elaborate ornamentation and costly material essential—which they assuredly are not—to the successful treatment of disease, in buildings intended for the relief of sickness and its attendant dangers. The cost of the building is not given; it is reported to have been £40,000, which, if correct, would entitle it to rank, calculated on the number of beds it contains, with the new Hôtel Dieu and St. Thomas's Hospital in extravagant expenditure. In the present instance, however, there was full justification for the outlay, as it is designed to serve as a personal memorial, and is an undeniable proof of the splendid liberality of its founder. Having seen the hospital ourselves, and examined its arrangements, which are as perfect as a piece of marquetry in material and workmanship, we are by no means sure that it is as well adapted for its special uses as if it were more simple in design, and less artistic in execution. It must be placed in the same category with the elegant little hospital for scrofulous children built and maintained by the Rothschilds at Bercy-sur-Mer, as a magnificent testimony of the wise uses to which great wealth can be devoted; yet how far short do they fall of the benefits derivable from the grand and enduring work of the self-denying bookseller, Guy!

It is to be regretted that in so manageable an institution as the "Château Wallace," with a resident house-surgeon and two external superintendent medical officers, a perfect system of hospital record is not kept. In this it might, indeed, set an example deserving of imitation elsewhere, for it admits all classes of cases, and is even somewhat heroic and imprudent in opening its portals to dangerously communicable diseases, without the possession of proper means of isolation. Dr. Sutherland would not then have to lament as he does, that after analysing the statistics of two years, he could place little reliance in them, "as there were no two cases alike—the age, constitution, and habits of life, the season of the year, and other circumstances, exercising an influence upon the condition of the patient." So is it in all hospitals. It is for the unravelling and harmonising of these mysteries, and the deduction from them of the general laws by which the phenomena to which they relate are explained, that by the aid of the vital statistics of hospitals we can hope to derive the practical experience "which formulates the past, renders the present fruitful, and prepares the future." That a comprehensive, uniform, and general system of hospital statistics has still to be found, is a standing reproach to our profession.

The other hospitals described by Dr. Sutherland are all well known, and need no further mention.

*On the Treatment of Cancer.* By JOHN CLAY, Professor of Midwifery in Queen's College, and Obstetric Surgeon to the Queen's Hospital, Birmingham. London: J. and A. Churchill.

PROFESSOR CLAY publishes in a pamphlet form the articles which first appeared in this journal on the treatment of cancer, especially of the female generative organs, by Chian turpentine. Prefixed to the papers is an introduction,

dated April, 1882, which shows that up to this period Professor Clay's faith in Chian turpentine had suffered no abatement. The preface has one other feature of great interest—a statement that amongst other communications from numerous medical practitioners testifying to the value of Chian turpentine in cancer, is one from Professor Esmarch, informing Prof. Clay that "he has had a complete cure in a case of cancer of the bladder in a man." It would be interesting to know the particulars of this case, especially in respect of diagnosis, as also of "two cases reported," to Professor Clay, "of cancer of the liver cured" by turpentine. It is to be regretted that Professor Clay makes so little account of the small amount of confirmatory evidence adduced in support of his views, and of the serious adverse testimony, notably that of Mr. Hulke in THE LANCET of June 25th, 1881; and that of Mr. W. Brown in THE LANCET of Dec. 31st, 1881; the former showing that in the Middlesex Hospital the Chian turpentine was found to be thoroughly useless as a remedy; the latter that no signs of improvement occurred in eight cases treated in the Leeds Infirmary.

We shall not be suspected of any prejudice in this matter. We were only too glad to publish anything that seemed to justify a hope that a miserable and mortal disease was to be brought under the control of medicine. We did not by a word of doubt damp the ardour or the hope naturally excited by the papers of Professor Clay. But we only now feel the more free to say that it is time to take grave notice of opposing testimony, and to submit cases and cures to the observation of others. The subject is too serious, both in its human and its professional bearings, to admit of delay and discrepant testimony.

#### OUR LIBRARY TABLE.

*A Treatise on Aural Surgery.* By H. MACNAUGHTON JONES, M.D., Professor of Obstetrics and Gynecology in the Queen's College, Cork; Surgeon, Cork Ophthalmic and Aural Hospital, &c. Second Edition. Revised and Enlarged. London: J. & A. Churchill. 1881.—The early demand for a second edition of this work has justified the high opinion we had originally formed of its value. The new edition has been considerably enlarged and almost entirely rewritten, and is brought well up to date. Diseases of the ear are notoriously but imperfectly understood both by the profession and the public. Those who wish to study this class of affections cannot do better than take as a guide Dr. Jones' pages, which are based not only upon a good special knowledge, but on a wide acquaintance with general medicine and surgery.

*House Sanitation.* By G. H. STANGER, C.E. With Illustrations. Wolverhampton: John Steen and Co.—Mr. G. Hurst Stanger, Engineer to the Wolverhampton and District Sanitary Protection Association, has published a useful pamphlet on house sanitation. He describes in detail the various conditions of house drainage which are known to be associated with nuisance and injury to health, and he there explains how the several conditions may be remedied. The principles which he lays down are in no way novel, but they are put forward, by means of diagrams and otherwise, in a manner which can easily be understood. They are sound, and we can endorse them; indeed, if they were generally applied we should soon hear but little of diseases brought about as the result of sewer emanations getting into dwelling-houses.

*Holidays in Spain.* Being some account of two Tours in that Country in the Autumns of 1880 and 1881. By F. R. M'CLINTOCK. London: Edward Stanford. 1882.—This work appears very opportunely at the time when most of the busy workers who are in a position to take a holiday are beginning to consider where they can best dispose of themselves. The object of the author is to point out to those

who are tired of the everlasting round of Switzerland and other parts of the Continent, to which the English flock annually in such crowds as to destroy much of the enjoyment of travel, that there is a splendid field, hitherto comparatively neglected, within easy reach of England. Mr. McClintock describes in a pleasant manner a run in 1880 from London to Granada, visiting *en route* Madrid, Toledo, Cordova, and Seville; and in 1881 a revisit to Madrid by way of Barcelona, Tarragona, Valencia, and Saguntum. Travelling in Spain is an easy matter in these days of railroads; the hotels, as a rule, at least in the large towns, are comfortable, and the charges moderate; and the objects of interest are numerous. Although a knowledge of the Spanish language adds greatly to the enjoyment and to the instruction gained by travel in the country, it is not indispensable—at least in the more frequented routes. Circular tickets for the railways can now be procured, and are very convenient, but have the drawback of confining the holder to a predetermined route. In recommending our readers to explore this, to most of them, new field, we would merely give two cautions. They should invariably arrange beforehand the charges to be paid at hotels, taking care that there are to be no extras; and they should never forget to be courteous to all, whatever may be their rank or position. The Spaniard is, as a rule, polite, kind, and obliging; but he is also proud, and expects to be treated with courtesy. The last chapter of the book contains the result of the author's impressions of Spain, and a brief but interesting notice of its literature. The volume is one which may well be taken up as a pleasing amusement for a leisure hour, and as indicating in a general manner the variety of interesting objects to be seen during a holiday ramble through sunny Spain.

*John Howard's Winter Journey.* By WILLIAM A. GUY, M.B. Cantab., F.R.S., &c. London: De La Rue. 1882.—Under this modest title Dr. Guy gives us a charming sketch of the life and labours of the great philanthropist and reformer of our prisons. The volume comes opportunely at a time when the working of the present system is under discussion. There can be no doubt that we have made a great advance in prison discipline and management since the end of last century, but still there is much to be desired. Our present system is too inelastic and presses with undue severity, in some cases fatally, as repeated inquests have shown, on the weak and feeble, while, we fear, it has little deterrent effect on the hardy criminal. We have yet to learn how to discriminate in our punishments. One of the most interesting episodes in Howard's life, as narrated by Dr. Guy, is the description of the village of Cardington in Bedfordshire, which Howard converted from a damp, squalid spot to a village of wholesome-looking cottages, embowered in noble trees of his own planting. So excellent was the work, that the cottages "now, after a lapse of a century, seem as strong and sound as when they were first built; and having made a healthy, wholesome, and decent life a possibility to three generations, there is no reason why they should not continue to be a blessing to many more yet to come." Dr. Guy successfully, we think, rebuts the charge brought against Howard of harshness in his relations with his family. The medical evidence goes to prove that the insanity in the case of his son, which the detractors of the father endeavoured to show was the result of harsh treatment, was in reality due to the habits of dissipation into which he fell of himself, or was enticed, as some aver, by a servant of the elder Howard. Dr. Guy also advances another hypothesis to account for the son's insanity. The father was called an enthusiast; might not the enthusiasm of the father have developed into madness in the son? Howard's treatment of his child may not have been judicious, but there is no evidence to show that it was either harsh or cruel.

*Medical Adviser in Life Assurance.* By E. H. SIEVEKING, M.D., F.R.C.P. Second Edition. London: J. and A. Churchill. 1882.—The facts in this edition are pleasantly arranged, and a considerable amount of information is conveyed in a short space and in a practical manner. The style is graceful, and Dr. Sieveking, as becomes the Senior Censor and an advocate for the retention of the classical part of the examination for the membership of the Royal College of Physicians, aims his Latinity occasionally and always to the point.

## FORFARSHIRE MEDICAL ASSOCIATION.

DR. LAWRENCE presided at the annual meeting of this Society held at Brechin last week. The following office-bearers were elected for the ensuing year:—President: Dr. MacLagan-Wedderburn, Forfar. Vice-Presidents: Dr. Christie, Dundee; Mr. Murray, Forfar. Secretary: Dr. Sinclair, Dundee. Council: Drs. Anderson, Miller, McCosh, Rorie, and Messrs. C. Moon and Stevens, Dundee. Local Secretaries: Dr. Dewar, Arbroath; Dr. Lawrence, Montrose; Dr. Mackie, jun., Brechin; and Mr. Alexander, Forfar. A paper by Dr. Alex. Lawrence was read on "Salicin in the Treatment of Acute Rheumatism," and an interesting discussion took place. Dr. Miller reported that the committee appointed to consider the hygiene of infectious fevers were now in a position to report, and the following motion included their results:—That the Association recommends as follows: When an infectious fever has appeared in one or more members of a household, other members who may have been exposed to the chance of infection by intercourse with them, or otherwise, should not be removed to a household where there are others liable to be infected until the expiry of the period of incubation shows that they have escaped (without going to extremes, the period of incubation may, for practical purposes, be considered to be for small-pox, typhus, whooping-cough, and measles, fourteen days each, and for scarlet fever and diphtheria ten days each); that convalescents from these fevers should be considered as still liable to give off infection until the expiry of time, counting from the beginning of the illness, ranging from each fever as stated below: Small-pox, fourteen days after termination of scabbing; typhus, twenty-eight days from inception; scarlet fever, eight weeks from inception; diphtheria, six weeks from inception; whooping-cough, eight weeks from inception; and measles, six weeks from inception. Dr. S. Lawrence showed a case of spontaneous amputation of the foot in a child ten months old. A donation of three guineas was voted to the British Medical Benevolent Fund.

## BRIGHTON AND CANNES.

### To the Editor of THE LANCET.

SIR,—Mr. Robert Rawlinson, C.B., remarks in his letter that "you have written quite as strongly about Cannes as about Brighton, and apparently with less threatening results." As the author of nearly, if not all, the communications you have published relating to the sanitary condition of Cannes, I may supplement Mr. Rawlinson's observation with an item of information that may be of interest as an example in the present instance. The authorities of Cannes, far from resenting the frank relation of their difficulties and shortcomings, manifested their gratification at the interest displayed in their affairs. I have a letter from M. Hourlier, the architect of the town, expressing these feelings both on behalf of the mayor and himself. On the table of the Public Works Department of the Cannes Town Hall or Mairie is kept, for reference, all the numbers of THE LANCET containing articles on Cannes, and notably Mr. Rawlinson's letter on the Sewerage and Drainage of Cannes, published in your issue of February 11th. The latter exposure has the severest passages underlined. Yet foreigners are notably more susceptible to criticism than Englishmen, who for generations have been accustomed to freedom of the press and self-government.

I have the honour to remain, Sir,

July 18th, 1882.

YOUR CORRESPONDENT.

# THE LANCET.

LONDON: SATURDAY, JULY 22, 1882.

THE refusal of the Home Secretary to entertain the question of the appointment of a Royal Commission to consider the whole matter of hospitals, reminds us that this question still presses for solution, and that it cannot be much longer delayed without danger. Scarcely a day passes without piteous appeals to the public for aid towards the support of the unendowed asylums for the sick; the threatened collapse of one of the most important and useful of them (the Fever Hospital) for want of means; the living from hand to mouth and expenditure of their capital of many of them, with the growing feeling in the public mind that the institutions themselves are behind the age in construction and management, all point to the same conclusion. We can quite understand why, in the present state of the question, the State declines to interfere, because the facts and figures necessary for its right understanding have not been properly collected, and because many of the evils pointed out can and ought to be remedied without the intervention of authority, by the public and the profession, if there were a determined feeling and effort to grapple fairly with the whole matter.

The working of the Poor Laws since the passing of the Act of 1834, and the subsequent continuing legislation in the same direction, have provided amply for the needs of the actually indigent classes in sickness. But the very nature of those laws interferes injuriously in this matter with the poor who are sick, but who are not actually destitute, who decline to come upon the rates, and who are only left without resources by the occurrence of disease or accidents. Hence, and for other reasons of a similar kind, an official inquiry is imperative to determine in what exact direction further legislation is necessary, to meet an urgent public need. But, before such an inquiry can be efficaciously conducted, something more exact requires to be known of the general state of the hospitals, and their distribution and management throughout the country, than is now on record in a reliable form. It is abundantly evident that the information cannot be extracted from hospital managers, and that it can only be collected by a patient and exhaustive personal examination, carried out under the authority of the State, by persons armed with compulsory power to procure the information. For this reason we are disposed to think that an inquiry of the same character as that so well performed by Messrs. BRISTOWE and HOLMES nearly a quarter of a century since, is all that should at present be asked for; that a couple of competent officers should be selected for the work; that sufficient time should be allowed for its efficient performance; that it should be thoroughly exhaustive in its scope; and that it should extend to an investigation of the hospital system and institutions of other countries. It would be preferable to place it under the supervision and control of the Local Government Board, whose chief has a seat in the

Cabinet, and which possesses an efficient medical staff, by whom the information obtained could be collated and printed for submission to Parliament, for such action as may then appear to be necessary. It seems to us that this is the only proceeding likely to recommend itself to the authorities, as a reasonable means of dealing with the present dead-lock and difficulty, in the interests of all concerned.

Since the publication of the report of Messrs. BRISTOWE and HOLMES in 1862, an entirely new departure has been taken in hospital construction and arrangements. That report has long been out of print; its views were not generally accepted, and it is now little known; but it marked an epoch, and might be taken, together with the instructions issued by the Minister of the Interior in France in 1865 to all local authorities, detailing the hygienic conditions to be observed in the creation of hospitals, as the basis and starting-point of the new inquiry. The circular referred to gave effect to a report furnished by a special commission, presided over by General MORIN, with MM. BOUILLAUD, COMBES, DEVERGIE, GILBERT, HUSSON, LAVAL, DE LURIEN, MALGAIGNE (Secretary), MELIER, MICHEL LÉVY, PAR-CHAPPE, PAYEN, TARDIEU, and DE VATTEVILLE, as members. More competent and distinguished authorities could not have been found anywhere. Unless some such step as we have indicated be taken, and that quickly, it is more than probable that a large portion of our labouring population in town and country may be subjected to considerable distress and hardship during sickness, should the present hospital accommodation of the country fail in its appointed work, from any of the causes now in operation to paralyse its action, the chief of which is the manifest decline of public support.

THE electors to the Waynflete Professorship of Physiology, Magdalen College, have issued a notice to the effect that they will proceed to the election early in August, and that candidates must send in their names and any papers which they may wish to submit to the electors on or before the 20th of July.

The electors will not probably experience much difficulty in making their selection, for there are few, very few, who can be regarded as possessing the necessary qualifications. Yet upon their decision it depends in great measure whether Oxford is to become an important and numerously attended school for the fundamental subjects of medical education, or whether the office is to degenerate into a mere dilettante Professorship, held no doubt by a man of talent—for surely none other would dare to present himself,—who would now and again give to the world the results of some painstaking research, but who would be utterly unable to avail himself of the splendid opportunity that now presents itself of creating a school of physiology. The man whose services are now required must be young and energetic, familiar with physiology in all its bearings, willing to give up all his time to its pursuit, capable of delivering a course of lectures that shall be interesting and intelligible to a class of junior students, and at the same time able to guide, promote, correct, and supervise the work of the more advanced students and of those who exhibit special aptitude for this particular branch of study. He must be one who can by his own example tempt others into scientific research.



At a great university like Oxford there must always be some men of parts who with the possession of ample means and leisure need only to be brought into the magic circle to learn how charming is divine philosophy, and who require only an enthusiastic leader to be carried away by the passion for research.

The example of Cambridge should not be lost on Oxford. By selecting a man in the prime of life, of unusual ability, and possessed of singular powers of attracting good men around him by his earnestness and zeal, a physiological school has arisen within her walls second to none in Europe, and MICHAEL FOSTER may point with pride to the excellent work that has been accomplished in the laboratory over which he presides, and to the fact that many who were once students in it now occupy distinguished positions in other countries. So far as we can learn, Professor ARTHUR GAMGEE is the only candidate who is likely to come forward. It is probable that if he is disposed to leave Owens College, with which he has so long been connected, and at which he has done so much good work, he will not meet with any opposition. He is in every way well qualified for the post. He is at mid age, full of energy and enthusiasm; he has had large experience in teaching; he has done much original work; he is the author of the best treatise on physiological chemistry that we possess; and we much mistake if his large knowledge, genial disposition, and warm heart, do not make him a general favourite in the new society he will join at Oxford.

M. FRANCOIS FRANCK has communicated to the Bordeaux Medical Society some instructive results of the experimental obstruction to the pulmonary circulation. The effect of a hindrance to the circulation of blood through the lungs in causing engorgement of the right heart, and secondary insufficiency of the tricuspid orifice, is one of the most familiar facts in medicine. M. FRANCK'S object was to produce this experimentally in order to study more closely the physiological conditions and symptoms, one of which was the chief subject of the communication—viz., the indications of the pulmonary obstruction which are afforded by the jugular veins. The phenomena may be produced by the tracheal insufflation of irritant vapours, such as sulphurous acid, the animal having been rendered insensible by chloral or motionless by curara. This sets the whole contractile mechanism of the lung into energetic action, the muscular tissue of the bronchial tubes and of the vessels. Hence there is a retraction of the whole lung, indicated by the depression of the costal walls, and there is also a diminution of the calibre of the pulmonary vessels, causing an engorgement of the right side of the heart. If the obstruction lasts long enough and is sufficiently intense, the feeble parts of the wall of the right ventricle—i.e., the part above and to the right—yield to the excess of internal pressure, and drag outwards the papillary muscles, and the chordæ tendinæ, and with them the free edge of one of the segments of the tricuspid valve. By this mechanism, which was pointed out by KING in 1837, temporary tricuspid regurgitation occurs, and causes a venous reflux, visible as the jugular pulsation synchronous with the ventricular systole. The tricuspid insufficiency and venous pulse continue as long as does the engorgement

of the right side of the heart. This "safety-valve action," as KING called it, may be thus constantly produced artificially. The analogy between this induced condition, and that which occurs in every paroxysm of spasmodic asthma, is sufficiently close, and there can be no doubt that in the latter the same cardiac phenomena occur. It is probable that the production of this tricuspid reflux is facilitated by certain conditions of the heart itself. The diastolic relaxing influence of the pneumogastric nerve undoubtedly plays an important part in the experimental production of this condition, and no doubt also in its clinical production. M. POTAIN has insisted on the transient tricuspid regurgitation which seems to be produced by a nervous mechanism under the influence of strong irritation of the abdominal viscera, acute affections of the liver, intestine, and stomach. The reflex action may probably be double, and the effect produced not only by cardiac inhibition, but also by obstruction to the pulmonary circulation.

THE judicial functions of the General Medical Council have received some recognition, if not development, during the recent sitting of the Council. The Home Secretary's remark in Parliament, that the Council had power to deal with cases in which medical practitioners were making undue uses of unqualified assistants, gave great gravity to the position of the Council in the case of Mr. DAVID BEATSON MURDOCH, who was shown to have three different dispensaries, worked chiefly by unqualified persons. The facts of this case have been already commented on by us, and we may expect them to serve as a warning to those practitioners who place unqualified assistants in full charge, or what is virtually such, of dispensaries. The Medical Council have declared this conduct to be infamous in a professional respect; and it is scarcely to be doubted that if a similar case were to come before them again, they would use their power of erasing the name of the practitioner.

We propose to state the outline of several cases brought under the notice of the Council, as it is clear that henceforward the judicial function of this body, or of its successor, will not lie so dormant as hitherto. To be forewarned is to be forearmed. The Council, like the Corporations, has been so insensible to breaches of professional conduct that some members of the profession have become careless too. Juries and Parliament have the credit of raising public feeling on this question, and compelling the Medical Council to do its duty. Henceforth there will be no excuse for those who bring themselves under the punishment which the Council is empowered to inflict in the twenty-ninth clause of the Medical Act, which runs as follows:—"If any registered medical practitioner shall be convicted in England or Ireland of any felony or misdemeanour, or in Scotland of any crime or offence, or shall after due inquiry be judged by the General Council to have been guilty of infamous conduct in any professional respect, the General Council may, if they see fit, direct the Registrar to erase the name of such medical practitioner from the Register." In the Dentists Act the thirteenth clause gives similar powers to the Council as regards dentists, in respect of cases of felony or misdemeanour, or "any infamous or disgraceful conduct in a professional respect." The

following are some of the other cases in which the Council has had to act judicially during the recent sitting. The case of a registered dentist, Mr. VALLECK CARTWRIGHT MALLAN. Mr. MALLAN confessed to carrying on practice as a dentist in different houses, under various names,—at 173, Praed-street, and 64, High-street, Notting-hill, in his own name; at 94, Praed-street, as CHARLES SMITH; and at 106, Edgware-road, as C. VALLECK. The Council having received assurance that this practice shall be discontinued, did not think it necessary to take any further action. The Council was implored to restore to the Register the name of a practitioner erased in 1877 on conviction of an unnatural crime. The petitioner's argument was an appeal *ad misericordiam* on the ground that his health, mental and physical, had been broken by much worry and anxiety, and so that he had yielded to impulses altogether foreign to his thoughts when in health. The Council resolved to take counsel's opinion as to restoring the name to the Register. A very painful case came before the Council—that of WILLIAM STORY, of Linsdale, convicted of feloniously setting fire to a certain house in his possession with intent to injure and defraud. His name was ordered to be erased from the Register. It had previously been removed from the list of Fellows and Members of the College of Surgeons. The Council determined to leave another case for the present in the hands of the Branch Council, that of a practitioner found guilty of adultery with a patient in the absence of her husband. The Council also devolved on the Branch Council the duty of further investigating a charge against Mr. RICHARD ALBERT SHIPMAN PROSSER, M.R.C.S., L.S.A., brought by the King and Queen's College of Physicians, on behalf of one of their licentiates, Mr. EDWARD HYACINTH O'LEARY. At an inquest on the body of ELLEN ALLSLY Mr. PROSSER swore to having examined the kidneys and other organs and found them healthy, and that death was due to the negligence of Mr. O'LEARY. On this evidence Mr. O'LEARY was committed for manslaughter. At a second post-mortem the kidneys were found undisturbed. It was also found that the examination of the other viscera was most incomplete. The stipendiary magistrate thereupon discharged Mr. O'LEARY. The profession will look with interest to any elucidation of Mr. PROSSER'S conduct by the Council or the Branch Council. The Council was invited to proceed to an extensive erasure of names of persons in the Dentists' Register on the ground of their doubtful right to be there. But it did not accept the invitation. It gave power to the British Dental Association to prosecute Mr. T. L. CALLENDER, of Bridge House, Burton-on-Trent, for practising as a dentist there, not being qualified, and announcing himself as in practice with Mr. GODDING, M.R.C.S., Surgeon Dentist, though there is no Mr. GODDING in Burton-on-Trent.

JOHN COTTON, M.D. Edin., Inspector-General of Hospitals and Fleets, whose death took place on the 12th inst. at the Royal Naval Hospital, Stonehouse, Plymouth, served on board the *Arethusa* and *Royal Albert* during the Crimean war in 1854-55, was engaged in the batteries and trenches before Sebastopol, and for his services received several decorations. In 1857 he was present at the capture of Canton; also, on board the *Inflexible*, at the destruction of a piratical fleet and stronghold near Hong Kong.

## Annotations.

"Ne quid nimis."

### THE DEAD AT ALEXANDRIA.

ACCORDING to the advices received from Alexandria, this unfortunate city is in great danger of pestilence, on account of the large number of unburied bodies that lie amidst the ruins. We would urge, in the face of this statement, that should an epidemic arise from such a cause, the authorities would be greatly to blame. In this case, at least, it could not be said that the consequences were not foreseen. It was well known that the fleet would bring to bear the most powerful weapons that have ever been used since the invention of gunpowder. There could be, therefore, no doubt as to the havoc that would be wrought by such monster guns, if the Egyptians should prove bold enough to face the fire. Nor can it be urged that men and time were wanting to dig the graves. For such a purpose native labour could be obtained, if necessary by compulsion. If, in spite of these considerations, it should prove that it was impossible to dig graves of sufficient depth with the requisite promptitude, the sea offered another means of avoiding an epidemic. Our own sailors were buried at sea, and the sea has always been considered an honourable grave. There can be no lack of old boats or barges at Alexandria, that might have been filled with the victims of the bombardment and taken out some miles to sea, where a collective burial, with all the rites and ceremonies the Mahomedan population might desire, would have been performed, and several hundred bodies disposed of in a few hours. If time and labour were so scarce as not to admit of the lowering, one by one, of each body into the sea, then the boats and barges thus converted into huge coffins could be sunk at the conclusion of the funeral service. After all the destruction caused by the bombardment, the question of saving a few old boats is hardly worth considering; but no measure, however stringent, calculated to lessen the appalling danger of the outbreak at such a moment of an epidemic should be neglected.

### THE SEWERAGE OF THE WEST-END.

WE wonder whether the authorities of the West-end of London will bring an action against us if we dare to endorse an opinion expressed in a letter written to *The Times* by a competent surveyor, to the effect that the sewerage of certain districts of the metropolis is defective. Mr. Alex. Peebles, the district surveyor of the northern division of St. Marylebone, has done good service in calling attention to the deplorable and disgraceful state of the sewers in some of the most fashionable districts. He says:—

"A short time since, in consequence of a death from diphtheria, I was called upon to inspect the sanitary condition of a house in one of the fashionable West-end squares. After having carefully inspected the dwelling, I directed my attention to the streets in order to ascertain what provision existed for the escape of gases from the public drain, when to my astonishment I found that there was not a single ventilator in the whole square, except the gullies; and upon tracing this drain to its main sewer and following it, I found the ventilators so very far apart that their effect must be imperceptible upon the gases thus pent up. I have since made frequent similar observations with a like result. The effect of depending upon the gullies to act as ventilators also is that when a storm occurs—not an unusual thing—the rush of water into the sewers drives the gases rapidly through the private drains into the houses; indeed, they become the only exits, while at all times the private drain is sucking the sewer gas, unless the drains are effectively disconnected, which is seldom the case."

It is satisfactory to know that not only Brighton, but

London, will be benefited by the attention which our remarks and criticisms have directed to the mistaken policy of leaving the sewers to pour their foul and poisonous gases through open gratings into the streets. The mischievous effects of this wholly irrational system are more conspicuous in certain localities than they may be in others, but they are disastrous to health everywhere; and we have no hesitation in asserting that the total sickness and mortality of most populous districts would be sensibly reduced if the sewers were properly ventilated by shafts or pipes opening well above the level of the highest rooms in the adjacent houses, and no escape of gas were permitted on the street level. As we have repeatedly insisted, house-drains should be entirely cut off from the sewers, not by mere "traps," but by properly constructed disconnecting chambers. These are the imperative and urgent necessities of a sanitary condition at Brighton, and the same measures must sooner or later be adopted throughout the metropolis. The sanitary engineers know we are right, and they would consult the interests of public health if they spoke out boldly on the subject, instead of bolstering up a system which their own better judgment condemns.

### INDUCED FLUORESCENCE IN THE EYE.

EHRLICH has made the curious observation that fluorescence can readily be communicated to the liquids of the eye (aqueous humour), in which the phenomenon is very conspicuous on account of the dark background. In his experiments he employed uranin, the ammoniacal compound of fluorescein. Two cubic centimetres of a 20 per cent. solution were injected beneath the skin of a rabbit, and after a few minutes the aqueous humour was let out by paracentesis. After from a quarter to half a minute an intensely luminous green tint was visible at the edge of the pupil; in a short time the colour extended in the pupillary area, and in two or at most three minutes had filled the anterior chamber. This experiment shows that the anterior surface of the iris does not in any degree participate in the regeneration of the aqueous humour. According to Ulrich, a part of the transuded fluid comes from the vitreous (i.e., from the vessels of the choroid), and passes by the zonule of Zinn into the posterior chamber. Ehrlich's results are opposed to this assumption. If blood-serum is obtained at the same time, its tint is exactly the same as that of the transuded aqueous humour—a fact which makes it probable that the latter is a direct transudation from the blood. The rapidity with which the process goes on is also opposed to Ulrich's view, since within five minutes of the injection of the material the chamber is filled with the green liquid. In one animal, into which a considerable dose had been injected, Ehrlich observed the appearance of a pale-green line in the pupillary region, constantly vertical in direction, and corresponding in position to the greatest curvature of the cornea. A band developed out of this line, and this again into two stripes separated by a narrow dark zone. A short time after the line was distinctly visible, the cornea became separated into a medial and lateral dark zone, the division between the two being occupied by the green line. It is easy to demonstrate that the appearance of the line does not arise in the cornea, but in the liquid in the anterior chamber, immediately behind the cornea. The vertical direction of the line is no doubt determined by the shape of the eye. Ehrlich is of opinion that the line must be regarded as the result of the meeting of two currents of secreted liquid. At the periphery of the iris there are two centres of secretion: an anterior, nasal; and a posterior, temporal. When both currents meet, the peculiar hue is produced. The normal secretion of the posterior chamber is distinguished from the aqueous humour by its deep-green tint and a higher specific gravity. Under normal relations the secretion does not pass into the anterior cham-

ber; but abnormal influences, such as paracentesis, cause it to do so. Ehrlich believes, therefore, that his experiments have disproved the theory of Ulrich, that both chambers are connected by a filtration current, which passes forwards through the roots of the iris and the ciliary processes. Each part is probably supplied from the bloodvessels. The chamber is not supplied with liquid from the whole circumference of the iris, but from special centres. The short time in which the liquid can be reproduced is also an argument against the possibility of a filtration current. These experiments show that the fluorescence can be very readily produced, and may supply the means of elucidating many physiological problems. One advantage of the method is that, being absolutely devoid of danger, it can be employed on human subjects. The internal administration of fifteen cubic centimetres of the above-mentioned solution will suffice.

### PERILS OF THE HOT-AIR BATH.

THE hot-air bath, in all its varieties of construction and arrangement, is a powerful agent for the disturbance of the circulatory system. The change effected may be good, or it may be bad, for the subject; but it can scarcely be inoperative. The heart's action is quickened; the tension of the blood-pressure is at first heightened, and then—if copious perspiration take place—it may be reduced. Speaking generally, there is a determination of the blood to the surface, leaving the central and deep organs less fully supplied than before. In this way, doubtless, local congestions are occasionally relieved by the bath. Under ordinary circumstances, the change effected in the distribution of blood and pressure is likely to be beneficial, but if the heart be weak, or the larger vessels rigid, it may happen that faintness ensues. Then something is done, either by the affusion of cold water on the extremities, or in one or more of several empirical ways, to drive the blood in again, and this endeavour may prove the last strain that throws the whole physico-vital apparatus of the circulation out of working order, and renders the continuance of the essential functions of life difficult or even impossible. We believe the Turkish bath to be a most potent and, when rightly managed, useful agent for the control of the circulation; but it is necessary to warn the public against the reckless use made of it in cases the precise nature and peril of which are not understood. Except by the robust and thoroughly healthy, the hot-air bath should on no account be employed without express medical approval. Even this restriction is scarcely enough, because it may happen that the subject of a weak heart or abnormal bloodvessels regards himself as healthy, until the unaccustomed demand made on his organs of circulation by the bath discovers the weak place in his economy. It is not desirable to lay too much stress on those deaths which occasionally occur in, or after a visit to, Turkish baths. They are accidents in the use of the agency, and as such must be regarded as significant. At the same time, it is desirable that the dangers of the bath should be more generally understood than they would seem to be; and that the proprietors of these establishments should be required to instruct their managers and attendants to send at once for medical assistance whenever a visitor becomes faint or even momentarily unconscious. Such occurrences must needs portend peril of death; and, however large may be the proportion of instances in which the "slight faint feeling" or "sleepiness" passes away, it is manifest that a grave risk is in all cases incurred, and a responsible medical man should be instantly summoned to aid the recovery. There ought to be nothing left to the discretion of the manager or attendant in such a case. Again, although it is easy to see that proprietors would prefer to avoid deaths on their premises, no person who has

been ill or even slightly unwell in the bath should be allowed to leave the establishment without being seen by a doctor. Further, we think the practice of *sleeping* in the hot rooms ought to be interdicted. There is always danger at the moment of awakening.

#### DEATH FROM MORPHIA IN A HOSPITAL.

A DEATH under very distressing circumstances took place last week in Westminster Hospital. A man named Ebdon was an inmate in one of the wards suffering from severe heart disease, but sufficiently well to be able to sit up in the ward during the latter part of the day. In the same ward was another man, who was receiving hypodermic injections of morphia, which appear to have been given by the nurse in charge. One day, when about to give the customary injection, she placed the bottle containing the morphia solution on the table in the middle of the ward by which the man Ebdon was sitting. He then seized the bottle and drank off about a tablespoonful of the fluid. Every effort was made to remove the fluid from the stomach, and to counteract its poisonous effects, but they proved fruitless, and the man died from the effects of the morphia. Such an event is extremely distressing, more particularly as it tends to lessen the confidence of the public in hospitals. The coroner's jury returned a verdict of death by misadventure, but added a rider that in their opinion the nurse was to blame for leaving poisons within reach of patients able to leave their beds. Those familiar with the working of a hospital will hardly concur in this opinion, but they will rather ask how it is that the nurse was in possession of the bottle of morphia. The coroner's jury would have done better service if, instead of trying to affix blame upon a nurse who was not shown to have been careless, they had elicited whether it was the custom in the hospital for the administration of hypodermic injections of morphia to be relegated to nurses. We have no hesitation in saying that such a practice is to be deprecated in the strongest possible terms. It is no part of a nurse's duty to determine on the necessity for such an administration, still less on the amount required, and, least of all, is a nurse qualified to inject the fluid. Had the administration of hypodermic injections of morphia been kept in the hands of the resident staff we presume a bottle of a strong solution of morphia would not have been in the ward, and could not have been left on the table. The case clearly points to a danger connected with the other plan, and we hope it will prove a warning to the authorities of all hospitals, and that precautions will be taken to prevent the repetition of such an unfortunate accident.

#### NOTIFICATION OF DISEASE.

A VERY lively difference of opinion obtains between the medical officer of health of Nottingham, Dr. Edward Seaton, and a considerable section of the medical profession in reference to the expediency of a clause in the Nottingham Improvement Act, which requires the medical attendant in a case of infectious disease to give information to the householder of the existence of the infectious disease, the householder being required to notify the fact to the sanitary authority. Thirty-eight practitioners have presented a petition to the Town Council against the notification of diseases. At the request of the Health Committee, Dr. Seaton has drawn up a reply to the points of objection contained in the petition. The feeling of the petitioners seems to have been partly excited by the fact that the clause objected to was obtained somewhat indirectly in a Gas Bill. We share the feeling that questions like these should be raised boldly in the Legislature, and not carried by a side wind. On the main question we are of

opinion that the time has come when there should be a notification of disease to the sanitary authority. Very striking facts come constantly before us showing the urgency of this necessity. This notification should be the duty of the parent, or other responsible guardian, of the patient. In the Nottingham Act the medical man is only required to inform the householder or parent on whom the responsibility of notification rests. It is not a forcible objection to this requirement to say that the diagnosis of infectious disease is not always easy, at least at first. Clearly, the medical man cannot inform the parent until he is satisfied in his own mind of the fact. Neither do we see much force in this connexion in the comparison between the knowledge gained in the confessional and that of infectious disease. There is nothing discreditable or immoral in having infectious disease. Injury might accrue to the householder by publication of the fact; but there need be no publication of it, and the sanitary authority will greatly frustrate its object if it gives publicity to facts conveyed confidentially to it. The whole community is interested in the limitation of infectious disease, and public opinion should be educated to the point of regarding it as creditable in any citizen to place information of infection at the disposal of the public sanitary authority. This cannot be done without the assistance of the medical profession; but they should be relieved of the actual duty of notification.

#### SANITARY STATE OF MARYPORT.

MR. J. SPEAR'S report to the Local Government Board on a prevalence of typhus fever at Maryport discloses a history and a course of inaction in sanitary matters which are well-nigh incredible. A regular sequence of cases of what is now shown to have been typhus was in progress from April to July, 1881, if not for a longer period, and yet at the end of that time the epidemic is described by the medical officer of health as one which "from the mild typhoid form, assumed the form of typhus." The disease continued to progress, and at the date of the official inquiry, early this year, it was found that in this small town, containing some 8100 inhabitants, "considerably over 100, probably nearly 200, cases" had occurred. The prevalence of typhus is well known to be almost invariably associated with those special forms of filth which go hand-in-hand with overcrowding, whether of houses or of individuals, together with destitution; and from the description given by Mr. Spear it is evident that Maryport is a town exhibiting conditions which are typical of those referred to. The houses are almost everywhere built on quite insufficient area, narrow arched openings lead to crowded and squalid courts, and in some cases four streets form a square facing outwards, the enclosed quadrangular space containing courts and smaller squares huddled together. Many of the individual dwellings were found to be quite unfit for human habitation; their condition as to filthiness is described as really shocking: cellars wholly beneath the surface of the ground, and receiving their sole supply of light and ventilation from very similar cellars to the front, were used by several persons as sleeping apartments, and overcrowding was found to be of common occurrence. In 1866 an intelligent sanitary authority inserted a provision in a local Act forbidding lodgers to occupy any room that did not afford to each inmate a space equal to 400 cubic feet; but no attempt has been made to enforce this very desirable provision. Indeed Mr. Spear relates an instance in this connexion which we trust is exceptional even in Maryport. The inspector of nuisances reported that two cellar-rooms, which in point of size were only adapted to receive six persons, were overcrowded by reason of their containing more than double that number of inmates. The cellars were found to be unlawfully occupied as judged by the local Act; they were damp and dark; the only window

which could open in either of them was a pane of glass some eight inches square, and not a single requirement of Sec. 72 of the Public Health Act with respect to cellar tenements was observed; and yet in face of all this it is recorded that the medical officer of health "did not consider this overcrowding," and so the cellars remained inhabited. But quite apart from conditions favouring typhus, it appears that the ordinary work of abatement of nuisances and of the removal of conditions injurious to health had been almost totally in abeyance, and, even in the face of an infectious disease such as that which had prevailed, no disinfection had been carried out under the supervision either of the medical officer of health or of the inspector of nuisances, verbal directions alone having been given "in several cases." The sanitary authority has no hospital, and hence only the destitute were isolated under the direction of the guardians of the poor. But the hospital resorted to for this limited purpose turns out to be a flat over a rag and bone dealer's stores, the effluvia from which, it is said, penetrate into the wards above, whereas the sewage from the hospital is complained of as percolating the stores below. The sanitary story from Maryport seems almost without a redeeming point.

### THE CHEMISTRY OF PUTREFACTION.

THE Chemical Mechanism of Putrefaction, and the nature of the Alkaloids which result, is the subject of a recent communication to the Paris Académie des Sciences by MM. Gautier and Etard. They had previously shown that, as soon as the putrid fermentation of albuminous substances is well established, the reaction becomes alkaline, hydrogen disappears, and carbonic acid is released, at first rapidly afterwards more slowly, mixed with a little nitrogen and with traces of phosphuretted and sulphuretted hydrogen. At the same time, the liquids contain ammonia, with a little trimethylamine, fatty acids, lactic acid, a small amount of oxalic acid, traces of tyrosine, phenol, scatol, indol, guanidine, xanthine, and organic alkaloids. These substances are accompanied at the commencement by a mass of glucoproteins and a soluble proteoid substance, which disappears slowly. The authors of the paper believe that all this complex series of substances is due to the circumstance that the putrid fermentation breaks up the albuminoid molecule by a method of simple hydration, and reveals its complex constituents. The process really resembles the hydration of the albuminoids by baryta, which has been studied by Schützenberger, in which there is a similar liberation of ammonia and of carbonic acid, and of a like series of substances. Thus the albuminoid molecule is doubled under the influence of bacteria, just as under the influence of water aided by heat and alkalis; and it breaks up into two principal parts: one relatively resistant, from which the glucoproteins and later the leucines are derived; another unstable, forming ammonia and carbonic and other acids. It is supposed, therefore, that the odoriferous bodies observed during putrefaction, and also certain bases which may be obtained, must pre-exist in what is termed a "nuclear" form in the albuminoid molecule. To extract the basic substances the following method was found to answer best. The liquid products of putrefaction were acidulated with sulphuric acid and evaporated in vacuo, by which means the volatile acids, indol, phenol, &c., escaped. The residue was rendered alkaline by the addition of baryta, and then filtered and shaken up with chloroform, which dissolved the bases. They were extracted by fractional distillation of the chloroform and treated with tartaric acid. Potash added in excess to the tartaric solutions liberated a strong odour of carbylamine, and set free the oily bases, which could be separated by ether and dried in a vacuum. These resembled the bases described by Selmi: oily colourless liquids, bluing litmus, neutralising strong acids, and

giving with nitric and hydrochloric acids, ferrocyanide of potassium, and ferric salts, the reactions of ptomaines. They were precipitated by bromine, iodine, and the phosphomolybdates. They quickly became resinous.

### INFANTILE DIARRHŒA IN LEICESTER.

UNDER the influence of the recent unseasonably cold and wet weather the fatality of summer diarrhœa in our large towns was again very much below the average in the second week of July. It appears from the Registrar-General's last Weekly Return that during the week ending the 15th inst. the annual death-rate from diarrhœa among the eight and a half millions of persons estimated to be living in the twenty-eight largest English towns averaged 1.3 per 1000; it was equal to 1.4 in London, and averaged 1.3 in the twenty-seven provincial towns, which have an aggregate population very little larger than that of London. The main feature of these recent diarrhœa rates is the outbreak of the usual epidemic prevalence of the disease in Leicester. The annual death-rate from the disease last week in Leicester appears to have been equal to 7.4 per 1000, or nearly six times the mean rate in the twenty-eight towns. No deaths from diarrhœa were recorded last week either in Sunderland or Derby, whereas the death-rate from the disease ranged upwards in the other towns to 2.3 in Salford, 2.4 in Nottingham, and 2.7 in Preston. Thus the rate in Leicester was more than three times as high as that which prevailed in any of the other large towns. No fewer than 41 of the 63 deaths from all causes in Leicester last week were of infants under one year of age, against but 12, 13, and 22 in the three preceding weeks; and the fatal cases of diarrhœa, which had been but 2 and 4 in the two previous weeks, further rose to 18 last week. Ordinary July temperature would undoubtedly have caused a far greater excess of infant mortality than that recorded. It may be hoped that the local sanitary authority are fully alive to the necessity for exceptional measures for checking this waste of life, or at any rate for solving the yet unsolved problem involved in the question: Why does Leicester year after year suffer from this exceptionally high rate of infant mortality, mainly due to diarrhœa?

### LUNATICS.

IT is something to know from the delivery of Lord Carlingford on behalf of the Government, or, as he curiously designates the particular authority for which he speaks, the "Irish Government," that the desirability of "substituting the workhouse system for the more extravagant system of lunatic asylums" is recognised. It may now be hoped that not only the "Irish Government," whatever that may be, but the Government of the United Kingdom of Great Britain and Ireland will soon begin to look into this matter, and arrive at the same conclusion. Manifestly, there must come a time of awakening, when it will be seen that the policy of building vast asylums at great cost, and filling them with imbeciles, is not only ill-judged, but futile and ruinous. It is not merely on the score of expense that this feeling must be denounced, but because it diverts the most recent and best appliances for the treatment of insanity from their legitimate purpose, and postpones the day when lunatics will cease to be regarded as creatures to be put away—in comfort, perhaps, but without hope or intent to cure them—and when, for the first time in the history of this branch of so-called medical practice, they will be treated as the victims of a malady. Until asylums come to be constructed and managed as hospitals instead of refuges, we shall never know how much may really be done to arrest the progress and repair the ravages of mental disease.



## LONDON AMBULANCE SERVICE.

A MEETING of those interested in the establishment of an efficient system of ambulances in London was held last week at Charing-cross Hotel, presided over by Mr. James H. Crossman. The chairman gave an outline of the work of the committee that was appointed some months ago by the meeting presided over by H. R. H. the Duke of Cambridge. It appears that although the general hospitals sympathise with the movement they do not feel able to undertake to work the ambulances on account of the extra expense it would entail. We recently called pointed attention to the embarrassed condition of the finances of the general hospitals, which threatens to curtail their usefulness to a serious extent. We regret that from the same cause they are now prevented from taking up this new work, which would have considerably increased their efficiency. From its position and wealth we should have supposed that the authorities of St. Bartholomew's Hospital might come to a different decision. They could so easily undertake the ambulance work of the City, and their funds are able to bear the burden, and we believe that Sir Sydney Waterlow is personally interested in the ambulance scheme. In default of the hospitals the committee turned to the police-stations, and in this they were cordially aided by Sir E. Henderson. A thorough examination of the stations has been made, and the practicability of working the ambulance from them proved, and as a result fifteen police-stations have been selected at which to make a beginning. These stations are in as many different police divisions, and all of them are close to the four-mile radius from Charing-cross. It was proposed to have one horse ambulance at each of these stations always ready, and available for the use of anyone in the district. The ambulance designed by Dr. B. Howard, and known by his name, has been found to work well, and the committee has determined to adopt it for each of these fifteen stations. The scheme, as carried out at the London Hospital, is found to answer well, and with excellent practical results. In some of the larger provincial towns ambulance services have been organised, and good reports come in from them. Glasgow has a particularly perfect system, which is worked with the help of both telegraph and telephone. The meeting cordially adopted the report of the committee, and approved of all its suggestions. It has been calculated that £1000 is needed to start the plan, and the committee now appeals to the public for £2000 in order to put the matter on a thoroughly sound financial basis. There should be no difficulty whatever in quickly raising such a sum for an object so exceptionally good. We cannot but believe that when once well established and the working of the system thoroughly understood, these ambulances will be of immense advantage to the very numerous invalids who require removal from place to place, and that it will prove a very popular adjunct to our great hospital work.

## CHILDREN'S HOSPITALS.

WE have received a circular in regard to a proposed hospital for sick children in Paddington-green. The scheme would appear to be a legitimate extension of an institution which has already done good service—viz., the dispensary for children's diseases in Ball-street, Edgware-road. There is much to be said in support of the proposal. In spite of certain drawbacks it must be admitted that there is an unquestionable balance of benefit to the community in the establishment of children's hospitals. There appears to have been ample scope for those already existing in the metropolis, and no doubt the proposed institution would be a boon to Paddington. For our own part we look forward to the time, especially in regard to sick children of the poor, when dispensaries shall be provided with a complete and efficient system of trained out-patient nursing as well as proper medical

home supervision. But this, it may be said at present, is only a dream. Let us, at all events, frankly consider the responsibility of massing together sick children in a hospital unless every possible precaution has been taken for efficient ventilation and for proper quarantine, if not for complete treatment of intercurrent infectious diseases. With our present knowledge, opening a children's hospital is, indeed, no child's play. We confess we look with some anxiety on the starting of any children's hospital in a house, or couple of houses, and we believe this would be the feeling of those who are acquainted with the medical history, from beginning to end, of the Great Ormond-street and North-Eastern Children's Hospitals, and probably also of some of the others which were started in houses. We wish those who are promoting the Children's Hospital at Paddington all success in their admirable project, but if they can command enough pecuniary support to start with a new building which, however small, shall have the best known hygienic requirements, they will save themselves from much future anxiety, and obtain the confidence of the profession as well as the public.

## ARRESTED DEVELOPMENT.

AN extraordinary instance of "sporadic cretinism" was described by M. Ball at a recent meeting of the Académie de Médecine. The affection was not hereditary. The father was alive, sixty-two years of age, and intemperate; the mother was forty-two years old at the time of the birth of the patient. The members of their families were all intelligent and well-developed, but all the other children died at an early age from affections of the nervous system. The subject of the disease was the last child, and presented all the appearances of normal development at birth, and up to a year old, when convulsions occurred, and were repeated almost daily for more than three years, and his growth underwent an extraordinary retardation. At the present time he is thirty-one years of age, but only forty-three inches high, and his weight is only four stones and a half. The dentition has remained incomplete, nineteen teeth alone having appeared, all of which are now carious. The face is free from hair, which is abundant on the head. The latter is large but irregular, the forehead receding. The countenance resembles that of a fœtus preserved in a bottle. The sexual organs are well-developed. There is no trace of goitre. Intelligence is very imperfect. The patient is able to understand what is said to him, but has considerable difficulty in expression. He knows the letters of the alphabet, but cannot read. His disposition is said to be inoffensive, and his tastes those of a young child. The condition is attributed to defective feeding at the end of the first year of life.

## THE THIRD BLOOD-CORPUSCLE.

THE last published number of the Bulletin of the Royal Academy of Medicine of Rome contains a memoir by Professor Legge, entitled "Observations on the Blood of the Salamander, and of the Triton, concerning the plates (*piastre*) of Bizzozero, and the invisible Corpuscles of Norris." We give a literal translation of Professor Legge's conclusions on this important matter. "1. In the blood of tritons and salamanders, in addition to the white and the red corpuscles, exists a special morphological element, which, if not identical with, is at least analogous, to the blood plates (*placche di sangue*) of Bizzozero. 2. In the preparations of the same blood are to be seen colourless discs, which correspond to the description which Norris gives of his invisible corpuscles. 3. These discs are the result of an alteration which the red corpuscles undergo in the presence of water. This confirms what Bizzozero asserts concerning the absence of Norris's invisible blood-corpuscle in mammalia. 4. The alterations which red corpuscles undergo in the presence of water are

the solution and effusion of the hæmoglobin, the transformation of the nucleus, from the original oval, into a brilliant sphere, and the softening of the cellular membrane, which finishes by disappearing, leaving free the nuclei, which remain separate and floating in the liquid."

### BRITISH HOSPITAL FOR JERUSALEM.

WHILE other European nations have for years had their hospitals and dispensaries in Jerusalem, the English have been unable to take their part in such charitable work. The cause of this has not been any lack of interest or charity on the part of our countrymen, but only the obstruction of the "inexpressible Turk." For some years the Order of St. John of Jerusalem has been trying to obtain a site for a hospice, and at length this has been granted by the Sultan, and as soon as the necessary funds have been subscribed, a suitable building will be erected. An influential meeting for the promotion of this object was held at the Jerusalem Chamber, Westminster, on the 7th instant, under the presidency of the Earl of Shaftesbury. The Prince of Wales and the Duke of Connaught sent letters expressing their entire sympathy with the object of the meeting. It is intimated that £2500 will be required at once for the building and fittings, and an income of £400 a year to maintain it in efficient working. Suitable resolutions were passed at the meeting, and a small executive committee was appointed. As ophthalmic diseases are so rife in the Jerusalem population, it has been wisely decided to call the institution the British Hospice and Ophthalmic Dispensary. We trust that the committee will find no difficulty in raising the needed funds for such a worthy object.

### A NASTY RISK OF MEDICAL PRACTICE.

A PRACTITIONER of Galashiels has had to stand his trial before the High Court of Justiciary on a charge of rape, and with having taken advantage of an unmarried female who had submitted herself for a surgical operation. Medical men should always protect themselves from such charges by insisting on the presence of a third party. The charge in this case quite broke down; and after four hours and a half a formal verdict of "Not guilty" was returned, and the Crown resolved to abandon the prosecution. It is to be regretted that the Crown did not sooner find out the baselessness of the case against Mr. Edward Pratt Evatt. An address, signed by upwards of 1000 inhabitants of Galashiels, and expressive of esteem, was alluded to by the Dean of Faculty. We sincerely sympathise with Mr. Evatt, and congratulate him on the unanimous opinion of the Court and the esteem of the community in which he practises.

### THE MANAGEMENT OF LUNATIC ASYLUMS.

WE are not disposed to attach undue importance to the recommendations of coroners' juries with regard to the management of lunatic asylums, but it is impossible to avoid the feeling that a mistake of policy, if not a graver error still, is made when the Commissioners in Lunacy refuse to send an inspector to watch proceedings before a coroner in a case which is likely to end in a charge of murder. It is not considered beneath the dignity or inconsistent with the duty of the Board of Trade to watch the proceedings which arise in connexion with a railway accident: an inspector is appointed to assist the coroner, or at least to take official cognisance of the evidence given. It seems that the Commissioners in Lunacy are too high and mighty for any such concession to public feeling. We venture to think they greatly err in not meeting public opinion half-way. Unless some practical interest in the welfare of the insane is soon shown by the officials of Whitehall, it will astonish no

onlooker to find the Commission swept away as a costly encumbrance which has ceased to discharge the functions for which it was originally organised and has been hitherto maintained.

### THE MEDICAL STAFF FOR EGYPT.

WE are in a position to contradict a statement which has appeared in several of the papers to the effect that Surgeon-General Alexander Smith, at present in charge at Gibraltar, had been selected to proceed to Egypt as Principal Medical Officer of the troops which may be employed there. We have reason to believe that the administrative staff will consist of Deputy Surgeon-General Hanbury in charge of the Department, and Deputy Surgeon-General Ekin and Brigade-Surgeon Manley in charge of Divisions. Judged by their antecedents, the selection appears to be very judicious, and we have no doubt the responsible duties of the respective appointments will be efficiently and satisfactorily discharged. Eight field hospitals are in course of equipment and will be sent out as required, each being under the charge of a brigade-surgeon or a senior surgeon-major. The troops in Alexandria will be provided immediately with a complete hospital equipment and the necessary staff from home.

### THE CHAIR OF SURGERY IN EDINBURGH.

WE record with much satisfaction the fact that Dr. John Chiene has been appointed Professor of Surgery in the Edinburgh University, in succession to the lamented Professor Spence. The Curators had the embarrassment arising from having only one chair to fill and several suitable candidates. But we are sure that none of the unsuccessful candidates will deny that a very suitable selection has been made. Dr. Chiene is known most favourably not only as a pure surgeon, who practises his art with all the precautions of antisepticism, but equally well as a devoted teacher who finds his delight in expounding the principles of surgical science. He is a graduate too of the university, and has every inducement to labour in perpetuating its prosperity and its fame.

### A NEW TITLE, L.A.M.D.

IT transpired at an inquest on the body of Bertram John Askew, Caledonian-road, that Mr. Greatorex, who had attended the patient, gave a certificate that the deceased died of acute hydrocephalus, and appended to his name L.A.M.D. The parents thought Mr. Greatorex a qualified medical man. The Registrar, doubting Mr. Greatorex's qualification, made inquiry, and the L.A.M.D. admitted that he was unqualified. He explained that the letters meant Late Army Medical Department. Such conduct is simply a fraud on the public. As Dr. Thomas said, it is especially bad, because it misleads the poor. A post-mortem examination by Dr. Pepper showed the absence of acute hydrocephalus. It is satisfactory to know that the facts have been reported to the Registrar-General, and that Greatorex will be prosecuted.

### BROMPTON HOSPITAL.

DR. HERBERT ISAMBARD OWEN, M.R.C.P., St. George's Hospital, has been elected an Assistant Physician to the Hospital for Consumption and Diseases of the Chest, a vacancy in the medical staff having been caused by the resignation of Dr. William Ewart. Mr. Raymond D. Batten, M.R.C.S., St. Bartholomew's Hospital, has been appointed Resident Clinical Assistant in the room of Mr. Christopher Vise, whose period of residence has expired; and Mr. George V. Perez, L.S.A., University College Hospital, has been elected to succeed Mr. Arthur Foxwell, at the expiration of his term of office next month.

### THE REPORT OF THE ROYAL COMMISSION ON THE MEDICAL ACTS.

WE have already explained to our readers that only the Report of the Commission has been as yet published. The evidence on which the Report is based has yet to come. We understand it is not likely to be published before the early part of August. We must wait until this is received before we can form a just estimate of the labours of the Commissioners or of the testimony on which their important report is based.

### LIGATURE OF THE INNOMINATE.

MR. THOMSON furnishes us with the following particulars of the progress of his case of ligature of the innominate artery:—

"Violent hæmorrhage took place in my innominate case on the thirty-ninth day. It was controlled by shot-bags, and has not recurred since—that is, for sixty hours. There was an interval of nine days between the first and second bleedings, the patient on Sunday declaring that he had never felt better. He has now recovered somewhat, but I expect a fatal result. He has now survived forty-one days."

### A MEDICAL ACT AMENDMENT BILL.

A BILL is passing through Parliament, unopposed, to empower the new Royal University of Ireland to choose a representative in the General Medical Council, just as the dissolved Queen's University used to do.

WE regret to hear of the death of Dr. Alexander Silver, at the comparatively early age of forty-one. He was for many years one of the physicians to Charing-cross Hospital and was lecturer on physiology at that school. As a teacher and lecturer he was assiduous and painstaking, and his class will long remember his terse illustrations, his jocosity and ready wit. For some years past, however, his health had suffered considerably. On Thursday, July 13th, he was seized with vomiting, rapidly developing into uncontrollable hæmatemesis, which carried him off on Sunday last.

WE understand that a new volume of the Classified Catalogue of the Library of the Royal Institution of Great Britain, by Mr. Vincent, the librarian, is now ready. It includes the most important works published during the last twenty-five years, placed under their respective heads, accompanied by a synopsis and indexes of authors and subjects.

THERE is a wide-spread desire among the Fellows and members of the Royal College of Surgeons of England to make some complimentary recognition of Mr. Thomas Madden Stone's long and faithful services to the College. We shall be glad to learn that the scheme has taken practical shape, and that it is sure of the success it merits.

THE numerous friends of Professor Lund, of Owens College, will be gratified to learn of his steady progress towards recovery from an operation necessitated by a poisoned wound of the finger received some four years ago. The operation was performed in London by Mr. Lister.

IT is gratifying to find the name of Dr. Mackie in the list of persons who have survived the bombardment and massacre of which Alexandria has been the scene; his house, however, is stated by *The Times'* correspondent to be completely gutted.

AT the invitation of Dr. Edward Malins, the President, on behalf of the Council of the Midland Medical Society, Dr. Andrew Clark will deliver the inaugural address, before the Society at Birmingham, next session.

THE action brought by Dr. Abrath of Sunderland against the North-Eastern Railway Company for malicious prosecution, and which occupied three days in hearing at the Durham Assizes, resulted in a verdict for the defendants.

KING'S COLLEGE HOSPITAL is now closed both to in- and out-patients, and will remain so until the commencement of the winter session.

DR. A. B. GARROD and Dr. CRICHTON BROWNE have been elected Corresponding Fellows of the New York Academy of Medicine.

TYPHOID FEVER appears to be very prevalent in several of the principal cities and towns of South Australia.

## Pharmacology and Therapeutics.

### PULSATILLA.

ACCORDING to Clarus, the active principle of pulsatilla is anemonin, and Broniewski has lately investigated the action of this on frogs and rabbits, and also that of the extract, tincture, infusion, and decoction of pulsatilla. All the preparations were found to possess poisonous properties. In frogs the number of respirations and cardiac contractions was lessened, in ten or fifteen minutes if the dose was large, not until the end of a day if the dose was small. The animals were dead, and sat with head bent forward and half extended extremities, and could scarcely be excited to movement by sensory impressions. Cutaneous sensibility was preserved, and so also was the excitability of the motor nerves, but the muscular irritability was lowered. The heart continued to beat after the respiratory movements had ceased. Rabbits presented initial weakness and tremor of limb, and intense apnoea, which led to death after a paralysis of the extremities, commencing in the fore-limbs. After death intense hyperemia of the lungs was present, and signs of inflammation in the intestinal canal.

### RESORCIN IN DIPHTHERIA.

Andeer, who has employed resorcin in so many diseases, has recently used it in diphtheria, and states that, in the slighter forms of the disease, a single cauterisation with crystalline resorcin, or with a concentrated ointment of resorcin in vaseline, is sufficient to arrest the formation of false membrane; but in cases of greater severity repeated applications are necessary; while in the most severe forms of the disease he recommends that resorcin should be given internally as well as applied locally. We fear, however, that his recommendation of the drug must be received with some caution, since he makes the extraordinary statement that of 222 cases treated thus, not one died. If his diagnosis of the disease was correct in one-tenth of his cases, the result would still be satisfactory. He asserts that the agent appears to be a true specific, influencing the morbid blood state as well as the local process.

### SULPHUROUS ACID IN TUBERCULOSIS.

Some experiments by Froschaner on the treatment of septicaemia by sulphurous acid, suggested to Catani the trial of this agent in phthisis, and his experiments are of interest, not only from this practical aspect, but also in connexion with the discoveries of Koch. Phthisical patients were made to drink of water impregnated with it, and especially were made to breathe in closed rooms the air of which contained a considerable quantity. The experiments, continued for a considerable time, yielded the following conclusions: Most patients bear the long-continued inhalation of sulphurous acid remarkably well; only during the first few days, before

they have become accustomed to it, do they complain. All the cases thus treated became free from fever in the course of a few days, and subsequently remained so. As far as could be ascertained, the local mischief showed no tendency to increase during the treatment, and the amount of expectation became slighter. The observations are being continued in order to ascertain how far a permanent effect can be produced.

#### ARSENIC.

Two French observers, MM. Caillol de Poncy and Ch. Livon, have lately experimented on chronic arsenical poisoning. The effect of the addition of small quantities of arsenic to the diet of cats was not at first to cause any disturbance in the general health; indeed, they ate more, became fat, and seemed generally to be in exceedingly good health. After a time, however, they began to lose flesh, became affected with diarrhoea, lost appetite, and became languid, and finally died in a state of anæmia and emaciation, which presented a striking contrast to their condition at the commencement of the treatment. At the necropsy all the muscles, including the heart, were extremely pale; the liver, the lungs, and the kidneys presented all the naked-eye signs of fatty degeneration, and the mesenteric glands were swollen, and also presented fatty degeneration, a lesion which has not previously been observed. In the lungs Cornil and Brault found, in acute poisoning, that the pulmonary capillaries were dilated and distended with blood, and the endothelial layers were invaded with large fatty granulations. Hemorrhages were also seen in certain points, and many alveoli were filled by degenerated cells, giving rise to the naked-eye appearance of pale islets. The mesenteric glands appeared as large yellowish-white masses of caseous aspect. The microscope showed that the peripheral part of the glands was invaded by fatty degeneration, which was not limited to the follicles. The process of change appears similar to that in the lung: under the influence of the slowly absorbed arsenic the endothelial cells undergo fatty degeneration, commencing in the most active part of the glands—the follicular region,—from which it gradually invades the greater part, if not the whole, of the gland.

#### NITRATE OF SILVER.

In some experiments on chronic poisoning by nitrate of silver Roszhegzi says that a dilute solution injected into the stomach causes rabbits rapidly to lose flesh; but the functions of respiration and the action of the heart are not disturbed until shortly before death. The pathological appearances found were redness of the mucous membrane of the pharynx and larynx, congestion and even hepatisation of the lungs, with a cell growth in the walls of the alveoli. In the cases of longest duration he found the liver shrunken, its connective tissue increased, and the cells in a state of fatty degeneration. The connective tissue of the kidney was also increased, and the epithelium degenerated. The striated muscles were also granular. Small doses raise the temperature a fraction of a degree, whereas large doses lower it. If nitrate of silver is injected under the skin it seems to be eliminated by both the intestine and the kidneys, but more speedily by the former than by the latter.

#### PHOSPHORUS.

Danillo, in phosphorus poisoning, has found inflammatory changes in the spinal cord, either a central or a diffuse myelitis. In acute cases the central nervous system contains accumulations of pigment proceeding from effused blood, and recent effusions may be traced in the central region throughout the entire length of the spinal cord. Small, often-repeated doses cause a very interesting diffuse inflammation of the cord. By varying the dose, both forms of inflammation may be produced, and to these changes most of the nervous symptoms observed during life may be referred.

#### CHINOLIN.

The physiological action of chinolin has been investigated afresh by Bach and Loimann. They made it synthetically by the method of Straus, by heating nitro-benzol, anilin, and glycerine in the presence of sulphuric acid. The sulphuric acid withdraws the water from the products of decomposition of the three former, and leaves chinolin. A tenth of a gramme produced in rabbits a fall of temperature amounting to  $3^{\circ}$  to  $1.1^{\circ}$  C. within an hour; the fall was followed by a subsequent rise, which in many cases exceeded the original temperature. Larger doses,  $3$  to  $5$  gramme,

caused a very considerable and permanent fall in temperature, usually ending in death. The respirations were irregular and superficial, and increased in number after small doses;  $2$  to  $3$  gramme rendered the animal helpless and dull, with a diminution in the reflex excitability, and  $6$  to  $1.0$  gramme caused complete paralysis, with loss of all reflex action, and death in collapse. A cumulative action was not observed. Hyperæmia and œdema of the lungs were found after death.

### THE EXHIBITION OF APPLIANCES FOR THE PROTECTION OF HUMAN LIFE.

POWERFUL patronage and a most worthy purpose have not sufficed to make this Exhibition a success. Exceptionally unfavourable weather, feeble publicity, and defects of management have all combined to reduce the number of visitors, and to occasion much dissatisfaction among the exhibitors. During the present uncertain weather, a journey to the Alexandra Palace is not particularly inviting, nor is it encouraging to find, on reaching the Exhibition, that some of the owners of the most interesting exhibits have not yet got their stalls in order or their goods in place. English sanitary appliances are very poorly represented; but this is only natural considering how recently displays of this description have been held at South Kensington and at Brighton. A novel feature was, however, promised by the advent of upwards of thirty German patentees whose inventions were to have formed part of the great sanitary exhibition at Berlin which was destroyed by fire. Unfortunately it is precisely the Germans who have in many instances failed to make good their appearance. Some of their apparatus are still in the docks, and it is doubtful if they will reach the Alexandra Palace before the Exhibition is closed. The German exhibit actually in working order, and which most readily attracts the visitor, is that of Messrs. A. Schörke and Co.'s pea sausage combined with bacon and ham. This improvement on the celebrated sausage the German soldiers used during the Franco-Prussian war weighs 18 oz., yields eight pints of thick soup, and costs only sixpence. The pea meal of which it is made contains 18.44 per cent. of albuminous substances, and the lentil meal 21.50 per cent. With such cheap and highly nutritious food at hand no one need starve. Herr Johann Scholz of Laubegast, Dresden, exhibits, together with their analysis, highly nutritive biscuits, cocoa, and chocolate made with pea, bean, and lentil flour. If such articles were in more general use they would save many poor people from the fatal consequences of insufficient food. As the Germans are renowned for their power of living on the smallest conceivable incomes, it is not surprising that they should excel in the manufacture of cheap food.

The purely sanitary appliances at the Exhibition are anything but novel. Smeaton's closets, the antiseptic closet, and Boyle's ventilating cowls hold prominent positions, but show nothing new. By the side of Lloyd's improved ventilating cowl will be found a very ingenious joint for ventilating shafts in wrought metal, which would render the displacing or leakage of the joints impossible. An outer ring or belt about four inches broad forms a socket, into which the upper portion of the pipe is inserted and soldered.

Mr. R. Adams' patent window frames and apparatus for opening fanlights are particularly useful in assisting ventilation and preventing accidents. The upper and lower part of the window can be opened and shut in the ordinary manner, or it may be opened as a louvre window; and finally, revolving on a central pivot, both portions can be brought down to the level of the window-sill, and being spread out at right angles, every corner can be reached by the servant standing on the floor of the room and polished in the same manner and with the same facility and action as the surface of a table. Further, this window is so contrived that even when partially opened it cannot be further opened from the outside, so that ground-floor rooms may be ventilated without the fear of thieves gaining access. Nor is this great improvement expensive.

In respect to ventilation, the few exhibits in this section relate rather to ships than to houses, and we failed to find

anyone present capable of giving the necessary explanation. Capt. F. L. Norton's system of ventilation by two huge bells that rise and fall in two drums is really a means of artificial breathing. The drums communicate to all portions of the ship by various pipes, the one drawing up the foul air, the other pressing forward the pure air, as the bells within the drums or cylinders rise and fall through the action of cross-beams worked by an engine. So long as the engine does not get out of order and sufficient power is used, this invention renders the greatest service, particularly if care be taken, in pumping the air in, to diffuse it, so as to avoid draughts.

The most important sections of the Exhibition are those that relate to the prevention of railway accidents and to the saving of life at sea. When we consider that about 9000 persons are killed and injured on our railways every year; that about 3000 persons are drowned during the same period of time in our docks, rivers, and inland waters; that last year the Life-boat Institution saved 1121 lives from various wrecks—the interest and importance of this subject will be readily admitted. We cannot, however, profess to criticise the various proposed improvements in the systems of brakes, signalling, &c., nor have we much to say concerning the life-buoys, floating costumes, &c., provided for sea journeys.

Another section, relating to the work in mines, is also very interesting. There are 484,933 persons engaged in mining in this country, and it is calculated that 1 in every 500 is killed, and 1 in every 368 seriously injured. In this respect the Germans have some very good safety-lamps, notably G. L. Brichmann's patent; while among the English exhibitors, the Purdy pneumatic lock lamp seemed to us a clever contrivance.

There are various ambulance vans for public and private purposes, and the well-known exhibits of the St. John Ambulance. Many of the ambulances for civil use were so formidable in appearance, and their purpose so unmistakable, that their repeated presence in any one quarter during a season of epidemic could not fail to attract notice and occasion panic.

Among the miscellaneous exhibits we were glad to notice that of the Surgical Appliance Society for the Relief of the Crippled Poor. Here is shown the Beaufort artificial arm and leg, which are already so well known for their lightness and cheapness. Various diving and noxious gas apparatus are of great use, and particularly that of Messrs. Fleuss, Duff, and Co., which has been tried after colliery explosions and in the Severn tunnel. W. Bowden's automatic chariot for infants, in which they can stand, walk, sit, and have a table before them to play upon, is convenient and safe, and has been usefully employed for children with weak limbs. The same exhibitor has some excellent toys imported from India that cannot poison the children who put them in their mouths, and some potash soap for hard waters. Close at hand, however, will be found the formidable display of Jeyes' perfect purifying soap, and his di-infecting fluid, now well known and thoroughly appreciated. The exhibits of the Silicate Paint Company, Messrs. J. B. Orr and Co., have already been described in these columns, when reviewing the sanitary appliances at South Kensington, and we are glad to note that no effort is spared in making known to the public these most effective substitutes for the poisonous lead paints that should no longer be used.

In conclusion, we should mention that of all the exhibits, the most likely to create interest is the steel and iron compound, patented by Mr. Leighs, which has the extraordinary property of breaking up and taking the centre out of a rifle bullet. This substance is not so heavy as the armour worn by the ancients, and yet it will resist the bullet of an Enfield rifle; and for 3s. 6d. a metallic cloak can be provided to the marksmen at the rifle butts, which will save them from all danger, even if hit by the bullets. For ambulance purposes this material is invaluable, for it will now be possible to bring ambulance waggons out under heavy fire. Shields of this metal have been ordered to protect the sailors on the decks of Her Majesty's ships; while the German Government has purchased a large number of screens, which soldiers will carry in front of them and use instead of digging trenches. Should this invention prove as successful in actual warfare as the experiments that have been made would lead us to infer, there is some prospect of returning to the armour and the hand-to-hand fighting of the olden days. In any case, we shall be grateful for any portable means of protecting the medical staff and their patients from the stray bullets they so frequently encounter when in action.

## WILLS AND BEQUESTS.

THE will of Joseph Salkeld Johnston, M.D., Surgeon-Major, retired, Army Medical Department, of Seal Chart, near Sevenoaks, who died on May 30th last, at Lynwood, near Penrith, was proved on the 27th ult. by Mr. Thomas Johnston, the brother, the sole executor, the value of the personal estate exceeding £24,000. Subject to an annuity of £50 to Ida Hammond, the testator leaves all his real and personal estate to his said brother.

The will of William Millett Boase, M.D., of Plymouth, who died on May 4th last, was proved on the 23rd ult. by Mr. George Clement Boase, the son, and Mr. Alfred Boase, the executors, the value of the personal estate exceeding £500. The testator disposes of his freehold house property and his personal estate in favour of his wife, his said son, and his daughter, Mrs. Edith Anna Belcher; his daughters, Mrs. Ellen Bradley and Mrs. Mary Millett, having been already provided for by appointment.

The following legacies have recently been left to hospitals and other medical charities:—Mr. George Cheesman of Neckinger-road, Bermondsey, and of Holden House, Dorking, £50 each to the Royal Sea-bathing Infirmary, Margate, and the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.—Mr. Arthur Wells of Nottingham, solicitor, £500 each to the Nottingham General Hospital and the Nottingham Dispensary, and £2000 to the Edinburgh Medical Missionary Society.—Miss Margaret Trotter of 9A, Upper Brook-street, and of the Chateau la Rocheville, Pecq, near Versailles, £3300 Midland Railway stock to the London Homœopathic Hospital, and her property, La Rocheville, to the Civil Hospital of Saint Germain-en-Laye.—Miss Anne Arundell of Carlton-crescent, Southampton, £100 each to the South Hants Infirmary and the Southampton Dispensary.—Mr. Samuel Gurney of 20, Hanover terrace, Regent's-park, on the death of his wife, £50 each to the Hospital for Diseases of the Skin, Stamford-street, Blackfriars, the Poplar Hospital, and the Nursing Sisters' Institution, Devonshire-square.—Mr. Lewis Lazarus of 29, Great St. Helen's, and 38, Tavistock-square, £20 to the London Hospital, Whitechapel.

## MEETING OF MEDICAL OFFICERS OF HEALTH.

A COMBINED meeting of the members of the North-Western and Yorkshire Associations of Medical Officers of Health was held at Doncaster on Friday, June 30th, Mr. S. W. North, President of the Yorkshire Association, in the chair.

Mr. B. S. BRUNDELL, M.Inst.C.E. (Doncaster), read a paper on Sewer Ventilation. The great need for ventilation arose from the present defective conditions of town sewers owing to their not being constructed with sufficient self-cleaning falls. The ordinary methods, by manhole openings, by untrapped gully grates, or by pipes up the chimneys of houses, were not free from risk to the neighbouring householders. He urged that sewers should be systematically flushed, and the outfall of main sewers should be provided with falling doors to prevent wind blowing up the sewers.

Mr. MASTERS, Architect (Doncaster), read a paper on the Circulation of Air in Sewers, which he believed was generally very defective from the insufficient fall, and consequently the very slow rate at which sewage travelled through the sewers allowing of the formation of offensive gases.

Mr. J. M. FOX, Medical Officer of Health (Midcheshire), then read an able paper on Scarlet Fever in connexion with Defective Relations between the Dwelling and the Sewer. He stated that, guided by the germ theory of disease, we were constantly reminded that it was with the conditions of life itself, and not mere chemical reactions, that our sanitary investigations were concerned, and that the greatest safety against zymotic impact consisted in the removal of those conditions of putrefaction amid which these forms of life flourish. There had recently been a tendency to divorce scarlatina, as far as sanitary regulations were concerned, from some other kinds of zymotic diseases, as far as sanitary regulations were concerned; also too much attention was given to the



infection lying in the particles shed from the skin, or upon the exudations from the throat. Mr. Fox considered this concentration of energy was wrong, for two reasons: First, he considered a fortnight after the cessation of the fever the epithelium then shed after the disinfection of the skin was harmless; and, secondly, that it was a mistake to look to this as the only source, or even the principal one, which could be the most active means of communicating the disease. He had arrived at the conclusion that the germs of scarlet fever in various excretions and in the washings of infected bedding and clothing might obtain direct access to the air, to the sewers, or to drains or ashpits, wherever their domestic drains or arrangements for disposing of house refuse were not under efficient sanitary control, and to these might be traced outbreaks of scarlet fever. He would therefore consider that sufficient attention was given to isolation and the thorough disinfection of all secretions before they were consigned to the ashpit or the sewer, both during the fever and for a fortnight afterwards. He also believed that the withdrawal of sewer air from houses and the removal of filth before any retrocedent changes took place had as direct and important a bearing upon liability to outbreaks of scarlet fever as to those of other diseases more exclusively identified with poisonous changes in excreta.

Dr. J. MITCHELL WILSON, Medical Officer of Health (Doncaster), also read a paper on the Ventilation of House Drains. He affirmed that houses ought to be more effectually cut off from waves of sewer air passing along the house drains than any water-trap could possibly do. After explaining the defects usually found in the connexions of house drains and their influence in causing outbreaks of disease, the model by-laws of the Local Government Board relating to the ventilation of house drains were discussed. A hearty approval was given to the suggestions, whereby at least two openings are required at the opposite extremities of all house drains, thereby ensuring not only an outlet for foul air, but also a constant current of fresh air through the drains.

A very interesting discussion took place on the reading of the papers.

## ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

THE following are additional subscriptions since the last announcement:—

	£	s.	d.		£	s.	d.
Dr. Cholmeley	2	2	0	Dr. Donkin	1	1	0
Mr. Prescott Hewett	52	10	0	Dr. Bowles (Folkestone)	5	0	0
Dr. Bull (Worcester)	1	1	0	Dr. Lucas (Bombay Army)	1	1	0
Mr. Clinton Dent	5	5	0	Dr. Balthazar Foster	20	0	0
Mr. Laidlaw Purves	5	5	0	Dr. Andrew Clark	100	0	0
Dr. Wilson Fox	10	0	0	Dr. J. F. Pains	10	10	0
Dr. C. J. B. Williams	10	10	0	Dr. Arthur Gamgee	2	2	0
Dr. Burke Shepherd	5	5	0	A Friend (Boston, U.S.A.)	1	0	0
Mr. John Marshall	10	10	0				

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### DR. BLAXALL'S REPORT ON NORTH AND SOUTH TAWTON.

North and South Tawton lie within the district for which the guardians of the Okehampton Union act as rural sanitary authority. North Tawton has a population of about 1868; and there were found in it by Dr. Blaxall conditions, both general and local, which were, in a flagrant degree, prejudicial to health and specially favourable to the spread of such a disease as enteric fever. These conditions included badly constructed and ill-ventilated drains and sewers, unwholesome closets and privies, and polluted wells. The precise connexion of enteric fever with some of these conditions was clearly made out. One outbreak was occasioned by the use of water from a well which had become poisoned by the specific evacuations of an enteric fever patient, whose soiled linen had been washed in a sink under the pump, whence soakage into the well took place; and the fact affords another proof of the imperative necessity which exists for dealing separately and guardedly, whether in a laundry or elsewhere, with all linen from infectious patients. Another

condition favouring the spread of infection was found in the circumstance that the water-mains were in direct communication with the waterclosets in such a way as to facilitate the suction of foul air, and even of excremental matters, into the water-pipes. We fear that, notwithstanding numerous warnings, this highly injurious system of supplying waterclosets direct from the main, and without the intervention of a cistern, is far more common than is supposed. South Tawton lies in an open position on Dartmoor, and, although swept by fresh breezes, and having near at home an abundant supply of excellent water, it has been subject to prevalences of the same disease, and this notwithstanding the fact that its numerous excremental nuisances, which afford such peculiar facilities for the spread of the infection, have been pointed out by the former and the present medical officers of health, Dr. Blyth and Dr. Ash. A properly constructed privy to each house, together with some surface channel for drainage, seem to be the principal needs. There ought to be no difficulty in securing their provision.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Belfast.*—During the five weeks ending June 24th the births registered amounted to 709, and the deaths to 449. The average death-rate from all diseases was 22·4; from lung affections 8·5; and from zymotic diseases 2·4, out of which small-pox showed a rate of ·4. Dr. Browne in his monthly report states that the decrease which has taken place in the cases of typhus fever and small-pox is satisfactory, and leads to the fair inference that the fever which in May had a tendency to spread will not now assume an epidemic form, and that the small-pox which has prevailed for upwards of a year is slowly passing away.

*Cork.*—For the four weeks ending June 17th the births numbered 152, being equal to 23·09 per 1000; and the deaths to 90 or 14·93. Omitting the deaths of fifteen persons in the workhouse, and therefore outside the borough, who formerly had resided in the city, the urban death-rate was as low as 12·44.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5718 births and 3121 deaths were registered during the week ending the 15th inst. The annual death-rate in these towns, which in the two preceding weeks had been equal to 19·1 and 18·1 per 1000, was last week 18·4. The lowest rates in these towns last week were 14·1 in Norwich and Brighton, 14·9 in Birmingham, and 15·0 in Derby. The rates in the other towns ranged upwards to 23·7 in Bradford, 24·4 in Salford, 25·1 in Liverpool, and 26·0 in Leicester. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 536, and exceeded by 66 the number returned in the previous week; 218 resulted from diarrhoea, 112 from whooping-cough, 83 from measles, 57 from scarlet fever, 44 from "fever" (principally enteric), 12 from diphtheria, and 10 from small-pox. The lowest death-rates from these diseases occurred in Norwich and Brighton, and the highest death-rates were recorded in Nottingham and Leicester. Whooping-cough showed the largest proportional fatality in Sunderland and Birkenhead; measles in Plymouth; scarlet fever in Derby and Hull; and "fever" in Hull. The fatality of diarrhoea, though still considerably below the average for the season, showed a marked excess in Leicester. The deaths referred to diarrhoea in the twenty-eight towns, which had been 70, 96, and 140 in the three preceding weeks, further rose to 218 last week, and were equal to an annual rate of 1·3 per 1000. The 12 deaths from diphtheria in the twenty-eight English towns were fewer than those returned in any previous week of this year, and included 8 in London and 2 in Portsmouth. Seven deaths were referred to small-pox in London and its suburban districts, 4 in Nottingham, one in Leeds, and one in Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which in the eleven preceding weeks had declined from 350 to 214, further fell to 204 on Saturday last; 23 new cases of small-pox were admitted to these hospitals during last week, against 29 and 30 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 212 and 173 in the two preceding

weeks, rose to 199 last week, and exceeded the corrected weekly average by 12. The causes of 74, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Leicester, Nottingham, Derby, Bolton, and Cardiff, while the proportion of uncertified deaths was largest in Preston, Salford, and Oldham.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 21·9 and 20·3 per 1000 in the two preceding weeks, rose again to 21·3 in the week ending the 15th inst., which exceeded by 2·1 the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 111 last week, and exceeded by 20 the number returned in the previous week; they included 56 from diarrhoea, 20 from measles, 14 from whooping-cough, 9 from diphtheria, 7 from "fever," 5 from scarlet fever, and not one from small-pox. The death-rate from these principal zymotic diseases averaged 4·7 per 1000 in the eight towns, and was 1·4 above the mean rate from the same diseases in large English towns. The 56 fatal cases of diarrhoea showed a further increase upon recent weekly numbers, and exceeded by no fewer than 36 the number returned in the corresponding week of last year; 32 occurred in Glasgow and 6 both in Dundee and Paisley. The mean death-rate from diarrhoea in the Scotch towns was last week nearly twice as high as that which prevailed in the English towns. The 14 deaths from whooping-cough in the Scotch towns showed a further decline from recent weekly numbers, but included 8 in Glasgow and 3 in Edinburgh. The fatal cases of measles, however, rose to 20, of which no fewer than 14 occurred in Dundee. The 9 deaths referred to diphtheria included 7 in Glasgow and 2 in Greenock; and 3 of the 5 fatal cases of scarlet fever occurred in Glasgow. The 7 deaths from "fever" showed a further decline from recent weekly numbers; 3 were returned in Edinburgh and 2 in Glasgow. The most noticeable feature of the week's returns is the excessive fatality of measles in Dundee; the deaths from this cause in this town, which had been 2, 8, and 4 in the three preceding weeks, rose to 14 last week. The deaths referred to acute diseases of the lungs in the eight towns, which had declined from 111 to 92 in the three previous weeks, were 95 last week, and were within 3 of the number attributed to these diseases in the corresponding week of last year.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which in the three preceding weeks had declined from 23·2 to 20·5, further fell last week to 16·8, a lower rate than has been recorded in any week since August, 1881. During the thirteen weeks of last quarter, however, the death-rate in the city averaged 26·8 per 1000, against but 19·5 in London and 20·5 in Edinburgh. The 112 deaths in Dublin last week showed a decline of 25 from those returned in the previous week, and included 5 which were referred to diarrhoea, 2 to measles, 2 to "fever," and not one either to small-pox, scarlet fever, diphtheria, or whooping-cough. Thus 9 deaths resulted from these principal zymotic diseases, against 14 in each of the two previous weeks; these 9 deaths were equal to an annual rate of but 1·3 per 1000, against 3·6 in London and 2·7 in Edinburgh from the same diseases. The 5 deaths attributed to diarrhoea corresponded with the number in each of the two preceding weeks. The 2 fatal cases of "fever" were 4 less than those returned in the preceding week. The two deaths from measles were the first returned since the commencement of the current quarter; in the first two quarters of this year, however, the fatal cases of this disease recorded in Dublin were 432 and 119 respectively. The causes of but 4, or 3·6 per cent., of the deaths in the week were uncertified.

#### BIRTHS AND DEATHS IN IRELAND.

During the quarter ended March 31st last, there were registered in the 801 Registrars' Districts in Ireland, 32,686 births, a number equal to 25·7 per 1000; and 24,873 deaths, representing an annual rate of 19·6. The returns for the quarter were of a very favourable character, the deaths being below those recorded in the corresponding quarter of last year to the extent of 3863, and the death-rate 2·1 lower.

The death-rate has not been so low at this period of the year since 1874. With the exception of the prevalence and fatality of measles in Dublin, and small-pox in Belfast and Waterford, there is nothing worthy of special notice in the returns.

### THE SERVICES.

**ARMY MEDICAL DEPARTMENT.**—Brigade Surgeon Robert Augustus Chapple to be Deputy Surgeon-General, vice J. Gibbons, C.B., granted retired pay; Surgeon-Major James Landale, M.D., to be Brigade Surgeon, vice R. A. Chapple; Surgeon Daniel O'Sullivan has been permitted to resign his commission.

**ARTILLERY VOLUNTEERS.**—1st Devonshire: Acting Surgeon Arthur Benjamin Ewen resigns his appointment.

**ENGINEER VOLUNTEERS.**—1st Flint (Buckley): Edward Williams, Gent., to be Acting Surgeon.

**RIFLE VOLUNTEERS.**—1st Cheshire: Acting Surgeon Isaac Byerley resigns his appointment.—17th Lancashire: Garnett George Tatham, Gent., M.D., to be Surgeon.—1st Linlithgowshire: Lieutenant James Hunter resigns his commission.—5th (West) Middlesex: Lieutenant Samuel John Wright to be Captain.—7th Middlesex (London Scottish): James Cantlie, Gent., M.A., M.B., to be Acting Surgeon.—8th Surrey: Richard Clement Lucas, Gent., M.B., to be Surgeon.

**ADMIRALTY.**—Staff Surgeon John Black Nicoll, M.D., has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority of July 8th, 1882.

The following appointments have been made:—Fleet Surgeon John Breakey, to the *President*, additional, the appointment of Carr having been cancelled; Surgeon Thomas D. Popham, to the *Indus*; N. F. Hele, to be Surgeon and Agent at Orfordness in addition to Aldborough, vice Place; Surgeon John J. Diunis, M.D., to the *Hibernia*, additional, for temporary service at Malta Hospital; James Mill to be Surgeon and Agent at Fife Ness.

### Correspondence.

"Audi alteram partem."

#### THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—In your article on the recent election at the College of Surgeons you rightly remark that the prospects of the representatives of the smaller schools are not exhilarating. Nevertheless, having survived my late defeat, I intend to come forward again next year, because I think that our smaller schools should be represented on the Council. In the meantime I hope you will again advocate what I believe to be the wish of the majority of the Fellows, that at these elections the votes of the Fellows should be taken by proxy instead of by ballot. If anything would prevent me from again coming forward as a candidate for the Council it is knowing that by so doing many Fellows who might wish to support me must be put to expense and inconvenience by having to vote in London. There are, however, other reasons why the election of members of the Council should be carried on by proxy. It is frequently impossible for men engaged in active practice to leave their patients for the day and come up to town to vote, so that in existing circumstances these Fellows are practically excluded from exercising their legitimate privileges. Again, if a rising feeling of discord on this matter between provincial and metropolitan Fellows can be averted by altering the system of voting, it must be advisable to make some such change as soon as possible. I am aware that the system advocated may not prove advantageous to the representatives of the smaller schools; I am convinced, however, that the principle is sound, and that the less fettered Fellows are as regards their power of voting the stronger will be the Council they elect. If these are the opinions held by the majority of Fellows on this subject, it is only necessary to represent the matter through the constituted authorities, and in proper form to the Privy Council, in order that we may secure an altera-

tion in the charter of the College. Proceedings of this kind, however, are expensive; it remains to be seen if any large number of Fellows (especially the provincial ones, for it chiefly concerns them) are willing to subscribe a sufficient sum of money to defray the necessary legal proceedings. The Council of the College of Surgeons can hardly be expected to recommend that the funds at their disposal should be expended in obtaining a new charter. It was, I think, upon these grounds the Council declined not long since to work in this matter.

I am, Sir, yours truly,  
Governor-street, W., July 17th, 1882. C. MACNAMARA.

## THE SHAFT SYSTEM OF SEWER VENTILATION.

*To the Editor of THE LANCET.*

SIR,—The adoption by the Town Council of Brighton of the plan of inducing sewer gas to escape into the air by means of funnels up the sides of houses induces me to mention a particular instance of the good effect of the system in this neighbourhood. About six years ago a street of colliery houses had been "favoured" at intervals with sudden outbreaks every hot summer during the previous ten years. The cause was easily ascertained. An enclosed drain, with the usual stench-traps, was within seven feet of the beds where the whole of the inhabitants slept. Every year there were several deaths from typhoid fever. Various plans were adopted: washing out the drains with pure water from a distance, brought in water casks, pulling down all outlying erections, &c. The results, although beneficial to a certain extent, were by no means satisfactory, and it was seriously proposed to take up the sewage-pipes and stench-traps and leave the place without any drains at all. In this state of matters the manager of the colliery proposed to erect a brick chimney at least thirty feet high, communicating with the drains, with the view of drawing the sewer gas away from the houses and dissipating it in the atmosphere at a considerable height. This was agreed to and carried out. During its erection the workmen frequently complained of the stench rising through the funnel of the tall chimney. This chimney was completed five years ago, and from that time to the present there has not been a single case of typhoid fever in the street. Still more, a colliery belonging to the same owners, four miles away, owing to its position and the houses being huddled closely together on the banks of a tidal river, charged with the filth of some uplying towns, was in summer time a focus for the germination of fever, deaths being common from it. The plan so successful in the street I write about was adopted, and, so far as can be judged in the time, the success has been similar. It appears to me that the plan of tall chimneys, like factory chimneys, adopted in large towns, in conjunction with the usual system of flushing with water, indicates a method likely to result in great sanitary success in the future. Funnels up the sides of houses evidently carry the gas to no great distance into the atmosphere, and the upper storeys and bedrooms of the town will receive the "benefit" of the plan, whatever that may be, whereas by carrying the poisonous gas fifty or possibly a hundred feet into the air excellent results are certain to accrue.

I am, Sir, yours truly,

ALEXANDER TROTTER, M.D.

Blyth, Northumberland, July 17th, 1882.

## PUERPERAL CONVULSIONS: ARTIFICIAL RESPIRATION SUCCESSFULLY USED.

*To the Editor of THE LANCET.*

SIR,—So far as I am aware the matter treated in the following lines is new, and may be regarded as of sufficient public interest and utility to merit being placed on record in your pages:—

On June 18th I attended A. P., aged twenty-two, a primipara. She was of a stout, florid, and somewhat apoplectic appearance; and, as I afterwards learned, more than one of her family (including her mother) had had "a stroke." She seemed in good health and spirits, but as the os was only very slightly dilated, I retired after giving a few general instructions, and telling the nurse to send for

me when matters were more advanced. Next morning at 8 o'clock I was sent for, and on arrival found the head well in the pelvis. The pains were strong and regular; but after waiting about three hours, and finding no perceptible progress, I applied forceps. After half an hour's hard traction during the pains, which were very frequent, there did not seem to be the slightest progress, and I was deliberating as to further measures, when I noticed that her limbs were quite rigid. Looking at the face I found her in a strong convulsion, and the face almost black, the rest of the body rapidly assuming a dusky hue. I at once looked for my chloroform bottle, which, however, had been removed from my bag. There was no time to be lost, as she appeared every second to be getting more rigid and the asphyxia more marked, so I instantly removed the forceps, turned her on her back, and proceeded vigorously to apply artificial respiration. The effect was as gratifying as it was rapid; the thorax began to take part in the work of respiration, the cheeks and lips to regain their colour, and a deep sigh resulted in an almost sudden return to her natural appearance. The spasms ceased, and she rapidly regained consciousness, being, however, confused, and her speech being thick and inarticulate. I allowed the labour to proceed without further interference (dreading a return of the convulsions) for about two hours longer, when, there being no sign of progress, I reluctantly decided to give the forceps one more trial. This time it was successful, and in half an hour the head was born. I took off the forceps, and was giving her a little rest, when suddenly she was again seized with a convulsion. I immediately extracted the child, and, placing the patient once more on her back, recommenced artificial respiration, and with equally satisfactory results. The patient made a good recovery without further mishap.

I am not aware that this method of treatment has been adopted before. I can find no reference to it in any of my text-books, and it appears to be new to all medical friends to whom I have mentioned it. The rationale of the matter would appear to me to be that the convulsion was caused by reflex irritation throwing off its balance the nervous supply of the respiratory muscles (or, what is practically the same thing, the respiratory centre), which balance was restored by the process of artificial respiration.

Yours, faithfully,

K. W. MILLICAN, L.R.C.P., &c.

Kinaston, Warwick, July, 10th, 1882.

## "THE OPERATION OF 'SPAYING' IN WOMEN."

*To the Editor of THE LANCET.*

SIR,—Your comments on Mr. Lawson Tait's position and procedure in relation to the case of Mrs. A., narrated in my letter which you kindly inserted in your issue of July 8th, and the inference of necessity suggested thereby, are certainly, in my opinion, unfair to that gentleman; for if removal of the ovaries in Mrs. A.'s case was unjustifiable from any point of view, it is I, and not Mr. Tait, who is in fault. He operated as a skilled surgeon under my direction as medical attendant on the case. I laid before the patient and her friends the risks, both immediate and remote, and the impossibility of pregnancy subsequent to it; and I made no promise that complete restoration to health would follow; but I strongly expressed the opinion, based on several years' attendance on her, that the ovaries were in a state of chronic disease, from which nothing but removal would relieve them. That this opinion was well founded no one who saw them after removal would for an instant doubt. Having thus clearly defined the position taken by Mr. Tait and by myself in this case, the question which arises from your editorial comments is undoubtedly this: Given a patient under the climacteric age, with a history of twelve years' suffering, including several severe attacks of ovaritis; menstrual period most irregular, sometimes with six or eight months' interval, often with delirium and hallucinations at its recurrence, sleeplessness, emaciation, and entire incapacity for any duty or pleasure—is it, or is it not, justifiable to remove the organs which it is believed are the seat of disease and the cause of ill-health? It is easy to be wise after the event, and to say at the post-mortem, "If this woman's ovaries had been removed she might have lived." To my mind, credit, rather than reproach, is due to the advisers and operator who, recognising the disease, and, as they believe,

the only remedy, prevent the need of that autopsy. Many besides myself will take exception to the vague and undefined expression used in your comment on Mr. Tait's letter of July 1st—namely, "We mean the operation Mr. Tait has been performing for some time past." Permit me to say, Sir, that thoughtful and unprejudiced men will attach but little value to such a general accusation, unsupported by reference to any particular case, or class of cases; and I would respectfully ask you, Sir, in justice to Mr. Tait and to your readers, to explicitly indicate the cases you refer to; and if in the case of Mrs. A—— you would inform me as to what alternative should have been adopted in place of operation I and, I feel sure, many others will be most grateful for the instruction.—I am, Sir, yours faithfully,

Milford, Hants, July 12th, 1881. DOUGLAS W. ESHELBY.

\* \* We are very reluctant to prolong this discussion; but we must demur to Dr. Eshelby's contention as to the responsibilities of practitioners in operations. The circumstances of any case must be very exceptional and peculiar that can justify a surgeon, however skilful, in undertaking the performance of an operation against his deliberate judgment.—ED. L.

### SMALL-POX AND VACCINATION.

*To the Editor of THE LANCET.*

SIR,—Referring to your remarks in last week's issue of THE LANCET on this subject, will you allow me to state that the evidence which my predecessor, Mr. Marson, gave before the Select Committee on the Vaccination Acts in 1871—viz., that no nurse, servant, or other official of this hospital had ever suffered from small-pox during his tenure of office, then a period of thirty-five years—still holds good, making now forty-six years in which the *employés* of this hospital have enjoyed absolute protection from this disease. Since I was appointed surgeon to the hospital no patient has been engaged here either in the capacity of nurse or servant, and, so far as I can gather, it has always been the exception to engage patients. The number of those in the service of the hospital who have been protected by previous attacks of variola I should estimate at about 7½ per cent. I cannot pretend to explain the extraordinary immunity thus enjoyed, I am simply desirous of adducing facts; I cannot but attribute it largely, however, to the circumstance that there has been throughout the period alluded to a station for gratuitous vaccination in connexion with the hospital, so that the surgeon is not dependent on extraneous sources for his lymph supply, and thus only uses for his revaccinations lymph of the activity of which he is absolutely assured.

I am, Sir, yours obediently,

HERBERT GOUDE, F.R.C.S. Edin.

Small-pox and Vaccination Hospital, Highgate-hill,  
Upper Holloway, N., July 18th, 1882.

### DISLOCATION OF FOOT BACKWARDS.

*To the Editor of THE LANCET.*

SIR,—It may be of interest to record that on June 10th last I met with a case of dislocation of the foot backwards, exactly similar to that mentioned by Mr. Ashmead in this week's issue of THE LANCET. The patient when running caught the heel of his boot on the edge of the kerb, the foot being thus suddenly stopped while the body was still carried forwards. I saw him about half an hour after the injury, which was on the right side, and found a well-marked dislocation of the foot backwards. The lower end of the tibia could be seen prominent on the dorsum of the foot, the tendo Achillis standing well out in relief and raising the heel. In this case also the fibula was fractured at the lower end. Reduction was fairly easily effected without chloroform, and for the first few days the leg was put up in lateral wooden splints, afterwards in plaster-of-Paris.

I am, Sir, yours, &c.,

HENRY N. HOLBERTON, L.R.C.P. Lond., &c.  
Eastbourne, July 8th, 1882.

THE funds of the Wolverhampton and Staffordshire Hospital have just been augmented by the gift of £1000 by a member of the weekly board of the hospital.

### SCOTTISH NOTES.

*(From our Correspondent.)*

DR. GEORGE DICKIE, ex-Professor of Botany in the University of Aberdeen, died at his residence in that town on Saturday last. The deceased gentleman was educated wholly at Aberdeen, where, after graduating, he commenced practice. Routine medical work proving uncongenial, he devoted himself entirely to the study of natural science, and was soon successful in obtaining the Botany Chair in the Belfast College. On the amalgamation of King's and Marischal Colleges, in 1860, Dr. Dickie was appointed to the same position in the University of Aberdeen, and he held this office till his retirement, from ill-health, in 1877. Though scarcely a brilliant lecturer, his students felt that he had a deep knowledge of his subject, and the devotion to science which he imparted was, perhaps, better than many dry facts. While an enthusiastic botanist, he felt that his favourite pursuit need have but a subsidiary part in the equipment of a practical physician, and hence his objection to remit a man to his studies who showed a good acquaintance with the more purely medical subjects. His students gave him their warm personal regard, and his death, though at an advanced age, will be keenly felt by many of them.

I regret to hear that Dr. Alex. Ogston, who has already been laid aside for about three months, is still unable to resume work. He purposes visiting the Continent shortly to recruit.

Though the zymotic death-rate has not been markedly heightened as yet, the returns of the various authorities show that Aberdeen, Dundee, and Perth are at present suffering from epidemics of measles, typhus, and typhoid fevers respectively. In the northern city the medical officer states that the epidemic of measles "has quite got over the sanitary staff," and typhus has made several attempts to break out. In Dundee during last month over 400 cases of zymotic disease were notified, the large majority being measles, but about twenty cases of typhus were included. In a town with such a sick-rate the authorities gravely consider whether £150 is a sufficient salary for their medical officer of health. It will be a misfortune to the town if a short-sighted parsimony debar it from obtaining the services of a first-rate man. The Perth people labour under the peculiar hallucination that pure water can be obtained from the river just after their whole sewage is thrown over the filter-bed, while strangers wonder that typhoid fever is ever absent. The Board of Supervision recently sent an inspector to inquire into the truth of certain severe strictures which had been passed upon the Police Commissioner, and as the result of that gentleman's investigations goes to support the outside criticism, both the authorities and the medical officer have written elaborate reports which go to prove that they have not been wholly unmindful of health interests. The result of all this will probably be that the sewage will be carried so far down the river that it will no longer prove so serious a nuisance.

### IRELAND.

*(From our own Correspondent.)*

A PUBLIC meeting of the Senate of the Royal University of Ireland was held last week for the purpose of conferring degrees. At the close of the proceedings the Vice-Chancellor of the University, Lord O'Hagan, said it gave him the greatest pleasure to meet the first graduates of the university. He wished them every prosperity in their future career; and he felt confident that they would do honour to their university, and to the noble profession which they had embraced. A tolerably large number of candidates presented themselves at the recent examinations, and there would have been more were it not for a misunderstanding in relation to some of the regulations of the new university.

The annual report of the Richmond District Lunatic Asylum for the past year shows that during 1881 there were 1446 inmates under treatment, of whom 424 were admitted during the year. The deaths numbered 158, three being cases of suicide; and the percentage of deaths on the total

number in the asylum was equal to 10 $\frac{1}{2}$ %. As regards the social condition of the 1039 lunatics in the asylum on the last day of December, 198 were married, 638 single, 47 widowers and widows, and in 156 instances it was unascertained. The remarkable discrepancy which exists between the numbers of married and single inmates of asylums in Ireland has often attracted attention, but no satisfactory explanation has ever been attempted. Dr. Lalor, the medical superintendent, states that his experience of the past year, as of former years, has confirmed his confidence in the advantages of treating the insane in large, in place of small, asylums, and in a few large classes or divisions instead of numerous small classes. Restraint, and the instruments for its infliction, have been totally disused—indeed, have been unknown—since his appointment, in 1857, and the education, employment, and amusement of the insane in large associated classes have more and more come to the front as preferable methods to the isolation and non-occupation which were at one time thought necessary, or even desirable.

Last week Mr. John Ryall, a student of the Rotundo Lying-in Hospital, Dublin, was accidentally killed by a bullet from a revolver which he was in the habit of carrying, and which in some way exploded. The bullet entered the right groin, and death occurred from hæmorrhage. The foolish custom of carrying revolvers prevails to such an extent at present in Dublin that it is surprising more accidents have not resulted from this cause.

A death from lightning took place at the Carragh a few days since. Private Harris was struck on the left side, and his uniform from the breast down to his foot was completely torn away, one of his boots being rent in pieces. Death was instantaneous; but a comrade who was with him at the time and was also struck by the lightning is under treatment at the hospital.

The annual report of the Cork Maternity Association shows that upwards of 400 women were relieved last year at the small outlay of some £120. It was stated at the annual meeting that in proportion to the population of the town the Cork Maternity relieved more women than any other similar institution in the kingdom, and that the percentage of deaths was one of the lowest recorded. These are claims for increased support, and it is to be hoped that this year the receipts may not fall short of the expenditure, as was the case, I regret to say, last year.

The last victim to agrarian outrage in Ireland is a Mrs. Connell, who resided near Claremorris. Her cowardly assailants, concealed behind a hedge, fired on the deceased and a bullet penetrated the wrist. Tetanus supervened and death resulted.

The recommendation of the Public Health Committee, and of the committees appointed by the North and South Dublin Board of Guardians, to abolish the port hospital ship, has been confirmed by the Dublin Corporation.

## PARIS.

(From our Special Correspondent.)

WITH Amadée Latour a medical writer of no small interest has passed away. Following in the steps of Reveillé-Parise, and Peisse, Latour devoted himself especially to the *Feuilleton*, a chatty anecdotic review of current events, and his *causeries* have always contributed in a large measure to the popularity of the different journals with which he has been connected. After successively editing the *Journal Hebdomadaire*, the *Presse Médicale*, and the *Journal des Médecins Praticiens*, he was appointed in 1847 to the direction of the *Union Médicale*, and filled this post until a few months since, when he was obliged, through ill-health, to relinquish work. Amadée Latour was an easy and productive writer. Under the pseudonym of "Docteur Simplex," his Saturday *feuilletons* formed one of the chief attractions of the *Union Médicale*, and besides these he was in the habit of contributing a large number of leading articles, reports of learned societies, and bibliographic notices. This superabundance of editorial work for a publication which appears three, and sometimes four, times a week, whilst it made him an accomplished journalist, accounts for the paucity and mediocrity of his other productions, which consist only of a few notes and memoirs, now almost entirely forgotten. The chief of these is a

treatise on the Preservative and Curative Treatment of Pathosis. But it is not only as a medical reviewer that Amadée Latour will be remembered. He was the founder of the Association Générale des Médecins de France, and it is mainly due to his constancy in advocating the cause that the useful institution owes its present prosperity. He was rewarded somewhat late in life by the cross of the Legion of Honour, and the Academy of Medicine had the good sense to elect him to sit amongst its members.

The last number of the *Gazette Hebdomadaire* contains an article by Dr. A. Dumès upon the efficacy of fumigations of ox-gall in cases of acute hemeralopia. This treatment is by no means new; for, as the writer points out, it dates back as far as Hippocrates, and possibly even before his time amongst the Chinese. But, like a good many other useful methods, it has been superseded in modern practice. A recent writer upon ocular therapeutics (De Wecker) makes no allusion to it. Dr. Dumès reminds his readers that it was a favourite remedy with Fossagives, and the observations which he publishes certainly endorse its value. It may be mentioned that some indications concerning the use of ox-gall are to be found in the Medical Digest by Dr. Neale.

M. Hillairet read a report at the Academy of Medicine on the isolation of children suffering from infectious diseases. He recommends that a definite period of separation be fixed for each disease, and that no child be allowed to return to school after an infectious illness without a medical certificate that the period of probation has been passed. The conclusions are as follows:—(1) Children affected with varicella, variola, scarlatina, measles, diphtheria, or mumps, should be strictly isolated from their comrades. (2) The period of isolation should be forty days for variola, diphtheria, scarlatina, and measles, and twenty-five days for varicella and mumps. (3) The convalescent should be well combed before he returns to his playmates. (4) The clothes worn at the beginning of the illness should be heated in an oven to 90° Centigrade, submitted to sulphurous fumigations, and properly cleaned. (5) The bedding, carpets, furniture, and walls of the sick room should be washed, aired, and disinfected. (6) Any child who shall have suffered from any of the affections before mentioned, must produce a medical certificate that these requirements have been complied with before he be allowed to return to school.

M. Bourrel, a veterinary surgeon of Paris, proposes to prevent the transmission of hydrophobia by rendering the teeth in dogs similar in shape to those of the herbivora. He says that the latter animals never transmit rabies, because the free extremity of the tooth is blunt, and merely compresses the epidermis, without lacerating it, whereas the canine and incisive teeth of the dog cut into the tissues. The slight operation necessary for this purpose is most simple, and can be performed in a few minutes. It gives rise to no disturbance at the time, and does not interfere with future dentition. M. Bourrel states that he exposed his hand, covered by a glove as a precaution, to a rabid dog that had been subjected to the operation. The animal immediately seized hold of it and bit for some time. When it let go the glove was whole, the bite having only produced an indentation. *Faute de mieux*, the experiment is worth a trial.

M. Martineau continues to use hypodermic injections of ammoio-mercuric peptone on a large scale in the treatment of syphilis. During the last fourteen months he has made 11,000 injections in 600 patients, without producing any inflammation, abscess, or other bad symptom. He says that neither mercurial cachexia nor salivation is to be feared when mercury is administered in this manner, as it is rapidly excreted by the kidneys. Under the influence of this treatment the blood-cells increase in eight days to the normal (four to five millions), and there is a gain of weight to the amount of from one to five kilogrammes. A speedy result is obtained in cases of iritis and irido-choroiditis. M. Luton of Reims uses metallic mercury in the same manner. He injects by means of a gutta-percha syringe, provided with a steel needle, five or six drops of mercury into the substance of muscles of the thigh, the acidity of these structures ensuring its absorption.

Whatever the French peace-at-any-price politicians may think of the change of front of the Government, French subjects abroad are likely to approve of the manly policy adopted by M. Freycinet. In medical circles there is a strange story going the rounds about a fatal accident which occurred lately in Constantinople in consequence of an error in prescribing. The Turkish authorities, getting wind of the



matter, summoned the three consultants and the chemist to answer the charge of wilful murder. Two of the medical men and the chemist referred at once to their consuls, and the charge was forthwith changed into one of manslaughter. The third, a French physician, after vainly attempting to obtain help from the representative of his Government, thought it best to fly, and escaped in a boat to Varna at the risk of his life. This case would seem to show that there is more virtue in ironclads than conferences. It is difficult to conceive of an Englishman being obliged to fly from a country with which his Government was at peace because his consul was unable to shield him from the consequences of a false accusation.

### MEDICAL NOTES IN PARLIAMENT.

In the House of Commons on Thursday, the 13th inst., a petition for exemption of medical men from the carriage duty was presented from the Vale of Clwyd; and a petition for redress of grievances was presented from a number of militia surgeons. The North of Ireland Branch of the British Medical Association petitioned in favour of the Union Officers' Superannuation (Ireland) Bill.

#### *Vaccination Inquiry at Norwich.*

Mr. Dodson stated, on Friday, in reply to Mr. P. A. Taylor, that Dr. Airey, one of the Local Government Board inspectors, was holding an inquiry at Norwich into the allegations connecting the death of four children and the illness of four others from the effects of vaccination. The parents would not be allowed to be legally represented at the inquiry, but a full opportunity would be given them of making their own statements.

A return was presented, on the motion of Mr. Ecroyd, showing the hours of labour and the regulations for factories in foreign countries. A return was ordered, on the motion of Mr. Hibbert, of copy of the annual report of the Assistant Commissioner of the Police of the Metropolis for the year 1881 relating to the Contagious Diseases Acts.

#### *Pollution of the Thames.*

On Monday, Sir G. McGarel Hogg, in reply to Mr. Briggs, stated that the Metropolitan Board of Works had decided upon enlarging the sewage reservoir and outfall at Barking, with the view of obviating the necessity which had sometimes arisen of turning sewage into the river before high water; but since the appointment of the Royal Commission of Inquiry, the Board had postponed proceeding with the works for three months.

#### *Treatment of Irish Prisoners.*

Mr. Trevelyan, replying to Mr. Sexton, stated that the account of the treatment of eleven prisoners in Galway, which was referred to in last week's LANCET, was exaggerated. The men all had frieze coats to protect them from the weather, and although it was necessary to secure them in a strong room, they were not refused water, and they had also bread-and-butter given them. There was no confirmation of the allegation that one of them fainted from want of air.

A petition was presented from Dublin for inquiry into the case of militia surgeons. A petition was presented from Mr. John Smith for inquiry into private lunatic asylums.

#### *The Royal University of Ireland and the Medical Council.*

Dr. Lyons moved the second reading of the Medical Act, 1858, Amendment Bill.—Mr. Serjeant Simon objected, as it was past the hour when opposed business could be taken.—Dr. Lyons, however, persuaded the hon. member to withdraw his objection, by pointing out that the object of the Bill was simply to authorise the Royal University of Ireland to elect representatives to the Medical Council, and that it had the assent of the Government, and of the right hon. gentleman opposite who represented Dublin University.—The Bill was then read a second time.

On Tuesday, a petition in favour of the Infectious Diseases Notification Bill was presented from Sleaford.

#### *The Contagious Diseases Acts.*

On Wednesday, Mr. Stansfeld presented a number of petitions in favour of the repeal of these Acts. One of the

petitions, he said, was signed by a majority of the members of the medical profession in Belfast. The right hon. gentleman afterwards moved the second reading of his Bill for repealing the Acts in question, and in the course of his speech declared that from a hygienic point of view they were the greatest imposture ever known.—Mr. Childers moved the "previous question," on the ground that the Select Committee had not yet reported, and this was supported by Sir S. Northcote and Mr. O'Shaughnessy.—The previous question was agreed to, and the Bill accordingly dropped.—In anticipation of the somewhat unsavoury character of the debate, an attempt was made by one or two hon. members to clear the ladies' gallery, but it was unsuccessful, and a considerable number of ladies, presumably members of the Association for the Repeal of the Acts, remained to listen to the speeches.

On Thursday, a petition was received from Halifax in favour of the Infectious Diseases Notification Bill.

Mr. Moore's motion for a return of emigrant ships and their medical officers, which has been so long "blocked" on the paper, was at last agreed to.

Mr. Corbet gave notice that he will ask when the report of the inspectors of Irish lunatic asylums for the year ending March 31st will be presented.

## Obituary.

### THOMAS OLIVER DUKE, M.R.C.S., L.S.A.

THERE died at Clapham on June 5th one of the fast disappearing class of old-fashioned general practitioners who have done so much to win the confidence of the people for our profession. Mr. Thomas Oliver Duke was born in Sussex in the year 1818. He received his earlier medical education at Winchester Hospital under Mayo and Lyford, and he there acquired a sound preliminary knowledge of anatomy and surgery. Entering Guy's Hospital, he won at the end of his first winter session the gold medal for anatomy, which usually fell to a student who had completed his second year's studies. As soon as he had passed the College and Hall examinations he devoted himself to general practice and settled at Kennington, where, and at Clapham, he practised for forty-two years. For the first fifteen years of this period he was surgeon to the Lambeth Workhouse, but his ideas of what were the rights of the poor brought him into collision with the guardians. In the contest which ensued he was supported by the leading inhabitants of his district, who paid by subscription the expenses connected with a vexatious lawsuit which resulted from his protests against the conduct of the master of the workhouse. He believed in himself and in his power to alleviate and cure disease, whilst the warmth, zeal, and disinterestedness with which he threw himself into his work, together with a singularly handsome presence and winning manner, attached to him a wide circle of patients, who placed absolute confidence in him, and many of whom regarded him with a respect which almost amounted to reverence. It is perhaps to be regretted that he did not devote himself to pure surgery, for which his knowledge of anatomy, his great manual dexterity, his strong common sense, and never-failing presence of mind particularly fitted him. He had for some years been failing in health, but had in no way succumbed, and his death after a few weeks' illness from granular kidney, impacted renal calculus, and great hypertrophy of the heart, fell as a sudden shock on his family and friends.

### GEORGE HAMILTON, M.D., L.R.C.S. EDIN.

BY the death of Dr. Hamilton of Falkirk, which occurred at the old manse on Tuesday last, Scotland has lost one of its foremost country practitioners. Dr. Hamilton was busily engaged in practice up till a few days before his death, and though of advanced age retained a wonderful vitality. A native of Edinburgh, he was wholly educated there, receiving his M.D. in 1833 as well as his licence from the College of Surgeons. He practised for nearly half a century in Falkirk and gained a large share of public and professional support. Professionally he was best known by his various writings on

subjects connected with midwifery, and he has done more than any man in Scotland to bring about the present more common use of forceps in midwifery practice. In 1853 he wrote his first paper on the subject, and since then in various medical journals and at the Obstetrical Society in Edinburgh he has continued to urge the more frequent use of the instrument. Up till 1878 Dr. Hamilton used the forceps in about one out of six cases, but latterly he employed the instruments much more frequently. He was the medical attendant of the Institution for Imbeciles at Larbert, and of Campbell Simpson's Asylum at Plean. Dr. Hamilton's three sons have all followed their father's profession, the recently appointed Professor of Pathology in the University of Aberdeen being his second son.

#### RICHARD SUTTON HARVEY, F.R.C.S. ENG., J.P.

OUR list of deaths this week contains the announcement of the decease of Mr. Harvey, who was well known to the medical profession of Lincolnshire and the adjoining counties. Mr. Harvey was born at Pointon, Staffordshire, in March, 1803. He attended the Middlesex Hospital and the Windmill-street School of Medicine, and in 1826 qualified as M.R.C.S. and L.S.A., while thirty-two years later, in 1858, he was elected a Fellow of the Royal College of Surgeons of England, and in the same year obtained the Fellowship of the Edinburgh College. He was the first house-surgeon of the Lincoln General Dispensary, and, after holding the appointment about two years, entered into practice in Lincoln, which he conducted with great success for nearly forty years. Some years ago the deceased retired from practice and enjoyed a well-earned repose. Mr. Harvey was for many years a member of the Corporation, first as councillor and afterwards as alderman; and he thrice filled the civic chair. During his last mayoralty a substantial testimonial, consisting of his portrait and a service of plate, altogether costing between £500 and £600, was presented to him. The deceased was also the senior justice of the peace for Lincoln.

## Medical News.

#### ROYAL COLLEGE OF SURGEONS OF ENGLAND.—

The following gentlemen, having passed the required examination for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on Monday last:—

Ashdown, Herbert Harding, M.B. Edin., Edinburgh.  
Bilton, Joseph Shephard, M.B. Edin., Finstock, Oxon.  
Culler, Joseph, L.S.A., Manchester.  
Dobie, William Henry, M.B. Edin., Chester.  
Hyrons, Ernest Augustus, L.R.C.P. Edin., Padmore.  
Jameson, Granville, M.B. Edin., Heywood, Manchester.  
Keep, Arthur Corrie, M.B. Edin., Wollaston.  
Miles, Bernard Langley, M.B. Edin., Edinburgh.  
Nash, John Brady, M.B. Edin., New South Wales.  
Neve, Ernest Frederic, M.B. Edin., Hurstlerpoint.  
Nicolson, Malcolm Alex., M.B. Toronto, East Dulwich.  
Parkinson, Chas. Joseph, L.S.A., Greenhays, Manchester.  
Pasterson, George de Joneourt, M.B. Dub., Dublin.  
Price, William Elliott, M.B. Durh., Hereford.  
Roy, Silva Prasad, M.B. Calcutta, Calcutta.  
Sinha, Narendra Prasanna, L.M. Bengal, Calcutta.  
Stapleton, Joseph John, M.B. Edin., New South Wales.

The following gentlemen were admitted Members of the College on Tuesday last:—

Chudwick, Charles Montague, L.S.A., Tunbridge Wells.  
Hendley, Harold, Hammersmith.  
Horrocks, William Heaton, Bilton, Lancashire.  
Lessey, Sandford Scobell, Ealing.  
Mends, Bowen Stilon, Blackheath.  
Milton, H. M. Nelson, L.S.A., Clapham.  
Montford, James, L.R.C.P. Edin., Church Stoke.  
Masgrave, Frank Ernest, Leeds.  
North, John Howard, Walsall.  
Perkins, Alfred Temple, L.R.C.P. Edin., Stoke Newington.  
Preston, George, Barton, near Manchester.  
Price, John Dudley, Dudley.  
Scatchard, Walter, Boston Spa.  
Waldy, John, Darlington.  
Wilkinson, William Camac, Sydney, New South Wales.  
Wilson, Arthur Henry, Islington-square, Liverpool.  
Withers, John Sheldon, Sale, Cheshire.

The following gentlemen were admitted Members of the College on Wednesday last:—

Audland, William Edward, MIlnthorpe.  
Challinor, Cedric, Bolton.  
Cuthane, F. J. Fitzgerald, Hastings.

Dingley Edward Alfred, Sherborne, Dorset.  
Donnet, J. J. Conway, Dover.  
Drew, Hedley Vicars, Gloucester-place.  
John, David, Swansea.  
Jones, David Llewelyn, Llandilo, South Wales.  
Lowe, Thomas Pagan, Burton-on-Trent.  
Morris, Charles Arthur, Lower Norwood.  
Penn, John Evans, Plymouth.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 13th inst.:—

A. G. A. Barker and Thomas Phillips, University College; Charles A. Mac Anally and E. R. B. Archer, Guy's Hospital; T. A. B. Soden, London Hospital; James B. Sutton, Charing-cross Hospital; Chas. P. Maquire, Dublin.

Of the 252 candidates examined during the past fortnight, 88 failed to satisfy the Board, and were referred for three, and 13 candidates for six, months' further anatomical and physiological study.

#### ROYAL UNIVERSITY OF IRELAND.—

The following Degrees were conferred last week by the Vice-Chancellor, Lord O'Hagan:—

**DOCTOR IN MEDICINE.**—Percy Allport, Martin Henry Atcock, Thomas Cahill, William Courtney, Timothy Joseph Crowley, Pierce Joseph Daly, Luke Gerald Dillon, Patrick Joseph Galloway, John C. Hackett, William Edward Hadden, Henry Aymer Hales, Samuel Hamill, Samuel Hamilton, Chas. James Holmes, James Macgregor Lithgow, Connor Joseph O'Loughlin Maguire, Robert Carmichael Moore, Patrick O'Gorman, Thomas H. O'Shaughnessy, John Mortlock Phillips, Leonard Robinson, George Atkins Rountree, Arthur W. Sandford, James M. F. Shine, Samuel Stronge, John Wilgar Taylor, Joseph H. Whelan, John W. Williams, James Vance Young.

**MASTER OF SURGERY.**—Percy Allport, Thomas Cahill, Wm. Courtney, Timothy J. Crowley, Chas. Daly, Pierce Joseph Daly, Luke Gerald Dillon, John C. Hackett, William Edw. Hadden, Samuel Hamilton, Chas. J. Holmes, Samuel William Johnson, William Kelly, Daniel Lehane, Edward M'Cinnell, John J. M'Cormick, Connor Joseph O'Loughlin Maguire, Robert Carmichael Moore, Thos. H. O'Shaughnessy, Ferdinand A. Purcell, Leonard Robinson, Robert Leonard Rutherford, Arthur W. Sandford, Jas. M. F. Shine, Samuel Stronge, John Wilgar Taylor, Joseph H. Whelan, John W. Williams, Charles Wiseman.

**DIPLOMA IN MIDWIFERY.**—Percy Allport, Thomas Cahill, James Craig, Timothy J. Crowley, Pierce J. Daly, Patrick J. Galloway, John C. Hackett, William Edw. Hadden, Chas. J. Holmes, William Nelson, Arthur W. Sandford, Jas. M. F. Shine, Joseph H. Whelan, Chas. Wiseman.

**COLLEGE OF PHYSICIANS IN IRELAND.**—At the July examinations the following obtained the Licences in Medicine and Midwifery of the College:—

**MEDICINE.**—Alfred Benjamin Bake, Walter Boyd, Sydenham Davis Chandless, Austin Nathaniel Cooper, John Crimmin, Owen Henry Evans, Alexander Fleming Harper, Robert John Healy, John Jas. Irvine, John Henry O'Dowd M'Guinness, John M'Mullan, John Robert Mallins, Katherine Sara Mitchell, Julia Caroline Mitchell-Swaagman, Mathew Flood O'Reilly, Robt. James Tate, Wm. Henry Stoney Walker, David William Whitfield, Michael Thomas Yarr.

**MIDWIFERY.**—Edm. MacWilliam Bourke, Sydenham Davis Chandless, Austin Nathaniel Cooper, John Crimmin, Owen Henry Evans, Alex. Fleming Harper, Alfred Adolphus Hayes, Robt. John Healy, John James Irvine, John H. M'Guinness, John M'Mullan, John Robert Mallins, Katherine Sara Mitchell, Julia Caroline Mitchell-Swaagman, William Reith Scroggie, Robert James Tate, William Henry Stoney Walker, David William Whitfield, Michael Thomas Yarr.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on July 13th:—

Duff, Charles Henry, Gray's-Inn-road.  
Howse, Percy William M'Dowall, London Hospital.  
Munckton, Alfred, Lydiard, St. Lawrence.  
Parkinson, Charles Joseph, Manchester.  
Parsons, Charles Wm., The Crescent, Cpland-road, Hackney.  
Reynolds, James Jones, Stoke-by-Clare, Suffolk.  
Ryan, Thomas, Scarborough.

The following gentlemen also on the same day passed the Primary Professional Examination:—

John James Langston, London Hospital; Wm. Frederick M'Donogh, Westminster Hospital; V. Harold W. Wingrave, Middlesex Hospital.

**UNIVERSITY OF LONDON.**—At the Matriculation Examination held last month 66 candidates passed in the honours division, 371 in the first, and 66 in the second.

**HASTINGS CONVALESCENT HOME.**—The Prince of Wales has forwarded a donation of fifty guineas to the Home, of which his Royal Highness has consented to become patron.

**PRESENTATION.**—The governor, chaplain, and officers of H.M. Prison, Kirkdale, have presented Dr. James Barr, the medical officer, on the occasion of his marriage, with a pair of handsome bronzes, accompanied with an illuminated congratulatory address.

WHILE bathing in the Holy Loch, near Sandbank, Firth of Clyde, a few days ago, Mr. Morehead Macfarlan, M.R.C.S., was seized with a fit. Although he was got out of the water alive, he died almost immediately afterwards.

**RICHMOND HOSPITAL.**—Her Royal Highness the Princess Mary Adelaide, Duchess of Teck, has consented to open the new wards of the hospital on Saturday, July 22nd, at 3.30 P.M., and to receive purses containing not less than five guineas in aid of the building and furnishing funds.

ON the 10th inst. the foundation stone of the Torquay Sanitary Hospital was laid by Mr. William Kitson, donor of the site, in the presence of the members of the Local Board and others. The estimated cost of the building is about £3000. The pavilion system will be adopted.

THE death of Mr. J. P. Crosby, L.R.C.P. Ed., medical officer of the Sunderland Workhouse, took place suddenly on Monday last. An inquest having been held on the body, a verdict was returned of "Death from an overdose of morphia." It appears the deceased had been accustomed to resort to the use of the drug as a remedy for sleeplessness.

**THE GREAT NORTHERN HOSPITAL.**—Lord Cowper presided at a meeting in support of the claims of this hospital on Wednesday evening, in the Athenaeum, Highbury. He testified to the care with which the patients were treated. Dr. Cholmeley stated that as regarded the alleged abuse of the out-patient department of hospitals, great care had been taken to check this abuse at the Great Northern over a period of five years, and that only seven per cent. of cases were found unfit.

**SANITARY INSTITUTE OF GREAT BRITAIN.**—At the anniversary meeting held at the Royal Institution on Thursday, July 13th, his Grace the Duke of Northumberland in the chair, an address was delivered by E. C. Robins, F.S.A., F.R.I.B.A., entitled "The Work of the Sanitary Institute of Great Britain." The author specified the objects had in view by the Society and the way in which it had sought to carry them out, and mentioned some points which he regarded as worthy of attention by sanitarians. A vote of thanks was passed to the lecturer.

**SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.**—On Wednesday, July 12th, a quarterly court of directors of the above Society was held at 53, Berners-street, in the Library of the Royal Medical and Chirurgical Society. Sir George Burrows, Bart., the President, took the chair punctually at 5 P.M. A sum of £1291 10s. was voted to be distributed among sixty-two widows, seven orphans, and three orphans on the Copeland Fund. The expenses of the quarter were £44 7s. 6d. Seven new members were elected, the deaths of four reported, and two had ceased to be members. Fresh applications were read from three widows and one orphan, and the death of one orphan, in receipt of grants since 1877, was reported. The consideration of the proposed alteration of the by-laws was postponed till the October court.

**LONDON HOSPITAL MEDICAL COLLEGE.**—On Tuesday, the Duke of Cambridge distributed the following prizes to the successful students at this institution:—Entrance science scholarships, £60, Mr. F. J. Smith; Buxton scholarships, £30, Mr. W. R. Hodge; £20, Mr. J. W. Pugh; Letheby prize, £30, Mr. A. J. Richardson; hon. certificate, Mr. F. H. Taylor; scholarship in anatomy, physiology, and chemistry (open to first and second year's students), £25, Mr. F. Hitchens; hon. certificate, Mr. G. H. Ailken; scholarship in human anatomy (open to first year's students), £20, Mr. H. Cropley; hon. certificates, Mr. F. J. Smith, Mr. H. Tonks; scholarships in clinical medicine, £20, Mr. R. F. Fox; hon. certificate, Mr. J. Sinclair; scholarship in clinical surgery, £20, Mr. R. F. Fox; hon. certificate, Mr. J. C. Davies; scholarship in clinical obstetrics (a prize of £15 being awarded by the lecturer on obstetric medicine to the holder of this hon. certificate), £20, Mr. A. J. Richardson; hon. certificate, Mr. R. F. Fox; minor surgery prizes, £15, Mr. J. M. Evans; £15, Mr. J. E. Crisp; £10, Mr. J. Thomas; £10, Mr. F. Hitchens; dissection prizes, £6, Mr. H. Jaboor, junior; £4, Mr. H. Jaboor, senior; osteology prizes, £6, Mr. J. Vincent; £4, Mr. C. T. Samman.

**COMPULSORY NOTIFICATION OF CONTAGIOUS DISEASES BY MEDICAL MEN.**—On July 11th, a meeting was held at the Lecture Hall, Greenwich, to consider the clause in Mr. Hastings' Bill compelling medical men to notify cases of infectious disease in their practice to the sanitary authorities. Dr. Prior Purvis occupied the chair. The following resolutions were unanimously carried:—1st. "That we form ourselves into an association for the simple purpose of resisting the attempts that are being made to compel medical men to notify cases of infectious disease." 2nd. "That we affiliate with the Liverpool association formed for a similar purpose." 3rd. "That Dr. Prior Purvis be elected chairman for the first year, and Dr. Alexander Forsyth hon. secretary and treasurer."

**HOSPITAL SUNDAY.**—The Committee of Distribution of the Metropolitan Hospital Sunday Fund met on Wednesday to apportion to the London hospitals the largest collection yet made in the metropolis. Since the fund was instituted in 1873, the sum of £284,000 has been collected through its agency for the London hospitals, the amounts each year varying from a minimum of £24,905 in 1878 to a maximum of some £33,000 in 1882. Last year the Council received its first legacy of £300, an example which ought to be widely followed by those who desire to leave money to hospitals, because by adopting this course they have an absolute guarantee that their charity will be dispensed in exact proportion to the merits and claims of each institution. Hospital Sunday, which was first established in Birmingham in 1859, did not take root in the metropolis until 1873, notwithstanding the fact that from the end of 1869 until Sir Sydney Waterlow became Lord Mayor, a period of some four years, month after month THE LANCET strongly urged the desirability "of half a dozen secretaries of the leading London hospitals, backed by some of the most influential members of the governing bodies, interviewing the Lord Mayor, and asking him to put himself at the head of the Hospital Sunday organisation." Once started in London, the movement soon spread to all parts of the country, and within the last two years it has crossed the Atlantic and become an American institution. Everywhere Hospital Sunday seems to flourish, and by its means the hospitals of this country have already benefited to an extent which cannot be much less in the aggregate than £1,000,000.

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

- ANDERSON, JAMES, M.D., C.M.Aber., has been appointed Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria-park.
- ANNANDALE, THOMAS, F.R.C.S. Ed., M.R.C.S., has been appointed Consulting Surgeon to the Royal Hospital for Sick Children, Edinburgh, vice Prof. Spence, deceased.
- BRICKWELL, BENJ. ARTHUR, M.R.C.S., L.S.A. Lond., has been re-appointed Medical Officer of Health for the Amersham Union.
- DANCY, HORACE M., M.D. Glas., L.S.A. Lond., has been appointed Medical Officer to the Farnfield District of the Southwell Union.
- GRAHAM, ALBERT W., L.R.C.P., L.S.A. Lond., has been appointed House-Surgeon to the Hobart General Hospital, Tasmania.
- GRIPPER, ARTHUR DOUGLAS, L.R.C.P. Ed., M.R.C.S., has been appointed Medical Officer to the Grassington District of the Skipton Union.
- HARDING, RICHARD, L.R.C.P., L.F.P.S. Glas., has been appointed Medical Officer to the Prestelgne District, Knighton.
- JACKSON, SANDFORD, M.B., has been appointed Assistant House-Surgeon to the Brisbane Hospital, at a salary of £250 per annum, and apartments.
- KEMP, JOHN R., L.R.C.P. Lond., M.R.C.S., has been appointed Clinical Assistant to the Westminster Ophthalmic Hospital.
- KESTVEN, LEIGHTON, M.R.C.S., has been appointed House-Surgeon to the Brisbane Hospital, at a salary of £500 per annum, and residence.
- LIVETT, HENRY WM., L.R.C.P. Ed., M.R.C.S., L.S.A. Lond., has been reappointed Medical Officer of Health for the Wells Urban Sanitary District.
- MARLEY, WM. LANE, M.R.C.S., has been appointed Surgeon to the Port Douglas Hospital, Queensland.
- MARSDEN, THOMAS, M.R.C.S., L.S.A. Lond., has been appointed Medical Officer to the Third District and Workhouse, Bridgewater Union, vice Axford, resigned.
- MORGAN, JOHN H., F.R.C.S., has been appointed Consulting Surgeon to St. George's Dispensary.
- MORTON, CHARLES A., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House-Surgeon to the Stanley Hospital, Liverpool.

RUSSELL, M. W. H., M.R.C.S. & L.S.A.Lond., has been appointed Resident Medical Officer to the Bath Royal United Hospital, vice Pratt, resigned.

SANDERS, JOHN WILLIAM, M.D., has been appointed Resident Medical Officer to the Bethnal-green Infirmary, vice Boyd, resigned.

SAUNDERS, CHAS. EDW., M.D., C.M.Ed., M.R.C.P.Lond., has been reappointed Medical Officer of Health to the Tring Urban Sanitary District.

SHAW, WALTER, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Burghill District, Hereford Union.

WHITE, EDW. ARTHUR, M.D., C.M.Aber., L.S.A.Lond., has been appointed Medical Officer to the Third District of the Malmesbury Union.

WILSON, CHAS. WM., M.B.Durh., M.R.C.S., has been appointed Medical Officer to the Southern District and Workhouse of the Cirencester Union, vice Hodges, resigned.

WOODHEAD, GERMAN SIMS, M.D., C.M., M.R.C.P.Ed., has been appointed Pathologist to the Royal Hospital for Sick Children, Edinburgh, vice Hamilton, resigned.

## Births, Marriages, and Deaths.

### BIRTHS.

BARNES.—On the 16th inst., the wife of R. Barnes, M.D. (of Harley-street), of a daughter (stillborn).

COATS.—On the 14th inst., at Elmbank-crescent, Glasgow, the wife of F. Coats, M.D., of a daughter.

DUNLOP.—On the 10th inst., at St. Helen's, Holywood, co. Down, Ireland, the wife of Archibald Dunlop, M.D., of a daughter.

HEELAS.—On the 9th inst., at Buckhurst, Primrose-hill-road, Hampstead, the wife of James Heelas, M.D., of a daughter.

MUTCH.—On the 7th inst., at Sneinton-road, Nottingham, the wife of F. Robertson Mutch, M.B., C.M.Aberd., of a daughter.

NEILL.—On the 17th inst., at 3, The Terrace, Ryde, Isle of Wight, the wife of Channing Neill, M.D., of a son.

ROBERTSON.—On the 12th inst., at The Friarage, Penrith, the wife of J. D. Robertson, M.D., of a son (stillborn).

SHARPLES.—On the 15th inst., at Wellfield House, Farington, the wife of T. Sharples, Surgeon, of a son.

WOOD.—On the 12th inst., at Lees Lodge, Yalding, Kent, the wife of E. J. Wood, M.B.Cantab., of a daughter.

### MARRIAGES.

ATTLEY—THORNE.—On the 13th inst., at St. Jude's Church, Southsea, Surgeon John Attley, R.N., son of D. Attley, Esq., of Keel Hall, Desert, Cork, to Katie Coppinger, youngest daughter of James Lyon Thorne, R.N., of Somerset House, and granddaughter of the late Captain William Thorne, 3rd Buffs, of Carline, co. Cork.

COLDSTREAM—BROCK.—On the 12th inst., at Hillhead Parish Church, Glasgow, Alexander R. Coldstream, M.D., F.R.C.S.E., of Newington, Edinburgh, to Margaret Mary, second surviving daughter of George Brock, Esq., of Greenland, Thurso.

DAY—O'LEARY.—On April 27th, at the Church of the Garça, Pernambuco, William A. Day, M.R.C.S., to Mary Louisa Charlotte, eldest daughter of the late Daniel O'Leary, of Bath (England).

MACLEOD—MARJORIBANKS.—On the 11th inst., at the Parish Church, Scotby, Carlisle, M. D. Macleod, M.B.Ed., Medical Superintendent of the East Riding Asylum, Beverley, to Daisy, youngest daughter of the late Samuel Marjoribanks.

MILLER—WHITE.—On the 11th inst., at Trinity, by the Rev. D. Kilpatrick, of Newhaven, G. Miller, M.D., of 9, Rankellor-street, Edinburgh, to Margaret, eldest daughter of the late John White, Esq., of Garlton, East Lothian.

WRIGHT—BATEMAN.—On the 12th inst., at St. Saviour's, Aberdeen-park, N., Christopher St. John Wright, M.B., M.R.C.S., of Priors Marston, Warwickshire, to Agnes Louisa, daughter of the late Henry Bateman, F.R.C.S., of Canonbury-lane, N.

### DEATHS.

COTTON.—On the 12th inst., at the Royal Naval Hospital, Stonehouse, Inspector-General John Cotton, M.D.

DICKIE.—On the 15th inst., at Albion-terrace, Aberdeen, George Dickie, M.D., F.R.S., Emeritus Professor of Botany.

DODGSON.—On the 10th inst., at Derwent House, Cockermouth, Henry Dodgson, M.D.Edin., L.S.A.Lond., L.R.C.S., F.R.A.S., F.M.S., aged 49.

HARVEY.—On the 16th inst., at his residence, St. Mark's-terrace, Lincoln, Richard Sutton Harvey, J.P. & F.R.C.S., aged 79.

MILNER.—On the 11th inst., at The Crescent, Salford, Ralph Milner, M.R.C.S., L.S.A.Lond., aged 64.

MOFFAT.—On the 16th inst., Thomas Barbour Moffat, M.D. &c., of Hawarden, Flintshire, where he had carried on his profession for 45 years, aged 69.

SILVER.—On the 16th inst., at his residence, Upper Tooting, Alexander Silver, M.A., M.D., M.R.C.P., of 2, Stafford street, Old Bond-street, Physician to Charing-cross Hospital, aged 41. (Interment will take place at Brompton Cemetery at 1 o'clock on Saturday.)

WIGHT.—On the 28th ult., at St. John's, Canada East, near Montreal, Robert Wight, M.D., eldest son of the late Robert Wight, Esq., Colonial Bank, London, in his 60th year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

REPORT from the Board and the Court of Examiners of the number of candidates who have presented themselves for the primary and pass examinations for the diploma of Member of the College during the collegiate year 1881-82, showing the number who have passed and have been rejected from each Medical School during that period.

### PRIMARY EXAMINATIONS.

Medical Schools.	Totals.	Number passed.	Number rejected.
St. Bartholomew's	158.50	117.50	41
University College	111	69	42
Guy's	106.50	71.50	35
King's College	63.50	36	27.50
London	57	44.50	12.50
St. Thomas's	50.50	36	14.50
St. George's	48	38	10
Middlesex	40	26	14
Charing-cross	34.83	24.50	10.3
St. Mary's	22.3	14	8.3
Westminster	22	14	8
Manchester	67	47.50	19.50
Cambridge	32.3	24.50	7.83
Liverpool	30.50	19	11.50
Leeds	26.50	18	8.50
Birmingham	21	16	5
Newcastle-on-Tyne	19.50	15.50	4
Bristol	15.50	12.50	3
Sheffield	6.3	2.3	4
Dublin	20	8	12
Belfast	5.3	2.83	2.50
Galway	1	1	...
Cork	1	...	1
Edinburgh	76.50	55	21.50
Glasgow	13	6	7
Aberdeen	2.3	2.3	...
Toronto	5.50	3	2.50
M'Gill College, Montreal	2	2	...
Kingston	2	2	...
Halifax	.50	.50	...
New York	1	...	1
Yale	.50	.50	...
Harvard	1.50	...	1.50
Calcutta	5.50	4	1.50
Madras	4.50	3.50	1
Bombay	3	3	...
Melbourne	2	2	...
Paris	.50	.50	...
Madrid	.50	.50	...

Totals..... 1091 744 347  
May 13th, 1882. HENRY POWER, Chairman of the Board.

### PASS EXAMINATIONS.

Medical Schools.	Totals.	Number passed.	Number rejected.
St. Bartholomew's	115.3	72.50	42.83
Guy's	83.50	53.50	30
University College	68	30.16	27.83
London	44	33.50	10.50
St. Thomas's	37	23.50	13.50
King's College	35.50	22	13.50
St. George's	33.50	23.50	10
St. Mary's	29	15.50	13.50
Charing-cross	27.50	16.50	11
Middlesex	23.3	17.3	6
Westminster	7.50	4.50	3
Leeds	28.50	13.50	15
Manchester	28	18	10
Liverpool	14.3	4	10.3
Cambridge	14	10.50	3.50
Birmingham	13.50	9	4.50
Newcastle-on-Tyne	8.50	3.50	5
Sheffield	8.50	4.50	4
Bristol	3.50	2.50	1
Dublin	7.50	4	3.50
Galway	1	1	...
Cork	.50	.50	...
Edinburgh	18	10	8
Glasgow	4.83	2.3	2.50
Aberdeen	3	2	1
Bombay	4	3.50	.50
Calcutta	1.50	.50	1
Toronto	2.50	1.50	1
M'Gill College, Montreal	2	1.50	.50
Kingston	1.50	1.50	...
Melbourne	2.6	2.6	...
New York	.50	.50	...
Madrid	.50	.50	...
Paris	2.50	1.50	1
Malta	.50	.50	...

Totals..... 666 412 254

Note.—In the above lists candidates who are indicated by a fraction have received their education at more than one School of Medicine.

May 19th, 1882. JOHN BIRKETT, Chairman of the Court.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, July 20th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
July 14	29.64	W.	64	60	117	73	56	..	Cloudy
" 15	29.49	S.W.	64	62	118	72	60	..	Raining
" 16	29.64	S.	67	60	115	73	54	.06	Bright
" 17	29.79	W.	64	60	117	73	54	..	Cloudy
" 18	29.83	W.	63	59	114	72	55	.15	Cloudy
" 19	30.05	S.W.	64	58	115	73	53	..	Cloudy
" 20	30.17	W.	61	57	117	72	50	..	Cloudy

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

## FIRST YEAR'S EXAMINATION IN ELEMENTARY ANATOMY AND PHYSIOLOGY.

WE have received a long disputations rejoinder from Mr. Butlin on our remarks last week. As no useful purpose can be served by the publication of statement and counter-statement, no matter how vigorous the language or how complacent the tone, it is not necessary to publish the correspondence. It may be enough to remark that it is our misfortune to be completely and hopelessly at variance with Mr. Butlin's opinions of the nature, purport, and value of first year's examinations in elementary anatomy and physiology when conducted by teachers at the medical schools.

*Enquirers might consult Dr. Hardwicke's "Medical Education and Practice in all Parts of the World."*

*Mr. Phillips Hills is thanked.*

## "INVETERATE BOILS."

*To the Editor of THE LANCET.*

SIR,—In your last issue "Subscriber" asks for suggestions as to the treatment of a case of inveterate boils. In reply, I must refer him to what I have said on this subject in THE LANCET for 1874, vol. i., and for 1869, vol. ii. Let him carefully follow the instructions there given as to the insertion of the carbolic acid into the formed boil through its one or several openings; let him discard all ideas as to boils being a means of throwing out of the system morbid matters; and let him act upon the conviction that boils are local, parasitic, and contagious. Let the patient take a daily morning bath; let him avoid any undue pressure upon or injury to the skin; and let especial care be taken to destroy each incipient boil in its earliest stage by any good strong caustic acid: nitrate of mercury, nitric acid, strong solution of carbolic acid, or nitrate of silver.

But as boils, like other parasitic diseases, chiefly occur where there is defective hygiene or deficient health, let the patient also live carefully and temperately, and be treated with any general remedial measures which may appear appropriate. A somewhat extended experience of such cases induces me to believe that by such measures "Subscriber" will not be long in securing a cure of his case.

I am, Sir, yours obediently,

Norwich, July 18th, 1882. PETER EADE, M.D., F.R.C.P.

*To the Editor of THE LANCET.*

SIR,—In last week's LANCET "Subscriber" wishes hints regarding the treatment of the above. I have found that tincture of arnica given in fifteen-drop doses in a little water every two hours for twenty-four hours, and afterwards every six hours for a week, entirely removes attacks of boils. If "Subscriber," after a fair trial, would give the result in THE LANCET I would feel obliged.—I am, Sir, yours, &c.,

July 17th, 1882

F.R.C.S.

## EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

At the written portion of the Pass Examinations for the diploma of membership of the Royal College of Surgeons the following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the 230 candidates on the 14th inst., when they were required to answer at least four, including one of the first two, out of the six questions, from 1.30 to 4.30 P.M. :—

1. What structures of surgical importance pass through the parotid gland? What is their relative situation, and what are the relations of the gland itself?
2. Describe the parts composing the ankle-joint, giving the forms of the articular surfaces, the attachments of the ligaments, the movements of the joint; and mention, in order, the structures in direct relation with the joint.
3. By what symptoms would you be led to infer the existence of a loose body in a joint, say the knee? How would you treat such a case?
4. Give the clinical symptoms which mark the progress of caries of the vertebral column proceeding to a fatal termination; and indicate the treatment you think proper in the several stages of this disorder.
5. A man is stabbed through the anterior fold of the axilla, and serious hæmorrhage occurs. What vessels may have been wounded, and what treatment would you adopt?
6. Describe syphilitic lritis, detailing the symptoms and treatment.

The following were the questions on Midwifery and the Diseases of Women and Children submitted to the candidates the following day, the 15th inst., when they were required to answer three out of the four questions, between 12.30 and 2 P.M. :—

1. What are the causes of secondary hæmorrhage after labour? How would you treat it?
2. In what circumstances, and how, would you induce labour at the seventh month?
3. How would you estimate the size and shape of a supposed contracted pelvis?
4. How would you differentiate the following conditions :—Pregnancy at the sixth month, an ovarian tumour reaching to the umbilicus, a uterine fibroid reaching to the umbilicus, and effusion of blood reaching to the umbilicus?

The following were the questions on the Principles and Practice of Medicine, to be answered the same day, from 2.30 to 4.30 P.M., when they were required to answer three out of the four questions, including question 4.

1. What are the consequences, local and general, and what the diagnostic signs, of the following varieties of heart disease :—(a) Obstruction at aortic orifice; (b) incompetence of aortic valve; (c) obstruction at mitral orifice; (d) incompetence of mitral valve.
2. What are the various causes of obstruction of the œsophagus? and how would you distinguish them clinically from one another?
3. Discuss the morbid anatomy and symptoms of the different kinds of goitre, and their relations to other morbid states.
4. Describe the composition, dose, and uses of the following preparations :—Liquor arsenicalis; liq. bismuthi et ammoniæ citratis; liq. hydrargyri perchloridi; liq. ferri persulphatis; pilula phosphori; pil. plumbi cum opio; pil. quinae; pil. saponis composita; pulvis cretæ aromaticus cum opio; pulv. ipecacuanhæ compositus; pulv. jalapæ compositus; pulv. kino compositus; vinum antimonialle; vin. colchici; vin. ipecacuanhæ; vin. quinae.

*Mr. Charles Lunn.*—The insertion of the letter would open a discussion for which at present we have not space.

## CONVULSIONS IN CHILDREN.

*To the Editor of THE LANCET.*

SIR,—In Dr. Eustace Smith's paper on the above subject (see THE LANCET of the 15th inst.) I am surprised to find that he advocates the use of the warm bath in doubtful cases as to the exciting cause of the seizure. Allow me to point out that the bath is a most dangerous experiment under such circumstances, and I am sure that the writer of the article will be ready to admit that it is not to be recklessly resorted to when it is remembered that overfeeding is a very common source of mischief in the case of hand-fed infants by ignorant mothers and nurses; that an overloaded stomach frequently causes convulsions; and that a bath under such conditions would most assuredly intensify the mischief. I trust that Dr. Eustace Smith will see fit to modify his recommendation of the bath in convulsive seizures, as young practitioners might be misled by the unqualified statement of such an authority.

I am, Sir, yours obediently,  
M. A. B.

July 17th, 1882.

## VACHER'S FORCEPS.

*To the Editor of THE LANCET.*

SIR,—I should feel much obliged if some of your correspondents would give their experience in the use of Vacher's holding midwifery forceps, or Draper's modification of the same instrument. I am anxious to know the class of cases for which it is suitable, and also the limits to its use as regards the stage of labour and state of the parts.

I am, Sir, yours truly,

London, July 11th, 1882.

J. BENSON COOKE.



## DISPENSING IN VILLAGE PRACTICES

*Mr. Kenneth W. Millican, B.A. Cambridge, M.R.C.S.*—We quite agree with our correspondent that in such circumstances it would be almost cruel for the practitioner not to dispense his medicines. Much has to be done yet, by accommodation on the part of chemists, before medical men can abandon dispensing altogether. Meantime, when there is so much convenience in it, it cannot be degrading, though it may be irksome. We have received a large number of letters on this subject, but our space will not permit of their publication.

## UNQUALIFIED ASSISTANTS IN BIRMINGHAM.

*The Daily Mail* has a short article, but one much to the point, on the number of unqualified assistants in Birmingham and the countenance they receive from properly qualified medical men. After the recent decision in the case of *Mr. Murdoch*, medical men will do well to supervise very closely their unqualified assistants.

## THE CLIMATE OF DENVER.

*To the Editor of THE LANCET.*

SIR,—Nearly all places on the North American Continent, those excepted near the coasts and far to the south, have a far larger range of temperature than we are accustomed to. Denver is certainly no exception to this rule; its mean temperature is 50°, almost the same as that of London and Devonshire; and its rainfall is 24·50 inches, much less than that of most English towns, though not more than that of a few places in our Eastern Counties. The distribution of rain is decidedly more irregular than with us, our normal rainfall in the Midland and South-eastern Counties averaging from two to three inches every week through the year. At Denver the winter is extremely dry, the monthly rainfall ranging from one-tenth of an inch to two inches, while in the summer from four to even ten inches may fall in a month. Every meteorologist, however, knows that the rainfall varies more in different seasons than any other meteorological element. The temperature at Denver is as follows. I give the mean, the maximum, and the minimum of every month, and the ranges:—

Month.	Mean.	Max.	Min.	Range.
January.....	28·3	59	2	57
February.....	37·7	66	7	59
March.....	34·4	70	3	67
April.....	49·3	82	4	78
May.....	57·1	85	32	53
June.....	65·8	97	38	59
July.....	68·1	96	53	42
August.....	68·9	96	50	46
September.....	61·7	92	32	60
October.....	54·1	84	27	57
November.....	37·3	75	5	70
December.....	37·8	66	—3	69

In other words, the five cold months are decidedly colder than with us; the five warm months are as decidedly warmer; while April and October are not very different from the same months in Devonshire in mean temperature, though the extremes are far greater.

The air at Denver is undoubtedly dry, and the amount of sunshine large. Persons going from the damper and hotter southern States find the climate of Denver bracing and exhilarating, and many people for a time like it. Two very distinguished Englishmen who visited it some years ago loudly complained of the enormous range of temperature, and one of them, a scholar of European reputation, spoke of the days as feeling intensely hot and the nights as being unbearably cold. This would be no oratorical exaggeration, for a diurnal range of over fifty degrees is not unknown, and the midday sun in that dry inland climate and comparatively low latitude is rather too powerful to suit an Englishman.

I am, Sir, yours faithfully,  
Wimborne, July, 1882.

ALFRED J. H. CRESPI.

*Enquirer.*—It is against our rule.

THE letter of *M. O. H. (Mansfield)* would have more weight with the name attached.

*Mr. T. S. Clayton.*—5, York-buildings, Duke-street, Adelphi, W.C.

## PUERPERAL EPILEPTIC CONVULSIONS.

*To the Editor of THE LANCET.*

SIR,—I am very glad to see by *THE LANCET* of April 8th and 15th that Messrs. Lucas and Beatty have been successful in treating puerperal convulsions by the hypodermic injection of morphia. Since publishing my last cases I have to add five additional ones, in all of which this method has been tried with excellent results. These and the cases reported by Messrs. Lucas and Beatty, together with sixteen I collected previously, make twenty-six in all. In no single case has the morphia yet failed. Of course a much larger number of cases will be required to settle the exact value of this procedure as to its success and its possible danger. In the meanwhile, remembering that Churchill's statistics give a mortality of one in every four and a half cases of puerperal epileptic convulsions, I think that a record of twenty-six cases, many of them of a very severe character, in every one of which the fits were stopped and the patients recovered, is sufficiently encouraging to warrant the giving of this treatment a fair trial.—I am, Sir, yours faithfully,

Geelong, Victoria, June 5th, 1882.

S. MABERLY SMITH.

## ELEPHANTIASIS SCROTI.

WE recently referred to a paper on Elephantiasis of the Scrotum, by Dr. G. A. Turner, which appeared in the *Glasgow Medical Journal*. We are requested by Dr. Turner to correct two inaccuracies in regard to Dr. G. V. MacDonagh which inadvertently crept into the paper in question. It appears that Dr. MacDonagh did not witness O'Farroll's operation, and that he did not obtain a hint for the design of his clamp from Drutt's *Vade Mecum*, in the editions of which up to the ninth no mention of it is made. It was stated that in Dr. MacDonagh's second operation one testicle was removed; the fact is, both testicles were preserved.

*C. D. A.*—The information with regard to dairies is, we believe, furnished by the dairy keepers, and they should apply to be put on the register. The premises are then inspected. The local authority attend to the expenses. A short time ago, in the House of Commons, Mr. Mundella stated that a Bill was about to be introduced to regulate dairies and their inspection.

THE request of *Drs. Bernard and Donaldson* shall have attention.

*Dr. Caddy.*—We do not see any novelty in the apparatus.

## ACUTE ALCOHOLIC DELIRIUM.

*To the Editor of THE LANCET.*

SIR,—In reference to the case of alcoholic delirium mistaken for hydrophobia, which is referred to by your Paris correspondent in *THE LANCET* for July 8th, I may relate a somewhat similar case, which occurred at the Tottenham Training Hospital a few weeks ago.

The patient was drinking at a neighbouring public-house on Whit Monday when the symptoms occurred. According to all accounts, he had not drunk more than one or two pints of ale when the attack came on. He became suddenly maniacal, bit off and ate part of a glass tumbler, and attacked his wife and others who were near. He was brought to the hospital strapped on a stretcher by a policeman, and then exhibited tendencies to injure himself and those around him, repeatedly dashing his head violently against the stretcher, and snapping at fingers and hands which came within reach. A medicine glass containing some chloral and bromide of potassium was offered him, but he seized the glass with his teeth, bit off a considerable piece, and then proceeded to munch and swallow it. A hypodermic injection of about half a grain of hydrochlorate of morphia was then administered, and the delirium subsided in about half an hour. About two hours after his admission he went home, walking steadily, and in his right mind, and, as far as is known, has suffered no injurious effects from his novel meal. His wife stated that drinking had produced a similar effect on him at previous times.

Are we to look on such a case as one of idiosyncrasy with respect to alcohol, or is it more likely that the effects were due to some other poison adulterating the ale?—I am, Sir, yours faithfully,  
Tottenham, July 8th, 1882.

SIDNEY DAVIES, B.A. Oxon., &c.

*J. C. M.*—The principle is well understood that the obstetric fee only covers the attendance at the time of confinement and for a reasonable period after. It certainly is not intended to cover attendance during pregnancy, nor visits paid after ten or twelve days from the time of delivery. A little explanation will probably satisfy our correspondent's patient. The charges appear quite reasonable.

*M. C.*—Both the English and Irish Registration Acts contain a compulsory clause under which it is incumbent upon every registered medical practitioner to furnish, for registration purposes, a medical certificate stating to the best of his knowledge and belief the cause of the death of each patient who has been attended by him during such patient's illness.

*Mr. Samuel Coates.*—The conduct does not seem very kind or professional.

## THE CAUSE OR CAUSES OF ACUTE TONSILLITIS.

*To the Editor of THE LANCET.*

SIR,—Having been myself in times past a frequent sufferer from quinsy, and having been careful always to make inquiries of those who have come under my care as to the cause or causes which have brought it about, I think my views are entitled to some amount of consideration. First, then, I would say that it is a disease which occurs but seldom after twenty-one; that it is essentially adynamic in type; and that it is always the result of an exhausted nervous or muscular system. Exposure to cold has apparently little or nothing to do with its causation, for it is a positive fact that wrapping up the throat in no way tends to prevent it. Defective ventilation may have something to do with its causation, but still I think it will be found to exist almost, if not quite, as much in well-as in ill-ventilated houses. In my own case I used to notice, and I have been able to extract the same information in nearly every other instance, that there was over-exertion and often great irregularity in meals prior to the attack. In fact, a week of really hard work and irregular meals would be sufficient even now to knock me over with quinsy. I trust these few remarks will give rise to a little discussion, as I am sure that the pathology of quinsy is but little understood.

I am, Sir, your obedient servant,

Kingston-on-Thames, July, 1882.

F. P. ATKINSON, M.D.

**ERRATUM.**—In Mr. Hodges's letter on Anæsthetics, published last week, page 80, instead of "we calculate etherisation costs the infirmary now 3s. 4d. less than formerly," read "three-fourths less," &c.

**COMMUNICATIONS** not noticed in our present number will receive attention in our next.

**COMMUNICATIONS, LETTERS, &c.**, have been received from—Dr. Grally Hewitt, London; Sir Edmund Lechmere, London; Mr. White Wallis, London; Mr. James Wyld, London; Dr. Turner, Glasgow; Mr. Isaac Shone, Wrexham; Dr. Shirliff, Kingston; Mr. Coates; Mr. Walker, Stapleton; Mr. Millican, Kineton; Messrs. Willeringhaus, Klinker, and Co.; Dr. Julius Pollock, London; Mr. Thomas Gray, London; Mr. Simeon Snell, Sheffield; Dr. Higham Hill, London; Dr. Trotter, Blyth; Drs. Bernard and Donaldson, Londonderry; Mr. Shepperson; Mr. J. H. Morgan, London; Mr. A. E. Barker, London; Mr. Freeland, Antigua; Mr. Dovey; Dr. Lediard, Carlisle; Dr. M'Munn, Belfast; Mrs. Baines, London; Mr. Reid, Kirkintilloch; Dr. Makuna, London; Dr. Dearden, Church; Mr. C. Lunn, Edgbaston; Mr. Bennett May, Birmingham; Mr. Watkins, Exeter; Dr. Rutherford, Ballinasloe; Mr. O'Callaghan; Mr. E. James, Chelsea; Mr. Consans, Lincoln; Dr. Philpots; Mr. Wheeler, Ilfracombe; Mr. Forrest, Manchester; Mr. Petter, Yeovil; Mr. Bury, Wrexham; Mrs. Ridley, Yateley; Dr. Broom, Clifton; Mr. Higgins, London; Mr. Henry Morris, London; Mr. Lowndes, Liverpool; Mr. Goude, London; Mr. E. Gill, Kendal; Dr. Eade, Norwich; Dr. Wesley Miller, New York; Mr. K. Thornton, London; Mr. Briscoe, London; Mr. H. G. Reid, London; Mr. Clark, Preston; Dr. Maberly Smith, Geelong; Mr. L. Keateven, Brisbane; Dr. Scott, Southampton; Mr. Bradburn, Eccles; Messrs. Paul and Co., London; Mr. Whetford, London; Mr. Brown, Westgate-on-Sea; Mr. Highatt, Gosport; Dr. Sutton, Oldham; Dr. Dobson, Windermere; Dr. Gordan, Walsall; Dr. H. V. Carter; F. G.; Nemo; G. P.; D. T. Tonbridge Wells; C. D. A.; J. C. M.; M.R.C.S., Birmingham; An Edinburgh Licentiate; &c., &c.

**LETTERS**, each with enclosure, are also acknowledged from—Mr. Eccles, Newcastle-on-Tyne; Dr. Berkart, London; Dr. Marsden; Mr. Moore, Teel; Mr. Chesebrough, London; Mr. Van Praagh; Mr. T. Bryant, London; Mr. Eschwege, London; Mr. Land, Tunbridge; Mr. Witt, Lynn; Mr. Brockelbank, Islington; Mr. Bennett, Burnley; Mr. Abbs, Dewsbury; Mr. Armstrong, Harpurhey; Messrs. Maclehoose and Co., Glasgow; Dr. Thomas, Glasgow; Messrs. Stone and Swanson, London; Dr. Mitchell, Brockley; Mr. Toyne, Sheffield; Dr. Laffan, Cashel; Messrs. Squire and Co., London; Mr. Hay, Hull; Messrs. Oliver and Boyd, Edinburgh; Mr. Walton, Cradley Heath; Messrs. Deighton and Co., Cambridge; Mr. Sloane, Bradford; Mr. G. Lawson, London; Dr. Thompson, Kidderminster; Messrs. Corry and Co., Belfast; Mrs. Theobald, Leicester; Mr. Townsend, Exeter; Messrs. Douglas and Mason, Edinburgh; Mr. Preston, York; Mr. Harding, Westgate-on-Sea; Mr. Darke, London; Mr. Beaulands; Mr. Scott, Manchester; Mr. Jones, Edinburgh; Mr. Wood, Burslem; Dr. Dobell, London; Mr. Hopkinson, Nottingham; Dr. Jackson; Mr. Smith, Nottingham; Mr. Sharples, Preston; Mr. Neill, Ryde; Dr. Drysdale, London; Mr. Petherick, Exeter; Messrs. Schacht and Co., Clifton; Mr. Sykes; Dr. Mutch, Snelinton; Mr. Boone, Shanai; Messrs. Lehmann and Co., London; Messrs. Mottershead and Co., Manchester; Mr. Woodmann, Bridgewater; Mr. Miller, Edinburgh; Dr. Kerr; Mr. Clegg, Hartshill; Dr. Cameron, Epworth; Messrs. Kilner Brothers, London; Mr. Shone, Wrexham; Mr. Crondace, Castle Carey; Messrs. Gillon and Co., Leith; Mr. Bartlam, Brosely; Dr. Foote, Rotherham; Mr. Bryan, Hornsey; M. D., Edgware-road; J. D. M.; N. R. G., Dublin; W. W., King's-cross; F.R.C.S., Blackpool; G. Wigan; T. C. H., Bradford; Hygiene; B. F.; L.R.C.P.L., London; H. F. V.; Lynburn, Glasgow;

Montague, London; Medicus, London; Assistant, London; Med., Market Bosworth; Medicus, Rochdale; Mac; Accountant; C. J. H.; Sanitas Co., London; Zeta, Walsall; M.R.C.S., Worle; Beta, London; T. M., St. Helens; R., Crediton; C. W. D.; D. M., Edinburgh; A., Liverpool; M.D., Commercial-road; R.; T. E., Berne-street; M. P.; Graduate; J. W. P., Holborn; York, Edinburgh; Medicus, Glasgow; L. S. A., Halifax; A. F., Clifford's Inn; Medicus, Sunderland; R. Y.; Medicus, Hampstead; X. Y., Edinburgh; Medicus, Camberwell; M. R.; Vigilo et Spero; House Surgeon, Bournemouth; Medicus, Mile-end-road, &c., &c.

*Whitby Times, Journal of the Vigilance Association, Church of England Temperance Chronicle, Warehousemen's and Drapers' Journal, Kendal Mercury and Times, Glasgow Herald, Printing Times, Walthamstow and Leighton Guardian, Melbourne Argus, Sunderland Daily Echo, Westminster and Chelsea News, Weymouth Guardian, &c.*, have been received.

## Medical Diary for the ensuing Week.

### Monday, July 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOOREFIELDS.—Operations, 10½ A.M. each day, and at the same hour.  
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.  
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

### Tuesday, July 25.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.  
WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
WEST LONDON HOSPITAL.—Operations, 3 P.M.

### Wednesday, July 26.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
MIDDLESEX HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.  
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.  
GRAT NORTHERN HOSPITAL.—Operations, 2 P.M.  
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

### Thursday, July 27.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.  
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.  
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.  
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.  
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

### Friday, July 28.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.  
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.  
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.  
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Annual General Meeting.

### Saturday, July 29.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

# Arris and Gale Lectures

ON THE

## RELATION OF EXPERIMENTAL PHYSIOLOGY TO PRACTICAL MEDICINE.

*Delivered at the Royal College of Surgeons, June, 1882,*

By G. F. YEO, F.R.C.S.,

PROFESSOR OF PHYSIOLOGY IN KING'S COLLEGE.

### LECTURE III. — PART I.

#### THE DEPENDENCE OF THE MODERN RATIONAL METHODS OF TREATMENT UPON A KNOWLEDGE OF PHYSIOLOGY.

MR. VICE-PRESIDENT AND GENTLEMEN, — Were I to attempt to explain in all its completeness the relationship borne by experimental physiology to the rational practice of medicine, it would be necessary to devote several lectures to the subject. In to-day's lecture I must therefore restrict my observations to that part of the question which is just now most nearly before my mind—namely, What has vivisection done towards the advancement of modern practical medicine? Over and over again we have been challenged by the opponents of science to give "one conclusive example where experiment has been of direct use to practical medicine." To anyone familiar with the history of scientific medicine there can be no difficulty in finding numerous such instances, and, as a matter of fact, many examples have from time to time been given by various writers; but to make these cases satisfactory and conclusive to persons who know but little, and do not care to know more, of the true bearings of the question, is a very difficult matter. Such a test is totally wrong and misleading when applied to the utility of experiment on the lower animals. The matter must be viewed from a wider standpoint than that embracing only single instances of direct benefits accruing from specific experiments.

The primary object of experimental research is to advance physiology—the science which teaches us the uses of the various organs and textures of the body in the normal state, and how the working of the animal economy is carried on in health. The value of physiology depends on the knowledge it gives us of the normal operations of the body, and not on the few cases in which certain experiments happen to aid us in understanding disease, and thus directly promote the practice of the healing art. Our argument is rather this: Physiology is the foundation of both pathology and therapeutics, which together make up medicine; and therefore rational medicine depends directly upon physiology for its strong growth and genuine progress.

Now physiology cannot advance without vivisection; experiment on living animals is as essential to its progress (though far less general in application) as is dissection for the study of anatomy. Therefore experimental research, including that carried out on living animals, is as necessary for the progress of the practice of medicine as is experimental research in any other science for its advancement and application to daily life. The immediate object of physiological experiment is, then, not to make out new practical methods of treating disease, but rather to attain to a more complete and sound understanding of those general laws which govern the actions of the living body in health—laws which must ever form the only firm basis of the knowledge of disease, and the only sure guide to judicious modes of treatment.

The rational practice of physic, as it is carried on in the present day, is in a great measure the outgrowth of a slowly growing physiological science, upon which it depends, and from which it cannot be separated. There is hardly a thought that can strike a practitioner that does not in some way depend upon physiological facts which have been elicited by experimental research. I do not mean to state that the accurate and painstaking observation of clinical facts and post-mortem appearances has not done much—probably more than anything else—to bring our medical knowledge to its present standpoint; but I contend that clinical observation and post-mortem experience without physiological research would never have been able to advance

medicine to the position it holds in modern times; and, on the other hand, I believe that physiological study, even unaided, could arrive at a rational system of treatment. No doubt both clinical study and pathological observation have not only helped practical medicine onward, but they have also greatly contributed to the progress of physiology itself. In fact, I find it impossible to separate exact clinical and pathological work from scientific research of a purely physiological nature. Is not all treatment more or less experiment? And is not this particularly true of purely empirical treatment? Nowadays, where is the pathological laboratory in which a mere record of post-mortem changes in the human subject is not aided by experimental inquiry into pathological changes in the lower animals?

In assigning to each department of medical study its due meed of credit, their relative ages must be borne in mind. It has been asserted that all the improvements brought about by experimental research would have been introduced with equal certainty had experiment on living animals never been attempted. Observation, experience, and thought would have attained all the results we now enjoy. Possibly so; but when? Clinical observation can be traced back some three or four thousand years, and even then it started with a rich legacy of traditional knowledge. Experimental physiology as a science was only born about a hundred years ago. If we compare the progress made by medicine during the last hundred years with that of the previous thousand years, we shall be able to judge of the relative rates of progress of the two systems of working. The difference seems to me to lie in the fact that unaided clinical observation—that is, practically the empiric method—goes the wrong way about arriving at a conclusion. It says, try this or that or the other remedy, and note which is successful. This is like a boy who will not systematically work out his sum in long division, but prefers to arrive at the quotient by guessing probable numbers one after the other, and multiplies them to see which is the right one; he may, after much trouble, by chance hit upon the correct answer, but he more commonly fails; and most probably the boy who works out his sum in the straightforward way will far sooner arrive at the desired result. Physiology moves onwards by means of accumulating and arranging facts which have borne the test of experiment. Empiricism accumulates observations which, without further test, are used to formulate theories that, as likely as not, are unfounded, and are as apt to mislead as to advance medical knowledge. When asked to give an example of the utility of experimental physiology in the treatment of disease, I feel inclined to answer with another question: Is there one reliable system of diagnosis or one mode of treatment now in use which has not been modified or improved, if not directly suggested, by physiological knowledge? And I must certainly confess that I know none. Before attempting to bring forward single cases as instances where certain experiments have been of direct use to medical and surgical practice, I shall examine the question from the opposite standpoint, by taking some simple case of every-day occurrence, and glancing at its routine examination and treatment. We can then see to what extent vivisection influences the practitioner in the details of his daily work. We may safely take a case at random; one not associated very closely in our minds with any brilliant experimentation will perhaps be the best. The following case, which I happen to have seen recently, will do as well as any other.

Not long since I found a policeman examining a poor woman who was said to have had a "stroke." She lay speechless and motionless on a door-step; she showed no signs of convulsions, no stertorous breathing, no frothing at the mouth. So the policeman hesitated to make a diagnosis, thinking, no doubt, that other causes besides a "stroke" might give rise to such a want of muscular irritability. Gently shaking her had no effect, but on his applying some form of stimulus to the finger she showed signs of returning consciousness, and the left leg and arm moved slightly. The right eye remained partly open, the other was closed; when the eyelid was raised, so as to expose the pupil to the sun-shine, some movement of the muscles of expression was observable, but only on the left half of the face, to which side the mouth was slightly drawn. This became more obvious when some drops of cold water were thrown at her. The pulsation of the temporal artery was visible. Putting my ear to the top of her chest I found the heart beating violently, and heard a prolonged blowing noise instead of the sharp clear tone of the second heart-sound.

D

Without much effort my thoughts had passed from the pulsating temporal artery to the heart, and from the imperfect aortic valves to the middle cerebral artery, where I fancied an embolus must be impacted. I told the policeman the woman had better be taken to a hospital, which was done accordingly.

How was it that I was able confidently to advise the policeman about this poor woman, though he was no doubt very experienced in these sort of cases? What aid did experimental inquiry give me in arriving at my conclusion?

Well, in the first place, I knew that the paralysis was restricted to voluntary movements, without the motions belonging to organic life being in the least interfered with. Vivisections of the earliest times informed me that this was quite possible as a result of some injury of the nerve centres, and experiments of more recent date enabled me to exclude a large part of these centres from being the seat of the lesion. That there was no local injury of the spinal cord in the dorsal region I knew, both from the loss of consciousness and from the fact that the reflex action of the lower limbs was not intensified, and vivisections informed me they would have become so had this been the case. I could see by the movement of the left leg that only one side of the body was paralysed; and then the look of the face distinctly showed that part of the seventh cranial nerve, which Charles Bell's vivisections taught me to know to be motor in function, was paralysed. This fact, together with the ready reflex action of the eyes and the sound side of the face, which I knew by vivisection required unimpaired sensory nerves, showed me that it could not be a case of profound toxæmia such as the policeman supposed to be possible. I knew by vivisections performed by many English physicians and physiologists, some of whom are still among us, that the second heart sound depended on a certain action of the aortic valves. Not hearing the familiar sound, I concluded that the aortic valves must be diseased. Experiments on living animals concerning coagulation of the blood within the vessels informed me that when the lining coat of a bloodvessel, or the heart, is diseased little clots are often formed at the diseased or injured part. I knew, further, from Virchow's classical experiments on living animals, that emboli introduced into the arterial blood-current often become impacted in the middle cerebral artery, and that the embolic blocking of a brain-artery, by shutting off the blood from the area it supplied, caused a sudden arrest of function of the part. Although the nerves going to the various paralysed muscles arose from very different regions of the cord and brain, I know by vivisections that there is a part of the cortex of the brain the injury of which would cause them all to be powerless. Clinical observation and pathological anatomy would have informed me that it was probably a brain lesion; but had it not been for the light thrown by vivisection on the few facts I was able thus hurriedly to observe I should not have been much wiser than any other bystander, and could only have agreed with them that it was a "stroke" of paralysis.

Now let us consider a surgical case. The other day I mentioned some of the old methods of operation, when buttons of virriol, caustics, steel compresses, boiling oil, hot irons, a copious receptacle for catching the blood, and elaborate machines, such as those on the table, were among the apparatus the surgeon had to prepare for operation.

Let us now turn to a modern operation, and let us consider whether our present *modus operandi* is influenced by the light which experimental inquiry has shed on physiology during the last century. I shall not attempt to recount any one of the numerous cases which the surgeon now approaches with perfect confidence of undoubted success, although a comparatively short time back they would have been looked upon as completely beyond his reach. Many such cases, which formerly would have led either to certain death, enduring misery, or life-long inconvenience, must occur to the minds of all here. Let us take a case of disease or injury requiring the amputation of a portion of an extremity. In the first place the patient is made quite insensible to pain by the administration of chloroform, or some such drug; not only is he insensible to pain, but also unconscious to all that he formerly would have been obliged to see and hear, by no means the least painful part of the operation. With regard to the use of anaesthetics, I shall not delay, for vivisection cannot claim to be the sole means of introducing this great boon to modern surgery, although experiment on living animals played a most prominent part both in their

discovery and their introduction into common use in this country, as has been frequently pointed out.

The next step in the operation is to make the part bloodless. This can be done in the following way:—By holding up the limb for some time to facilitate the flow of blood from the veins, and thus to reduce the blood pressure within these vessels, by which means the local vaso-motor mechanisms are brought into play with considerable force, so as to reduce the quantity of blood in the limb, allowing only a limited flow to continue. Then Esmarch's elastic bandage may be applied, to further empty the minute bloodvessels. By this means the textures to be cut into may be made to remain, during the active part of the operation, as bloodless as those of a corpse. The advantage of having no dread of hæmorrhage to induce haste, no blood to impede the view, or render the instruments difficult to handle, can hardly be over-estimated. So that, even apart from the all-important point of preventing the weakly patient losing blood, this bloodless surgery must be regarded as one of the most important improvements in modern methods. And how far may it be traced to vivisection? We know that the contractility of the bloodvessels, and the high pressure of the blood in the arteries, as well as the motions of the heart and the course of the blood, were demonstrated by this means, and is not this the key of the whole matter? But further, were we not familiar by vivisections, and by the removal of tissues from the bodies of recently killed animals, with the fact that the textures can retain their life and function for a considerable period after their normal circulation has ceased, who would have dared to suggest that the entire limb of a living man should be deprived of its blood during the time occupied by a tedious operation?

Then, with regard to the means of permanently arresting the escape of blood from the wounded vessels. We have no longer a receptacle for blood; indeed, the handful of sawdust on the floor that was fashionable when I began medicine is no longer used. John Bell, after giving a graphic and fearful account of the terrors of hæmorrhage, says, "Is not this fear of hæmorrhage always uppermost in the mind of the young surgeon? Were this one danger removed, would he not go forward in his profession almost without fear?" I do not think this fear ever crosses the mind of the young surgeon now, so rare are deaths from external hæmorrhage. I have never seen one death from such loss of blood in the twenty years that have passed since I first commenced to study medicine. Why has the dread of bleeding ceased to chill the heart of the surgeon when entering on an operation? Vivisection has not done all, but it has done much to help us to attain to this degree of excellence in our present methods.

The use of the ligature can be traced so far back in the history of medicine that it is impossible to say whether it was first used upon man or animals. Very definite accounts of it occur in the writings of the Arabians of the tenth or twelfth century. Although its value, or rather its great convenience, in military surgery was recognised and extolled by Ambrose Paré, the inestimable value of the ligature remained unknown in general practice for nearly a hundred years after his time. This was, no doubt, partly on account of the fact that experiment was not used to test its efficacy and mode of action until comparatively recently. By vivisections the chief errors in its application were by slow degrees removed, and now we rest almost exclusively on the improved method of tying arteries as the means of arresting the flow of blood from a recent wound. First of all the nerves used to be included in the ligature. Vivisection showed the folly of thus attempting to confine the animal spirits, or nervous fluid, and practice proved that thus tying the nerves always caused excruciating agony, and often gave rise to fatal spasms (tetanus), which made ligature to be dreaded even by its warmest advocates. In the second place the wide ligatures which were made of soft material and lightly tied over corks, &c., often failed to check the bleeding. Dr. John Thomson, of Edinburgh, was among the first who made experiments on this subject, and I believe much of the credit given to Jones really belongs to him. Following the precepts taught by Thomson, Jones also made numerous experiments on animals. He found that a hard thin ligature applied so as to cut the elastic inner coats and leave the tough outer wall of the vessel uninjured, was much more surely followed by a deposit of "coagulable lymph," and by more satisfactory occlusion of the vessel than when one or several soft bands were tied lightly on it. This fact hardly gained the

universal and complete confidence of surgeons until further vivisections performed by Lister, Brücke, and others, showed that the smooth lining of the vessel was the chief factor in preventing coagulation, and that intravascular clots are formed most readily when the lining of the vessel was injured and the blood ceased to move. Instead of timidly tying a loose knot for fear of injuring the vessel, the surgeon now ties a firm ligature so as to rupture its lining coat, or at least to apply sufficient pressure to cut off its nutrition and thus cause its death in order to make a starting-point for the coagulation which must occur to secure its permanent closure.

Another great objection to the old ligatures was the delay they caused in coming away. This wearied the surgeon and exhausted the patient. The ligature was sometimes pulled away before its time, and this often gave rise to the much-dreaded secondary hæmorrhage. In counselling that the ligature be left alone, Petit adds the remark, as a kind of consolation, that he finds them generally to come away of themselves in about two or three months. Of this sort of annoyance we hear nothing now. Experiment on the lower animals has taught us the existence of the lymphatics and their absorbing power. Experiments upon living animals has shown us that this power of absorbing extends to such things as catgut, a material readily made into strong cords. Properly prepared catgut is therefore almost universally used as a ligature, the ends are cut off short, and the knot is left to be absorbed and never once thought of again.

And, lastly, the edges of the wound are brought together with stitches of silver wire, silk, catgut, horsehair, according to whether much or little traction or more or less coaptation is demanded. Undue tension, compression, gaping, and irregularity of the wounded part, are all avoided; a means of exit for serous oozing, &c., is provided by non-irritating drainage-tubes. The antiseptic dressings are applied carefully and exactly. Large tents, dossils of lint, rude compresses are not thought of. The aseptic wound heals without swelling or inflammation. No throbbing disturbs the patient's rest. No drop of pus comes from the cut surface. Fever, tetanus, pyæmia, second hæmorrhage, as well as the old dread of the bleeding during the operation, are all nearly forgotten.

To the minds of the surgeons of the last century such a method of operation and such a mode of healing would probably suggest the longed-for magic remedies by means of which many hoped to replace the cauteries, caustics, compresses, and filthy dressings with which they strove to heal the open wounds of their exhausted and cachectic patients.

## THE RIDER'S SPRAIN.

By HENRY MORRIS, M.A., F.R.C.S.,

SURGEON TO, AND LECTURER ON SURGERY AT, THE MIDDLESEX HOSPITAL.

A GOOD many of our national sports and amusements are known to give rise to certain accidents and particular morbid changes. Thus, "camping out" occasionally provokes an enlargement of the bursa over the trochanter major, owing to the hardness of the ground upon which persons who go in for this luxury sometimes have to sleep. Rinking has frequently led to Pott's and Colles' fractures. Bicycling has been accused of inducing hernia in its devotees, as rowing has heart disease. Lawn tennis leads frequently to sprain of the knee, or of one of the muscles of the calf. Fractured clavicles and other accidents even of a fatal character are unfortunately too frequent in the hunting-field. I have, however, met with two classes of cases, neither of which are sufficiently well recognised at present—these I may call for the sake of convenience "the lawn tennis arm" and "the rider's thigh." The former is a sprain of the pronator radii teres muscle, and the latter of the adductor longus.

The lawn tennis arm is the result, I believe, of the frequent back stroke, whereby the forearm is brought into rapid and forcible pronation. The condition is slight swelling with tenderness on firm pressure along the course of the pronator, and pain in bringing the muscle into action, but as a rule not otherwise. I have of late seen three such cases, and one gentleman said he had known of several lawn tennis players affected in the same way. The symptoms soon disappear if

the movements of pronation and supination are restricted for a few weeks, and the forearm is enveloped in an elastic bandage or a firm elastic webbing.

The rider's thigh or sprain occurs very frequently; so frequently, indeed, in a mild form that the surgical instrument maker is applied to for some remedial support, though the injury is not thought severe enough to consult the surgeon about it. It is caused generally by the horseman suddenly making a strong grip owing to his horse rearing, shying, slipping, or unexpectedly taking a jump. In this way the adductors are sharply and forcibly brought into action; and some of the fibres of one of them, generally the adductor longus, yield at a short distance from their origin. The pain at the time of the injury is often very trivial, and not sufficient to cause the horseman to dismount; but subsequently more pain is felt in walking; rather severe pain attends the act of mounting, and still more severe, sometimes described as unbearable, pain is excited by gripping the horse. The area of pain is confined to the upper and inner side of the thigh, close to the origin of the adductors, and firm pressure in this part increases the intensity of the pain. Mr. Hawksley the well-known instrument maker of Oxford-street, tells me that during the last twelve years he has seen as many as seventy-five such cases, and as many as ten during the last winter. The accident generally happens to hunting men, is more frequent in tall men, and affects the right thigh more often than the left. For these mild cases Mr. Hawksley makes a long web or leather strap, from two to three inches broad, sometimes padded to localise the pressure. This strap is passed round the thigh and pelvis, like a spica or figure-of-8 bandage, on the outside of the breeches, and is firmly fastened in front. The action of this strap is immediate, as the man can at once firmly grip his horse. Often the huntsman rides to the meet with the strap put on loosely and tightens it up when the hounds get away. In more severe cases the surgeon is consulted, blood is effused, and, if in a large quantity, passes through the saphenous opening and the other numerous apertures in the fascia lata for vessels and nerves, and is thus extravasated beneath the superficial fascia of the thigh, groin, and scrotum; or, perhaps, the fascia, which is thinner over the adductor muscles than elsewhere, is itself ruptured. From these more severe sprains many men lose a season's hunting, but they are as a rule able to ride again after a period of rest and freedom from horse exercise.

I will give briefly the notes of two very severe cases of rider's sprain which during last autumn came under my notice. In Case 1 the whole of the effused blood was not absorbed, but became in part organised into a firm fibrous mass, almost as hard as bone. For this reason it is specially interesting, as it amplifies the truth of M. Charcot's recent remarks on effusions of blood at the fold of the elbow (*Rev. de Chir.*, Sept. 10th, 1881)—i.e., such effusions are not always completely absorbed; the resulting swelling may be as large as an egg, and of cartilaginous or osseous hardness, though at first independent of the bone they may subsequently become attached to it; they remain stationary for a long time, and are but little affected by treatment; and finally they may give rise to errors of diagnosis, being mistaken for exostoses, or detached and displaced fragments of bone.

I am indebted to my friend, Mr. Court, of Staveley, for the notes of the following case.

CASE 1.—Mr. R. A., aged thirty-six, a farmer. On the 24th of March, 1881, whilst out hunting, his horse galloped through a bog, fell and rolled upon him, the saddle pressing against his loins. When first seen by Mr. Court there was a large brawny swelling the size of a cheese plate over Scarpa's triangle; the testes were swollen, the scrotum nearly black, and a hard ridge was felt in place of the spermatic cord. No fracture of the pelvis could be detected; he could move both legs freely; and got up from his bed and passed water without admixture of blood. The swelling in the right thigh became very inflamed, and had every appearance of suppurating, but at last it gradually subsided, leaving a hard gristly substance the size of a man's thumb, which was apparently attached deeply to the tissues below the inner end of Poupart's ligament. During the summer of 1881 the substance became harder and more prominent, and projected beneath the skin of the thigh like a piece of stray cartilage, but gave rise to no pain and very little inconvenience. Absorbents were applied to it for some months without any effect, and its condition remained exactly the same



until March the 10th of this year, when Mr. A— was again thrown from his horse, falling violently upon a hard road. He received a severe scalp wound, and was much shaken. Upon examining the swelling in the thigh, it was found to have become quite flattened, and driven in, as it were, upon the deep structures of the thigh, and for a fortnight Mr. Court thought it would remain so; but gradually it resumed its former shape and size, and in June, 1882, it was as large and prominent as it was twelve months ago. He can ride without any pain or trouble, the only inconvenience being a feeling of weakness in getting his leg into the stirrup.

On Sept. 20th, 1881, when Mr. Court brought this patient to me, there was a mass as hard as bone, and of the size and shape of a man's thumb when the last phalanx is fully flexed, situated at the inner and upper part of the right thigh—i.e., where the thigh joins the pubes and perineum, and over the origin of the long adductor muscle. It could not be made to move, and when seized between the finger and thumb gave me the impression of being connected by its own convex border with the body and ramus of the pubis. I was informed that it had been diagnosed by another surgeon as a portion of the pelvis fractured and displaced from its position beneath Poupert's ligament, downwards and inwards towards the perineum. But the condition of the patient when first seen after the accident, no less than the outlines of the pelvis months afterwards, was completely at variance with this opinion.

CASE 2.—A gentleman, aged forty-three, was sent to me by my friend Dr. Murray of Weymouth-street, on November 22nd, 1881, on account of an injury received whilst riding ten days previously. The horse reared, and the rider suddenly gripping him felt something give way, and then immediately experienced a sensation as of something warm trickling into the flesh near the right groin. Much swelling and discolouration of the skin of the thigh and groin quickly followed, but had in great part disappeared before I was consulted. There still remained, however, some swelling near the junction of the thigh and perineum over the upper end of the long adductor tendon. Tenderness was caused by pressure, and severe pain was felt when the adductors were put into action. I ordered a spica webbing to be worn, which was made by Mr. Hawksley, at my direction, so as to resemble the body portion and one thigh, cut short, of a pair of drawers, padded softly over the origin of the adductors. I also advised the patient to abstain from horse exercise for a few weeks. No other treatment was requisite.

## THE RIDER'S SPRAIN.

By EDWARD HENDERSON, M.D., F.R.C.S. EDIN.

WHEN riding across a small water jump in the country, in the neighbourhood of Shanghai, the muscles on the inner side of my right thigh seemed suddenly to give way, and this sensation was attended by pain of so acute a character that I was for some minutes with difficulty able to retain my seat in the saddle. On dismounting I found myself at once in a position of comparative ease, and soon discovered that, while a good deal of continuous dull aching was felt along the inside of the thigh, really acute pain only attended movements of adduction, such as are necessary to retain the seat securely on horseback. There was considerable tenderness along the course of the long adductor, and acute pain was experienced when pressure was made on the tendinous origin of that muscle, which had clearly been rather severely sprained. I am now (at the end of a week) almost free from pain in walking, but am still quite unable to ride.

This accident, which I have termed "rider's sprain," is, it would seem, of constant occurrence, and well known to horsemen. I have myself seen or heard of many cases of varying degrees of severity. The pain experienced at the moment of its occurrence is generally of a very acute character. One gentleman who sustained this injury when galloping, fainted after dismounting; the inside of his thigh became subsequently much discoloured, and he was for many weeks unable to mount a horse. Another showed such signs, of collapse that

his companion, a surgeon, supposing he was ruptured, wisely made the necessary examination on the spot. The point of greatest tenderness is apparently in all cases in the upper and inner part of the thigh, directly over the tendon of origin of the adductor longus muscle; but it is not, of course, to be supposed that the sprain is necessarily confined to a single division of the muscular mass concerned in the movement of adduction. A man who has once sustained this injury at all severely is liable to its recurrence, and in a few cases permanent weakness is left behind. In one example which came under my notice the sprain, a tolerably severe one, recurred twice in the same thigh, with an interval of some years. In another, the particulars of which were narrated to me, permanent weakness resulted, the sufferer being compelled to give up horse exercise entirely. We suppose here that the accident may occur more frequently in riding China ponies than with full-sized horses, on account of the difference of grip. A horseman who mounts a China pony for the first time usually experiences a sense of insecurity arising from the comparatively narrow clasp of his legs, and the small size of his mount in front of the saddle. When the rider and his horse have warmed to their work in crossing country, the accident seems less likely to occur, being more commonly met with when a fence or water jump is taken in cold blood, or at the beginning of a run; hence it is that this sprain is so frequently complained of as arising from an apparently trifling cause. Some awkwardness in sitting or some unexpected movement of the horse is at the bottom of most cases. Time and rest will of course cure the greater number of these cases, but, in addition, a broad elastic bandage firmly applied over the upper part of the thigh and secured by a figure-of-8 turn round the waist is, as I have myself found, of very material assistance at first in locomotion. A sporting friend tells me that stirrup leathers are sometimes used to support the injured muscles; they are turned twice round the upper part of the thigh and buckled on the outside; men who have once suffered from such a sprain, carrying their spare leather in the country in this way as a protection against a recurrence of the accident. The stirrup-leather can, of course, be easily slackened or tightened to suit the convenience of the wearer. A broad piece of girth-strap with double buckles would give a better support, and would have the advantage of some degree of elasticity. Doubtless the surgeon's instrument makers at home have been often called on to supply suitable supports in these cases.

I should myself like much to know whether the accident is really as common as I am at present inclined to suppose it, and whether the peculiar seat of the cavalry soldier increases or diminishes his liability to this form of sprain. Sprains of the quadriceps extensor muscle are specially referred to in some surgical text-books, but I have not yet come across any special notice of the same injury affecting the triceps adductor.

Shanghai.

## MOTOR DIATHESIS OF THE SECONDARY PERCEPTIONS.

By BRIGADE-SURGEON T. OUGHTON, A.M.D.

SECONDARY perceptions are the subjective indices of the primary qualities existing in external entities—viz., position (distance and direction), dimensions (superficial and solid), magnitude, and motion. Irrefragable evidence has been offered by the eminent Locke, proving these qualities to be primary as affixed in natural objects; but he has failed in a recognition of the fact that, in the sensorial transformation from actualities to phenomena, the not infrequent crosswise action is now in exercise, whereby their mental equivalents can only be regarded as being secondary—that which is primary in the object becomes secondary in the perception. Neither will it be amiss to consider that here is precisely the block of error on which several systems of philosophy have stumbled, noteworthy among them being the ideational hypothesis of Berkeley and the intuitional conceptions of Kant. Medical philosophy scouts the Berkeleyan notion that the world is purely mental dynamics, neither does it accept the modification of Kant that the products of special

sensation are *à posteriori*, whilst those of extension and form are *à priori*—i.e., intuitions in a pre-existent mind. Rather is the foundational basis of our philosophy comprised in Locke's dogma, that the brain is a "tabula rasa" at birth, and mind (spirit excluded as appertaining to the province of faith) is a sequence of the interactions of physical and vital forces. Thus we proceed with our duties relying on the realism of externalities; objective experiences may float past the senses and leave even memory out of sight, but none the less have they been realistic episodes in the phenomenal history of time.

Primary perceptions *pari passu* are the subjective indices of the secondary qualities of external entities, such as colour, temperature, &c. These statements may be verified by annexments as follows:—Special perceptions of secondary qualities are primary in point of development, for the organism of special sensation is fully equipped at birth; but a recognition of the geometrical features of objective nature is a slow acquisition, requiring the motor experience of months or years for its perfect expression. Taking a solitary instance of each class of perceptions, every obstetrician must have sympathised at some time with the keen disrelish of the new-born infant for its cool atmospheric bath; and many of us know that a chicken will seize a grain of barley immediately on exit from its shell. In the latter case, however, we cannot argue from the chicken to the infant excepting on the datum that this will grasp a crumb of bread and feed itself. (Of such kind is the absurd generalisation of those affecting horror at the cruelties practised on a decapitated frog, because it purposively removes a drop of vinegar that is stinging its nether extremities.) Locke is evidently at one with us in the gradual acquirement of the perceptions of primary qualities by his admission that sight restored from congenital blindness would be unable to distinguish between a triangle and a square; still, as we observed before, he has failed to identify these perceptions as being of a secondary nature.

Special perceptions are also primary in point of importance, seeing that they may operate independently of the presence of secondary perceptions; the latter, for instance, are absent in the olfactory and auditory senses. None would hesitate to admit that the qualities of direction, distance, size, or form are wanting in odours; but it is otherwise with sounds. Some would grant that size, form, and motion were wanting in the appreciation of sounds, whilst they might be sceptical about the direction and distance of sounds; yet a careful attention must lead to the conviction that sonorous directions and distances are delusional perceptions, that they are judgments based on the comparison of differences in sonorous intensity, and that such judgments are oftentimes erroneous. Regarding the case of direction, if one should attempt to guess the direction along which an approaching carriage is proceeding, whether from right or left, he will find his guesses by no means invariably correct. I have heard the whistle of a distant train at a railway station, and inferred that it was coming along one pair of lines, but the train has presently made its appearance on the opposite pair. So, with sonorous distance, the ear cannot be said to perceive it in the light of a stationary ventriloquist throwing his voice to all conceivable distances, and, we might add, in every possible direction. But, to continue the argument, secondary perceptions are not independent of the primary—that is, directions and distances, sizes and shapes, &c., cannot be perceived in the absence of an objective. When the biceps is contracted into a hard cord the active cohesion of the sarcois elements communicates no sense of weight in the absence of a felt resistance. So, similarly, on rolling the eyeballs in darkness no visible notion of direction or motion is experienced, excepting as attached to the dim spectra of retinal irritation; and, in the sense of touch unaided by sight, the position of the limbs is determined by a certain indefinite increment of temperature (the true primary sense of feeling) being present, or if not by a memorial comparison. A clearer test on this point is furnished by the faculty of articulation; no evidence of direction, &c., is elicited by the voluntary contractions of the tongue, because the air in contact therewith is impalpable and of an even temperature. Hence, that which is essential is primary, and that which is an adjunct is secondary.

The preamble has been a lengthened one, but not more so than the complication of the subject has demanded; it has been necessary to define and justify the titular phraseology "secondary perceptions," by indicating that primary

objective qualities are the equivalents of secondary subjective qualities, and to note the error that has crept into mental philosophy by Locke's almost culpable disregard of the fact. Neither should it be overlooked, as regards the latter point, that perceptions are only to be construed as being primary and secondary in their mutual relationship as physiological functions, and that both varieties of perception are secondary in their relation to objective qualities. Herein, then, consists the basis of a sound realistic philosophy, and I desire to show—(1) that the organism (muscular) of the secondary perceptions is correlated to the mechanical forces of nature in like manner as that of the primary perceptions is correlated to the sense-essences of nature; (2) that sensorial streams of the primary qualities are transmitted centripetally through the channel of motor nerves in like manner as those of the secondary qualities are transmitted centripetally through sensory nerves. This being done the *modus operandi* of the process must remain for future research, both experimental and logical; query—(1) in what degree is the formative force of natural cohesion correlated to the vitalised cohesion of voluntary muscular contraction; and (2), admitting the correlation, is such vitalised cohesion idealised into the secondary perceptions, by means whereof sensorial form is conformed to natural form?

It must be impressively maintained, firstly, that perceptions are divisible into the two distinct classes of primary and secondary; there is the same *raison d'être* for the classification as for that of the qualities of bodies. The secondary perceptions have been very strangely slurred over by physiologists. Where do we read that the deltoid and superior rectus originate upward ideas, or the biceps cubiti and internal recti ideas of proximity? How does it happen that the said perceptions are apt to be treated metaphysically instead of physiologically, except it be on the unwholesome lead of Locke which insinuates indirectly that they are of a primary nature and therefore, perforce, mentally intuitive. But, concerning classification, note the following words of this philosopher: "There is no discoverable connexion between any secondary quality and those primary qualities that it depends on." He continues—and observe how he mixes up qualities and perceptions—"We are so far from knowing what figure, size, or motion produces, for instance, a yellow colour, or sweet taste, or a sharp sound, that we can by no means conceive how any size, figure, or motion can possibly produce in us the idea of any colour, taste, or sound whatsoever; and there is no conceivable connexion between the one and the other." One inference only is justifiable from this premise—namely, with two sets of perceptions must be adequately conjoined a duplicate nervous instrumentation; the retina can no more perceive direction or visual form than light can *per se* be shaped or assimilated to specific direction, and *eodem modo* the muscular contraction of volition can in no wise be productive of a sensation any more than a given shape, size, or motion, can *per se* originate light, temperature, or the elasticity of sound. We recognise the fact that special nerves are the channels of primary perceptions; where else, then, shall be discovered the second distinctive and instrumental innervation of perception saving in the motor nerves?

A very good rough method of inculcating that the secondary perceptions constitute a class by themselves and are generically akin, that one form of nervous instrumentation suffices for their excitation, and that such instrumentation is motor in its nature, is comprised in the consideration that "each and every" phase of this class of perceptions is expressible by means of straight lines. (a) Drawing a straight line points directly to a motor causation for the perceptions of motion, of direction (that of the line), and of distance (the length of the line). (b) Describing any configuration, as a hexagon, reveals the instrumentation of the perception of shape, and the varying extension that may be bounded by any such configuration furnishes a clue to the agency of apparent size. (c) An angle indicates the profile of a relief, and the relief becomes real on rotation of the containing superficies about a vertical line. Euclid's point is not a metaphysical conception, but the residuum of an antecedent muscular precept; the point has position, being significant of an appreciated direction and distance. Neither is there aught of intuition in any problem or theorem of geometry; these are naught but the refined adjustments of precedent muscular experiences.

Thirdly, the gradual acquisition and development of these perceptions impress the conviction of their motor origin, which is sufficiently patent in the analogous

acquirements of articulation and ambulatory progression. All observation confirms their gradual acquisition, from Cheselden's youth restored to sight to Charles Bell's note that an infant cannot realise the pain of an abdominal blister. The powers of primary perception are intuitive; but a muscular education is necessary for the identification of the roundness of the solar disc, the magnified resplendence of vision, the length of the arm, or the difference between a picture and a solid reality. Coupling in this behalf the facts that shapes are acquired perceptions, and also the chief originating elements of the signs of intellectualism, we may conclude that the radical principle underlying a soundly educated mind resides in the due admixture of sports and study. In a hygiene of intellect the art of drawing (mainly perspective) should be recommended, and instruction of the schoolboy in modelling and sculpture, if practicable, would develop the more realistic perception of relief; but pre-eminently let alternate exercise for mind and body be strictly enjoined, and on an unwavering principle that man's intelligence is in the main founded on his muscular organism in its conjunction with a suitable mechanical configuration.

It is essential, again, that the distal terminations of the nerves of special sense should be mobilised by muscular contraction for the production of secondary perceptions. The vestibular sac is immobile between the cochlea and the semi-circular canals, and no muscle plays directly on the Schneiderian membrane; hence, the absence of this class of perceptions in the auditory and olfactory senses. It may be suggested here that the auricles of some animals are volitionally mobile; truly, but no pure sonorous perception of direction is generated thereby, and the result is an inferential perception such as we gain concerning the direction of an odour by turning the head towards its source. The mobility of the tongue is associated rather with articulate speech than with objective impulses; nevertheless, very keen directive and distal perceptions reside in this organ. It is in the senses of sight and feeling that each and every secondary perception is manifest in full exercise; further, the similitude existing between visible and tangible signs is to be referred to the volitional instrumentation that is common to these senses. Bishop Berkeley differs from this position, for he says—"Visible ideas are the signs of the tangible, not by means of any similitude between the one and the other, nor by any natural principle; but having found them constantly conjoined, as the sounds of a language are with the things they signify." His statement is unreliable, for the said ideas are not immutably conjoined, as is language with thought; the tangible sign is a fixed one, whilst the visible sign varies with the position of the visible body, and the discrepancy is adjusted by a mutual tutoring of tactile and ocular motor experiences.

A few anatomical dispositions may be noted, lastly, which illustrate the dependency of these perceptions on a muscular mechanism—1. No voluntary muscle crosses the median line of the body. This disposition may be interpreted as pointing to the necessity for a neutral line of departure being available wherefrom dextral and sinistral perceptions may date their site of origin. 2. Corresponding articulations are paired on the same level; otherwise double touch would be a constant concomitant of the sense of feeling. Thus, unequal segmentation of the arms would cause a tangible object to be perceived at non-corresponding distances or heights. So, analogously, the orbits are deposited on a horizontal level to prevent a quadruplicate displacement of visual spectra; with the eyes mounted on separate level-lines there must co-exist a vertical, in addition to a horizontal displacement, and with what result? It is difficult to conceive of quadruple vision in the absence of four eyes, and the spectra of double vision would probably, in the case alluded to, hold a variedly oblique relation to each other, instead of a constantly horizontal relation, as with normal binocular vision. 3. The ocular recti stretched away from the eyeball forms a perfect Roman cross, clearly in subjection to the exigencies of vertical and horizontal qualities. 4. Muscles passing over two or more articulations effect the selfsame directive perception in the segments concerned in their contraction; the extensor digitorum longus, for example, produces an upward idea whether in extending the toes or flexing the ankles.

Isolated contradictory evidence is of little moment in the enunciation of general truths. Such evidence crops up only too frequently in the study of perceptive experiences, nor would these be the puzzles they are admitted to be without them. It may be urged that certain muscles have multiple

and incongruous uses, which are inconsistent with their being the agents of directive perceptions; thus, the fan-shaped pectoralis major does not present the simplicity, as a directive agent, of the straight ribbon-like ocular muscles. But the sound principle of the present argument, additionally corroborative of my stated views concerning erect and single vision, is not to be overthrown by a trifling obstacle of this nature; perception has reference to general results rather than to special muscular adjustments, and one of these results indicates that directive phenomena are affected by muscles influencing one another as well as by the mechanical arrangement of their constituent fibres. Herein I have attempted to show that the perceptions of space are secondary to those of essence, and also secondary to and determined by the elements of objective space operating on a sympathetic motorial machinery. It is confessedly difficult to comprehend the crass blindness of metaphysical philosophy in the light of the foregoing matter of physical and physiological fact.

Forest-hill.

## A NEW HÆMOSTATIC AND SURGICAL DRESSING.

By EDWARD THOMPSON, M.B.,  
SURGEON TO THE TYRONE COUNTY INFIRMARY.

SOME months since, at one of the quarterly meetings of the north of Ireland branch of the British Medical Association, I directed attention to the use of the puffball as a hæmostatic and surgical dressing. My attention was first directed to this substance by the Rev. Dr. Discon, the respected rector of the parish of Beragh, who told me that by its means the life of a poor woman, who had suffered for a long period from an open cancer of the right breast, had been preserved for years, and her sufferings much mitigated. I visited this patient, and ascertained that she had tried almost every form of surgical dressing without being in the least relieved either of her sufferings or the constant hæmorrhages which weakened her. In despair she sought the aid of a country quack, who suggested the use of the puffball, or, speaking technically, the *lycoperdon gigantum*, which grows close to the roots of trees in some of our woods, and which, I believe, has gained a solid reputation amongst the country folk. From the day the patient commenced the use of this substance her sufferings were greatly mitigated, and she improved in health and strength. The frequent bleedings ceased, and the foul odour from the sore was greatly diminished; indeed, so admirably did the puffball act, that the poor woman lived in comparative comfort for seventeen years after the first appearance of the cancerous ulceration. But not only does the *lycoperdon gigantum* possess those important styptic properties which would be in themselves more than sufficient to commend its use to surgeons, but it is also a most soft and comfortable surgical dressing, and the powder it contains seems to possess antiseptic and anodyne properties. The puffball is, when mature and fit for use, almost as large as a man's head; it is enclosed in a thin capsule which must be removed, it can then be torn in pieces and used either as a styptic or for applying any required surgical dressing. The puffball undoubtedly possesses the qualities here claimed for it, and this I assert positively (although we live in an age of scepticism), both from my own experience and that of others. It is, however, its hæmostatic properties that seem to me to be so especially valuable; it has the power of stopping instantly even the most violent external hæmorrhages upon which iron, matico, turpentine, &c., have exercised their properties in vain.

Mr. Fagan, the leading surgeon in Belfast, told me a very short time ago that when removing a large tumour from the neighbourhood of the orbit, he encountered the most violent hæmorrhage from large arteries in the bone, which of course he could not tie, and which even pegging with pieces of wool failed to control, yet a small piece of the puffball at once restrained all bleeding. Dr. McKeown has also used this substance, and although he denies that the puffball has any anti-æptic or anodyne properties, he fully concurs in the opinion a number of north of Ireland surgeons have formed as to its complete success as a hæmostatic. I have thus briefly directed attention to this most useful substance, in the hope that some of our leading surgeons will use the puffball, and ascertain for themselves its great utility.

# NOTE ON THE USE OF SALICYLIC SILK AS A DRESSING FOR WOUNDS, WITH CASES.

BY J. LOCKHART GIBSON, M.B., C.M.,

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THE ROYAL MEDICAL SOCIETY, EDINBURGH.

LAST winter I acted as Mr. Chiene's house-surgeon in the Edinburgh Royal Infirmary, and I have received his permission to publish the results we obtained under the use of salicylic silk between the deep and superficial layers of gauze in an antiseptic dressing. What led to the use of salicylic silk was the note of the results obtained in the Leeds Infirmary, published by Mr. Henry Brown in your number of Oct. 8th, 1881. Mr. Chiene did not, however, adopt the Leeds method in its entirety, but, as we think, improved upon it, and so brought out some of the chief advantages of the silk as an addition to an antiseptic gauze dressing.

Our method differed from that used at Leeds in this essential—viz., in the use of no mackintosh. Next the wound was placed a piece of protective of as small a size as possible, and often perforated, as it was used merely to prevent the dressing from sticking to the wound; then two or three

layers of carbolic gauze wrung out of 1 to 40 carbolic lotion; above that a variable quantity of salicylic silk; and over all a large dressing of eight plies of carbolic gauze. The large dressing we used to protect the silk, which was looked upon as an aseptic though not antiseptic reservoir, and therefore required an anti-epic covering to prevent it from going wrong when moistened with discharge. It was not thought necessary to soak the deep dressing in a stronger solution of carbolic acid than the usual 1 to 40. The mackintosh was dispensed with because the use of the beautifully absorbent silk gave us the means of employing what Mr. Chiene had been long aiming at—viz., a dry dressing. The advantages found in the silk were—dryness of our wounds, lessening of discharge, diminution of labour to the surgeon, and cheapness. The absence of the mackintosh allowed the fluid part of the discharge to evaporate, and the dressings, when removed, sometimes not till two or three weeks after their first application, were found to be acting the part of a huge scab and to be covering a healed wound. The discharge was lessened because the poulticing action due to the mackintosh was absent. Our wounds in almost every case were drained with chromic catgut, that dressing might not be necessitated for the removal of a drainage-tube. Horsehair stitches were employed, as being more rigid than catgut; as keeping the lips of a wound in more perfect coaptation, and as being easily removed after a wound is healed.

## CASES TREATED BY SALICYLIC SILK IN THE ANTISEPTIC DRESSING.

No.	Nature of case.	No. of dressings.	Highest temperature.	Remarks.
1	Scleritis of mamma and axillary glands.	1	99° 2'	Dressed on the operating-table. Dressing removed on the fifteenth day. Wound found healed.
2	Scleritis of mamma and axillary glands.	4	100° 8'	Only once dressed for discharge (oozing); twice for drainage-tube in axilla, which had been used because some glands surrounding the axillary vessels, and, therefore, not removed, had been touched with chloride of zinc. Drainage-tube opening healed in thirty days, rest of wound in thirteen days.
3	Trephining for compound depressed (punctured) fracture of skull.	1	99° after 1st day, when it was 101° 6'	Bone, to the size of a crown-piece, removed from vertex. Dressing removed on the fifteenth day. Wound found healed. Dismissed a month after admission.
4	Railway injury reflecting the scalp from nearly the whole of one side of the head, and baring and scratching the bone for an area of two inches in diameter.	1	99°	Dressed on the eleventh day, and found healed.
5	Amputation through the middle of thigh, for cario-necrosis.	4	99°	Healed on the seventeenth day. Dressed on the first, fourth, tenth, and seventeenth days.
6	Five wounds of vertex, three penetrating to the bone, and one exposing a fissured fracture.	1	99°	Dressed on the twelfth day, and found healed.
7	Primary amputation below the shoulder.	5	99° 5'	Drainage-tube used because flaps were doubtful. Only two of the dressings were necessitated by discharge.
8	Syme's amputation at the ankle (primary).	10 (3 for discharge)	100°	The frequent dressings were necessary for the watching of a linear slough of the heel-flap, which had been injured by the accident. The case was in for eight weeks. Very good stump.
9	Compound fracture of tibia and fracture of fibula.	2	99°	Dressing removed in twenty-one days. Wound found to be quite superficial, with distinct union of bones. In another fortnight the wound healed, and patient was dismissed.
10	Compound fracture of tibia.	3	100°	The patient (a woman) had fracture of the true pelvis and of a rib, in addition to the tibial injury. Dismissed in six weeks.
11	Compound fracture of tibia and fibula, and compound dislocation of the ankle.	12	101°	The case was a very serious one, but left the hospital in nine weeks with the wound healed and a movable ankle. The last five dressings were not necessitated by discharge.
12	Primary amputation of middle and index fingers, with portions of their metacarpal bones.	3	99°	Healed on the twelfth day.

## ON A CASE OF MALIGNANT CHOLERA.

BY J. EDWIN COONEY, L.F.P.S.G., &c.

MRS. C—, of Poplar, E., aged fifty-two, of spare habit, after three days of premonitory diarrhoea, during which period she dosed herself from a neighbouring druggist's to no effect, sent for me on June 21st, 1882. Arriving at 8 A.M. I found her shrieking and groaning, tortured by spasms of the carpo-pedal extremities, &c., which were purple; the countenance had assumed the "facies cholericæ," the eye being deeply sunken, red and injected, a broad and livid band encircling the lower part of the orbit; every feature was sharp and pinched, the complexion thick and muddy, and the lips and tongue purple. The whole body was bathed in a cold and clammy sweat; the voice scarcely audible. Temperature (external) was below 95° F.; pulse not appre-

ciable in wrists and superficial arteries. One of the heart's sounds only detected. Vomiting and purging incessant. She was passing painless motions of the true choleraic character—viz., copious white flocculi suspended in a watery fluid; urine was entirely suppressed since 4 A.M. She was, moreover, extremely restless and tossing about. In other words, she was in the algid state of malignant cholera. At 8 A.M. ice was given *ad lib.* to suck, also twenty grains of chloral hydrate, with twenty minims of dilute sulphuric acid in a little ice-water, which was rejected. This repeated at 8.30 A.M. was again vomited. At 9 A.M. I gave her a dose of chloral alone (twenty grains), which was retained; and up to 6 P.M. I gave ten grains of chloral every half-hour. Vomiting occurred occasionally in the intervals, but the drug was never rejected. At 10 A.M. I found the bladder empty on passing a catheter, and resolved to inject a pint of tepid water in it to procure its absorption. The symptoms were still urgent, though the sweating and restlessness had ceased, and the cramps were shorter in duration and further between. At noon, on passing the

catheter to carry out my resolution, I found a fluid ounce of urine in the bladder after eight hours' suppression. By 3 P.M. the thermometer marked 96° F., and at 6 P.M., after taking 180 grains of chloral in nine hours, I noted the external temperature at 96.2° F.; the pulse was coming back, and the muscular spasms had disappeared, and she had vomited five times; her motions were of the same character as before, but less frequent, and shortly before 6 P.M. she expelled a little urine with an alvine evacuation. From 6 P.M. to 6 A.M. the following morning she had five grains of chloral every half-hour, with the exception of two hours' interval during the middle of the night, when the symptoms were observed to become more urgent and the temperature fell below 95° F. She had a teaspoonful of beef-tea, iced, every half-hour. Chloral, 100 grains.

June 22nd, 1882, 6 A.M.: Temperature 98.4°; eight stools during night, when urine was passed; during the day five grains of chloral every half hour=120 grains of chloral. 6 P.M.: Temperature 97°; pulse 120; vomited twice; ten stools; both heart sounds heard; face and extremities still cyanosed; five grains of chloral every hour through the night=sixty grains of chloral.—23rd: Temperature 97°; pulse 110; respiration laboured, and 35 a minute; thick purulent sputum brought up frequently (patient states "she usually suffers from chronic bronchitis, and that there is consumption in the family"); coughs for the first time since illness; she is very drowsy, and complains of pains in the head; bowels opened eight times through the night, and stained with bile; five grains of chloral hourly, with dilute sulphuric acid=sixty grains of chloral. 6 P.M.: Temperature 97.8°; pulse 100; respiration 24; sputum less; two grains and a half of chloral hourly, with acid=thirty grains of chloral.—24th, 6 A.M.: Temperature 97.8°; pulse 96; cyanosed appearance almost gone; bowels moved six times through the night, and of a better consistence. The patient is still very drowsy, and has to be roused for nourishment; milk and beef-tea ordered. 6 P.M.: Four stools; temperature 98°; still drowsy; ordered cold to head, and one drachm of brandy every two hours, with nourishment as before; no chloral given this day.—25th, 6 A.M.: Temperature 97.8°; purged three times; not so drowsy; no stimulants or medicine. 26th: Temperature normal; no relapse or reactionary fever.

*Remarks.*—This case has many points of interest to one who has seen much of cholera, but through want of space I will simply allude to a few. There are only six cases on record in this country with a premonitory diarrhoea of three days' duration, and this is another. Besides, it is the only case in which suppression of urine lasted only eight hours, the other shortest period being ten hours. Hydrate of chloral was given to an alarming extent—i.e., 180 grains in the first nine hours, and a total of 550 grains or one ounce and a quarter in three days. Though the freshest drug by Liebreich was used, all the usual effects of large doses were not observed, and it is questionable whether the subsequent drowsiness was due to chloral or a natural sequence of the disease. Further corroborative evidence is necessary to prove whether chloral, besides checking sweating (as in phthisis) and preventing vomiting (as in sea-sickness), has any action on the kidney secretion, similar to nitrite of amyl. Probably such toleration of larger doses of chloral is due to the loss of the inorganic blood salts by transudation of blood serum *via* intestinal canal. The early cessation of the vomiting precluded the employment of chloral hypodermically. The administration of the drug was thorough, and the case assiduously watched throughout conjointly by Mr. G. Edwards, a Calcutta colleague, and myself. Other medical men also saw the case. It would be interesting to know what quantity of chloral given hypodermically is equal to a given quantity given by mouth. The early appearance of the urinary secretion prevented my putting into practice my plan of injecting the urinary bladder with water, which originated with me, and is not generally known, and which I communicated to THE LANCET with cases some time ago. As the patient and her friends objected to my making internal thermometric observations (per vagina or rectum) I am unable to produce them.

London.

## NERVE-STRETCHING FOR SUPRA-ORBITAL NEURALGIA,

WITH REMARKS ON NERVE-STRETCHINGS AND THEIR BEARING ON THE MODE OF TRANSMISSION OF NERVE IMPULSES.

BY AUGUSTUS H. BAMPTON, M.D., M.Ch.,  
ASSISTANT-PHYSICIAN TO THE PLYMOUTH PUBLIC DISPENSARY, ETC.]

ELISHA S—, aged sixty-nine, a farm labourer, was admitted to the South Devon and East Cornwall Hospital at Plymouth on March 7th, 1890, suffering from what has been termed epileptiform neuralgia affecting the frontal branches of the first division of the fifth. He had had these attacks of pain off and on for about eighteen months, and the severity had increased so that for the last three weeks he had taken to his bed.

His family history was good, being the father of ten children, nine of whom were still living. There was no nervous or rheumatic history, and nothing remarkable about his general condition, except that he complained of pain across his chest and shortness of breath, accounted for by dyspepsia and the age of the tissues. The pain was confined to the right side, and was most intense over the orbit. The right pupil was widely dilated with profuse lachrymation. The skin was hyperæsthetic, so that a touch would bring on a spasm of pain, and a shade had to be worn over the eye to prevent the impression of light inducing a spasm; the pain was excruciating, rendering life a burden. He was ordered a pill of quinine and iron and a belladonna liniment, subsequently altered to aconite liniment and phosphorus pill, and the application of the continued current over the painful spot. Under this treatment he improved somewhat, the phosphorus being increased to one-fifth of a grain daily, and he relapsed when the battery had to be sent away for repair. At this time he had about forty paroxysms of pain a day. To relieve this nitrite of amyl inhalation was given with some benefit, temporary only; so that on June 23rd, at Dr. Clay's request, under whose care he was, Mr. W. Square cut down on the supra-orbital branch of the frontal nerve, and stretched it with a blunt hook, just behind its entrance to the supra-orbital notch, without much difficulty, with the immediate result of cessation of pain. The wound healed by first intention, leaving no perceptible scar, and up to July 19th, the date of his discharge, he had only a slight pricking pain at the outer angle of the eye. In the way of drugs he had lately been taking the saccharated carbonate of iron and cod-liver oil; so that here we had almost complete relief from pain following a most simple operation, after a patient trial of many remedies, in so painful a disorder that Trousseau declared he had not seen in his experience ever radically cured by any means.

For neuralgias of an epileptiform character nerve-section was the last resource up to 1869, when Nussbaum accidentally discovered the efficacy of nerve-stretching, a procedure which has been carried out some fifty or sixty times in the last few years, in the majority of cases with permanent benefit. In tetanus nerve-stretching has been employed, but I am not aware with any constant measure of success. Although in locomotor ataxy the relief by nerve-stretching as regards pain and improvement in other symptoms has been well ascertained, and was admitted on all sides at the discussion on the subject at the International Medical Congress, and Professor Morgan, of Manchester, mentioned a case of idiopathic lateral sclerosis, where stretching of the left sciatic gave considerable relief as regards pain in both limbs, and temporary disappearance of ankle clonus on the side operated on. The difficulty is to find a satisfactory explanation for the effects of the operation. How is it brought about in such cases? It is generally considered a sufficient answer in regard to neuralgias of inflammatory origin, where adhesions have taken place, that it is the breaking down of such adhesions that effects the cure; but what is the mode of action where other conditions obtain? Professor Eulenberg believed that it consisted in a deficiency of centripetal conduction being brought about. If so, it would be useful only in those nerve lesions of a local character where lesions in nerve centres were of a secondary character. The mode of transmission of nerve impulses is involved in the solution of the ques-

THE Royal Commission on Metropolitan Sewage Discharge met on Tuesday, at 20, Great George-street. Present—Lord Bramwell, in the chair; Sir John Coode, Prof. A. W. Williamson, Dr. De Chaumont, Dr. Thomas Stevenson, Mr. James Abernethy, and Dr. W. Pole (secretary).



tion: it is not yet recognised whether it is vibratory or chemical. By the vibratory hypothesis is understood a displacement or vibration of the nerve molecules, just as atmospheric atoms undergo displacement or oscillations in the transmission of sound; and it has been suggested that sensorial impressions, transmitted to the nervous centres, may be taken and reproduced by those organs in the same manner that the diaphragm of the telephone receives and reproduces the respective motions impressed upon it. By the chemical hypothesis is understood an absolute chemical change in the particles of the nerve-substance when in a state of activity, by virtue of which change nervous impulses are propagated, just as chemical mutations occur in other animal organs during their physical activity. Professor Charles alluded to a third hypothesis, in a paper read at the Cork meeting, which Dr. Meryon called the electrical hypothesis, whom I quote, by which is understood the development of electrical action in every nerve particle by virtue of a dipolar attribute, by which every nervous molecule adds its quota to the evolution of a force closely allied to, if not identical with, electricity; although having regard to the correlation of forces, the possible transmutation of either one of these forces into another must be borne in mind. The efficacy of nerve-stretching seems to me to point rather to the truth of the vibratory hypothesis, and if we believe that pain is the result of an inordinate and disorderly set of vibrations, and that nerve-stretching, like the percussion of Dr. Mortimer Granville, sets up a new set of vibrations, which interrupt or change the morbid set by introducing discord,—this would explain the action of the electric current in arresting pain by altering the number of vibrations; for a galvanometer shows a decrease of deflection if the current be made to pass through a nerve in an opposite direction to that of the natural nerve force, this latter being just so much neutralised by the inverse galvanic current, as if their molecular motion were interchangeable. But, if this be true, we still have this difficulty of which to give an account—viz., Why should the change be permanent for good? Callender thought that the stretching is of use by numbing the nerve for a short time through breaking the transit of the abnormal impressions conveyed along the fibres of the nerve, so that in the interval thus gained the centres may have resumed their natural control. But if that were so, nerve-section would have the same effect; but it is not so. Walsham quotes Vogt in his belief that we must look for the cause of the relief obtained by nerve-stretching in some alteration in the irritability and nutrition of the nerve trunk or of its peripheral terminations, brought about by the stretching of the bloodvessels of the sheath; and that it is not due to any primary effect on the nerve centre or in the conducting power of the nerve, because the traction is not conveyed to the central organ. But though direct mechanical traction may not be transmitted to the central organ, Professor Eulenberg believes, on the other hand, it to be essentially due to centripetal impulses of a dynamic agency, of a nature as yet unknown, of a peripheral traumatic influence on the corresponding smaller or larger territories of circulation and nutrition in the central organ; and we know it must have an effect on the central organ, because it often not only has a favourable influence on the leg operated on in *tubæ dorsalis*, but also on the other. Dr. Müller gives an instance in a case where when the left crural nerve was stretched the sole reflex disappeared; yet at the same time there appeared in the other leg, which was not stretched, hyperæsthesia and hyperalgesia, a clear sign that in man the effects are the same as Brown-Séquard noted them to be in animals; and Dr. Austie believed all neuralgias to have a central origin, not traumatic. Thus it would appear that nerve-stretching is likely to be of service in neuralgias whether of central or peripheral origin. Uspensky believed neuralgia to be dependent on the retention of acid products of metamorphosis of the nerve tissues, with subsequent weakened function of the vaso-motor nerves, atrophy of sensory nerve cells, and change in the calibre of the vessels, with loss of their tone. It seems that, as there are neuralgias dependent upon diverse causes, some associated with recognised structural changes, others only of a functional character, the action of nerve-stretching may work differently in such cases, in some cases by removing or breaking down a fibrous adhesion, as in neuralgias and epilepsies of traumatic origin, and in some cases of tetanus brought about by peripheral irritation; in some cases by simply interrupting a vicious habit of irregular molecular nerve impulses. That such effect is possible is

shown by the phenomenon of negative variation taking the place of the ordinary nerve current on the application of an electrical or mechanical stimulus; in others, due to imperfection of the local blood-supply, or a vice of development on the part of the tissue elements, by altering the blood-supply through the calibre of the vessels, thus inducing nutritive changes in the nerve cells and increasing their molecular stability. Nerve-stretching may act in all these ways in one case. This is, I believe, only the second time that the supra-orbital nerve has been stretched, and was no exception to the rule that after stretching a single branch pain occurs during convalescence in a different branch of the same nerve, and is another instance that when neuralgia attacks the ophthalmic division of the fifth it usually affects the supra-orbital branch.

I learn that the patient continued free from pain for nearly three months from the time of the operation, and it returned at intervals during the following winter. I take it, in this case, the mischief was centric. It may turn out that it is only those cases where the nerve storms are set up by peripheral irritation that derive permanent benefit and complete cure is effected by stretching; and that where the origin is centric, the bad habit is only interrupted for a time in most cases. But considering the simplicity of the operation, it should always be resorted to when other treatment fails in this most painful affection.

## A NEW INDICATING AXIS-TRACTION FORCEPS.

By A. DRUMMOND MACDONALD, M.B., C.M. EDIN.

THE leading points in the design of this instrument are—

(1) axis-traction without the use of intra-vaginal rods; (2) indication of the grasp taken of the fetal head; (3) portability; and (4) minor deviations from the ordinary type of long forceps, partly suited to the three preceding points, partly by way of improvements. How this design is practically carried out is shown in the accompanying woodcut and following description.

Taking the parts *seriatim*: (a) The blades are 6½ in. long, 2½ in. apart at the widest, and 1 in. apart at their extremities, which are not quite so broad as usual. When applied, and traction made, they will "give" half an inch, a point to be observed in all forceps, according to the temper of the steel, and having an important bearing on the question of grasp. The total breadth is 1½ in., the fenestrum being ½ in., leaving ⅞ in. steel, which ensures a good hold. The fenestrated portion has been made nearly straight, and the pelvic curve lies in the lower portion of the blade and upper part of the shank, for the reason that when the blades are in apposition to the head, at or entering the pelvic brim, the natural curve of the genital canal lies below the head, consequently below the blades, and so corresponds to the curve above indicated. What we want is a pair of forceps acting as straight forceps, but without their perineal inconvenience, capable of being applied with facility, and at the same time adapted to the curve of the pelvic passages. (b) The shank measures 2½ in. (with the blade 9½ in.). This should prevent any locking in the vagina. (c) The lock is a kind of hybrid between the British and Continental locks, and allows of a scissors-action of the blades for the purpose of indication mentioned below. The lower blade has, and is easily recognised by, a hooked portion of the lock, on which the upper rounded and shielded segment is slipped in locking. (d) The handles have upper movable halves attached to the lower by a hinge joint which admits of their being folded down from right angles, so as to be easier of manipulation when required, and occupy smaller space when not in use. There are holes for a transverse traction bar through their ends, between which is a space for



the middle finger to be passed through when grasping this bar. (e) The indicator is seen as a scale on the flat convex side of the binding-screw (c), passing through the centre of the hinge, and shows how far the extremities of the blades, when in position, are apart, within a range of one to three inches. This will indicate whether a sufficient grasp has been obtained to avoid risk of slipping; and if the exact presentation and movement be taken into account, will give an idea of the measurement of the diameter of the head we are dealing with. For portability's sake the traction-bar may be screwed into the head of the binding screw. (f) Mode of application: The handle is not to be brought so far back towards the perineum as must be done with long forceps generally. Then having inserted the screw and read off its index number, raised the movable part of the handles, and placed in position the transverse bar, traction is to be commenced (assuming that the head is at the brim) with the bar opposite the tip of the coccyx, so that the line of traction (A B) shall pass through the axis of the brim. The hand is of course to be moved forwards as the head descends. The forceps are dark bronzed, to take away the formidable aspect that bright polished or plated instruments wear in the eyes of outsiders. Messrs. S. Maw, Son, and Thompson have given me a ready assistance in carrying out my endeavour to produce an "instrument of precision."

Dingle-hill, Liverpool.

### IDIOPATHIC OR PERNICIOUS ANÆMIA, ASSOCIATED WITH JAUNDICE.

By W. T. PARKER DOUGLAS, B.A., M.B. CANTAB.

THE following is a typical case, so far as its clinical history is concerned; and its connexion with jaundice may probably be accounted for by an excess in the fatty degeneration of the liver (which frequently forms an element in the pathology of cases of pernicious anæmia), due to the habits of the patient.

G. R. H.—, aged seventy. Had been a strong, active, muscular man, of full habit and florid complexion, fond of sport and of good living. He inherited gout, and perhaps helped to incur the same, which first made its appearance at the age of thirty; of late years he had constantly arrested its development by patent medicines containing colchicum. Two years ago he was laid up with phlebitis of the left femoral vein, and since then his strength and health had been failing, though at Christmas last he was able to walk two or three miles. He persevered with his duties as a clergyman till June 5th (the last occasion of his officiating in the church). With increasing weakness slight jaundice supervened, and persisted to the last. Of late there had been not infrequent blood loss from hæmorrhoids and by epistaxis. Such is a short history of the case prior to his coming under my observation on September 3rd, in consultation with Dr. Phillips, of Hurstbourne, when his appearance was as follows: Well built, fairly nourished, no lack of fat, slightly jaundiced, and of a deepish lemon-colour over head, face, and neck, but much paler over rest of body; skin dry and waxy, with a few small ecchymoses on extremities, and light-brown pigmentations, the seats of former petechiæ; lips and mucous membranes pale; slight anasarca over whole body; eyes with wildish, anxious expression; arcus senilis highly developed; tongue furred and dry; breath rather offensive; pulse 96, soft, and very compressible; heart-sounds faint, with systolic (hæmal) bruit at base; some of the veins in both upper and lower extremities easily traceable for some distance, and hard as whipcord. No enlargement of liver, spleen, or any of the glands; breath-sounds faint, but normal; urine tinged with bile, but free from albumen; bowels generally costive, and motions of an ochry colour. Sickness supervened on taking nourishment; and besides the liquids swallowed, the vomit was mixed with darkish, grumous mucus. Temperature just below normal.

Between Sept. 3rd and 6th there was constant sickness, slight epistaxis, and lastly hæmatemesis, to the extent of a pint and a half, followed by extreme exhaustion and death.

A specimen of the blood was taken from the finger on September 4th, secured in a capillary tube, and examined by microscope six hours afterwards, when I noticed as follows:—No tendency on the part of the red corpuscles to collect into rouleaux; about two-thirds were normal in out-

line and size, the rest most irregular in shape, some being of equal dimensions, with healthy red corpuscles but granular, others larger, indefinite in outline, elongated, or forming masses having the appearance of red corpuscular detritus, many of which were twice or three times the size of normal white corpuscles: these latter elements were not increased in numbers beyond the natural proportion, but varied in size, some being barely a third of the dimensions of the larger normal white corpuscles, thus corresponding nearly with observations made by Messrs. Mackern and Davy on the blood in a case of idiopathic anæmia published in THE LANCET for May, 1877.

Newbury.

### AN INTERESTING CASE OF BRANDY POISONING.

By J. A. OWLES, M.D. ST. AND.

ON Tuesday, May 16th, I was summoned to see a gentleman in a "fit," and found him lying on the floor of his bedroom in a deep sleep, with evidence of having recently vomited, and with a slight bruise on the right temple and another on the right thumb, which confirmed the supposition of a fall. His breathing was laboured, but not exactly stertorous; his heart's action was very weak and his pulse variable; the pupils were unequal, the left being a good deal contracted. It was difficult to rouse him, and impossible to get any information from him. A lady and gentleman (relatives) and the proprietor of the house in which he was lodging were present, but could throw little light on the history of the case. They said that he had come to Bournemouth for change after a very severe attack of inflammation of the right lung, that he was a little over thirty years of age, that he had been walking about "too much," and that he had been complaining of neuralgia. A friend had given him, a few hours previously, a glass of port wine, and he had also taken a "little" brandy. He had been sleeping a good deal upon the bed during the morning, but was not heard to fall, and no one knew what had happened until he was found upon the floor. Three bottles were upon the mantelpiece: one containing a tonic mixture with steel in it; a second, some creosote for local application; and a third was an ordinary brandy bottle half full. There was no reason to suspect poisoning, either wilful or accidental. The only odour perceptible in the breath was that of brandy, and it seemed unlikely that this was the cause of his illness, as he was an habitual abstainer from alcoholic drinks. We undressed him and used mild measures to keep him from sleep until we could ascertain more accurately his condition. As soon as his clothes were removed, Mr. T. B. Scott, surgeon of this town, who had also been sent for, entered the room. We then gave a little ammonia with belladonna, and some coffee, and put mustard to the legs and strong smelling-salts to the nostrils. The vomit, which had previously been scanty and somewhat like froth and treacle, was now much increased; inequality of the pupils was more marked, and the difficulty of keeping him awake was greater; but with the remedies named we roused him sufficiently to get his own account of what had happened. He admitted, in reply to close questions, that he had taken during the day, in six to eight hours, about half a bottle of brandy for the neuralgia, and added that, though an abstainer, he always took it when suffering pain. It was evident, therefore, that this was the primary cause of his fit, and that the brain pressure resulted from it. Being convinced of this, we allowed him to sleep, watched by a nurse, and left him for two hours; at the expiration of which I returned and found him somewhat better, though still drowsy.

May 17th: The patient had passed a fair night and felt much relieved, but there was still inequality of the pupils and partial loss of sight in the left eye. He also complained of a "creeping" sensation at the "top" of the head near the centre, and occasionally extending to the forehead and eyes. I gave some bromide of potassium and gentian, with a little aconite for the neuralgia, and a dose of calomel with rhubarb for the bowels.—18th: The pupils nearly equal, the sight of left eye normal, and the "creeping" sensation less. He then gradually improved, till one week after the "fit" he was well enough to return to London.

I have recorded the case for two reasons: 1st, be-

cause of the combination of symptoms of alcoholic poisoning and apoplexy obscuring diagnosis; 2ndly, because of the somewhat remarkable effect of half a bottle of brandy upon an habitual abstainer.

Bournemouth.

## CRURAL NEURALGIA AFFECTING DENTISTS.

By J. B. SUTTON, L.R.C.P. LOND., M.R.C.S., &c.,  
DEMONSTRATOR OF ANATOMY, MIDDLESEX HOSPITAL.

ON June 20th I was called to a gentleman said to be suffering severely from sciatica. The patient was resting on his right side complaining of intense pain in the left loin, radiating thence along the outer and anterior aspect of the left thigh whenever he attempted to move. Firm pressure, applied between tuberosity of ischium and great trochanter of femur, was painless, but the instant one touched the skin immediately over the erector spinæ muscle severe pain was evoked, extending down the thigh to the knee-joint, mapping out exactly the course of the anterior crural and external cutaneous nerves. Pressure over the points of exit of the second, third, and fourth lumbar nerves from the spinal canal caused excessive pain. The nerves at fault were clearly the second, third, and fourth lumbar, the hyperæsthetic area in the loin clearly corresponding to the distribution of the posterior divisions of these nerve trunks. The case was obviously not one of sciatica, but crural neuralgia, having a very unusual distribution; the ordinary forms of this disease extend to the foot and toes of the affected leg. Belladonna and aconite were applied locally, strychnia internally; the patient was convalescent in seven days.

Two days later a similar case came under my notice, and a third has been reported to me with exactly similar symptoms. Curiously enough, the three patients were dentists engaged in the active duties of their profession. It appears exceedingly probable that this painful affection may be explained by the fact that when dentists operate they always stand to the right side of the patient, consequently, when manipulating cavities in teeth difficult of access, it is necessary to throw themselves into a constrained attitude, whereby the lumbar vertebrae are slightly flexed anteriorly, but flexed laterally to a considerable degree. It is necessary sometimes to maintain this cramped position for long periods, the temporary distortion being even more exaggerated when the dental engine is being used. These combined flexions cause the lumbar nerves to become congested, irritated, and possibly injuriously nipped as they pass through the intervertebral foramina, thus giving rise to the symptoms detailed above.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORAGANI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## CHARING-CROSS HOSPITAL.

A CASE OF RHEUMATOID ARTHRITIS TREATED BY LOCAL APPLICATIONS OF IODINE, AND BY SALICYLATE OF QUININE INTERNALLY; REMARKS.

(Under the care of Dr. POLLOCK.)

FOR the following notes we are indebted to Mr. Wigan, resident medical officer.

Eliza M—, aged twenty-five, was admitted on June 1st, 1882, complaining of rheumatic pains in the wrists, knees, and feet. She stated that she was perfectly well till the age of twenty-three. Up to that time she had been very stout, only complaining of occasional headache. In August, 1879, she caught cold and was laid up for three weeks with acute rheumatism. She resumed her duties as domestic servant, but still complained of occasional rheumatic pains. In the spring of 1881, the pains became much worse, but she

did not take to her bed, being still able to do a little work. At the end of six weeks, being still unfit for work, she went down to St. Leonards Convalescent Home, and remained there for six weeks.

She returned to her situation in August, 1881, and kept fairly well up till Christmas, when she was obliged to give up altogether. She was just able to walk with difficulty, and her hands were almost useless. She noticed that the joints (especially the carpo-metacarpal) of the wrist and also the tarso-metatarsal joint of the big toe were increasing in size. These swellings steadily increased, and at the time of admission there were very apparent thickening and crepitation on rubbing the surfaces of the carilages together. No other joints were yet affected. Her father and mother had both suffered from chronic rheumatism; one brother had rheumatism two or three times, but he died of phthisis at the age of twenty-three.

On admission on June 1st the temperature was 99°; pulse 90. She was placed on a low diet, and given the following:—Two grains of sulphate of quinine, two grains of carbonate of ammonia, and twenty grains of bicarbonate of potash, in water, three times a day.

June 5th: As she did not improve, and still complained of constant pain in the wrists and feet, she was put on a generous diet—viz., meat and vegetables, two eggs, three ounces of wine, and an extra pint of milk. The mixture was stopped, and instead she took five-grain doses of salicylate of quinine, in the form of a pill, three times a day. This after three or four days relieved her much. She lost all pain in the joints, and was able to bend them freely. On the 6th the joints of her hands and feet were ordered to be painted every second day with a liniment of iodine, which was continued up till July 6th, except on one or two occasions, when it was stopped on account of the irritation of the iodine. On the 7th the patient left for St. Leonards Convalescent Home, having lost all pain in the hands and feet, and being able to move all joints without difficulty, five weeks having elapsed since her admission, during which time the temperature had never been higher than 99.8°.

*Remarks.*—Dr. Pollock observed, with regard to this case, that, bearing in mind the frequently intractable nature of the disease, the result obtained by the treatment was very satisfactory. The importance of good feeding has been long ago pointed out by Dr. Garrod, and the liberal diet had probably much to do with the improvement of the patient. But from experience of similar cases, Dr. Pollock is inclined to attribute benefit to the continued use of the iodine paint over the affected joints, and also to the administration of the salicylate of quinine, a drug which he believes to be well worthy of an extended trial in all cases of rheumatoid arthritis where the joints are not hopelessly disorganised.

## RADCLIFFE INFIRMARY, OXFORD.

CONGENITAL HYDRONEPHROSIS SUCCESSFULLY TREATED  
BY ASEPTIC INCISION IN THE LOIN AND  
DRAINAGE; REMARKS.

(Under the care of Dr. TUCKWELL and Mr. H. P. SYMONDS.)

A BOY, aged eleven, was admitted under Dr. Tuckwell's care on June 22nd, 1881. His family history was good, and he had been always remarkably healthy, having never received any injury nor complained of any pain. His mother stated that she had not noticed anything unnatural in the size and shape of his abdomen till about fifteen months before admission, when it had struck her that the left half looked larger than the right. Since then there had been a steady increase in the size of the left half, but the boy's health had not suffered in the least; there had been no pain, no increased frequency of micturition, nor any change in the natural appearance of his urine. The boy had a remarkably healthy and cheerful look. On examining the abdomen, a large swelling could be seen bulging forward the whole of the left and part of the right side. A clear wave of fluctuation was felt over the whole of the tumour in front. When he was turned on his face, the left lumbar region behind was also bulging, and fluctuation was clearly communicable from the front to the back. There was neither pain nor tenderness in any part of the swelling, which was uniformly elastic, giving to the hand the sensation of fluid in a tense, thin-walled sac. Dulness on percussion reached from the sixth left intercostal space, in the nipple line, to within two inches of Poupart's ligament.

A line drawn from below the left nipple to a point three inches to the right of the umbilicus, and thence obliquely across to the left iliac fossa, marked the boundary of the tumour to the right. A line drawn from the same point above obliquely downwards and backwards to the vertebral column marked the limit of the tumour to the left and posteriorly. The only resonant part of the abdomen was the right flank. All the rest was dull; nor could any line of resonance in front of the tumour, such as would be caused by the descending colon and assist in the diagnosis of kidney disease, be recognised. The urine was quite normal. This large sac containing fluid was thought to be either a cyst connected with the left kidney or a hydronephrosis, probably the latter; and as there was an entire absence of pain or other history to account for it, it was thought to be probably congenital, due to some malformation of the ureter, not large enough to attract attention till within the last year or two, when it had increased more rapidly. Although it gave the boy no pain and did not interfere with his breathing, yet, from its size and prominence, it was clear that a slight blow or push might rupture it and cause death by peritonitis. It was decided, therefore, to do something for the boy's relief.

On June 27th, Mr. Symonds introduced an aspirator needle into the most prominent part of the tumour in front, and drew off from three to four pints of turbid, dark-brown fluid, without smell, having a specific gravity of 1008, and containing altered blood, albumen, and urea. No bad symptom followed the operation. The sac gradually refilled, and the boy left the infirmary on July 14th in much the same state as before the operation.

He was readmitted on December 7th. He had been quite well, and had suffered from nothing but the inconvenience caused by his great size, the tumour being even larger than it was when he left the infirmary. The question of repeated tapping with the aspirator, on the one hand, and of laying open the sac behind and draining, on the other, was discussed, and the latter course was chosen because of the rapidity with which the sac had refilled after the first operation.

On January 2nd, 1882, the boy was put under ether; an aspirator needle was passed by Mr. Symonds into the sac in the loin behind, so as to avoid the peritoneum; an incision, an inch and a half in length, was carefully made by the side of the needle well into the sac, and a large drainage-tube was passed in with little difficulty, the cyst walls yielding before the finger. The usual Listerian precautions were rigorously carried out. Fluid of the same character as before flowed freely through the opening, and as soon as this had ceased running, antiseptic dressing was applied. For the following eight days the wound was dressed daily under the spray, till on January 9th scarcely any discharge came away in the dressings, at the end of twenty-four hours, and no remains of the tumour could be felt in the abdomen or loin. The temperature, which was 99° on the evening before the operation, rose gradually to 103° on the third evening after, and then fell to 99° on the eighth day.—10th: The large drainage-tube was to-day removed and a smaller one put in. The same evening the temperature rose to 103·8°, and the following two evenings to 103° and 102°. The sac refilled with marvellous rapidity, till on the 12th of January it had reached a larger size than before the operation, and was even more tense. There was a narrow line of resonance in the right flank, but the rest of the abdomen was absolutely dull and fluctuating.—13th: The boy was again put under ether. On passing the finger into the opening in the loin it was found that the small tube had not penetrated into the sac, the opening into which had slipped under the edge of the muscle, and the contents had been thus prevented from escaping. The finger was then pushed on into the sac, when a gush of dirty-looking inodorous fluid, mixed at last with blood and pus, in quantity about four pints, took place. A long, full-sized tube was re-introduced well into the interior of the sac, and antiseptic dressing was applied as before. From this time onwards there was only steady progress towards recovery to record. The temperature fell on the fourth evening to 98°, and for the rest of the time that the boy was under treatment never rose above 101°, ranging from 98° to 100°, till it fell to and remained at normal. The wound was dressed at first daily, then every other day, inodorous pus, in gradually diminishing quantity, draining off into the dressings.

March 8th: The large tube was taken out, and one of the same length, but of smaller size, put in.—29th: The tube was shortened to an inch and a half in length.

April 6th: The tube was removed, thirteen weeks from the date of the operation.—10th: The patient got up, an antiseptic dressing being fastened on the wound by plaster.

May 10th: The wound had quite healed; the abdomen appeared symmetrical; no tumour could be felt; the percussion-note in the left flank was not quite so clear as in the right, but not dull, nor did it alter on changing the boy's posture. There was a slight puckering in of the skin at and around the wound.

June 16th: A careful examination of the abdomen showed no sign of any return of the tumour. The boy was quite well, and at school.

*Remarks by Dr. TUCKWELL.*—So little is to be found in books on the subject of the treatment of hydronephrosis that the above case may be worthy of notice. Thus, in Ebstein's chapter on the therapeutics of this disease, in Ziemssen's *Cyclopaedia*, nothing can be more unsatisfactory than the results there given of operative interference in such cases. After reading it, one is inclined to leave the disease to itself rather than meddle with it in any way. He says, "The puncture of hydronephrotic sacs is dangerous, because an outbreak of general peritonitis is always to be feared. It is generally of little value, because the sac is likely to refill in a short time." He also records a case of treatment by incision which proved fatal. But, judging from the boy's case herewith reported, it would appear that in a young subject, provided that a normal urine indicates a healthy state of the other kidney, the operation of antiseptic incision in the loin and drainage may be safely undertaken. Tapping with the aspirator is followed by so rapid a refilling as to make one fear that repetitions of this might go on for an indefinite time. Supposing an incision to have been made, a point to which attention may be especially drawn is the danger of removing the drainage-tube too soon. These sacs seem to retain immense power of refilling, till at least many weeks of drainage and gradual shrinking have passed by. A gradual puckering in of the skin at the seat of incision seemed to mark the gradual contraction of the sac, and might, perhaps, be looked for as a favourable sign in any future case of the kind.

#### GOCULDAS TEJPAL HOSPITAL, BOMBAY.

LARGE ELEPHANTOID TUMOUR OF SCROTUM, WEIGHING FIFTY-SIX POUNDS; REMOVAL; RECOVERY.

(Under the care of Surgeon-Major T. CODY.)

A MUSSULMAN, aged thirty-five years, was admitted for a large elephantoid growth involving the penis and scrotum, and also for a similar growth occupying the left leg. The man was a scrofulous subject, and had some open suppurating sores in his neck, where also some old cicatrices were visible. He was anxious to be operated on; but as he was in a delicate state of health on admission the operation was put off for about a month. He had tonic treatment, under which his general health much improved. The tumour reached below the knees, and the penis had retracted into the growth. The prepuce was healthy, as was also a small patch of integument corresponding to the dorsum of the penis. For three hours before the operation the tumour was raised above the level of the body, and at the same time an indiarubber bandage (Esmarch's) was bound round it. When the patient was brought under chloroform the glans penis was searched for, and drawn out and grasped in the left hand, together with the piece of healthy integument before referred to as corresponding to its dorsum. An incision was then commenced at the lower margin of the prepuce, and carried upwards and backwards on the right side as far as the root of the penis; it was then carried downwards and outwards for about five inches, going through healthy integuments and dividing it and the subjacent tissues in its course. The fingers were now used to tear through the fasciae and search for the cord, which was easily found. Its course was followed down till the testicle was reached and freed, nothing but the fingers being used to do so; and both being found healthy they were turned up on the abdomen and held there in position by an assistant. A similar incision was then made on the left side, and the fingers used as before described to divide the deeper layers of fascia. The search for the cord was embarrassed by a large hydrocele, into which a long incision was made and the fluid allowed to escape, which must have amounted to at least twenty-five pints. After this the cord was

easily found, but the testicle was observed to be diseased, so it was removed and the cord secured. The incisions were now carried round the root of the tumour, going very close up to secure healthy integument, and three or four touches of a Catlin divided the mass. The arteries, which had been clamped as they were divided in the course of the operation, were now secured, and it was found that only four required ligature, the pressure of the small clamps having proved sufficient to effectually close the smaller ones. The right testicle, which was preserved, was now brought down and placed in the centre of the wound, the surface of which was washed with carbolic water. Three sutures of silver wire, each of which was passed through the covering of the testicle, were inserted in the lower portion of the wound, and stretched and twisted so as to give an inward tendency to its margins, without, however, bringing them into apposition. Two other sutures, above the situation of the testicle and at the root of the penis, were inserted, and a little stretching brought the margins of the wound at this point into apposition. The healthy piece of integument and the prepuce were attached also by wire sutures to the subjacent tissues and the margins of the wound, though they could not be brought into apposition. The whole surface was now covered with carbolised oil dressing, over which a thick layer of carded oakum was placed, and the whole kept in position by a *langvotu*. This article of the East Indian's dress requires explanation. It is a piece of cloth attached behind by a knot to a string passed round the body above the hips, and brought forward between the legs, spread out to envelope the penis and testicles, and fastened again to the string above the pubis. There was no oozing after the operation, and the dressing was not removed till the second day. After four or five days it was found that the integument had adhered to the tissues round the testicle, as it had also in other parts; and the wire sutures were therefore removed and the wound allowed to granulate.

There was some suppuration and free discharge for about a fortnight; but as soon as the ligature of the left spermatic cord came away the discharge lessened, and the wound steadily though slowly continued to heal and contract, and his general health to improve till he left the hospital about two months after the operation. Some three months after leaving the hospital he showed himself. He then looked hale and well; the disease in his leg had considerably lessened, and gave him little or no concern; and the cicatrix, which was quite smooth and healthy looking, occasioned no uneasiness. He quite retained his virile powers. The solid mass removed weighed fifty-six pounds, and it was calculated that during the operation some thirty pounds of fluid must have escaped.

## Reviews and Notices of Books.

*Antiseptic Surgery: its Principles, Practice, History, and Results.* By W. WATSON CHEYNE, M.B., F.R.C.S., Assistant-Surgeon to King's College Hospital, Demonstrator of Surgical Pathology at King's College. With Illustrations. London: Smith, Elder, and Co. 1882.

IN the volume before us Mr. Cheyne has made a very valuable addition to surgical literature. The intimate professional relations of Mr. Cheyne with Professor Lister give a special importance and value to this work; for while Mr. Lister's results and views have hitherto been published only fragmentarily in journals and the Transactions of learned Societies, Mr. Cheyne's book affords a trustworthy and complete statement of them. The work is dedicated to Mr. Lister, and this fact may be taken as proof that he accepts as accurate the statements contained in it regarding himself. We do not say this from any intention of minimising the writer's part, but only to point out that the book is *more* than any mere individual production of that gentleman could be. The title of the work expresses concisely and accurately its plan and contents. The scientific groundwork on which Mr. Lister's treatment was originally founded and firmly rests, receives very full and careful treatment from Mr. Cheyne, who deals first with the theory of fermentation, tracing the history of the particulate theory up through all its stages, from Lavoisier to

Tyndall, and demonstrating the undoubted establishment of this theory. In a similar historical and complete manner, the struggle over spontaneous generation, heterogenesis and abiogenesis, is passed in review, and the reader is led almost irresistibly to adopt the conclusions on which antiseptic treatment of all kinds rests. The author is at pains to distinguish between Mr. Lister's special treatment and what we may group together as the various modifications of it which are practised by many other surgeons. It is maintained that the former may and should be called the *aseptic treatment*, because it attains "a complete absence of putrefaction—an asepsis"; while the other methods of treatment "by which the occurrence of putrefaction is more or less interfered with," and which "all act on a more or less imperfect principle," should be called *antiseptic*. This is by no means a verbal quibble, but is a distinction so important as to demand clear recognition and verbal expression. Mr. Watson Cheyne has himself during recent years taken no inconsiderable share in the experimental investigations which form the basis of the aseptic treatment, and we anticipate much more valuable work from him in the same department. In view of this we may perhaps offer him some advice as to his style. He cannot help being a partisan, and no one with any knowledge of the history of the discussions that have ever gathered around the "germ theory" can now look for any investigator to be altogether free from bias. The author, however, has guarded himself by free quotations from the writings of those whose views do not coincide with his own. But in several places he has allowed himself to speak with but scant courtesy of the opinions therein or elsewhere expressed by these gentlemen. Any such expressions altogether fail in their purpose, and rather prejudice an impartial reader against the cause pleaded by him who uses them. We think we could refer to several passages which would have been far more effective for Mr. Cheyne's purpose if this point had been more carefully observed.

The part of the book which will perhaps be erroneously called the more practical part, deals with the materials used and the exact mode in which they are employed in Mr. Lister's aseptic treatment, and then specifies the results obtained by it. Of the former we need say nothing, except to point out that nowhere else can a surgeon find this information so fully given. The results of the aseptic treatment are detailed with great fulness, nearly half the volume being devoted to their consideration. Mr. Lister's statistics are given with minuteness and great care, as well as tables of all his cases of compound fracture, wounds and incisions into joints, and abscesses connected with disease of the vertebræ, treated in hospital since 1871, the details of each case being stated. In addition we have the statistics published by Volckmann, Nussbaum, Socin, Esmarch, Hueter, Reyher, Spencer Wells, Keith, and Thornton, and many others of Mr. Lister's disciples; and as far as possible statistics of surgeons using other forms of treatment are presented for comparison, but there is a great want of really trustworthy facts on which to found such a comparison. The reader, however, hardly needs them. We could easily summarise these statistics, but we prefer not to do so. Such summaries are proverbially untrustworthy, and certainly not generally credited. We prefer to urge our readers to study this book for themselves, to master the *scientific facts* on which an aseptic treatment is based, and to study diligently the *clinical facts* which Mr. Lister and his close imitators show. Only those who have taken special care to keep themselves *au courant* with the rapid strides of this department of biology are aware of the immense mass of facts on which the "germ theory," as it is popularly known, rests. Those who do not may innocently speak of it as an "unproven theory," but a careful study of Mr. Cheyne's *résumé* will, we fancy, dispel this illusion. The clinical facts are so striking that surgeons but a generation ago would have rejected a prophetic description



of them as an empty dream of the impossible. Hitherto the information on which to base a sound opinion on both the theory and the practice here urged has been so difficult to obtain, except by those specially engaged in this field of scientific research, that surgeons have had some excuse for ill-formed opinions and judgments. But such excuse can no longer exist. Within 600 octavo pages can now be found all that is needed to make the question clear to any mind, and ignorance on this point on the part of any one claiming to be an educated surgeon will be inexcusable; and it needs no prophetic vision to foretell the effect of the spread of a more complete knowledge of the subject.

Mr. Cheyne has published his book at a most opportune time; he has abundant facts to make his position good, and he has been able to state his case so completely, that we believe the issue of this work will be a starting-point for the more general adoption of Mr. Lister's treatment in this country. Never before could the course of aseptic surgery be pleaded so effectively—nowhere else has it been stated so fully—and we cannot believe that British surgeons, who hitherto have been foremost to avail themselves of all life-saving improvements of their art, will be backward in accepting this, the greatest of the century.

*Manual of Diseases of the Skin.* With an Analysis of 8000 Consecutive Cases and a Formulary. By L. DUNCAN BULKLEY, A.M., M.D., Attending Physician for Skin and Venereal Diseases at the New York Hospital. Crown 8vo. London: J. and A. Churchill. 1882.

DR. BULKLEY of New York, who is well known as the translator of Isidor Neumann's Handbook of Skin Diseases, the author of a recent treatise on "Eczema and its Management," and as the editor of the "Archives of Dermatology," has now set his hand to supply a manual or introduction to the study of diseases of the skin. The book had its foundation, apparently, in the clinical conversations and pharmacopœia of the New York Hospital, and in preparing the work for the public Dr. Bulkley has endeavoured to make it concise, and yet sufficiently detailed to be of practical value to the student and practitioner. The author prefaces the consideration of the various diseases by a brief sketch of the anatomy and physiology of the skin, an outline of etiology, and a few general observations on diagnosis, or how to set about, and what to pay attention to in, observing skin disease (including an explanation of the elemental lesions). There is a chapter on the relative frequency of diseases of the skin, founded on 8000 cases observed by the author. The nomenclature and classification are based on Hebra's arrangement. Diet and hygiene are specially discussed, and there is a final chapter on therapeutics, and a very complete index. The excellent formulary is an important feature, and will be valuable to practitioners, especially as the treatment of each disease is pretty fully indicated. In the body of the manual pathology is but very briefly considered, and the differential diagnosis is hardly entered into at all, which is, we think, to be regretted. Excellent as the book is in many respects, we fancy we can trace signs of hurried or careless writing. To particularise a few instances, beyond the general composition of the book, we fail to find any description of what in England is known as miliaria, and in the mere mention of Lichen tropicus nothing is said of its occurrence in the tropics, but only that it is seen commonly in infants. Urticaria papulosa (Lichen urticatus) is pre-eminently a children's affection, but Dr. Bulkley merely observes that it is "most commonly seen in children." Tilbury Fox's dysidrosis, too, does not occur "especially upon the backs of the hands and between the fingers," and from among the causes of Pruritus vulvæ, diabetes is omitted. Then, although such a local affection as framboesia is described, no mention is made of the Oriental sores nor of guinea-worm disease.

*Experimental Physiology; its Benefits to Mankind.* By RICHARD OWEN, C.B., M.D., F.R.S. London: Longmans, Green, and Co. 1882.

THIS little treatise is a powerful attack on the absurd efforts of the anti-vivisectionists to repress the scientific investigation of disease by means of well-devised physiological experiment; and it is very cheering to find a man occupying the distinguished position of Professor Owen speak with such decision on points respecting which his knowledge is a thousandfold superior to those who have been so misguided as to legislate on subjects of which they know so little. The high position which Professor Owen has long held amongst the savans of Europe, his wide knowledge and great ability, and his thorough familiarity with the points at issue, entitle him to speak with great authority on experimental physiology, and he speaks with no uncertain sound. He shows clearly that those who argue in favour of total abolition of vivisection on the ground of humanity do practically prevent the discovery and application of means for the relief of suffering humanity. It is true, the consistent "bestiarian," as Professor Owen terms the anti-vivisectionist, may say, "I never had an ovarian tumour or a Fallopian pregnancy. Let those women with such complaints get rid of them as they can. My mission, with the help of a lord chief justice of England, a cardinal, an archbishop, bishops, peers, baronets, heads of colleges, is to haul up to Bow-street every experimental advancer of physiological science as an immoral offender, an unfeeling inhuman wretch, a displeaser of Almighty God, a horrible torturer of his creatures." Professor Owen not only defends the experimental physiologist by irony and ridicule of his opponents, but more seriously points out the many important advances and valuable acquisitions to our knowledge that have resulted from experiment. Professor Owen has incorporated the address he delivered at Folkestone on the occasion of the unveiling of the statue of Harvey in the present volume, which will be read with satisfaction by all those who have the true interests of science at heart.

*The Surgery of the Rectum.* Comprising the Lettsomian Lectures on Surgery delivered before the Medical Society of London, 1865. By HENRY SMITH, F.R.C.S., Surgeon to King's College Hospital, &c. Fifth Edition. London: J. and A. Churchill. 1882.

IT is almost superfluous to do more than notify the fact that Mr. Smith has been called upon to furnish another edition of his well-known book. He has added to this edition a short introductory chapter on the examination of the rectum, which, like the rest of the book, is brief and to the point. Mr. Smith's increased experience has served only to intensify his confidence in his clamp and cautery for the cure of hæmorrhoids and prolapsus ani. He has found it answer equally well in the most trivial and the most severe and extensive operations, and he feels justified in recommending its general use without any fear. Like all other modes of treatment, it requires to be used with care and attention to certain details, but when these are observed he has failed to notice the unfortunate results feared by others. He mentions some of the more recently introduced methods of operating, only to state that he has seen no sufficient reason to abandon a thoroughly successful and well-tried plan, for any one of them. By an oversight, no doubt, Mr. Smith advises complete division of the sphincter ani for nearly all cases of fistula in ano. A very large proportion of such fistulae result not from abscesses in the ischio-rectal fossa, but from anal abscesses, and in these the thickened skin and mucous membrane only are divided, and the sphincter is left entire. Only in cases of fistula running into the ischio-rectal fossa is it necessary to divide the sphincter, nor, indeed, is it ever done in others.

*The Student's Guide to Diseases of the Eye.* By EDWARD NETTLESHIP. Second Edition. pp. 395. J. and A. Churchill, New Burlington-street. 1882.

MR. NETTLESHIP has made considerable additions and, we think, improvements in the present edition. He has introduced a chapter on "optical outlines" which gives to the student all he needs to know with respect to the action of lenses and prisms on light. It is, however, a subject for regret that such a chapter should have to be placed at the head of a work on diseases of the eye. If school education were properly conducted, if a preliminary examination of an appropriate character for those entering the profession were insisted on, the information here given would be regarded as rudimentary, and might be replaced with one showing the application of higher mathematics to the optical properties of the ocular media. A set of seventeen coloured papers with descriptive letterpress has been added to illustrate the subject of colour-blindness. Holmgren's wools are mentioned, but Mr. Nettleship does not refer to Dr. Thomson's very convenient set of coloured wools which enables the observer to refer to previous notes with facility. Mr. Nettleship has the authority of Skeats, which is great, for spelling lacrymal "lacimal," but it is unusual. The work will be found very useful both by the student and the practitioner, and the rules laid down for treatment are sound and valuable.

*Modern Dress and Clothing in its Relation to Health and Disease.* By T. F. PEARSE, M.D. London: Wyman and Sons. 1882.

WITHOUT committing ourselves to the details of Dr. Pearse's little book bearing the above title, we cannot but welcome the appearance of any and every rational attempt to enlighten and impress the public, and particularly the female section of the community, with the need of promptly correcting obvious errors of policy in respect to clothing, and the wisdom of breaking loose from the fetters of fashion and adopting a more reasonable and healthy style of costume. We can see at a glance that the brochure to which we have alluded embodies views which we do not entertain, and would not, therefore, endorse, but it is on the whole a valuable and opportune summary of the more important facts about dress, concisely stated, and as such will be certainly useful. The first step on the way to radical reform must be independent thought, and it is not to be expected, nor indeed desired, that all should see alike on this important subject. We are agreed as to more prominent evils of the modern type of dress, and see together as to the measures to be taken with a view to amend these errors. Dr. Pearse quotes largely from Mr. Treves, and he could not cite a more able and popular recent writer.

*Burdett's Official Intelligence.* London: E. Couchman and Co.

APART from its interest and value to all who invest or deal in any of the innumerable financial securities known to the London Stock Exchange, "Burdett's Official Intelligence" for 1882 is remarkable both as a reflex of the enormous proportions and infinite varieties of our means for investing national savings, and as a statistical *tour de force*. Viewed in either of these three aspects, this first issue of the work under notice, with its more than 900 pages of well-arranged information, undoubtedly meets a decided want, and fully merits its favourable reception in the financial world. The work, which has been prepared under the direction of, and is officially issued by, the Stock Exchange Committee, purports to contain a carefully compiled statistical *précis* of information respecting all British, colonial, and foreign loans and companies, comprehending as far as possible "all joint-stock enterprise at home and abroad." It is proposed to re-issue the volume annually under the editorship of the secretary of the Share

and Loan Department of the Stock Exchange, Mr. Henry C. Burdett, long and favourably known to the readers of our columns for his contributions bearing upon the respective merits of large and small hospitals, and upon hospital statistics in general. The value of this work is immensely enhanced by its official character, which impresses with confidence the assertion in the preface that each edition is intended to present "a colourless and neutral, but thoroughly trustworthy *précis* of information concerning all classes of securities." The securities of which detailed information is given are not solely those "officially quoted," but include all others which the editor, after careful investigation, deemed to possess any public interest. A statistical account is given of every security which is quoted in any list issued by any Stock Exchange in the United Kingdom. The present volume contains a summary and notice of all the new companies—about 1400 in number—which were promoted during last year, and the introduction contains a short historical summary of the growth of the Stock Exchange, coincidently with the increase in the number and value of financial securities. In 1697 the first "Official List" was issued by the Stock Exchange, under the title of "The Course of the Exchange," and contained particulars of but six securities, chiefly Government Stocks, and up to 1811 their number had only increased to twenty. From the alphabetical index to "Burdett's Official Intelligence," beginning with "Abbot, John and Co.," and ending with "Zoedone Company," we roughly estimate that nearly 2400 securities find enumeration and detailed description in the volume. This gives some idea of the growth of invested capital in the United Kingdom since the beginning of this century. The arrangement of the vast mass of information contained in "Official Intelligence" is at the same time simple and satisfactory, and we cannot doubt that as a book of reference the annual issue will become indispensable.

## New Inventions.

"SANITAS," "SANITAS" OIL, "SANITAS" GAUZE.

SANITAS is now widely and favourably known as a disinfectant and deodoriser which possesses the valuable properties of being in itself harmless, and of having a very agreeable odour. The "Sanitas" Gauze is prepared as a dressing for wounds, and resembles in all but odour the more familiar carbolic acid gauze; it is of course free from the toxic effects of the latter, and is certainly possessed of antiseptic powers. The "Sanitas" Fluid is a clear watery liquid which is miscible with water in all proportions, and can be used in the form of spray or lotion. If used pure, it does not cause any local irritation. "Sanitas" Oil can be used for a spray (not so good for this purpose as the fluid), or as a dressing to wounds, either pure or diluted with olive oil, or dissolved in alcohol, or as an ointment. It is possessed of great oxidising properties, the oil being stated to be equal in strength to a ten-volumetric solution of peroxide of hydrogen. This fact, together with its non-poisonous and non-irritating properties, its pleasant odour, and inexpensive price, make this article a very valuable antiseptic agent.

ANTISEPTIC ADHESIVE BANDAGE: HEFTBAND.

HEFTBAND is the name of a new antiseptic adhesive plaster manufactured by A. Hutchinson and Co., at Mannheim, whose London agents are Messrs. Maw, Son, and Thompson. The adhesive material is a preparation of india-rubber; what antiseptic material is employed is not stated. It is a soft supple thin plaster, and is stated to adhere to most surfaces, but the sample examined by us is totally devoid of this antiseptic property.

# THE LANCET.

LONDON: SATURDAY, JULY 29, 1882.

THE process of the coagulation of the blood is of the highest practical importance in surgical pathology, in connexion with the means by which hæmorrhage is arrested. In this special relation the process has been recently studied by HAYEM, whose previous investigations on the physiology and histology of the blood have supplied important additions to our knowledge. These latest researches of HAYEM formed the subject of a recent communication to the Paris Académie des Sciences. They relate especially to the part played by the minute corpuscles to which he has given the name of "hæmatoblasts," a subject which is of interest in connexion with the views of BIZZOZERO on the influence of his *blutplättchen* on the process of coagulation, to which we lately called attention. HAYEM pointed out that ANDRAL, long ago, noted in the superficial layer of blood standing in a vessel, whether pure or mixed with a solution of sulphate of soda, innumerable minute white corpuscles 1-500th of a millimetre in diameter, around which the filaments of fibrin form. VULPIAN, in 1873, observed that some of these filaments seem to proceed from the corpuscles, and RANVIER expressed the opinion that these minute bodies were merely small masses of fibrin, which become centres of coagulation. HAYEM, however, believes that the elements described by these and other authors are merely altered forms of the hæmatoblasts which he described in 1874, and which undergo almost instantaneous change when removed from the body. He has shown that these elements, under abnormal circumstances, possess remarkable viscosity, adhering to one another and to foreign bodies, and that this is the first of a series of changes consequent on which they become the points of origin and of attachment of the filaments of the fibrinous meshwork. Further, he now shows that all the conditions which retard or prevent the coagulation of the blood hinder the alterations in the hæmatoblasts, while influences which facilitate the latter also promote coagulation, a method of proof the same as had been previously adopted by BIZZOZERO. These considerations make it probable that the hæmatoblasts take an active part in the formation of clot which arrests the hæmorrhage from a divided vessel, and of this HAYEM now furnishes conclusive proof. Such hæmorrhage, rapid at first, gradually becomes slower, and finally ceases. The diminution and arrest cannot be explained by the mere contraction of the wall of the vessel, which, although strong in the arteries, is absent in the veins, and could not by itself close the vessel entirely. The actual arrest is by the coagulation of the blood, although it is not easy at first to see why such coagulation should occur at the open mouth of a vessel through which a stream of blood is flowing, and in which, therefore, no stasis takes place. If an incision is made into the jugular vein of a dog, and a ligature be placed on the peripheral portion of the vessel as soon as the hæmorrhage has ceased a small clot can be extracted from the wound.

This clot has the form of a nail, of which the point penetrates into the lumen of the vessel, while the head rests on the outer wall of the vein. If the coagulum is plunged into a liquid which fixes the elements of the blood, it can be thoroughly examined. The point and middle part are greyish, viscous, and composed of a material partly granular and partly amorphous. The granules are constituted by enormous quantities of hæmatoblasts, already altered, but still distinct and separate, while the amorphous material results from the confluence of hæmatoblasts which have undergone still more alteration. The head of the coagulum is red externally, and contains in the centre a prolongation of the viscid hæmatoblastic material, and at the periphery a large number of red globules are contained in fibrillary meshes. In the central portion, which really closes the wound, very few white corpuscles can be perceived. It thus appears that the fibrin is added to an original nucleus, which consists almost exclusively of hæmatoblasts. The formation of this may be watched in the mesentery of the frog. A small vein having been brought into the field of the microscope, it is divided incompletely by means of the point of a small scalpel. The free flow of blood from it soon lessens, the orifice being narrowed by a mass of elements which collect and adhere at the opening of the vessel. In a few moments the opening is covered by a whitish mass, into which the red corpuscles enter with difficulty. Instead of being formed by white corpuscles, as many observers state, this mass is formed exclusively of hæmatoblasts, which are arrested during the flow of blood. At the moment at which the hæmorrhage ceases, these elements are already considerably altered, and undergo further changes beneath the eye of the observer. This hæmatoblastic aggregation contains only a small proportion of white corpuscles. These are spherical, smooth on the surface, and not adhesive, since if the observation is prolonged for a short time, they may be seen to make their way out of the hæmatoblastic mass by their amoeboid activity. They appear to take no part in effecting the arrest of hæmorrhage, and present their normal physiological properties and anatomical characteristics at a period at which the hæmatoblasts are profoundly altered.

In this process the edges of the wound in the vessel appear to act as a foreign body. The hæmatoblasts behave in precisely the same way to an actual foreign body which is introduced into the current of blood. A metallic thread was passed into the external jugular vein of a dog, by means of an extremely fine needle, so that scarcely a drop of blood escaped. At the end of two or three minutes the segment of vein traversed by the wire was emptied by means of two ligatures, one placed on the peripheral and the other on the central portion, and was then excised and opened after having been placed in a liquid capable of fixing the elements of the blood. The wire was already covered by a thin grey layer composed of innumerable hæmatoblasts, individually the more distinct the shorter the time that the wire remained in the vessel. If the wire was for a considerable time in contact with the blood, the collection upon it had precisely the characters of the mass which closes a divided vessel.

Thus the essential part of the process of the arrest of hæmorrhage appears to be played by the hæmatoblasts, which when they arrive at the edge of the wound become

adhesive and collect on it as they would on a foreign body, and to this collection other similar elements are being constantly added from the current of the blood, until the opening is closed and the flow of blood arrested. The other elements in the blood, and the formation of fibrin, only participate in the process in an accessory and secondary manner. The blood contains within itself its hæmostatic; and if all these elements could be conceived to be absent from the blood, the tendency of hæmorrhage to spontaneous arrest would cease.

These facts have an important practical application. Since all foreign bodies alter and retain the hæmatoblasts, and since an abnormal condition of the vascular wall seems to have the same action as a foreign body, we can understand why intra-vascular coagulation occurs upon a portion of the wall of the vessels or the heart which has been altered by disease. So, too, we can understand the hæmostatic action of foreign bodies placed in contact with the surface of a wound, especially powdered or spongy substances, which may serve to collect the hæmatoblasts of the blood. These elements undergo changes the more rapidly under the influence of warmth, and this HAYEM thinks may explain the effect of injections of warm water in arresting hæmorrhage; but in this the influence of the vaso-motor system no doubt modifies the result. In animals it has been found that the more slowly the blood coagulates the less readily do the hæmatoblasts undergo modification. Since these elements may undergo alterations in quantity and quality in various diseases, we can understand that these modifications in the blood may predispose to hæmorrhages on the slightest vascular lesion. HAYEM throws out the suggestion that hæmophilia, the pathology of which has hitherto eluded discovery so completely, may be merely the consequence, or rather the expression of some peculiar condition of the hæmatoblasts. He relates the case of a man, aged fifty years, who was almost dead in consequence of an extreme epistaxis, to which he had been liable for thirty years. An examination of the blood showed a remarkable paucity of hæmatoblasts, which, moreover, underwent changes far less readily than in the normal condition. To this HAYEM attributed the obstinate hæmorrhage, which for three weeks had been renewed whenever the plugs were removed from the nostrils. He therefore proposed to transfuse a quantity of normal human blood, which, containing active hæmatoblasts, might restore to the blood its coagulating power. One hundred and twenty grammes of blood were, therefore, injected, with the effect of immediately arresting the hæmorrhage. After the operation the plugs were removed from the nostrils, but not a drop of blood was subsequently lost. These facts are certainly remarkable, and, taken in conjunction with those described by NORRIS and BIZZOZERO, constitute an important addition to our knowledge of the mechanism of the arrest of hæmorrhage.

WE are inundated with letters on the subject raised by "M.D. Edin." in THE LANCET of July 1st. We regret that it is simply impossible to find room for these communications, which, though very excellent, are also very long. With the greater part of a letter from Dr. BROOM, of Clifton, we must close the discussion on this subject for the present. Both sides have been already fully stated in

our columns. In doing so we shall venture to express a few thoughts of our own on the question at issue.

The letter of "M.D. Edin.," which started the present controversy—which, by the way, periodically arises—is that of a man who evidently has got his education at a university or universities, and who is fortunate enough to possess the degree of the famous and ancient University of Edinburgh. He is grieved that the majority of the profession are at present engaged in the compounding and sale of drugs. He attributes this to the fact that the highest ambition of our English students is to look to the possession of a licence as apothecary; who, however, are not content to be known by the title of "Apothecary SMITH" and "Apothecary BROWN." Still worse: "The principal reason why these men dispense drugs is that they are catering for popularity by the sale of cheap physic. Men who cannot keep their patients while prescribing as gentlemen, instead of tinkering in drugs as tradesmen, have mistaken their vocation," &c. Our correspondent is very anxious to know "from what schools these men came and what qualifications they hold."

We cannot think that our correspondent has done full justice here to the great bulk of English practitioners, or that he rightly estimates the place of medicine and dispensing in medical practice. To take his last point first we will venture at once to say that the men who are selling both drugs and medical advice on unworthy terms are not all mere apothecaries. Very many of them will be found to possess a qualification from corporations north of the Tweed. We are amongst the number of those who believe that the Apothecaries' Societies have fulfilled their functions and should be allowed to retire as licensing medical authorities, but it is only just to them to admit that the cheap doctoring system has been developed since the monopoly of the Apothecaries' Society was abolished by the Medical Act of 1858. Not to dwell on this point, we will next observe that we see nothing essentially degrading or undignified in a medical man supplying good and well prepared drugs to his patients. If the medical calling were like the legal one, in which only comparatively few and wealthy people are concerned, we might concur in demanding with our correspondent that no doctor should soil his hands with drugs. If all the members of the profession could travel the world over and study to find where the profession attains the highest social condition the case would be different. Such is not the happy lot of the bulk of the members of the medical profession. They have to work very hard and for very inadequate sums. Where the poor are not attended gratuitously in dispensaries, as to a large extent is the case in Edinburgh, and in England too, or in Poor-law dispensaries, as in Ireland, they have to be attended on very moderate terms. And it is to the credit of English medicine that a large number of medical men have, up to very recent times, been able to attend the working classes at such terms without loss of dignity to themselves and with advantage to their patients. This is urgent work. The woman in labour and the child with scarlet fever or with scrofula, both parts of a household that has to be kept on 30s. a week, are pressing facts. Such people will never require a barrister. They must have a doctor. Our correspondent may have heard a proverb, "You cannot get breaks of a Highlandman." This is true. It is equally

true that you cannot get from a man with 30s. a week payment for a doctor and a chemist. The least experience of medical practice among the working classes and the humbler trading classes will satisfy anyone of this. So much is this difficulty felt that some of those who are pressed with the problem of securing medical attendance for the poor recommend the creation of a lower grade of medical practitioners than any now existing. We strongly deprecate such a proposal. But the way to bring it about is to speak disparagingly of medical men who are not blessed with degrees, and who dispense their own medicines. We admit that theoretically we should like to see dispensing by medical men abolished. Wherever reasonable chemists can be found, this will be largely practicable in the better ranks of practice. We should also like to see every English workman treat his children daily to animal food, with a chicken once a week. But at present we do not live in Utopia. The medical profession must adapt itself to human society. We have no excuse to offer for false and sham dispensaries, *et hoc genus omne*; but for honest attempts to meet all the medical wants of working and poor people we have nothing but respect, and see no more discredit in supplying them with the drugs they need than in supplying them with the splints or the bandages they may require.

"M.D. Edin." thinks all compounding and dispensing on the part of medical men might be seriously discouraged by a meeting of non-dispensing members of the profession. Another correspondent, whose letter we have not room for, avers that nothing but compulsion will suffice to prevent members of the profession dispensing on the one hand, or chemists prescribing over the counter on the other. Has the latter gentleman considered the probability of getting any possible Parliament in England to consent to the legislation involved in such compulsion?

It is a matter for regret to find that scurvy is again on the increase in the British mercantile marine. The returns of the Seamen's Hospital, Greenwich, show that in 1873 there were 7 cases of scurvy admitted; in 1874, 18; whilst in 1880 and 1881 the numbers rose to 45 and 37 respectively. The cases reported by the Board of Trade for the whole kingdom have risen from 19 in 1874 to 99 for 1881. This, in the face of the statutory enactment as to lime-juice, by which the issue of this antiscorbutic is made obligatory, is most discouraging, and if we were not aware of certain circumstances which may tend to explain this increase of the disease, our faith in the prophylactic virtue of lime-juice might be somewhat shaken. There are certain points, however, which we think account for the recent increase of scurvy among the sailors of our mercantile marine—an important one being that owing to the great increase in the number of steamships employed in our purely mercantile trade, the character of the sailing vessels, which as a class alone furnish cases of scurvy, have considerably deteriorated. The owners are too frequently merely speculative adventurers, and the crew as often the dregs of the port, who have been unable to secure employment in the leading lines. Another point is that some owners of vessels place too much reliance on lime-juice, to the neglect of varied food scales. When the voyage is a protracted one, in addition to the daily issue

of lime-juice, fresh messes should be served out at least twice a week. This is a precaution but rarely observed in the class of vessels we have alluded to. A great deficiency in the Merchant Shipping Acts is that they do not in any way prescribe the quantity or sort of food to be supplied to seamen on board British merchant ships, the food scale being a matter of contract between the master and the seaman for each voyage. This ought not to be permitted, and the sailor should be protected from any shortcomings to which his ignorance or the rapacity of the ship-owner may expose him. Dr. SPOONER, of Liverpool, at the instance of the Board of Trade, has drawn up an improved victualling scale of the provisions to be served out to a crew per day, in addition to the issue of lime-juice and sugar, and which might be advantageously made compulsory on all ship-owners. Dr. SPOONER gives preserved fresh meats three days a week, salt pork and salt beef two days in the week respectively, two ounces of preserved potatoes four times a week, eight ounces of preserved carrots three times a week, besides one pound of marmalade and four ounces of pickles weekly. This is the most rational dietary, that can be obtained under the circumstances, and places the sailor under nearly as favourable dietetic conditions as the soldier; certainly, as far as the alkaline bases—the withdrawal of which is supposed to be one of the chief factors in the production of scurvy—are concerned. With regard to this point, it is interesting to quote the results obtained by Dr. RALFE in the comparison of the composition of the sailor's and soldier's diet respectively. He found that, whilst the total inorganic constituents of the sailor's diet exceeded those of the soldier's, the actual alkalinity of the ash was nearly half that yielded by the soldier's food.

THE insanitary condition of the Melbourne Hospital, and the marked prevalence of septic diseases among the surgical patients, have lately excited so much attention in the colony that a committee was appointed by the Board of Management to inquire into and report upon the best means of improving the sanitary condition of the hospital, either by removing the site, by reconstructing portions of the present buildings, or otherwise. The committee appears to have conducted its investigation with great care, and examined a large number of witnesses. Their report, which has been formally endorsed by the Board of Management, is now before us in the pages of the *Australian Medical Journal*. The committee rejects the proposal to move the hospital to another site as unnecessary, and, at any rate, premature. It sketches several important structural alterations which should be made "whenever funds are available." Then follows the important part of the report, to which we wish to draw attention. It may be summarised in these two quotations:—"An examination of the evidence tendered by the witnesses, and of that extracted from recent medical works which have been laid before the Committee, convinces that body that the lamentably high rate of mortality in cases of surgical fever.....is traceable beyond doubt, to the imperfect adoption of a strictly antiseptic treatment, on Mr. LISTER'S principles, of surgical cases." "The Committee trust that this important subject will receive the early and serious consideration of the honorary staff. The splendid results which have attended the treatment of



ovariotomy in this hospital, and of all kinds of surgical wounds and injuries in the hospitals of Europe, convince the Committee that in the general and faithful introduction of Listerian antiseptics, the Committee of Management may look with confidence to a great saving of life in the hospital, and to the lasting riddance of erysipelas and blood-poisoning generally." One piece of evidence which evidently had considerable weight with the Committee is the following:—"Until strict antiseptic precautions were taken in performing operations for ovariotomy every case terminated fatally; but since the introduction of strict antiseptic treatment, there have been thirteen consecutive operations by two surgeons without a single death."

In thus suggesting to the medical staff the best treatment to pursue, the Committee have taken a step of which we cannot approve in principle. Laymen are not capable of judging accurately of the value of therapeutical means, and medical men may fairly demand perfect liberty of action in this respect. No body of honourable men would serve in a hospital if they were to be hampered and restricted in their treatment by a committee of laymen. It is easy to see what disastrous results would of necessity ensue, were such interference tolerated. But not even this sound principle is safely pushed to extreme limits. There are cases in which a lay committee may rightly interfere, and is in duty bound to do so. If lives are sacrificed in obedience to some prejudice and in direct defiance of well-established scientific facts, the authorities of a hospital, who are responsible for its proper management, have an undoubted right to interpose. And the real question in this case comes to be, whether the facts on which Mr. LISTER'S treatment are founded, and its results, are so well established and so undoubted, that they may be fairly judged of by a body of laymen. We are aware that many eminent surgeons of our own country would state that they are not, and that an investigation of them by the lay committee of a hospital is *ultra vires*. But, whatever views we may hold on that subject, we must not lose sight of the really practical point, which is, that any committee appointed to consider in what way the sanitary condition of a surgical hospital in which septic diseases are rife may be improved is bound to investigate the results of the aseptic treatment. And with the evidence on this subject which can now be adduced, to what result can such an investigation, if impartial, lead, than that this plan is the only really trustworthy one for abolishing septic disease? The most approved hospital construction, the most ample ventilation, the greatest care in the selection of cases, and other modes of dressing carefully carried out, have been able greatly to reduce the prevalence of septic disease; but aseptic surgery, or Listerism alone and by itself, has, in every instance in which it has been faithfully followed out, succeeded in abolishing all septic diseases. Facts are stubborn things, and this statement does not go beyond the facts. So strong is the case for aseptic surgery, that any surgeon who has to combat septic diseases is without excuse if he neglect to avail himself of it. Surgeons must then be beforehand with their committees. It is for them to be fully acquainted with every advance of their art, and on the alert to adopt any well-planned and successful improvement. In all matters of hospital sanitation committees of management should

receive the initiative from the staff. If this question has arisen in the Antipodes to-day, to-morrow it may crop up in this country, and it behoves any surgeon to possess himself of the most authentic facts, and to act upon the knowledge so gained. We therefore rather regret the necessity for the decision of the Committee, than disapprove of the actual report adopted.

We trust that whatever feelings this report may have awakened—and of this we know nothing—the staff will see to it that the aseptic treatment is given the fairest possible chance. It is their manifest duty to carry it out in full detail with the utmost precision, and we cannot believe that there will be any backwardness in doing this. The alternative is to incur a responsibility which no conscientious man would willingly bear.

## Annotations.

"No quid nimis."

### THE MEDICAL STAFF IN EGYPT.

THE officers whose names we published last week, as being likely to form the administrative medical staff of the troops sent to Egypt, have received their appointments; and we are glad to observe that the Principal Medical Officer, Mr. Hanbury, is to have the local rank of Surgeon-General. An important addition has been made to the staff, in accordance with the principles laid down in the Report of Lord Herbert's Commission, by the appointment of a Sanitary Officer to the force; and for this responsible post Brigade Surgeon J. Marston has been selected, with the local rank of Deputy Surgeon-General. We believe that it would be impossible to find an officer so well qualified in every respect for this special service. Dr. Marston possesses a thorough knowledge of the principles of sanitary science. He had several years of official experience at the Army Medical Board during the time when the sanitary branch was being more fully developed. He has since passed four years in India at the head-quarters of the Army, and upon him devolved the principal part of the duty of laying down the sanitary rules for the European force which served with so much distinction in Afghanistan. The papers which he drew up for the Principal Medical Officer's report on the subject of Enteric Fever in India afford unmistakable evidence of high powers of investigation and of an intimate knowledge of the subject of which he treated. He has also shown himself well qualified for the not unfrequently very difficult task of working harmoniously with the officers of his own and other departments with whom in the course of duty he may be brought in contact. The selection of the officers for the administrative posts of the Medical Service in Egypt reflects great credit upon the new Director-General, and may, we trust, be taken as foreshadowing the manner in which the Department will be conducted during his period of office.

Eight field hospitals are to be sent out with the force, each provided with camp equipment, stores, &c., for 200 beds. The staff will consist of a brigade surgeon or senior surgeon-major in charge, six executive medical officers, one quartermaster, and the requisite Army Hospital Corps establishment for each hospital. It is intended also to form two general hospitals, one at Cyprus for 400 sick, and the other at Malta for 200 sick and wounded. These will, of course, be provided with the requisite staff and equipment. Two hospital ships are being fitted out to accommodate about a hundred sick each, with staff and every requisite, and it is hoped they will be ready to accom-

pany the expedition. So far as we have been able to learn, the preparations of the Medical Department appear to have been well considered and promptly carried out, and there seems every reason to hope that nothing will be wanting to ensure the comfort and well-being of the sick and wounded on the present occasion. The first field hospital (stationary) left Portsmouth on Thursday, the 27th, in the s.s. *Dacca*. The hospital is equipped with beds and material for 200 patients, water carts, pharmacy waggons, and light ambulances accompanying it. Three ice machines are being despatched to Egypt for the use of the hospitals. It is expected that the second field hospital and 1st Bearer Company will embark in a few days.

#### THE THAMES POLLUTION COMMISSION.

THE Royal Commission recently appointed to inquire into the fouling of the Thames by the sewage of London is already at work. Several witnesses have been examined, and others will be called before the adjournment which will ere long be necessary. We are heartily glad to hear that the Corporation of London intend to take into their own hands the defence of their river. They saved Epping Forest; now let them save the Thames, and they will a second time earn public gratitude. The tenacity with which the Metropolitan Board of Works cling to the filthy pollution over which they preside is quite remarkable. But, though powerful, they are not omnipotent; and if the City really exerts itself, they are, we think, sure to have to submit. We will not at the present time enter into the scientific and social questions involved, but will content ourselves with once more reminding our readers of the gravity of the nuisance. Few persons know how bad it is. Let anyone who doubts take a boat to Barking Creek during ebb tide, and watch and smell the foul stream of mixed solids and fluids which pours from the outfall. No filtration of any kind is attempted, and we believe that none would be successful. People often talk as though London sewage was a more or less clear liquid. Let them go to Barking—that is all we ask. Let them remember, moreover, that the sewage which falls into the river towards the end of the ebb is carried by the flood tide up the river far beyond the outfall.

#### SUMMER AT LAST.

It is confessedly rash to hazard a word of congratulation on the momentarily seeming arrival of summer at last. Before anything we may now write can reach our readers it may be wholly falsified by the vicissitudes of a climate which must emphatically be described as one of ceaseless change. We seldom have two days alike, or even a day which is seasonable throughout. Whatever the meteorologists may have to say on the subject, it is a matter of fact and experience that the weather was not as variable forty or fifty years ago as it is now. During the winter which has just passed—if, indeed, we can be said to have had any winter—there was not a single snowstorm in London; and up to the present week neither spring nor summer has produced a day wholly characteristic. We do not sufficiently recognise the part this changeable element in the climate of England plays in the production of the many ailments to which its inhabitants are exposed. The public records of death from assigned causes throw little light and have no direct bearing on the multitude of minor illnesses from which people do not die, but by reason of which their lives are often made extremely miserable. The surprisingly large increase in the comparative frequency of troubles affecting the mental and nervous system of late years is doubtless in large measure due to the incessant and almost instantaneous changes which take place in temperature, atmospheric pressure, and hygrometric and

electric conditions. These variations call for a power of resistance in the organism which is not so commonly found as it used to be when the habits of life were less exacting to what may be termed the *sensibilities*. Culture and civilisation, with the aid of wondrously contrived appliances of a luxurious life, have rendered us more “delicate” in our feelings, sympathies, and constitutions than we used to be. A very small and rapidly decreasing class of the population can be now characterised as robust. Refinement has, so to say, fined us down, and made us more susceptible of external influences than our grandfathers and grandmothers. It is, therefore, only natural that affections which are the result of impressions produced through the senses, or more directly on the nervous system, should increase, and that “feelings” should play a peculiarly prominent, and actually important, part in the formulation of disease. It is not, of course, possible to eliminate this element from the evil with which we have professionally to deal; but it is well that its existence should be recognised. Probably there never was a time when simple vaso-motor disturbances were so common, so seemingly causeless, and yet so mischief-making as now. It may be worth while to devote more attention to this particular trouble than we are wont to bestow on it. It is quite within the range of physiological probability that even grave pathological changes may take their rise in small, and apparently unimportant, departures from the normal habits of organic life.

#### VACCINATION IN SCOTLAND.

WHENEVER the protective power of vaccination is discussed we are liable to have Scotland pointed to as an example of what good results may be brought about by an intelligent and loyal people's faithful submission to the vaccination laws. As was recently shown by Dr. Carpenter, the proportion of unvaccinated people in Scotland must now be exceedingly small. The mortality from small-pox has been of late scarcely appreciable, prosecutions under the Compulsory Vaccination Acts are almost unknown, and it is likely that the northern portion of the kingdom will be able to guard itself in the future against such an epidemic as occurred in 1870 and the immediately succeeding years. Even the few fatal cases which have of late been recorded were—at least in several instances—direct importations from London or the Continent; the patients arriving either as sailors or tourists, with the disease fully developed. Small-pox may therefore be considered as stamped out of Scotland for the past few years, and it would appear unnecessary to do more than congratulate the authorities and the profession upon the success of their measures. We are not sure, however, that a word of warning is not more appropriate. There are several particulars regarding both the law and the practice in which Scotland is certainly behind her southern sister, and these imperfections are so marked that attempts at their removal would be more satisfactory than the present complacency. In the first place no child need be vaccinated before it is six months old—as a matter of fact the vast majority remain unvaccinated till close upon this period,—many escape altogether through removal from the registrar's district, and the system of inspection, or the authority of local administrators, is so lax that a large number of the children are unvaccinated till they reach the age of nine to twelve months. By allowing the child to reach the period when teething occurs and skin eruptions are apt to appear, risks are added which often give rise to a prejudice against either vaccination or the vaccinator, and which need not otherwise be run. The inspection of vaccination results is much less attended to than in England, and the absence of Government grants for special success is much felt, as well as the gratuitous service so often necessary when the fees must be paid either by the

patients or by the parochial boards—the latter in the case of paupers only. It may also be remarked that at present there is no Scottish source of supply for calf-lymph; and it is well known how the probability of success with this is diminished by its being stored for a length of time before use. In truth the lymph in general use is thoroughly humanised, and if to this is added the equally notorious fact that the vast majority of children are vaccinated in but two places—many have but one satisfactory mark,—we have reason to fear that any considerable outbreak would prove that the Scottish people had been but living in a fool's paradise. Parents, especially among the working classes, invariably regard one or two marks as sufficient, and under the present system no inducement is offered to the medical man to insist upon more. It might not be advisable to institute any considerable change, and we are not sure that the appointment of public vaccinators, as in England, would be acceptable to the profession; but a Government supply of lymph might be offered, more systematic and close inspection instituted, and payment by results established. Effectual protection in the face of a virulent epidemic cannot be anticipated unless the vaccination is not only as regularly, but much more thoroughly, performed than it is at present.

#### RECOVERY FROM RABIES.

ON more than one ground the possibility of the recovery of dogs from attacks of rabies is of great importance. The demonstration that this terrible disease is not invariably fatal, even in the animals most prone to it, may at least be welcomed as affording a ray of hope for therapeutics, while the fact of the recovery of affected animals may afford an explanation of many mysterious outbreaks of the disease. M. Decroix lately communicated to the Académie de Médecine nine cases which he had collected of well-authenticated recovery from rabies. (1) M. Ménecier inoculated two dogs and a rabbit with the saliva of a rabid dog; all three died from rabies, but the dog from which the saliva was obtained recovered. (2) Decroix inoculated a dog with the saliva of one suffering from rabies; the latter died, the former became affected with characteristic rabies and recovered. (3) Some saliva was obtained from a man some hours before he died from hydrophobia, and with it a dog was inoculated; the animal presented well-marked symptoms, but recovered. (4) Reg of Lyons recorded the recovery of a dog with furious rabies, due to a bite from another rabid animal. (5) A military veterinary surgeon, Laquerrière, has recorded the case of a dog affected in consequence of a bite from an animal unquestionably rabid. The destruction of the dog was ordered, but the owner refused to consent and the dog recovered without treatment. The four remaining cases were of recovery from rabies, in man in three cases, and in the horse in the last. Decroix points out that in furious rabies the attacks increase in frequency and intensity during two or three days, then attain their maximum, and disappear in two or three days more, whereas death does not occur until the fifth or sixth day. The eminent authorities who have never met with an instance of recovery are scarcely justified in denying the occurrence of such cases described by those practitioners who have seen them. The Rabies Committee, of which M. Decroix was president, has made, since 1874, a host of experiments with various substances of reputed value in rabies, three of them with pilocarpine, and every supposed remedy which they employed appeared actually to hasten death by the violent paroxysms which it caused. The conclusions of M. Decroix are that it is experimentally demonstrated that rabies may terminate in spontaneous recovery. Up to the present day no agent has made good its claim as a remedy for rabies. The cases of recovery attributed to this or that agent may be,

with equal justice, ascribed to the spontaneous termination of the disease. The dogs which recovered in the experiments carried on by the committee were left at rest, and, since the administration of medicines usually provokes convulsive seizures, it seems desirable, according to our present knowledge, to leave persons affected with hydrophobia in the most perfect possible calm, trying experiments only upon animals. In absolute quietude and obscurity the paroxysms are far less terrible than when medicines are administered, and M. Decroix asserts that if these conditions could be secured, he would far rather suffer from hydrophobia than from many other diseases. It may, however, be observed that we are scarcely justified in drawing, from the superior results of therapeutic inactivity in dogs, the same lesson in the case of the disease in man. The administration of a drug to the human sufferer by the skin or rectum, or sometimes even by the mouth, may be effected with far less disturbance than in the case of the dog. Without doubt, however, he is correct in insisting on the absolute importance of perfect tranquillity, and of the avoidance of everything which may in any degree help to excite the paroxysms. It may be doubted also whether dogs are the best subjects for therapeutic experiments, since it is probable that the conditions met with in the human subject obtain more closely in the herbivora than in the carnivora. It is very desirable, in the case of any recovery from rabies, that it should be ascertained at what date the saliva ceases to be infectious, and whether the disease can be communicated after the animal has to all appearance recovered. This is a not improbable explanation of the occasional alleged occurrence of the disease from the bite of healthy animals.

#### PROF. CRUM-BROWN ON RIVER POLLUTION.

IN connexion with an action now pending in the Court of Session, with regard to the pollution of the rivers Gala and Tweed, by the manufacturers of Galashiels, a very interesting report has been presented by Professor Crum-Brown of Edinburgh. The document is a lengthy one, and the following is but a brief abstract, more especially of Dr. Crum-Brown's conclusions. He finds that at some of the mills there is no dyeing, but in most of them the common discharge is exhausted dye liquor and soapy liquid from wool, piece, and yarn scouring. At the mills where there is no dyeing the discharge is simply soapy liquid from scouring. In the various works some or all of the following methods for the prevention of pollution are at work—(a) The soapy liquid is used over again for scouring, after the removal of solid matter in suspension by settling in tanks. (b) Wood chips, &c., are to a very great extent caught in metal screens perforated with small holes. (c) Settling ponds, of varying size and number, are in use, through which the mixed liquids flow before entering the Gala. (d) The chemical treatment in greatest use consists of the application of the "Magma process" to the soapy waste. It will thus be seen that it is the residual soluble substance which most requires to be dealt with, as, notwithstanding the "Magma" process, fatty and oily acids, soluble nitrogenous and animal matter, and free sulphuric acid are found in the effluent water. Dr. Brown states that these may be completely removed by the use in the proper proportion of the following four substances—Lime-water, sulphate of iron, sulphate of alumina, and sulphuric acid. It may appear at first strange that I should recommend the use of four substances, no one of which could be put into the stream without injury; but these substances act so on the polluting matters in the discharge from the mills and on each other, that these polluting matters and the great part of the added chemicals are precipitated as a sludge which can be removed by settlement and filtration, leaving in the effluent water very little from the impurities, and nothing from the added chemicals except some sulphate of

soda and sulphate of lime, substances which occur in most natural waters, and which cannot, in the quantities thus produced, be considered injurious to the water." For economic reasons, Dr. Brown recommends that the various proprietors should carry out a conjoint scheme for the purification of their refuse water. Several of these measures are in use where sewage only is the cause of the pollution; and the whole report should be carefully read by anyone interested in river pollution, from whatever source arising.

#### FRANK MAITLAND BALFOUR.

THE daily press contained on the 24th inst. a brief notice of the death of a man who can ill be spared at the present time. Mr. Frank Maitland Balfour was killed by a fall in the Alps, but no particulars appear to have been obtained save the fact that his body, along with that of his Swiss guide, have been discovered on the Italian side of Mont Blanc. It is only a few months ago that Mr. Balfour was elected Professor of Animal Morphology at Cambridge, after having passed through a distinguished University career; and it will be difficult to supply his place. His treatise on Embryology, together with his previous work on that subject, placed him in the front rank of investigators in that very special and difficult line of research. If his life had been spared there can be no doubt he would have added largely to our present knowledge of many points that still remain obscure. He was placed second in the first class in the National Science Tripos, in 1873 graduated B.A., and proceeded in due course to M.A. He was elected to the Fellowship at Trinity, was Royal Medalist in 1881, and President of the Cambridge Physiological Society. He was hon. LL.D. of Glasgow and a Fellow of the Royal Society. He was a younger brother of Mr. Arthur Balfour, the Member for Hertford, and nephew of the Marquis of Salisbury. His age was a little over thirty years.

#### PURIFIED TOW FOR ANTISEPTIC DRESSINGS.

MM. WEBER and THOMAS, of the French army, assert that the desiderata of an antiseptic dressing for military surgeons are—(1) absolute purity; (2) perfect whiteness and cleanness; (3) elasticity, smoothness, and softness; (4) great absorbent power, both of secretions from wounds and of antiseptic agents; it should (5) efficiently filter the air; (6) be antiseptic; and (7) cheap. They assert that they have prepared some purified tow which answers all these requirements thoroughly. Commercial tow is dirty, harsh from the presence of much woody fibre, and non-absorbent. This commercial tow is first dusted and tied tolerably firmly in packets, which are then soaked in water for twenty-four hours; they are then wrung out and placed in cast-iron pans, and a solution of caustic soda is poured on and kept just boiling for half an hour. The tow is then put into cold water and repeatedly washed until it has no action on turmeric paper. Subsequently it is immersed for half an hour in a solution of hypochlorite of soda, and again washed in cold water as before. After soaking for twenty-four hours in cold water the latter is pressed out and the tow is plunged into dilute hydrochloric acid and left for half an hour, after which it is again washed in water and allowed to soak for twenty-four hours and then dried, after which it is carded in sheets or pledgets, or combed. Tow thus prepared is stated to be chemically pure, of perfect whiteness, soft, very elastic, readily absorbent, easily impregnable with antiseptics, and cheap. To render it thoroughly aseptic it may be impregnated with either carbolic acid or iodine. For the former a solution of three parts of the acid in two parts of alcohol is sprinkled on sheets of filter paper, and these are laid between sheets of the tow and placed in a

closed box. At the end of forty-eight hours the acid has all passed into the tow, in which it can be demonstrated under a microscope in the form of minute drops. MM. Weber and Thomas have prepared the carbolised tow of a strength of ten per cent., which they state to be an unirritating dressing and more than sufficiently strong of the acid for surgical purposes. To impregnate the tow with iodine they expose it to the vapour until it assumes the colour of roasted coffee. By similar means creasote, eucalyptus, &c., may be added to the tow. They state that, prepared in moderate quantities, the purified tow costs  $1\frac{1}{2}$  fr. to  $1\frac{3}{4}$  fr. per kilo, or when carbolised 2 fr. to  $2\frac{1}{2}$  fr. per kilo.

#### SEWAGE, STORM-WATER, AND THE VENTILATION OF SEWERS.

IT is only natural, but it seems strange, to find precisely the same questions cropping up and being discussed upon the same lines and with very nearly the same detailed arguments which were rife five-and-thirty years ago. History repeats itself, in regard to social and domestic matters, at recurrent periods of about thirty or forty years, probably because that is something like the lifetime of a generation. However this may be, it is certain that those interested in sewerage were discussing the need and policy of separating storm-water from the sewage at the date to which we have alluded; and it is within recollection that the same opinions and allegations were used then as now. The chief difference is as to the amount of the extraneous water introduced into the sewers. Thirty years ago the supply of water for domestic purposes was less per head of the population than it is now; and it may be assumed that the total dilution of the sewage is greater than it used to be. This is the real difficulty as regards all systems of sewerage. It would be comparatively easy to dispose of the semi-solid material if only such quantities of water were added as might be required to flush the drains. We are glad to see that the sewerage of Slough, Bucks, has been reconstructed on the fundamental principle of keeping the surface and storm water apart. Although this question has come to be regarded chiefly in relation to the utilisation of sewage, it is really one of practical drainage, and ought to be so treated. We are also gratified to find that the system of ventilation by shafts is beginning to receive the attention it deserves. The Sanitary Committee of Paddington district has the subject under notice, and is preparing to take action. We trust there will be no mistake as to the lamp-post scheme. Unless provision can be made for actually destroying the sewer-gas in the flame of the gas used for lighting purposes, as was proposed in America some years ago, it is not practicable to use the lamp-posts as ventilating shafts, however large the calibre of the pipes may be. Pipes affording a way of escape for the sewer-gas must needs be carried above the roofs of the houses, or it will simply poison the atmosphere at a high level, instead of rendering the air breathed by the population pure.

#### THE HOSPITAL SATURDAY FUND.

WE are glad to see notices of efforts to make the Hospital Saturday Fund more worthy of the working classes, on the one hand, and of the hospitals on the other. The most certain way of securing this is to realise that hitherto the result of the collection has been altogether inadequate. Mr. E. R. Cook, presiding at a meeting in Lamehouse, said he saw no reason why the Fund should not reach £20,000 as against £8,500. To this end co-operation and organisation are necessary. What is above all necessary, it seems to us, is to organise a plan by which a working man could be induced to set apart a certain sum weekly for some time before the collection for this purpose.

## TUBERCLE OF THE SYNOVIAL SHEATHS OF TENDONS.

MM. TERRIER and VERCHÈRE describe a tubercular disease of the synovial sheaths of tendons, which appears to be more common in the hand than any other part. The tubercular nature of the affection in the cases they report is demonstrated by the microscopical characters of the inflammatory growth and the concomitance of tubercular disease of the lungs. Premising that the disease may be secondary to tubercular affection of neighbouring bones and joints, they draw special attention to the form which occurs primarily in the synovial sheaths. They describe the origin of the affection as insidious, and the progress as very chronic. The first symptom is a swelling over part of a synovial sheath, as for example over the palmar surface of a phalanx. This swelling gradually grows and becomes softer, movement of the part then becomes both painful and limited. Other like swellings appear over other portions of the synovial membrane, as in the palm of the hand and above the wrist. The skin becomes adherent, reddened, and ultimately ulcerates, and pus and sero-pus are discharged; the ulcer extends, its edge being irregular, thin, undermined, and livid. A probe passed to the bottom of the ulcer readily finds a narrow opening into the sheath, along which it may be passed for some distance. The tendons do not slough, nor do they become firmly adherent. The disease does not spread to the neighbouring bones and joints; and although in its course more than one part of the synovial membrane is affected, these are separated by quite healthy portions of the membrane, and this fact forms one of the best diagnostic features by which it may be distinguished from fungous disease of the membrane, in which the whole extent of the sheath is always involved. In one of the two cases observed by the authors there was a very distinct history of an injury as the exciting cause: the patient, a young woman, had cut her wrist severely, and in another case there was a history of a bruise. The constant and rapid movements of the hand are considered to account for the great frequency of the disease there. The only treatment which promises any good seems to be early free removal of the tumours; cases in which this was done with good effect by Trélat and by Bouilly are recorded in the paper before us in the July number of the *Revue de Chirurgie*.

## SMALL-POX AND MILK CARRIERS.

A CASE has come to light in Poplar which illustrates in a forcible manner a method by which small-pox may be spread through a community by the agency of milk. Four patients suffering from that disease were found in a dirty and deplorable condition in the house of a man who was employed in delivering milk. The disease had already prevailed for about five weeks, and the man, presumably in order that he might not be hindered from following his occupation, had avoided calling in any medical practitioner. During the whole of that period he had been in constant work, the fact of small-pox existing in his family being kept from his employer. Had a system for the compulsory notification of infectious diseases either by the occupier alone, or by the occupier and any medical practitioner, been in operation, the milkman could have been punished for having failed to comply with that provision. Whether he can be punished or not under the Dairies, Cowsheds, and Milkshops' Order, 1879, is somewhat doubtful. The order provides for the punishment of any cowkeeper, dairyman, purveyor of milk, or occupier of a milk store or milk shop, who has anything to do with the milking of cows, or the production, distribution, and storage of milk, if he have either suffered from or come into contact with infection, or for employing anyone thus liable to convey infection. But, in this instance, it is

not clear whether the man delivering the milk can be deemed as coming within the definitions quoted, and it is certain that his employer had no grounds for suspending him from work. The Sanitary Committee have referred the case to their clerk to see whether a prosecution can be sustained against the milk carrier.

## DEATH FROM CHLOROFORM.

MR. F. E. CANE, L.R.C.P. Ed., acting house-surgeon to the Bradford Infirmary, forwards to us the subjoined account of a death following the administration of chloroform at that institution:—

"George F—, aged fourteen, was admitted into the Bradford Infirmary on Wednesday, the 12th inst., suffering from the ordinary dislocation of both bones backward at the elbow, with fracture of the coronoid process. I saw him ten minutes after admission, and found him pale and trembling. He cried and asked me not to hurt him. On manipulating to ascertain the injury, he writhed and screamed so much that I considered it better to let him rest for some time to recover from the shock, and told him I would give him chloroform to lessen the pain. I accordingly went away, and returned in about twenty minutes. Finding him somewhat recovered, and considering his age in his favour, I asked Mr. W. J. Spence, resident dispensary surgeon, to administer the anæsthetic. His heart was examined and found normal, but slightly weak. He had had no food since his breakfast, which was light. The drug was administered by means of a simple inhaler, and the total quantity given at a time was one drachm and a half. The patient took it well, pulse and respiration remaining satisfactory. In about five minutes he seemed fairly under its influence, and I reduced the dislocation rapidly without trouble. The boy groaned and kicked as this was being done, and from that time no more chloroform was administered. The arm was put up in angular splints and bandaged. On the completion of the bandaging, the patient, who was spitting and beginning to recover, slightly raised his head from the sofa on which he was lying. In about ten minutes after this his breathing was prolonged and slow, and I noticed his face become deadly pale. I placed my hand over his heart, and could not perceive any impulse. I drew forward his jaw, and he took a full inspiration, the chest wall expanding. Mr. H. Meade, one of the honorary visiting surgeons, was in an adjoining room, and I had him promptly in attendance. The tongue was drawn forward with an artery forceps, cold water was dashed on the face and chest, the head was lowered still further, Silvester's artificial respirator was used, a strong battery applied, and ammonia held to the nostrils. All these means failed to restore the boy, who died about ten minutes after the chloroform had ceased to be administered, and about two minutes after the first symptoms were noticed. Artificial respiration was of course kept up for some time. An inquest was held, and a verdict returned in accordance with the medical testimony, the coroner not considering a post-mortem examination necessary."

## NOTIFICATION OF DISEASE IN GREENOCK.

A DISCUSSION on the question of notification of disease in the Police Board, Greenock, gave occasion to Mr. McNaught to express some strange views of the duties of medical officers of health and of economy in public bodies. A Bill was under the notice of the Board, including a clause requiring, as we understand, a notification of infectious disease both by the householder and the doctor. Mr. McNaught was against the system of notification, and argued that it would operate so as to discourage the people from consulting a doctor in cases known to be infectious. But what we wish to note is his remarkable views of the duties of medical officers of health. "There was one thing



he should like to see in the Bill, and that was that the public health medical officer of this town should be prohibited from attending cases in the surgical wards of hospitals while infectious cases were under his care and treatment, and he thought he should attend all the infectious cases sent to the infirmary as being part of his duties, and thereby save about £50 a year to the Board. He did not think military hospitals would put up with the same treatment for a single day.” What an autocrat Mr. McNaught must be, to think of dictating the conditions under which a medical officer of health should treat surgical diseases, and to require such officer to attend all the infectious cases sent to the infirmary *as part of his duties*, and thereby save the ratepayers about £50 a year!

#### LIGATURE OF THE INNOMINATE.

MR. WILLIAM THOMSON, of Dublin, favours us with an account of the termination of his case of ligature of the arteria innominata. “My patient,” he says, “died on the 20th inst., the forty-second day after ligature of the innominate. There was no recurrence of bleeding after the thirty-ninth day. The sinus was found to terminate in an ulcer, which involved the anterior wall of the junction of the subclavian, carotid, and innominate arteries. The innominate and carotid arteries were filled with clot; the subclavian contained a clot occluding it to the extent of half an inch. The position of the ulcer was on the distal side of the ligature, the constricted portion of the innominate not being involved. The hæmorrhage had apparently taken place from the innominate, as there was a recent blood stain on the cardiac side of the clot. None of the vessels were pervious to water forced in with a syringe. The aorta was atheromatous. Consolidation was proceeding satisfactorily in the tumour. This is the second longest survival (except Smyth’s case, which recovered) on record; Graefe’s case having reached the sixty-seventh day, and Cooper’s the thirty-fourth.”

#### REGISTRATION OF DEATHS ACT, 1874: NEW AND IMPORTANT DECISION.

ON Tuesday, July 11th, at the Lambeth Police Court, before Mr. Chance, Charles Frederick Groom, M.R.C.S.E., was summoned at the instance of the Medical Alliance Association for wilfully making a false certificate, under or for the purposes of the Births and Deaths Registration Act, 1874, concerning the death of a child, named Mary Louise Sparks, on June 28th, 1882. Mr. C. J. C. Pridham, Solicitor to the Association, appeared for the prosecution, Mr. Mayo defended. It was proved at the hearing that the defendant had seen the child once and had made up a bottle of medicine for it. Mr. Chance, however, held that one solitary attendance did not amount to that degree of investigation and attendance of the patient’s case which would justify the defendant in giving the usual form of death certificate under or for the purposes of the Act, which he had done. He therefore convicted the defendant of the offence charged, and fined him £2 and £2 2s. costs.

#### GASTROSTOMY.

ON Thursday, the 20th inst., at the Wolverhampton and Staffordshire General Hospital, Mr. Vincent Jackson performed the operation of gastrostomy. The patient, a middle-aged man, was suffering from cancer of the cardiac end of the œsophagus, and, in the opinion of Dr. Totherick, was fast sinking from starvation. The operation was divided into two stages, and on the fifth day after the first operation the stomach was linearly excised. Since he has been fed by the stomach and rectum, and everything is favourable. A full report of the case will shortly be published.

#### FATTY TUMOURS OF THE PALM OF THE HAND.

LIPOMA of the palm is an infrequent but important affection. The diagnosis is attended with difficulty, for the tumours are often fluctuating; and in this, as well as their slow and painless growth and rounded outline, and the fact that they sometimes extend under the annular ligament, they resemble cysts of the synovial sheaths. When punctured, however, they do not yield fluid, but, on the contrary, a small pellet of fat may be extruded, which makes the diagnosis certain. The treatment is excision; but this should not be lightly undertaken, as in the palm these tumours do not grow from the subcutaneous fatty tissue, but from the fat under the deep fascia or between the muscles. Indeed, it has been suggested that in some cases they are developed from processes of the synovial sheaths of the flexor tendons, and are comparable with the arborescent lipoma of the synovial membrane of the knee described by Billroth. Great care must be taken to secure union of the wound by first intention, or the apparently simple operation may be followed by extensive suppuration in the palm and adhesion of the flexor tendons, with the result of a more or less useless member.

#### “AN ODD EPIDEMIC.”

A CORRESPONDENT in Norfolk draws our attention to what he terms “an odd epidemic” which has attacked a large number of his patients during the spring and early summer of this year. The affection has commenced with considerable prostration, nausea, and giddiness, accompanied with a state of nervous alarm and depression amounting almost to melancholia. The temperature has been normal, the pulse 100, soft, and the skin moist. After a day or two material improvement has taken place, and then within a week a relapse has occurred, at times accompanied by coryza, partial occlusion of the bronchial tubes, with clear, starchy mucus, the formation of sensitive sores about the margins of the nostrils, mouth, &c., pain in the intercostal muscles and the joints, loud buzzing sounds in the head, extreme sensitiveness of the scalp, and even cephalalgia. In some cases several relapses have occurred, the intervals of improvement increasing in duration as the affection gradually subsided. We are informed that groups of cases have been met with not only in Norfolk, but in Warwickshire and in London. If so, a brief reference to them, and, above all, a record of the circumstances with which they have been associated will be of interest.

#### SYPHILIS CONVEYED BY SKIN-GRAFTS.

ANOTHER case in which syphilis was conveyed by skin-grafts is reported in Paris by M. Féréol. It occurred in the practice of M. Deubel; the patient was a man, aged forty-nine, who had not had any venereal affection, and who had a large wound caused by erysipelas with sloughing. Seventy-five dermo-epidermic grafts were put on, nearly all of which “took” and cicatrization was rapidly effected. A month after the application of the first grafts the cicatrix began to ulcerate in several places. Six weeks later an abundant roseolous eruption broke out over the body, and a month later mucous patches appeared in the mouth. One of the sons of the man, who had furnished grafts on each occasion, then consulted M. Deubel for mucous patches about the anus, and stated that eighteen months previously he had had a hard chancre for which he had not had any treatment. The case is apparently beyond all doubt, and shows the necessity for caution in the selection of persons from whom grafts are taken. The safest rule to follow is, wherever possible, to take the grafts from the person on whom they are to be implanted.

## ROYAL UNITED HOSPITAL, BATH.

WE have received a copy of the Registrar's report of the Royal United Hospital, Bath, for the year 1881. It is very brief, but bears evidence to the amount of work done at this old-established hospital. The Registrar (Mr. Hopkins) has also made out a table of all the operations performed in the hospital since 1849, which may prove useful as a standard of comparison with the results obtained at the present day. Short notes of four deaths occurring from the administration of anæsthetics during the same period are also given. In one case the anæsthetic used was bichloride of methylene, and the patient, a man aged fifty, died when only a drachm had been given. In the other three cases chloroform was the agent. In one case the death resulted from shock, the operation having been commenced before anæsthesia was obtained. The report closes with notes on the museum, which was a pet of the late Mr. Gore, and nearly all the specimens in it were contributed by him. It contains many specimens of great interest, and it is to be hoped that it will be continually enriched by the addition of specimens which are always to be obtained at any large hospital.

## MINERS' DISEASES.

THE morbid states, other than those of the lungs, which are produced in miners by the coal-dust to which they are exposed, have been recently studied by Dr. Fabre, of Commeny. He does not believe that the dust has any special action on the skin. The impetigo and eczema common among miners, and attributed by some authors to the influence of the dust, are not, he believes, due to this cause, but to the influence of water in the workings containing, dissolved, some irritant substance. These eruptions are never met with in the workers in coal at the surface, who are equally exposed to the influence of the dust. Almost all miners present characteristic bluish cicatrices, indelible as tattoo marks, which result from any wound produced by a fragment of coal. The dust in the air occasionally causes a certain amount of simple conjunctivitis, and very often true keratitis, sometimes accompanied by iritis, and frequently leading to ulceration of the cornea. These are due to the implantation in the cornea of small fragments of coal. Deafness is also common, and is due to a hard plug, composed of cerumen and coal-dust, in the external meatus, usually accompanied by some inflammation of the lining membrane.

AMONG the appointments that have recently been announced as having been made in the medical department of the University of the City of New York are the following:—Dr. William H. Thomson, Professor of Diseases of the Nervous System (in addition to the Professorship of Materia Medica and Therapeutics); Dr. Lewis A. Stimson, Professor of Surgical Pathology (instead of Pathological Anatomy); Dr. Stephen Smith, Professor of Clinical Surgery (instead of Orthopædic Surgery); Dr. Herman Knapp, Professor of Ophthalmology; Dr. F. R. S. Drake, Clinical Lecturer on Practice of Medicine; Dr. N. M. Shaffer, Clinical Lecturer on Orthopædic Surgery; Dr. Joseph E. Winters, Clinical Lecturer on Diseases of Children (in addition to being Demonstrator of Anatomy); Dr. William C. Jarvis, Clinical Lecturer on Laryngology; and Dr. Lawrence Johnson, Lecturer on Medical Botany.

THE presence of small-pox in Cape Town is arousing the inhabitants to a sense of the value of vaccination. Mr. Frederick Ensor, District Surgeon, Port Elizabeth, has issued a public appeal, calling attention to the danger of neglecting the means of coping with the epidemic afforded by the operation.

AMONG the naval medical officers present at the bombardment of Alexandria was Fleet-Surgeon Henry Nanton Murray Sedgwick, of H.M.S. *Inflexible*. This distinguished officer is a son of the late Hon. Samuel Sedgwick, M.A., M.D. He entered the Royal Navy as Assistant Surgeon in 1862, became Surgeon in 1869, in which rank he served with distinction throughout the Abyssinian campaign under Lord Napier of Magdala, and was several times mentioned in despatches; for his services he received the war medal and the promotion to Staff Surgeon. In 1879 he was further promoted to the rank of Fleet Surgeon, and in the autumn of last year was appointed to the *Inflexible*, before which time Dr. Sedgwick was Senior Medical Officer in charge of H.M. training ship *St. Vincent*, stationed at Southsea.

A PROPOSITION has been made to establish a Society of Medical Men practising in the Western District of London. Circulars have been issued pretty extensively to solicit attendance at a meeting to be held on Friday (to-day), at 5 P.M., in the Board-room of the West London Hospital, when the matter will be discussed.

IN consequence of the prevalence of scarlet fever at West Moseley, Dr. Price Jones advised the closing of the school of the locality. The managers have, however, it is stated, declined to comply with this advice, on the ground that the number of cases existing in the village is not sufficient to justify that course.

IN the loss sustained by Mr. James Mackie, surgeon to H.M. Consulate at Alexandria, by the destruction of his house in that city, is included an almost unique collection of calculi, the result of twenty-two years' surgical work in the Deaconesses' Hospital; also his library and all his surgical apparatus.

THE seat left vacant in the section of Medical Physics and Chemistry of the Académie de Médecine by the death of M. Briquet has been filled by the election of M. Gariel, who received fifty-seven of the votes of the sixty-eight Academicians present.

WE understand that an etching of the portrait of Mr. Luther Holden, by Mr. Millais, has been executed by Mr. Muller, of Devonshire-street, Portland-place, and that a copy has been presented to each of the subscribers.

THE Board of Trade have received through the Secretary of State for Foreign Affairs a copy of a notice issued by the Portuguese Government declaring the ports of the Province of Rio de Janeiro free from yellow fever since the 16th ultimo.

M. FAUVEL relates an instance in which he found a bullet in the larynx ten years after it had entered the head.

THE Bradshawe Lecture will be delivered this year by Dr. Long Fox on Friday, August 18th. The subject will be "The Influence of the Sympathetic System on Disease."

LEDWICH SCHOOL OF MEDICINE, DUBLIN.—The following prizes have been awarded at the termination of the summer session:—Botany and Zoology: Shirley Roberts (1st); Samuel Horneck (2nd). Materia Medica: S. Finlay (1st); J. J. Bolger, F. W. Sullivan (equal). Practical Chemistry: J. H. Griffin (1st); M. Leaby (2nd). Forensic Medicine: T. Williams (1st); W. Fryer, G. Wood (certificates). Midwifery: E. Wynne (1st); W. Fryer (2nd).

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Gloucestershire Combined District.*—The annual report on the sanitary condition of the district to which Dr. Bond acts as medical officer of health must be of interest, if for no other reason, because of the magnitude of the area dealt with. It includes five urban and eight rural districts, covering in all some 620 square miles, and having at the census of 1881 a population of 123,333. When it is found that in a district of this character there has been for eight years a decline in the prevalence of zymotic diseases, broken only by one single rebound, and that whereas in 1874 as many as 301 deaths were registered from such diseases, as opposed to 152 in 1881, there are certainly grounds for assuming that the sanitary supervision to which the district has been subjected during those years has exercised a very decided influence for good, and that the cost of the sanitary measures which have been adopted has by no means been thrown away. Indeed, we concur with Dr. Bond in the opinion that the result affords a very tangible proof that the expenditure of the ratepayers has borne solid fruit in protecting the health and adding to the comfort of the community, and that it has hence been a true measure of economy. The continued fevers of all diseases those which are most influenced by the adoption of an efficient sanitary administration, and we note that whereas in the four years 1874–77 there were 163 deaths from this form of fever, nearly all the cases being of the enteric type, only 106 occurred in the period 1878–81; and not only so, but an almost steady diminution in the annual number registered has gone on from 57 in 1875 to 17 in 1881. Much the same holds good as regards diarrhoea. The views which are expressed by Dr. Bond in many portions of his report as to the possible identity of diseases which he groups under the name of “scarlatinoid,” though by no means new, are still in advance of those held by many of his co-workers. He knows of no line of demarcation by which scarlatina, croup, and diphtheria can, even theoretically, be separated from one another, and he is of opinion that whilst scarlatina shades off into the diphtheritic group of affections on one side, it tends equally, on the other, to pass insensibly into measles. He also considers that cases are becoming increasingly frequent in which the so-called scarlatinoid poison affects a weakly patient with low powers of resistance, and that because of the patient's physical condition it concentrates itself on the throat and gives rise to conditions analogous to, if not identical with, those of diphtheria. The localisation of the symptoms as here described has often been observed in genuine scarlet fever, which has given rise by infection to other cases where the characteristic skin eruption predominated, and we fear that many possible sources of error must be removed before even a large group of such cases can be regarded as determining a question as to the identity or not of the poisons under consideration. So great are the difficulties, however, in fully understanding the relation which sore-throat bears to diphtheria or to scarlatina, that we feel convinced Dr. Bond is right in instructing teachers in elementary schools to regard all cases of sore-throat as infectious, and to refuse readmission to any scholars who may have suffered from scarlatina until all evidence of throat mischief has absolutely disappeared. A history of the spread of enteric fever in Westbury-on-Severn is worthy of notice. The disease was imported by a young man who was “boots” at one of the leading hotels in Gloucester; and Dr. Bond satisfied himself that it was due to faulty sanitary conditions which were easily detected. Up to that date they had, however, remained unremedied;

and this although one, if not two, of the previous holders of the young man's office had suffered and died from what was believed to have been enteric fever. Use is made of this history to refer to the sanitary condition of hotels generally, and to the condition of helplessness in which the public are placed in the matter. They certainly have a right to be as much protected when lodging in an hotel as when occupying a common lodging-house or houses let in lodgings. Provision is made by by-laws and otherwise as regards the two latter class of houses; but the hotels, which are, after all, only large lodging-houses, are free from all special sanitary control, and the public resorting to them have no guarantee as to their reasonable healthiness.

*Buxton.*—This urban district was remarkably free from fatal cases of any of the infectious fevers during 1881, and steady progress is being made in sanitary work. A curious case of typhoid fever is alleged as having occurred in a boy as the result of falling into an excavation containing long pent-up sewage. The data given do not suffice for the expression of a decided opinion as to the origin of the disease, but the period of incubation was apparently limited to one week. If this were so, the incubation stage was one of somewhat unusual brevity, and the question arises whether the history as related does not admit of the disease having been due to the inhalation of sewage emanations at a date preceding the fall in question.

*Hackney.*—From Dr. Tripe's report on the sanitary condition of the Hackney district, it appears that during the last ten years the increase in the population has amounted to 60,000, it having been nearly at the rate of 50 per cent. In July of last year it was estimated at 188,240, and amounted to 47 8 per acre, no allowance being made for 467 acres, including marshes and water which cannot be built on. On several occasions Dr. Tripe has referred to the injurious influence of the Homerton Small-pox Hospital upon that portion of his district lying within a certain area of that institution; and more extended observation entirely confirms the opinions he has previously expressed. On this occasion, however, Dr. Tripe says he is inclined to regard such injurious influence as practically inoperative provided a small-pox hospital is so situated with regard to site as to admit of an acre of land for every 25 patients under treatment, and a space of at least 150 feet between the wards and the walls surrounding the site; and also provided the number of patients massed together in one centre does not amount to more than 100. He also considers that the risk of the spread of infection to surrounding houses by aerial and other means increases with the increase of patients beyond the number stated. We assume that Dr. Tripe has had an opportunity of explaining his views on this subject before the Royal Commission on Infectious Hospitals, and we are inclined to look upon the remedial measures suggested by him as being in the direction in which action will have to be taken as regards the isolation of small-pox in London and other large towns. Dealing with the details of a local small-pox prevalence, Dr. Tripe brings forward statistics to show that the efficiency of primary vaccination tends to wear out at about the tenth year of life; and judging from the small-pox death-rates amongst the vaccinated, he considers that it is conclusively shown that the necessity for revaccination arises between the seventh and tenth years. Amongst many other interesting matters, Dr. Tripe explains why Hackney is so free from trades associated with the development of offensive effluvia. Persons proposing to establish manufactories which might be expected to evolve unpleasant and deleterious vapours are informed in advance that directly nuisance arises proceedings will be commenced against them, the result being that they transfer their business to other districts.

*Tottenham (Urban).*—In Dr. Watson's report upon the health of this suburban district during last year, he calls attention to the fact that its population, which was 22,869 in 1871, had more than doubled at the time of the last census, having become 46,441. The birth-rate among this population was equal to 41·5, whereas the death-rate did not exceed 16·8 per 1000. The death-rate did not vary materially from those which prevailed in the two preceding weeks, which were 16·5 and 17·6 per 1000 respectively. The deaths referred to the principal zymotic diseases were 131, or 17 per cent., of the total deaths, and were equal to a rate of 2·8 per 1000. This large proportion of zymotic diseases can scarcely

be deemed satisfactory; the fatality from these diseases was not due to the epidemic prevalence of any one disease, but included 34 from diarrhoea, 33 from whooping-cough, 22 from scarlet fever, 20 from diphtheria, 10 from measles, 10 from "fever," and 2 from small-pox. The fatal cases of diphtheria exceeded the number returned in any of the ten preceding years. Dr. Watson reports that Tottenham has now completely outgrown its sewerage system, which requires the urgent attention of the sanitary authority, and expresses the opinion that the adoption and completion of a thoroughly effectual drainage scheme would be followed by a marked diminution in the general and zymotic death-rates. It is noted that the causes of no fewer than 36 or nearly 5 per cent. of the deaths registered during the year were uncertified. The value of this report would be enhanced by a summary table showing a few of the more important features of the mortality statistics of Tottenham in a series of recent years.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5574 births and 3090 deaths were registered during the week ending the 22nd inst. The annual death-rate in these towns, which in the two preceding weeks had been equal to 18·4 and 19·2 per 1000, was last week 19·0. The lowest rates in these towns last week were 8·1 in Derby, 14·6 in Bradford, 15·1 in Bristol, and 16·1 in Birmingham. The rates in the other towns ranged upwards to 24·8 in Leicester, 25·0 in Sunderland, 26·4 in Bolton, and 30·4 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 569, showing a further increase of 33 upon recent weekly numbers; 281 resulted from diarrhoea, 102 from whooping-cough, 66 from measles, 57 from scarlet fever, 34 from "fever" (principally enteric), 20 from diphtheria, and 9 from small-pox. The lowest death-rates from these diseases occurred in Brighton and Plymouth, and the highest in Leicester and Preston. Whooping-cough caused the highest death-rates in Newcastle-upon-Tyne and Nottingham; scarlet fever in Sunderland and Hull; measles in Derby and Huddersfield; and "fever" in Portsmouth and Sunderland. The deaths referred to diarrhoea in the twenty-eight towns showed a further increase last week upon recent weekly numbers, but were considerably below the average for the season; the fatality of this disease was greatest in Preston and Leicester. The 20 deaths from diphtheria in the twenty-eight towns included 13 in London and 2 in Portsmouth. Four fatal cases of small-pox were recorded in London, 3 in Leeds, and one each in Manchester and Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which had declined in the thirteen preceding weeks from 350 to 204, further fell to 193 on Saturday last; 20 new cases of small-pox were admitted to these hospitals during last week, against 30 and 23 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 173 and 199 in the two preceding weeks, declined to 157 last week, and were 27 below the corrected average number in the corresponding week of the last ten years. The causes of 71, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Leicester, Bolton, and Huddersfield; whereas the proportions of uncertified deaths were largest in Halifax, Wolverhampton, Liverpool, Oldham, and Sunderland.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 20·5 and 21·3 per 1000 in the two preceding weeks, further rose to 21·7 in the week ending the 22nd inst., which exceeded by 2·7 the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 113 last week, showing a further slight increase upon recent weekly numbers; they included 60 from diarrhoea, 19 from measles, 16 from whooping-cough, 8 from scarlet fever, 2 from diphtheria, and one from small-pox. The death-rate from these principal zymotic diseases averaged 4·9 per 1000 in the eight towns, and was 1·4 above

the mean rate from the same diseases in large English towns. The 60 fatal cases of diarrhoea showed a further increase upon recent weekly numbers, and exceeded by no fewer than 38 the number returned in the corresponding week of last year; 37 occurred in Glasgow, 6 in Paisley, and 5 both in Edinburgh and Leith. The annual death-rate from diarrhoea in the Scotch towns was last week nearly twice as high as that which prevailed in the English towns. The 19 fatal cases of measles were within one of the number in the previous week, and included 9 in Dundee, 4 in Leith, and 3 in Aberdeen; the 9 fatal cases in Dundee showed a decline of five from the number in the previous week. The 16 deaths from whooping-cough exceeded those of the previous week by 2, and included 7 in Glasgow, 4 in Edinburgh, and 3 in Aberdeen. Three of the 8 deaths from scarlet fever occurred in Glasgow, and two both in Paisley and Leith. The deaths referred to "fever" corresponded with the number in the previous week, and included 2 both in Glasgow and Leith. Both fatal cases of diphtheria were returned in Edinburgh; Dr. Littlejohn, the medical officer of health for the city, only reports, however, one death from this disease. The death from small-pox was recorded in Aberdeen, and was of a fisherman on board a French lugger. The deaths referred to acute diseases of the lungs in the eight towns, which had been 92 and 95 in the two previous weeks, declined to 80 last week, and exceeded by one the number attributed to these diseases in the corresponding week of last year.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which in the four preceding weeks had declined from 23·2 to 16·8 per 1000, rose again to 21·9 in the week ending the 22nd. During the first three weeks of the current quarter the death-rate in the city averaged 19·7 per 1000, against 17·7 in London and 19·1 in Edinburgh. The 146 deaths in Dublin last week showed an increase of 34 upon the exceptionally low number in the previous week, and included 7 which were referred to diarrhoea, one to scarlet fever, and not one either to small-pox, measles, diphtheria, whooping-cough, or "fever." Thus only 8 deaths resulted from these principal zymotic diseases, against 14 and 9 in the two previous weeks; these 8 deaths were equal to an annual rate of but 1·2 per 1000, against 3·3 in London and 2·9 in Edinburgh. The deaths attributed to diarrhoea, which had been 5 in each of the two preceding weeks, rose to 7 last week. The fatal case of scarlet fever raised the number recorded since the beginning of April to 8. Last week was the first since the beginning of the year in which no death from "fever" has been recorded within the city. The deaths of infants showed a further increase upon recent weekly numbers, while those of elderly persons were less numerous. The causes of 19 or more than 13 per cent. of deaths in the week were uncertified.

#### CENSUS REPORTS: COUNTY MONAGHAN.

The population last year was returned as 102,748, a number ten per cent. less than in 1871, when the total was 114,969. The number of persons receiving Poor-law relief in 1871 was 608, or 1 in every 189 of the population; in 1881 the number was 872, or 1 in every 118, of which 736 were indoor and 136 outdoor paupers. As regards the condition of elementary education, 51·1 per cent. could read and write, 18·1 read only, and 30·8 were wholly illiterate.

### THE SERVICES.

**ARMY MEDICAL DEPARTMENT.**—Surgeon-Major Benjamin Lane has been granted retired pay, with the honorary rank of Brigade Surgeon.

The Queen has approved of the retirement of Surgeon-Major George William Jameson, of the Bengal Army.

Surgeon-Major John Law, M.D., of the Madras Army, to be Brigade Surgeon.

**RIFLE VOLUNTEERS.**—Surgeon and Honorary Surgeon-Major Thomas Gray, M.D., resigns his commission; as so is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement.—14th Middlesex (Inns of Court): John H. Morgan, M.A., F.R.C.S., has been promoted Surgeon, vice Couson, retired.—5th West

Riding of Yorkshire: Francis Henry Wood, Gent., to be Acting Surgeon.

ADMIRALTY.—The following appointments have been made: Fleet Surgeon Ingham Hanbury, to the medical charge of the Royal Marine Battalion in Ireland; Staff Surgeon Charles G. Wodsworth, to the *Thalia*; Staff Surgeons James H. Martin and Thomas Conry, to the *President*; Surgeon W. G. C. Smith, M.B., to the *Triton*, for temporary service; Surgeon William F. Spencer, to the *Thalia*; Surgeon H. M. Ellis, for service with the Marines in the *Dacca*; Surgeon Alfred H. Kelly, to the Royal Marine Artillery Division, vice Ellis; Surgeon Edmund D. Maddick, to the *Duke of Wellington*; Surgeon Arthur W. Russell, to the *Victor Emanuel*; Surgeon John A. MacMunn to Hong Kong Hospital (in charge).

### GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.

THE new building which has been in course of erection for the School of Medicine in connexion with the Royal Infirmary is now being rapidly completed, and will be ready for occupation in all departments at the commencement of the coming winter session. The anatomical section of the School is already occupied. The dissecting-room measures 70 ft. in length, 25 ft. in breadth, and is over 25 ft. in height. It has been constructed with particular regard to lighting and ventilation, and is fitted up and supplied with everything requisite for the convenience and comfort of the students. The building also contains lecture theatres and anatomical museums. The osteological room is fitted up as a private reading-room, and contains an ample supply of specimens. In the large dissecting-room are placed some fine frozen specimens of dissections illustrating most of the more important regions of the body; these are arranged in uniform circular glass jars, conveniently placed so as to allow them to be referred to by the students during the progress of their practical work. The south side of the building is occupied by the large, well lighted and ventilated chemical and physiological theatres and class-rooms for general instruction and experimentation, in which are all the modern instruments requisite for these special branches of study. The committee have also apportioned a large room for a general medical library, which will be used as a place of meeting of the Glasgow Royal Infirmary Medical Society.

### Correspondence.

"Audi alteram partem."

### DEATHS UNDER CHLOROFORM.

To the Editor of THE LANCET.

SIR,—Twenty years spent in the study of that protean disorder indigestion have taught me much in reference to the depth of sympathy that exists between heart and digestive organs.

One of my patients of former years, a muscular man of first-class pedestrian ability, invariably became the victim of faintness if he partook of veal-pie. Another exhibited the symptoms of angina pectoris if he took into his stomach food either excessive in quantity or unsuitable in character. A third, still frequently under treatment, becomes both faint and asthmatic after the imbibition of tea. Nevertheless, the individual referred to can pace the floor persistently whilst in the enjoyment of the—to him intense—luxury of a prolonged Turkish bath, heated to a high temperature. A lady patient suffers from faintness, followed by an attack of urticaria, after the eating of roast mutton, a dish of which she is particularly fond. Is this sympathy sufficiently reckoned, or guarded against, in the preparation of a patient for the inhalation of an anæsthetic? I fear not, Sir. As a fact, should not his diet be, when such a course is open to the surgeon, carefully supervised for two or three days previously to the administration of the drug? Every death that takes place during the administration of an anæsthetic not only causes honest

men and good surgeons to be lightly spoken of, but also, and still more important, brings discredit upon surgery.

I shall be very glad if some of my professional brethren, the bent of whose studies has been parallel with my own, will give us the benefit of their opinion upon this all-important subject.

And now, Sir, if you please, permit me to indite a line in reference to the restoration of those whose lives hang upon a single hair in consequence of the inspiration of chloroform. A relative of my own suffered, when at about the age of twenty, from an attack of rheumatic fever coupled with valvular disease of the left side of the heart. At the approach of the critical seven-times-seven, acute rheumatism, this time associated with disease in the right side of the heart, again attacked him. Anasarca speedily set in, and the case assumed hopeless features. One morning about six o'clock, when I had been in close attendance upon him for several hours, sudden failure of the heart's action seized him. Fortunately, a supply of very hot water lay close at hand; I dipped a folded towel into the fluid, and laid it, after the least possible delay, upon the patient's chest. In a short time he revived. I quitted his side for ever that morning. His attendants had, however, learned their lesson. They repeated the application on the supervention of each subsequent faintness, the total result being that his life was prolonged for many days—until, in fact, an increase of anasarca rendered a continuance of existence impossible.

Why should not a fair trial be accorded to the hot-water plan of treatment in cases of anæsthesia threatening the extinction of the vital flame?

Yours faithfully,  
Canterbury, July 26th, 1882. JOHN BEADNELL GILL, M.D.

### "STAMPING OUT SMALL-POX."

To the Editor of THE LANCET.

SIR,—Under the above heading I notice in last week's LANCET a short account of the measures which are being adopted by the authorities at Leicester with a view of stamping out small-pox in that town, and as these measures appear to be somewhat similar to those adopted by the Government of New South Wales during the recent outbreak of small-pox in Sydney, where, as Special Government Medical Officer, I had very good opportunities of judging of their intrinsic value, I venture to make a few remarks upon the subject.

Vaccination not being compulsory in New South Wales, there existed a very large number of unvaccinated persons in Sydney, adults and children, small-pox being considered a *rara avis* very unlikely to visit that distant colony. However, as the unexpected generally happens, small-pox made its appearance in Sydney in June of last year, and was received with a feeling amounting to little less than panic, the commerce of the port being considerably interfered with, and the Government put to enormous expense. There was, of course, a great demand for immediate protection by vaccination, which could only be gradually and partially complied with. The Government took extraordinary measures under the Colonial Quarantine Act, and upon a suspected case of small-pox being reported to the authorities, the house was at once visited by a member of the Government medical staff, and if, on examination of the individual, the suspicion proved well founded, the house and its inmate were immediately placed in a state of strict quarantine, and no unauthorised person allowed to leave it, special police arrangements having been made to enable this to be effected. If the affected person was willing and fit to be removed to hospital that was done, and the other inmates, having been carefully vaccinated, were, if willing and there was accommodation, removed to the sanitary camp, an enclosed encampment erected several miles out of town as a quarantine station for apparently healthy inmates of infected houses. The house was then thoroughly disinfected and cleansed by a special disinfecting corps, and all infected clothing, &c., burnt. On the other hand, in cases where the persons attacked were either unwilling or unfit to leave their houses, they were attended by the special Government medical staff, and were supplied with necessary medicine, food, bedding, &c., and nurses if required. The regular medical attendants would, on application, have received authority to enter and leave quarantine houses in



order to treat their patients, but there was such a small-pox scare that it would have been ruinous for a medical man in ordinary practice to be seen entering or leaving such houses; the treatment, therefore, with one homoeopathic exception, devolved entirely upon the Government medical staff specially appointed. All the unaffected inmates were vaccinated, if willing, and either removed to the sanitary camp or quarantined in the infected houses, kept under observation, and supplied with food, clothing, disinfectants, &c., and on release compensated by the Government for their loss of time, &c. The compensation was, however, necessarily very inadequate for the loss of employment in many instances, and the ruin of business in the case of shopkeepers, whose stock-in-trade was spoilt and customers dispersed, many of the houses having to be kept in a state of quarantine for six or eight weeks or more. This state of things naturally led to a great dread of quarantine and to a considerable amount of concealment of the disease, there being no Act to compel the notification of infectious diseases, and in several instances hot-beds of infection were thus created, unknown to the authorities or even to the neighbours, with very troublesome and serious results, frustrating the attempts to arrest the disease and protracting the outbreak.

The epidemic never really assumed very extensive proportions, which fact must, I think, be greatly ascribed to the quarantine regulations, especially when the great number of unvaccinated people in the city, and especially in the infected districts, is taken into consideration. These measures no doubt confined the disease, in most cases, to a few houses, whereas otherwise it would have spread to many, while the prompt and very general vaccination and revaccination of the surrounding neighbours effectually limited or arrested its career by starving it out. The outbreak was at an end in eight months, and may, I think, under the circumstance, be fairly said to have been "stamped out." There can be no doubt that this would have been accomplished much sooner, and with much less expense and trouble had vaccination been compulsory, and had an Act for the compulsory notification of infectious diseases been in force. I quite agree with your remarks, that "the efficient vaccination and revaccination of the public generally are far more efficacious protections against small-pox than the mere isolation of the few who are known to have come into contact with infection."

Isolation by the quarantine system is doubtless a valuable sanitary measure in outbreaks of small-pox occurring in towns like Leicester and Sydney, where vaccination has been greatly neglected; but it is very harsh and severe in application, impracticable in many cases, and most expensive. It can at best only rank as an assistant to that great prophylactic vaccination in the stamping out of small-pox, and it is trusting to a broken reed to rely upon it as at all a substitute for efficient vaccination of communities.

I am, Sir, yours faithfully.

J. HIGHAM HILL, M.D., F.R.C.S.E.

Bedford-place, W.C., July 18th, 1882.

#### A CASE OF "TRUE EASTERN LEPROSY" IN ITS EARLY STAGES TREATED BY CHAULMOOGRA OIL.

To the Editor of THE LANCET.

SIR,—An interesting case of early symptoms of true Eastern leprosy, showing lesions of the trophic nerves and the skin, and illustrative of trophic changes, came under my notice through the kindness of Dr. Corbett of Kingston-on-Thames, who called me to see it, and I am therefore enabled to send you the notes of the case.

The patient, who has been in England now for four years, had traces of the disease, he states, about sixteen or seventeen years ago, and about twelve months since got very much worse—a formation of tubercles and ulcers taking place, which would not heal under all ordinary treatment. For the previous eight years, the patient stated, he had lived a very hard life in Africa (Southern) amongst the diamond-fields, digging and washing diamonds; and whilst there he was exposed to great heat in the day, and damp, cold, and miasma at night; he could get no fresh vegetables, and, indeed, hardly any food sometimes, and that of an indifferent character. Previous to his living in the diamond-fields, he was exposed to much privation on the sea. Sometimes he

rara, and had at times very bad food. He had also resided twenty years ago in Rio Janeiro; and—in my opinion a most important element in this history—he had a very bad attack of ague twelve years ago, relapses of which he has had several times since, some being worse than others. The patient is a short, thick-set, short-necked man, with sallow complexion and curvature of the spine in the upper part of the column. He is about forty-five years of age. He now has many small hard tubercles in different parts of his body, more especially on the hands and feet, on the dorsal surfaces, on the shoulders, legs, and thighs, face and ears, with also the remains of an eruption of maculae, brownish in tint. These tubercles are hard and nodular to the touch, and nearly all suppurating. The ulnar and peroneal nerves are much thickened and tender to the touch. There is slight wasting of the muscles of the thumb and interossei; the sight is getting weak, and there is slight opacity of the left cornea, and he complains of great loss of muscular power; he has lost sexual power, and has a feeling of numbness and of pricking sensation in the hands and feet, along with fits of depression. All these symptoms go to show the true character of the disease. He has little or no loss of sensation in his body, in any of the patches or otherwise, like the case I reported to you in 1880.

After many applications both of specific and other kinds had been applied to this case, with little or no benefit to the patient, Dr. Corbett consulted me as to the nature of the case and its treatment. We came to the conclusion that it was a case of true Eastern leprosy in its early stages, and we resolved to give the patient chaulmoogra oil, both internally and externally. He was ordered three capsules of oil three times a day, and the crude oil to be rubbed into the parts well whenever affected twice a day. From the time this treatment was adopted the patient improved, and on July 4th Dr. Corbett writes to say: "I do not think I can add much to the history of the case or its description, except to supply the omission, that the tubercles, after suppurating, left deep ulcers with sharply defined edges and smooth sores, which no treatment, tonic or alterative, seemed to heal until the chaulmoogra oil was taken, when in a few weeks reparative action was set up, and they all quite healed. Fresh tubercles, not many in number, and entirely confined to the dorsum of the hands and feet, including the fingers and toes, still form and suppurate, but not one has resulted in ulceration. Since the oil has been taken, in fact, a good many of the tubercles do not suppurate, become abortive, and die away."

Now this case, as well as the last I reported to you, were much benefited by the administration of chaulmoogra oil; in fact, the case I reported in October, 1880, is as nearly well as can be, and the man is able to resume all his duties. I saw this patient last week at Kingston, and he assured me he was much better, and he had very few tubercles left. In my opinion, leprosy can be relieved, if not cured; and this opinion is shared now by other members of the profession. Mr. Hutchinson states he has seen cases that have quite recovered.

Your obedient servant,

Sackville-street, July 12th, 1882.

JAMES STARTIN.

#### CASE OF CEREBRAL COMPRESSION TREATED BY BLEEDING AND CALOMEL.

To the Editor of THE LANCET.

SIR,—In reading lately some very old numbers of a medical publication I was struck with the indiscriminate way in which the above remedies were used by the practitioners of the day. There are many hundreds of cases reported in the volumes I possess, and in very nearly every case bleeding and calomel appear to have been the sheet anchors of treatment. A very large percentage of the patients died, and reading the report, having our minds enlightened by the physiological knowledge of the present day, points very strongly to the conclusion that the remedy was worse than the disease, and moreover, the immediate cause of death. There are, however, many cases recorded which strikingly show the value of the old antiphlogistic treatment when used rationally in appropriate cases, and I determined to try the effect at the earliest opportunity, which I did in the following case.

I was called to see a child, two years and a half old, at six A.M. on April 8th. The child was perfectly well on the

previous day. The mother went out early in the evening, leaving the child in good health, but on her return it had been sick and seemed silly. She gave it a hot bath and put it to bed; it was restless all night, but slept. At half-past four A.M. the mother found it in a fit; she gave it a bath and tried various homely remedies until six o'clock, when she sent for me. I found the little patient comatose, stretched full length on its mother's lap; pupils fully dilated, and insensible to light; slow stertorous breathing; urine retained; faeces passed involuntarily; laboured slow pulse, and left hemiplegia, which I treated by tickling the palms and soles; the right limbs were withdrawn, the left remained stationary. Here was evidently a case of compression of the brain, which had come on so suddenly that it could be nothing but blood or depressed fracture of the skull, yet no bruise or depression could be seen or felt on the head, and the possibility of injury was vigorously denied by its parents. I immediately gave two grains of calomel, ordered ice to the head, sinapisms to the calves, and drew off its urine. I saw the child again at eight o'clock; pupils not so dilated, nor breathing so stertorous. I again visited the child at half-past ten, and found it had relapsed into its former condition. On this occasion I interviewed a boy who had been in bed on my previous visits, and from him I learned that while the mother was out the preceding evening he had seen the child fall with the right side of its head against a brick wall in the garden. I took four ounces of blood from the left temple, and ordered a quarter of a grain of calomel every quarter of an hour. In two hours the patient was staring about bewildered, but not comatose; pupils still dilated, but not nearly to so great an extent; breathing easier. From this time the child has manifested a daily improvement; he is now in his usual good spirits, but studiously avoids any pressure to the right side of his head. The hemiplegia is rapidly disappearing under the influence of two-grain doses of iodide of potassium every four hours.

I should strongly oppose a revival of the old system of bleeding and mercurialisation as it was formerly used, but I think such cases as this tend to show that such treatment is valuable in certain cases and does not deserve the sweeping condemnation it gets. Had I followed the orthodox treatment, the probability is that this patient would have gone to the great majority of those on whom the operation of trephining has been performed, whereas he is now alive and on a fair road to health. It would be instructive if other members of the profession who share the opinions I have expressed would publish their experiences.

I am, Sir, yours truly,

July, 1882. HERBERT H. MEYERS, M.R.C.S., &c.

## "DOCTOR OR DRUGGIST?"

*To the Editor of THE LANCET.*

SIR,—As to medical practitioners dispensing and supplying their own medicines, the whole of my observation and experience goes to prove that it is most desirable that the profession generally should hold fast to this privilege, and for the following good reasons: We maintain a firmer hold over our patients, retain their confidence longer and better, prevent them from drugging and treating themselves and those under their charge with unnecessary (and sometimes injurious) medicines. We frequently have more opportunities of seeing and treating diseases in their earlier stages, and thereby saving the lives of our patients. We can save expense to our patients, and indirectly increase our own incomes, a desideratum not to be lost sight of during these times of bad trade, keen competition, lowering of fees, and struggling to keep up respectable appearances in society. I maintain that every practitioner should be in a position to supply his own patients with all medical and surgical remedies whenever they prefer such, and that these remedies can very conveniently, and with dignity and pleasure, be included in the general professional fees for visit, advice, operation, &c. When a practitioner is awkward in dispensing, or has not time to do so properly, he can keep an assistant or pupil to dispense for him, or if he cannot do this he will probably have little difficulty in arranging with some one or more of his professional neighbours to employ a qualified dispenser, either to attend at their different residences at certain hours or to reside or attend at some central place set apart as a dispensary or surgery for such purpose. This latter mode is becoming

general in many large towns (Leicester for example), and is found to work satisfactorily. Or if neither of the two foregoing methods can be adopted, these practitioners can still arrange with some local and honourable druggist to dispense privately for them, and to deliver the medicines either at their own residences or at their patients' houses. One of my practices was almost exclusively prescribing, having become so on account of my predecessor having held appointments which prohibited dispensing; and in two of my other practices my patients had their own choice as to whether prescriptions or medicines were supplied, and the general result proves the following further conclusions:—A very great majority (more than ninety per cent.) prefer to have medicines direct from the medical attendants, many positively refusing to go to the chemist's with their prescriptions, on account of the possibility of his suspecting or knowing that they are suffering from such and such diseases—to say nothing about the extra time, trouble, and expense they are generally put to by doing so. I have frequently detected errors and omissions on the part of dispensing chemists and druggists who have been entrusted with dispensing from my prescriptions (which are generally written fully, explicitly, and, in the case of new remedies, always after making myself practically acquainted with the best and most convenient mode of condensing and administering), besides, not infrequently exorbitant charges, considering the cost price of the remedies prescribed. Doing one's own dispensing nowadays does not involve the time and trouble it did twenty years ago, since every practitioner, by exercising a little forethought, can have most of his remedies prepared by his wholesale or manufacturing druggist—e.g., coated pills, concentrated infusions and decoctions, saturated solutions of salts and alkaloids, spread plasters, prepared ointments, and standard or private formulæ similarly prepared to hand; also cut wrapping papers, washed and corked bottles, and printed labels and wafers as desired. Further, if need be, practitioners can do almost the whole of their own dispensing at their patients' houses simply by carrying with them, either in their pockets or carriages, the chief medicines they are in the habit of employing; and in this latter mode Dr. Kirby has done much to popularise portable remedies in the form of coated pills and compact cases; while Messrs. Squire have also done something by preparing discs and laminae of the more important alkaloids for hypodermic use; and I should also add Dr. Boerhaave in introducing his dosimetric system of administering active remedies.

I trust I have now stated enough, although I could say even much more if time and your valuable space permitted, to prove the advisability of our retaining in any new medical Act due provision for exercising the art of compounding and dispensing (and charging for) medicines supplied to our own patients; of retaining the Worshipful Society of Apothecaries as an examining and licensing body, in common with the other bodies, or, at least, of keeping the legal power and function now possessed by that Society; and of practitioners generally being in a position to dispense and supply their own patients with medicines; and last, though not least, of speedily ridding our minds of the just now fashionable delusion (among some members of the profession) that in dispensing and supplying our patients with medicines we are in some way degrading ourselves in the estimation of the public.

I am, Sir, yours truly,

Clifton, July, 1882. JOHN BROOM, M.D., &c.

## PERFORATING DUODENAL ULCER.

*To the Editor of THE LANCET.*

SIR,—A case of duodenal ulcer came under my notice recently, the details of which appear to me to be worthy of record.

John P—, aged thirty-four, a coachman, and a well-built, active, muscular man, apparently in robust health, consulted me in November, 1881, having been suddenly seized with agonising pain in the right hypochondriac region, extending downwards and to the back. The pulse was slow, of good strength; the skin cool, and in twelve hours he was free from pain. Morphia was injected subcutaneously. During the succeeding six months he had occasional attacks of abdominal pain and sickness, not, however, of such severity as to induce him to seek medical aid or to interfere

with his work. While in the act of stretching himself to hang a picture on the evening of April 23rd, 1881, about an hour after a meal of tea and bread-and-butter, he was again suddenly seized with the same pain as before, and when seen was in a chair, moaning, with the knees drawn up, pale, with a cool skin and a slow but not weak pulse. Bowels had acted during the day. Morphia was again injected with but little relief, and by the following evening he was in a state of profound collapse, and died in twenty-four hours after the seizure.

The abdomen was examined twenty-four hours after death. Rigor mortis complete, with great lividity of surface and rapid decomposition. On opening the abdomen, fetid gas and about two quarts of turbid brown fluid, with yellow floating shreds, escaped, and on raising the transverse colon a round perforation, half an inch in diameter, was seen in the duodenum, which was perfectly free from adhesions. The omentum had limited to some extent the spread of the peritonitis, but there was much soft yellow lymph on the liver and the adjacent bowel. On removing the duodenum, the opening was seen to have a thick rounded margin, firm to the touch, surrounded by folds of mucous membrane radiating from it.

Three years ago George S—, aged thirty-six years, while jumping on the hind step of a high gig, was seized with extreme pain in the abdomen and faintness. When seen by me he presented the phenomenon of collapse in the most intense degree, and for about six hours showed no sign of rallying. Gradually the pulse became perceptible, and warmth returned, but the abdominal pain was extreme, and for three days he lay in a dangerous state. In eight days he had recovered sufficiently to be removed to his home, a distance of some miles, and when heard of six months ago was alive and well. Previously for some months he had occasional attacks of abdominal pain, which he attributed to "cramp."

I am, Sir, your obedient servant,

W. HENDERSON, M.B. GLASG.

Stanhope-terrace, N.W., July, 1882.

## SCOTTISH NOTES.

(From our Correspondent.)

ARRANGEMENTS are now complete in several towns in Scotland under which the delivery of popular science lectures during next winter, by well-known scientists, is assured. Health subjects are popularised by Dr. A. Wilson, of Edinburgh, and Professor Stirling, of Aberdeen, both of whom have shown quite exceptional power in bringing scientific knowledge within the grasp of the ordinary intelligence. These are the lecturers sent under the Combe Trust, and the Gilchrist Trustees purpose a similar course to that so successfully carried out last year. The eminence of the lecturers, their popular subjects, and the nominal charges were the means of attracting audiences numbering in many cases thousands, and this year several new towns have urgently asked to be placed on the circuit. In many cases the local medical men will again deliver courses of health lectures. These are in some instances reproduced in book form, and in the case of Edinburgh, at least, over 20,000 copies have been sold.

The local examinations conducted by the various Scotch universities have now been completed for the year. The popularity of these increases rapidly, and this year about 2400 pupils have come forward with very gratifying success. The medical interest in these arises chiefly from the fact that they offer an organisation of a satisfactory kind for relieving the universities and corporations from the task of conducting the preliminary examinations of medical students. At the recent meeting of the Medical Council some difficulty was said to exist on the part of the Scotch corporations, who had no body to which to depute this power, but facilities are here offered which would be convenient to the student and satisfactory to the Council.

The new hospital at Ayr approaches completion. It has an imposing frontage of 400 ft., and its central part is three storeys high. Accommodation is provided for forty-four beds in the main section, and in a detached portion twenty beds will be provided for fever patients. The rooms for the various officials are conveniently placed, and all modern hospital requirements have been provided. The cost will

be about £8000, and most of this money is already subscribed.

St. Andrews is making large additions to its meagre hospital accommodation. A temporary hospital will be erected at a cost of £500. This, as well as the more substantial structure proposed, is for the reception of ordinary cases of disease; while the Gibson Hospital, now being erected at a cost of £4000, is intended for the maintenance of such of the aged, sick, and infirm poor of the city and parish as the funds may prove sufficient to support. The building will probably be ready for occupation early next summer. Provision is made for eighteen persons, each having a separate room.

It is satisfactory to note that the body of the late Earl of Crawford was in a complete state of preservation when found. The thieves had placed the body in a gravelly soil by the side of a brook, had wrapped it in a large blanket, and buried it about two feet deep. The features were so well preserved by the embalming process that no difficulty was felt in recognising the late nobleman.

## PARIS.

(From our Paris Correspondent.)

AT a clinical lecture at the Hôpital de la Charité, Professor Hardy observed that we are perhaps not altogether justified in giving up entirely the practice of bleeding. He said that this valuable remedy was rather abused in former years, but that the modern school have gone to the other extreme in bleeding very little, or not at all. In fact, so little is it practised nowadays, that it is by no means a rare thing to meet a medical man of twenty or thirty years' standing who had never used the lancet; and the students who now leave the school are scarcely ever taught what phlebotomy is, or what its uses are. To demonstrate the utility of bleeding from the arm, Professor Hardy presented a female patient, aged seventy-six, who was admitted into the hospital with great dyspnoea, depending on marked cardiac troubles. On examining the heart, Professor Hardy discovered that the organ was greatly distended, and a bruit de soufflé was heard at the apex, which pointed to mitral insufficiency. The tricuspid valve was affected in the same way, which was indicated by the jugular venous pulse. Professor Hardy diagnosed an aystolic condition of the heart, and bled the patient to 200 grammes, which afforded instantaneous relief to the most urgent symptoms.

M. Bouley submitted to the Academy of Sciences last week a paper, in the name of M. Carey, explaining how, by the aid of a new frigorific apparatus, he succeeded in destroying trichinæ in American salted pork. The apparatus produced 300 kilogrammes of ice in one hour. During nine days he preserved at freezing point 60,000 kilogrammes of ham, at an expense of only about 500 francs. But M. Colin, another veterinary surgeon of note, is rather sceptical about the efficiency of cold to freezing point in completely destroying the parasites, as, according to his experience, nothing short of boiling would annihilate them.

For a long time it was supposed that the habitat of trichinæ was confined to the muscular system of the pig, and that the other parts of the body of this animal enjoyed absolute immunity from them. M. Chatin has proved that the parasite exists equally in the adipose tissues, which he noticed particularly in bacon or salted pork; and which, he added, would necessitate the close examination of suspected meats in their fatty as well as their muscular parts. The same hygienist also found, with the aid of the microscope, a quantity of trichinæ at different degrees of development in the coats of the intestines. This discovery necessarily caused some alarm, as the bowels of the pig are imported to this country, and are employed for enveloping sausages prepared with indigenous meat.

M. Laborde, Chef du Laboratoire at the School of Medicine, desirous of disabusing the public mind of the imaginary atrocities of vivisection, got up a meeting with a view of performing publicly some experiments on live animals, for which purpose he had some frogs, rabbits, and dogs prepared for the occasion. But the moment he began his operations on a frog, a lady from the audience rushed up towards the table and protested vehemently against the performance of such experiments in public. The greater portion of the audience soon joined the lady in her protes-

tations, and the meeting broke up in the midst of the most uproarious confusion.

Dr. Coudereau, a young and promising physician, died at his residence in Paris on Wednesday, the 19th inst., from an attack of peritonitis, resulting from perforation of the bowels. The melancholy event occurred three days after an accident which happened to him. After hailing a cab in the street, and while in the act of running up to it, he was knocked down by another cab passing at the time. I have not been able to ascertain whether the perforation of the bowels was caused by the accident, or whether it was spontaneous. Dr. Coudereau was a man of great mental energy and public spirit. He occupied himself a great deal about hygienic matters, and was Vice-President of the Society of Inspectors of Insalubrious Lodgings in Paris. He was one of the founders of the Société d'Autopsie Mutuelle, instituted about five or six years ago, according to the statutes of which each member was bound to bequeath by will his skull and its contents to the laboratory of the Anthropological Society of Paris, with the view of prosecuting scientific researches. Owing to the great mortality among infants brought up by wet nurses, Dr. Coudereau conceived the idea of remedying this crying evil by founding a nursery in the environs of the town where infants were to be brought up by the bottle, under, of course, the strictest surveillance. The scheme was patronised by the Municipal Council, but when submitted to the Academy of Medicine for its opinion, it was rejected as being immoral. This opinion was expressed by Professor Depaul, but M. Jules Guérin, a sworn adversary of M. Depaul, retorted by saying that the present system so much in vogue of employing wet nurses is much more immoral.

A great treat was given to the inmates of the Salpêtrière on July 14th to celebrate the national fête. The festive board was presided over by an old woman named Cornaveau, who had just completed her 100th year. She has been thirty-one years in the institution.

Paris, July 26th, 1882.

## NEW YORK.

(From a Correspondent.)

THE scene enacted at the execution of the assassin Guiteau was such as was anticipated by those who had carefully studied his case from a medical point of view. With the rope around his neck he read a chapter from the Bible, and delivered his parting prayer of indecent blasphemy loaded with irrelevant sentiments with all the gusto of his former self. Finally, reciting a hymn composed by himself after the model of the nigger camp meeting songs, stating that he was about to go to meet the Lordie, with perfect composure, and a courage worthy of a better cause, he gave the signal for the drop by shouting, "Ready! glory! go!" Invitation by telegram was sent to several eminent alienists, which in most cases arrived too late to be acceptable, while in one case the telegram arrived on the day the examination was made. An unseemly squabble occurred over the body, but an autopsy was eventually made. Your exchanges will give the details, and I now enclose a copy of the report. In conversation with a leading alienist of New York city respecting the results of the examination of Guiteau's brain, he said that he regretted that so many omissions were made in the post-mortem examination. The expert witness who testified that Guiteau was insane had referred to several somatic anomalies, which, in his opinion, and taken in conjunction with Guiteau's hereditary history, were of strong collateral importance; the chief of these was asymmetry of the skull and face, probably indicative of a defect in cerebral development. Such defects are sometimes found in the group of lunatics to which Guiteau, in my opinion, belonged, and manifest themselves in deformity or asymmetry of the skull and brain, as well as in atyp of the gyri. Muhr, Stark, Jensen, and Schnele have described such cases. Under these circumstances the separate brain hemispheres should have been weighed in order to establish the difference in gravity. Judging by the difference in the dimensions of the two halves of the skull, I feel very certain that the difference must have exceeded the normal limits greatly; more than sufficiently so, in fact, to constitute an anomaly. They neglected to do this. Another omission was the neglect to measure the skull, but as we have a cast of the

prisoner's head taken during his lifetime, and the skull will probably be secured for the Army Medical Museum, this can be practically rectified. As to the actual facts obtained at the autopsy, they seem to me to fall into two classes. The first are those indicating anatomical peculiarities, the second those of a strictly pathological character. Dr. Lamb, as well as Dr. Morton, in their separate reports agree that the right half of the skull was less developed than the left, that the gyri were grossly asymmetrical, the left side being considerably better developed than the right, and some of the fissures on both sides showing unusual features. The opaque and yellow spots in the arachnoid, and the thickening of the dura mater, as well as its adhesion to the skull, are evidences of brain disease. I do not look upon them as the cause of Guiteau's insanity, but rather as belonging to that class of lesions, found so much more frequently in the insane asylum than in the general hospital, which are results of insanity, whether of repeated fluxionary hyperæmias or not others may determine. The inequality of the skull, brain halves, and the atyp of the gyri, are to my mind consistent with Guiteau's clinical history; he was born with that brain, as he was born with his insane tendencies. The defect in his speech, and the defect in the innervation of his left facial muscles, are all evidences of an early irregularity of innervation. The importance of these physical symptoms, as of the anatomical peculiarities noted, lies in their similarity to the findings in the authenticated cases of "Originaire Vermecktheit" of the Germans (original monomania, with systemised delusions), recorded in literature. My evidence on the stand to this effect is borne out by the post-mortem record. As to the inflammatory signs, I look upon them as complicatory and unessential. They might perhaps serve as a support to the view of Dr. Folsom that, in addition to the form of insanity which I believe Guiteau to have suffered from, parietic dementia was beginning to show itself as a complication. I would briefly summarise the matter by saying that if nothing abnormal had been found in Guiteau's brain, it would not have proven his sanity, because in many insane brains no lesions can be detected, while the findings now recorded do not positively prove his insanity, though they point to it as positively as any findings in the insane brain ever can point to mental disease, if we except cases of insanity with paralysis. Taking the matter as a whole, it must be insisted that there is a remarkable harmony between the post-mortem findings and Guiteau's life-history in the light of our present knowledge of insanity.

While on the subject of insanity I can state that the latest returns show that the ratio of insane to the sane in the United States has more than doubled during the last ten years. In 1870 the insane population amounted to 37,442, the ratio being 1 to 1100. In 1880 the number was estimated to be from 89,000 to 96,000, which gives a ratio of 1 to 570 to 1 in 520 of the whole population. Forty million dollars are invested in insane asylums, the average cost of these institutions being half a million dollars each, including interest on capital; the annual expenditure is 12,000,000 dollars for the care of the insane. The accommodation is quite inadequate for the insane in this country. At the present time 74 State and 14 large private asylums exist, having an approximate capacity for about 32,000 persons, but really holding nearly 40,000 patients. These institutions were therefore crowded to the extent of 8000 persons, while about 50,000 lunatics are unable to obtain admittance. Arkansas, with a million of inhabitants, has no asylum whatever; Texas has accommodation for one-fifth of its insane. Pitiable are the accounts of the manner in which the non-asylum insane are treated in the South. Daily complaints show that these unfortunates are stowed away in gaols, workhouses, and with those who farm the poor, and are treated with neglect and inhumanity. Our State Legislatures are warned that before many years the New England and middle States will have an insanity ratio of at least 1 to 350, the Western States the same, and the Southern States 1 to 500 or 600. If they would do what is understood to be done for the insane in England, they must find accommodation for at least three-fourths of such persons. With such a rapid increase of the insane population, it is noticed with regret that slow progress is made towards a thorough comprehension of mental disorders and diseases of the brain. Three hundred physicians are in charge of the United States insane asylums, who have exclusive opportunities of studying the science of psychiatry upon their 40,000 patients. But, as a rule, they contribute nothing of real value to the literature of

the subject. I think such a state of things is unparalleled in any other civilised country in any other medical speciality. I find in one report an exposition of the exploded theories of phrenology, in another an elegant plea for 20,000 raspberry bushes, while in a third a petition is made to the Legislature for a stone; but I look in vain for any demand for a microscope, or any report of any scientific work showing a scientific spirit or a humanitarian interest in the care and treatment of the insane under their charge. In justice to many able men in charge of these establishments, an acknowledgment is due to them for their conscientious efforts to prove good superintendents; I would like to see in the future stronger evidence that they are studious physicians.

July 8th, 1882.

## HYPNOTISM IN PARIS.

(From an occasional Correspondent.)

### No. III.

WE have seen that the manoeuvres employed by mesmerists were capable of inducing a kind of sleep which assumed the different forms of somnambulism, ecstasy, and catalepsy. These states are produced under the influence of an imaginary agent or fluid, to which the name of animal magnetism has been given, and which in certain conditions is said to be transmissible from one person to another. Similar in its results to mesmerism is hypnotism, which Mr. Braid, of Manchester, was the first to bring to notice more than forty years ago. According to this gentleman, hypnotism is capable of effecting more good than can be accomplished by the ordinary mesmerising processes, and it was produced not by any moral agency, as is the case with mesmerism, but by a direct influence on the subject to be experimented upon. The process employed by Mr. Braid to induce sleep was to hold any small object about ten or twelve inches above the middle of the forehead, so as to require a slight exertion of the attention to enable the subject to maintain a steady, fixed gaze on the object. The subject may be either sitting or standing, and he is requested to engage his attention as much as possible on the object he is looking at, and yield to the tendency of sleep which will steal over him in the course of about three or four minutes, and which manifests itself by insensibility and the tendency of the subject to remain in a given position. Thenceforward this process received the name of "neuro-hypnotism," or, as it is also termed, *Braidism*, to distinguish it from that produced by animal magnetism. Strange to say, the writings of Mr. Braid on the subject did not excite much attention in England, but this new form of magnetism met with a better, though tardy, reception in France. M. Broca was the first to bring it to official notice in that country, and after having verified the results obtained by this new process, determined to employ it in surgical operations as a kind of anæsthetic. He tried it on a patient, a young woman, on whom he performed a painful operation under the hypnotic state which lasted a quarter of an hour, and, the result being favourable, he submitted the case to the Academy of Sciences on December 5th, 1859. It is evident, however, that the impression produced by subsequent trials was not sufficiently favourable to warrant its being adopted as a therapeutic agent; for Broca himself abandoned it, and no more notice was taken of it, at least in scientific circles, until recently, when it was revived by Dr. Dumontpallier and Professor Charcot on the one hand, and by M. Donato, a public magnetiser, on the other. The readers of THE LANCET will recollect the experiments performed by Professor Charcot at the Salpêtrière Hospital, which he began about four or five years ago, and which were reported in most of the medical journals in this country and elsewhere. On one occasion he gave a regular "séance" at the hospital, in the presence of Gambetta and other political celebrities, when he made the patients, all females, fall into convulsions, jump, dance, laugh, cry; and he produced other phenomena which one may witness any day at the "salle de conférence" of M. Donato, who is not a medical man. I have seen the latter obtain the most extraordinary results from subjects he had hypnotised. He discards the term "mesmerism," as his mode of proceeding is different from that practised by Mesmer and his followers. Professor Charcot produced

hypnotism by a process somewhat different from that adopted by Braid; but only in form, as the result was exactly the same. Instead of getting the patient to fix her eyes on an object held over her forehead, Professor Charcot began by placing her before a strong light, such as a Drummond's or an electric light, at which she was desired to gaze. In a few minutes or seconds, or sometimes instantaneously, the patient fell into a sort of sleep, termed "hypnotism," which, according to M. Charcot, is a state absolutely different from natural sleep, and is perfectly typified in cases of hystero-epilepsy, in which there is a complex condition of the nervous system, to which the terms "cataleptic," "lethargic," and "somnambulist" have been applied. In a paper read before the Academy of Sciences in February last, and which was presented in support of his candidatureship, Professor Charcot stated that each of these conditions was distinguishable by a symptomatology of its own. The cataleptic state may manifest itself primitively under the influence of a great noise, a bright light placed in front of the patient, or the prolonged gazing at an object. In this state the patient remains immovable; with the eyes wide open, and will so remain as long as the object that excited it continues before her eyes. The limbs preserve for a long time the attitudes given them; when moved they give the sensation of great lightness. The joints offer no resistance whatever, and the reflex action of the tendons is more or less abolished. The respiration is extremely slow, as indicated by the pneumograph. The persistence of sensorial activity in the patient permits the operator to produce, by what Braid termed "suggestion," various automatic phenomena, which, however, are not peculiar to the cataleptic condition, as we shall see further on. The mere closing of the eyelids, or placing the patient in a dark room, is sufficient to transform this state into that of lethargy. The latter state may also be induced by the operator fixing his gaze on the patient's eyes. In this lethargic state the eyelids are closed, and the globes of the eyes convulsed. The body is sunk down on itself, the limbs are relaxed, and the respiratory movements, studied with the aid of the pneumograph, are found to be deep and precipitous, but otherwise regular. The reflex action of the tendons is always exaggerated to a remarkable degree, and M. Charcot has noticed that the muscles are readily brought into a state of contraction by the application of a mechanical stimulus to the tendons, to the muscles themselves, or to the nerves by which they are supplied. M. Charcot has given to this phenomenon the name of "hyperexcitabilité neuro-musculaire." During the whole time that the lethargic state lasts the operator can reduce the contraction thus produced on applying the stimulus to the muscles antagonistic to those contracted; but if the stimulus be limited to the surface of the skin no effect whatever results, whether in producing contraction of the muscles or reducing them when contracted. In the lethargic state any attempts to produce any effect on the patient by way of intimidation or by suggestion are generally fruitless. The somnambulist state may be induced directly by the gaze of the operator or by slight sensorial excitation, often repeated and monotonous. It may be produced in subjects already plunged in a lethargic or cataleptic state by slight friction over the vertex. The patient in this condition has her eyes closed, and if left to herself, she has the appearance of a person in a state of artificial stupor rather than that of normal sleep. The resolution of the limbs is never well marked, the reflex power of the tendons is normal, and the neuro-muscular hyperexcitability described above is *nil* in this case. On the other hand, the slightest excitation of the surface of the skin produces rigidity of the limb, which differs from the contraction connected with neuro-muscular hyperexcitability in that it does not yield, as is the case with this latter condition, to the mechanical excitation of the antagonistic muscles, whereas it yields readily to the influence of the slight cutaneous excitation that gave rise to it. In this state it is generally easy to get the patient to go through automatic exercises of the most complicated and varied character by simple word of command. By slight pressure over the globes of the eyes, the lethargic state is converted into the somnambulist state; if, on the other hand, the eyelids be separated and be kept open in a lighted room, the cataleptic state is not produced. From this it may be inferred that the connexion is more direct between the lethargic and somnambulist states than it is between the latter and the cataleptic state. Such are the results said to have been obtained under the



influence of hypnotism by Professor Charcot; but he admits that, generally speaking, the boundary line of the different phenomena is not so distinctly marked as one would be led to infer from the description given above, as one state runs into the other, and he scouts the idea of these different manifestations of hystero-epilepsy being attributed to simulation or fraud. There is, however, one thing certain, and that is, that hypnotism and animal magnetism or mesmerism are one and the same thing, and that they are produced by manœuvres differing only in form. In the earlier days of mesmerism the phenomena produced were ascribed to a peculiar fluid, which under certain conditions was readily transmissible from one individual to another. Later on the phenomena were ascribed to the effects of the imagination, or, to speak more correctly, the phenomena were produced through the imagination, or through the nervous system. That the latter was the true medium is accepted as the current explanation of the day; and, indeed, Dr. Dumontpallier, in a paper he read before the Academy of Sciences in March last, defines hypnotism to be "a peculiar nervous state, the existence of which cannot be denied in the actual state of science. Comparative experimental physiology has, in fact, admitted its reality by showing the great inconveniences that may arise from its persistence, or too frequent occurrence, in man and animals." This admission by Dr. Dumontpallier was made after a very important paper read by Milne-Edwards, the celebrated biologist, at the Academy of Sciences in February last, and the note of Dr. Dumontpallier referred to was doubtless intended as a rejoinder to Milne-Edwards' paper, the title of which was the "Effects of Hypnosis on Animals." The following is a short extract from Milne-Edwards' paper, which was preceded by a note from Professor Harting of the University of Utrecht. Professor Harting states that after some experiments he had performed some years ago on certain animals, such as the common fowl, pigeons, rabbits, guinea-pigs, frogs, &c., which had been hypnotised in the usual way, he has come to the conclusion that if hypnotisation be frequently repeated on the same subject, its nervous system will be very much shaken. He submitted six fowls to hypnotisation at intervals of two or three days; at the end of about three weeks one of the fowls began to limp, soon after which hemiplegia declared itself, and the animal died. The same thing happened to five other fowls. They were all affected with hemiplegia, one after the other, though at different intervals. In three months all the fowls died. These facts, added the learned Professor, ought to make one very cautious in applying hypnotism to human subjects. M. Milne-Edwards repeated the experiments performed by Professor Harting on mammiferous animals as well as on birds, and, *a priori*, he concludes that if the same phenomena were frequently evoked in hysterical women as those produced in the fowls, their health must eventually suffer. Moreover, after further researches on the subject, he had reason to believe that persons frequently submitted to such influences gradually perfected themselves as "subjects of demonstration." This would appear to point to the fact that by habituating the functions of the nervous system to a pathological routine, the evil becomes aggravated. Whence the deduction that hypnotisation or other analogous performances should never be practised on hysterical subjects. By a curious coincidence this paper was read just before Professor Charcot submitted his thesis at the same meeting of the Academy, already referred to, and the title of which was "Researches on Hypnotisation in the Hysterical." Milne-Edwards' paper would serve as a reply by anticipation; but Dr. Dumontpallier again took up the subject, and in the paper he read before the Academy of Sciences in March last, already referred to, and entitled "Rules to be observed in the Hypnotisation of the Hysterical," resolved to explain the method to be adopted to prevent any inconvenience that may be apprehended in the determination of the different periods of hypnotism. The following is a brief summary of that paper:—"In an hysterical subject, the upper lids being lowered, the rubbing of the globes of the eyes may at once produce lethargy, and this state may be maintained so long as the eyes are kept closed; but the renewed rubbing of the eyes makes the lethargic state cease, and rouses the patient. The cataleptic period may be obtained at once by reflected sunlight, directed over the open eyes of the subject. This period persists as long as the upper lid is kept raised. In renewing the same manœuvre the catalepsy disappears, and the patient is awakened. The period of somnambulism is obtained at once by light pressure on the vertex. The same

pressure renewed will rouse the subject from the state by which the latter was produced. In all these experiments," adds Dr. Dumontpallier, "it is possible to pass the subject from one period to the other by making use of each of the processes detailed above, and commencing by such other phasis as the operator may desire. The states produced should be made to disappear in the order just the reverse of that of their production in employing the means that gave rise to them." Dr. Dumontpallier did not attempt to explain how these different phenomena were produced, but suggested that if any of the members present would wish to assure themselves of the reality of the phenomena, they had only to find a hypnotisable subject. This, however, is no response to the statements made by M. Milne-Edwards concerning the danger of making hypnotic experiments on the human subject; and I am not aware that Professor Charcot has made any since the thesis he read at the Academy of Sciences already adverted to, but which, however, could scarcely be considered a reply.

At a meeting of the Biological Society, held some time previously, Professor Charcot read a paper on the phenomena resulting from the application of a galvanic current to the upper part of the cranium during the lethargic period of hypnotism in hysterical patients. During this period, according to M. Charcot, there exists a state of neurotic hyperexcitability which extends not only to the muscles and nerves, but to the motor regions of the cerebral centre. This state of hyperexcitability is manifested by sudden muscular starts in the face and limbs on the side opposite to that to which the electrodes are applied, but the results are negative when the same experiments are repeated whilst the patient is awake. How the current passes through the bones of the cranium is a question which M. Charcot does not attempt to solve for the moment, but submits it to the consideration of his colleagues. Whereupon M. Dumontpallier endeavoured to show that it was difficult to limit to a point on the surface of the cranium and of the cerebral mass the action of four to ten elements of the battery employed by Professor Charcot (Leclanché's), and he found that the prick of a pin on a limited spot on the scalp was sufficient to determine varied movements, more or less extensive, in the limbs and in the face, which he explained by the irritation being produced at a point corresponding to the motor zones of the cortical substance of the brain. Dr. Dumontpallier produced similar phenomena by blowing through a capillary tube on different regions of the scalp. These experiments were performed on an hysterical patient before the Biological Society, the results of which, he said, were exactly similar to those he had previously obtained in more than fifty other hysterical patients in his hospital wards, and the results have always borne the same relation with the regions irritated. The members present at the meeting were visibly amazed at what they had just witnessed, and naturally endeavoured to elicit some explanation; but all they could get from their colleague was, "J'ai montré des faits, je n'ai rien à ajouter." Donato could hardly have said less. Dumontpallier, however, anxious to impress on his colleagues the importance he attached to his experiments, summed up his paper thus:—"In the different periods of hypnotism it is possible, through the means of an agent specially adapted, to limit on the surface of the scalp a certain number of reflexogenetic zones (*zones réflexogènes*) the irritation of which determines movements in different parts of the body. Some of these zones seem to correspond by their position to the cortical motor regions of the encephalon. The application of several other agents, most varied in their nature, has produced the same results. These agents are—feeble continued electric currents, the loadstone, heat, light, sound; and the hypothesis of their mode of action was more than justified by previous experiments, in which these agents produced aphasia, loss of notion of the use of ordinary objects, and loss of the faculty of reckoning." But, as already stated, Dr. Dumontpallier does not attempt to give any explanation as to the mode of action of these different agents. How they act through the bones of the cranium is a question he is unable to solve at present, and leaves it to his colleagues to form their deductions from what they had seen and read on the subject. I may, however, observe that there is something so unphysiological in all the experiments described above, or rather in the results alleged to have been obtained, that were it not for the high professional status of the experimenters, the investigations would hardly be deserving of serious notice. In fact, M. Donato, the public magnetiser already alluded to, has obtained

the same results, as may be witnessed at his public "séances," or *conférences*, as he pleased to call them, to give them more the character of scientific meetings. He even goes further than Drs. Charcot and Dumontpallier, and pretends to have the power of paralysing or rendering insensible during the magnetic state the special senses, the nerves, muscles, the different organs, either singly or in groups, without having himself the slightest notion of anatomy or physiology. In other words, he professes to paralyse functions, and not organs, which, he says, is quite another phase of this new form of animal magnetism. So it is with a vengeance; and if anyone will unravel this very unphysiological and withal incomprehensible problem, he will deserve well of humanity; as M. Donato, like his more learned rivals, tells his audience: "J'ai montré les faits, je ne peux pas les expliquer." M. Donato—who, by the way, is a Frenchman, and not an Italian, as his name, which is only an assumed one, would lead one to suppose—objects to the term hypnotism, or sleep, as a person "hypnotised" has neither the expression, the behaviour, the physiognomy, the movements, nor the general aspect of a person in a normal condition; and, for want of a better term, he calls it "l'état magnétique."

### AIX LES BAINS, SAVOY.

(From our *Roving Correspondent*.)

FRANCE, according to that eminent balneologist, Dr. Constantin James, contains within its borders a richer and more varied supply of mineral springs and hydrotherapeutic health-resorts than any other country in Europe. Not the least important and valuable of these, although at the same time it is the most recent acquisition, is Aix les Bains, which just now is in the high tide of popular favour not only in France but also in England and other European States, by that numerous and ever-widening circle of health- and pleasure-seekers, who are to be met with in such localities. How much the reputation of Aix is due to its sulphur springs, and how much to its charming situation, to its excellent hotels and public gardens, and to the pleasant, cheery life and amusing manners and ways of the French people of the district, it would be difficult to say. This, however, is indisputable, that excellent therapeutic results are obtained from a residence at Aix in a variety of chronic ailments, especially those of a rheumatic and gouty nature, and that few people are to be found who have once visited Aix either as patients or pleasure-seekers who would not gladly pay it a second or third visit. The waters spring from the earth at a temperature of 113° F., and are rich in sulphates of soda, magnesia, and alumina, fluoride of calcium, and carbonate of lime, with much free carbonic acid and nitrogen. The hot baths and douches and the subsequent shampooing, which is admirably carried out, tend to accelerate the circulation and to incite to activity the latent forces of the body. They are therefore useful in chronic joint affections, sciatica, secondary syphilis, and in lymphatic and glandular enlargements in those of a strumous habit. In addition to the exciting or stimulating effects derived from the hot bath and douche medication there is a tonic or sedative method of treatment, which consists in the use of lukewarm baths and douches, by inhalation of sulphurous gas, and by drinking the sulphurous water. The piscines in which the patients bathe will accommodate from twenty to forty persons; there is no swaddling after it. A sedan chair is not required to take you back to your hotel, but you are quickly dried with warm towels by an attendant, and then allowed to walk home. This system is suited to cases of bronchitis and tuberculosis of the lungs in an early stage, as well as to rheumatic, to scaly and papular skin diseases, such as psoriasis and lichen.

The establishment is one of the handsomest in Europe, and contains twenty-five spacious rooms for the douches, thirty-two private bath-rooms, four large piscines or swimming-baths, besides numerous apartments in which inhalation, "douche de siège," "douche en cercle," and other local baths are carried out; while in the basement are also small chambers where the heat and sulphurous fumes are so overpowering that they are well called "douche d'enfer." The supply of water is computed at a million gallons a day, and 1200 baths, 2000 douches, and 200 inhalations are

administered daily during the season, which lasts from the beginning of May to the middle of October. Numerous physicians of eminence may be consulted at the establishment, or at their own chambers, and without their instructions no one should submit himself to a course of baths.

The therapeutic value of the waters of Aix is best seen in rheumatism, arthritis or osteo-arthritis, and in muscular pains or in sciatica. In such cases Dr. Garrod recommends Aix in preference to Turkish baths; and Dr. Robert Adams, in his treatise on rheumatic gout, also speaks highly in its favour. Dr. Garrod says, "I have seen numerous cases of rheumatoid arthritis, in its earlier stage, most signally benefited by this treatment (waters of Aix, Marlioz, or Challes), and in several the disease seemed to have been entirely arrested. The treatment is also peculiarly valuable when there has been any skin complication—e.g., eczema or psoriasis. Sir Dominic Corrigan came to Aix in 1875 to be cured of some gouty stiffness and puffiness in the joints of the lower extremity, and, in writing to Dr. Bertin, in April, 1876, to introduce another patient, he says, "Thanks to you and Aix les Bains, I am now quite well." The works of Dr. Bertin, Brachet, and Cazalis will give ample information as to the special effects of using sulphur baths and of drinking the mineral waters of Aix.

In the immediate vicinity of Aix are two other sulphur springs, Marlioz and Challes, each of which has special merits and deserves notice. Marlioz has water highly charged with sulphur and soda, and also slightly with iodine and bromine. It is nearly a mile from Aix, and stands in a handsome park. The water issues at 57° F., and at the rate of 1400 gallons a day. There is a fine pump room, two inhalation rooms, nine private bath rooms, a cold douche, two ascending douches, &c. Challes is three miles from Chambéry. The temperature of the water is 53° F. It is 935 feet above sea-level, and its springs are very rich in sulphide of sodium. Aix is fourteen hours from Paris, on the direct railway to Turin, there being two express trains a day. It was celebrated in the time of Domitian, in whose day the Roman arch (Arch of Campanus) now standing in front of the bathing establishment was probably erected.

In 1784 Victor Amadeus III. sojourned at Aix, and about that date the thermal establishment was commenced, but its great development dates from the time when Savoy was handed over to France, after the battle of Solferino. The Government has erected a hospital for poor bathers, and has also provided the town with a fine park. Aix is prettily situated at the base of Mount Revard, 850 feet above sea-level, and is one mile from the picturesque lake Bourget. Its hotels are large and commodious. There is a fine assembly and also a reading-room, in which all the leading European papers are to be found. Many excellent excursions can be made on the lake, as to Haute Combe at the foot of the Dent du Chat, where are the tombs of the princes of Savoy. Those who can spare the time should visit the lake of Annecy, the Gorge de Fier, the monastery of the Grande Chartreuse, and make the ascent of the Seinnos or Rigi of Savoy, by each and all of which they will be amply repaid.

### MEDICAL NOTES IN PARLIAMENT.

In the House of Commons, on Friday, July 21st, a petition was presented from the South-Eastern Branch of the British Medical Association, praying for redress of the grievances of militia surgeons. On the motion of Mr. Round, a return was ordered of the number and cost of pauper lunatics in county and borough asylums in the three kingdoms. On Saturday and Monday further petitions were presented re the grievances of militia surgeons. The Union Officers' Superannuation (Ireland) Bill was read a second time on Saturday. On Monday, the twenty-fourth report of the Board of Superintendence of Dublin Hospitals was presented.

#### *Ventilation of the Houses of Parliament.*

On Tuesday, Mr. O'Shea asked the First Commissioner of Works whether complaints had reached him of defective ventilation and noxious exhalations in and about the House; and, if so, whether he would have the nuisance abated.

Mr. Shaw Lefevre read a report which he had received from Dr. Percy. The latter stated that during the seventeen years he had had charge of the ventilation of the Houses of Parliament many complaints had been made of unpleasant

smells. In every case he found they were caused by contamination of the air outside, sometimes at a considerable distance from the House, the wind blowing the contaminated air in the direction of the building. It was not possible to prevent such smells in the House when the air outside was so impregnated. Some of the unpleasantness lately had arisen from the tar which the wood pavement in the neighbouring thoroughfares was covered. No sewage gas could possibly escape from the drains under the building, as they were exhausted, and the gas allowed to escape at the top of the tower. The Chairman of Committee, who was a scientific man, and, as he himself said, peculiarly sensitive to smells, informed him that he thought on the whole the ventilation of the House within the past few months had been maintained exceptionally well.

#### *Belfast Workhouse.*

On Wednesday, Mr. Biggar gave notice of a series of questions imputing grave neglect of duty to the master of the Belfast workhouse, who it was alleged had refused admission late at night to three persons bearing orders marked "urgent," and they were found by the police lying at the workhouse gate. It was stated that one of the three was an old man, seventy years of age, who was suffering from a severe attack of hæmorrhage; and another was an old woman of sixty-seven. It appeared that complaint had been made of previous cases, and also that the guardians had approved the conduct of the master; and Mr. Biggar intends to ask, if these allegations are true, what steps will be taken by the Local Government Board.

#### *Carlow Workhouse.*

Mr. A. O'Connor put upon the paper three questions with regard to this workhouse. They refer mainly to the conduct of the chairman of the board of guardians, who is accused of having acted without the authority of the board in ordering additional works connected with the workhouse and infirmary; but the third question is as follows: "Whether Dr. Rawson, the medical officer, who also attends the soldiers stationed at Carlow, has on several occasions introduced into the workhouse for treatment soldiers suffering from loathsome skin and other affections; and if so, whether the Chief Secretary intends to take any notice of the practice."

#### *Vaccination Questions.*

On Thursday, Mr. P. A. Taylor inquired of the Home Secretary whether it was true that Mr. James Burman, of Derby, who had been sentenced to seven days' imprisonment for refusing to have his child vaccinated, was compelled to sleep on a plank bed, was refused sufficient clothing by day to prevent his suffering from cold, and was compelled to pick oakum, although hard labour was not a part of the sentence.—Sir W. Harcourt said he had inquired into the case, and found that nothing was done which was not in strict accordance with the prison rules.

Mr. Taylor also asked the President of the Local Government Board whether he had received any report in reference to the vaccination fatality at Norwich, and, if so, whether he proposed to have it printed; whether he had ascertained the description of lymph used upon the occasion; and whether he had forbidden the use in future of similar lymph.—Mr. Dodson said he had not yet received the report of the inspector, and therefore was unable to give the hon. member the information he asked for.

#### *The Expedition to Egypt.*

In the debate on the vote of credit, Mr. Childers stated that the sanitary arrangements for the expedition had been very carefully studied. Whilst extravagance was to be avoided, there could be no worse form of penury than starving those arrangements. Eight field hospitals were being established, and two hospital ships, and two large hospital depôts. A very large staff of doctors was being sent out, with 800 men of the Army Hospital Corps. Every precaution was being taken to preserve the soldiers from ophthalmia, and a body of nurses was being sent for service, not only in the hospitals and depôts, but also in the field. Every arrangement was made to secure a sufficient supply of water for the troops. The question of the best clothing had been duly studied, and the tents were all double, which was a most essential thing in that climate. As to land transport, they had now done what had never been done before—viz., they had sent out an adequate regimental transport with each regiment.

## ROYAL COLLEGE OF PHYSICIANS.

At a meeting of the Fellows, held at the Royal College of Physicians, on Thursday, the 27th inst., the annual reports of the Library Committee and Curators of the Museum were read, and the thanks of the College were given to Dr. Barclay, Dr. Arlidge, and the executrix of the late Dr. Jenks, of Bath, for valuable donations of books. Dr. Sieveking then moved the resolution of which he had already given notice—to wit, "That the system of extensively advertising medical works in non-medical journals, and the custom of giving laudatory certificates of medicinal and other preparations, whether for publication or not, is misleading to the public, derogatory to the dignity of the profession, and contrary to the traditions and resolutions of the Royal College of Physicians." An animated discussion ensued, and several amendments were suggested and withdrawn. Ultimately the original resolution, with the omission of the words "in non-medical journals," and the insertion of "and medical and surgical appliances" after the words "other preparations," was carried by a large majority.

The election of officers was as follows:—Censors: Drs. Munk, Andrew Clark, Lionel Beale, and Pavy. Treasurer: Dr. Farre. Registrar: Dr. Pitman. Harveian Librarian: Dr. Munk. Curators of the Museum: Drs. Wegg, Lionel Beale, Reginald Southey, and John Curnow.

## Obituary.

### THOMAS BARBOUR MOFFAT, M.D. ST. AND.

DR. MOFFAT, whose death took place on the 16th inst. from cancer of the pylorus, was a well-known and highly respected practitioner at Hawarden in Flintshire for the last forty-five years. He came of a respectable old family, the Moffats of Sundaywell and Stroquhan, in Dumfriesshire, where he was born in 1813. He studied at Edinburgh, where he took his surgeon's diploma in 1836. Shortly afterwards he came to Hawarden as assistant to Mr. Probart, surgeon there, to whose practice he soon succeeded. In 1842 he took his M.D. degree at St. Andrews. He was a Fellow of the Geological Society and of the Sanitary Institution; Member of the Epidemiological and of several other scientific societies, and author of many papers on geology, meteorology, and sanitation, &c. Although of considerable professional and scientific ability, he was content to find his calling in a hard country practice rather than cultivate a more wealthy clientèle in one of our larger towns. Though a man of strong individuality of character, yet his cheerful disposition and ready sympathy won him the respect and friendship of nearly all who came in contact with him, and his death is greatly regretted. As he did a large amount of work for little pecuniary remuneration, he did not leave much of this world's goods behind him. He is survived by his widow, six sons, and three daughters.

## Medical News.

### ROYAL COLLEGE OF SURGEONS OF ENGLAND.—

The following gentlemen, having passed the required examination for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 20th inst.:—

Birch, Henry Priestley, Harley-street.  
Carlyon, Edward Trewbody, Truro.  
Fenner, Robert Nathaniel, Greenwich.  
Knight, Frederick, Swansea.  
Russell, Robert Hamilton, Farnham.  
Sheppard, William John, Putney.  
Thring, Edward Thomas, Birkenhead.  
Tresidder, Edward Stanley, Dulwich.  
Williams, Edward Richard, Corwen.  
Wilson, Mervyn Seppings, Kilburn.

The following gentlemen were admitted Members of the College on the 21st inst.:—

Back, Herbert Hatfield, Hethersett, Norfolk.  
Barber, Alfred, Basingstoke.  
Berry, James, Upper Bedford-place.

Blagg, Arthur Frederick, Crowndale-road.  
 Bollen, Frederick James, Port Adelaide.  
 Frost, George, Dorking.  
 Howell, James Bromley, Wandsworth.  
 Marsh, Nicholas Percy, Liverpool.  
 Maude, Arthur, Highgate.  
 Nicholson, Robert Howard, Ilfracombe.  
 Skipper, Edward, Dulston.  
 Viney, Josiah Ernest, M.B. Cantab., Highgate.

The following gentlemen were admitted Members of the College on the 24th inst.:—

Anderson, Alfred Jasper, Blackpool.  
 Carr, Thomas, Brixton.  
 Claremont, Louis Bennett, Camden Town.  
 Davies, W. T. Frederick, Swansea.  
 Eastes, Frederick, Folkestone.  
 Elgoed, Charles Reginald, Wisbeach.  
 Gibson, John Hutchinson, Trinity-square.  
 Herr, William, Ashburton, Devon.  
 Jacob, Arthur Howard, Surbiton.  
 Jones, Isalah Henry, Malda Vale.  
 Quick, Frank, Coventry.  
 Toller, C. W. Edward, L.R.C.P. Lond., Wimbledon.  
 White, Ernest Alfred, Leeds.

The following gentlemen were admitted Members of the College on the 25th inst.:—

Banatvala, Hormasjee Edaljee, L.R.C.P. Lond., Bombay.  
 Campbell, Samuel George, Natal.  
 Gordon, Edward, L.S.A., Stockport.  
 Gracie, Charles Batten, Liverpool.  
 Freeborn, J. C. Richard, Oxford.  
 Harratt, Henry, Brixton.  
 Kelly, Charles Augustus, Mount-street.  
 Lilly, Frederick John, Southampton.  
 Spong, William, Clapham.  
 Thomas, John Lloyd, L.S.A., Beaumaris.

The following gentlemen were admitted Members of the College on the 26th inst.:—

Benjafield, William Barnett, M.B. Edin., Leatherhead.  
 Beverley, John Metcalfe, L.S.A., Bury, Lancashire.  
 Fowler, Charles Owen, L.S.A., Hereford.  
 Massey, Henry Massey, Camberwell.  
 Peacock, Robert Knox, M.B. Edin., Oldham.  
 Pryce, Thos. Davies, Newtown, Montgomeryshire.  
 Wilson, Reginald William, Rotherhithe.  
 Willcocks, Arthur Durant, L.S.A., Kensington.  
 Willcox, Ernest, M.B. Edin., St. Neots.

[In the list of students who passed the Primary Examination at the College on the 13th inst., Mr. T. A. B. Soden should have been described as belonging to Charing-cross Hospital.]

**ROYAL UNIVERSITY OF IRELAND.**—The following have passed the First Examination in Medicine of the University:—

Robert James Boyd, Roger Bernard Burke, P. J. Cahill, Thomas Callaghan, David Clarke Campbell, Kenneth J. Campbell, William Henry Carisle, P. J. Cleary, Richard T. Condon, Alexander Corry, Thomas B. Costello, Joseph Cree, Henry Alfred Cummins, J. E. Curtin, Charles A. Daly, Thomas J. Daly, M. P. Dunlea, William Henry Davis, William Demery, J. J. Donnellan, John Francis Eagleton, Thomas Joseph Enright, George Francis Ewens, Edward Fitzgerald Flood, Maurice Foley, Bernard Forde, John Frederick Gordon, Geo. R. Graham, John E. Haines, Henry Harley, Samuel Horneck, John William Irwin, Thomas Kiernan, Daniel T. Lane, Richard Whytock Leslie, Thomas Lusk, Neal M'Bride, Michael M'Carthy, David M'Kee, P. M'Sheffrey, Charles J. Macdonald, Thomas Stephen Mac Mahon, Jas. Richard Mangan, John Meenan, William Milligan, Martin Moloney, Frederick V. Moesman, Daniel Murphy, M. J. Murphy, Albert Thos. Nash, Robt. William Nixon, James P. O'Byrne, Joseph O'Connor, Patrick J. O'Hara, Daniel Joseph O'Keefe, P. O'Sullivan, M. J. Robinson, Maurice Slak, Alfred John Smyth, Richd. Henry Spencer, Edwin Alfred Starling, James Simpson Steele, Alfred Edward Thompson, John J. Tobin, Richard Henry Wagner, Hugh Ernest Walde, William Edw. Wales, J. J. Walsh, William A. Whitelegge, James Dunlop Williamson, Alleyn William Wolfe, Robert Inglewood Wolfe, George Nesbitt Wynne, Richard Thomas Young.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on July 20th:—

Black, Wm. Jones, Shetford-road, Manchester.  
 Scanlan, Arthur de Courcy, Hayer-road, Brixton.  
 Slater, William, Poplar Hospital.  
 West, John Arthur, Bickley Park, Kent.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Christopher Venning Burgess, London Hospital; Charles Style Humphreys and Herbert Larder, Westminster Hospital; Alexander Gascoigne Wildey, Guy's Hospital.

**MALVERN COLLEGE.**—We understand that Tuesday, August 1st, is fixed as "Speech Day" at this College.

**ROYAL MEDICAL AND CHIRURGICAL SOCIETY.**—The Library will be closed on Monday, August 7th, and, on account of some extraordinary building repairs, &c., will not reopen till Monday, Sept. 18th next.

**VACCINATION GRANT.**—Mr. A. Megget, of Scarborough, has received the Government grant of £55 4s., for efficient vaccination in his district (fifth time).

**A CONVALESCENT HOME for the West of England** was opened at Weston-super-Mare on Wednesday. The building will contain 100 beds, and has cost over £11,000. At the luncheon following the formal opening a sum of £230 was contributed towards furnishing the institution.

**UCKFIELD COTTAGE HOSPITAL.**—The report of the Committee of Management of this hospital states that of the 26 cases admitted during the past year, 19 had been discharged cured, 5 had derived benefit, and 2 remained in the institution. The mortality therefore was *nil*. The fact that the balance-sheet shows a deficit of £37 is to be regretted.

The Committee of Management of the Royal Aberdeen Lunatic Asylum have been authorised by the Court of the President and Managers of the Royal Infirmary to provide additional accommodation for female lunatics by extending the east wing of the asylum, at an estimated cost of £1600.

At a meeting last week of the managers of the Cotton Districts Convalescent Fund, presided over by Lord Derby, it was decided to transfer a plot of land adjoining the Convalescent Home at Southport, for the purpose of erecting buildings on it which will connect the old and new hospitals, at present isolated.

**THE BAZAAR AT COLSTON HALL, BRISTOL.**—The bazaar opened on the 18th inst. in commemoration of the jubilee of the Bristol General Hospital and in aid of its funds, appears to have more than realised what was expected of it by its promoters. The wealth and fashion of the city vied with the trading and industrial elements to ensure the success of the project, by which it is calculated the funds of the hospital will be enriched to the extent of some £3000.

**RICHMOND HOSPITAL.**—The Duchess of Teck opened new wards at the Richmond Hospital on the 22nd inst. The new buildings form a block 70 ft. in length and 30 ft. in width—exclusive of separate wings for lavatories, bath rooms, &c.,—and rise to a height of over 40 ft. Accompanied by the Duke of Teck and conducted by the medical staff, she made a minute inspection of the wards, and then proceeded to a marquee in the grounds, where she received and briefly responded to an address on behalf of the committee of management, signifying her assent to a proposal that the female ward should be named the Mary Adelaide Ward, and the male ward the Cambridge. Her Royal Highness accepted on behalf of the charity a considerable number of purses, none of them containing less than £5.

**SOUTH LONDON SCHOOL OF PHARMACY.**—The following prizes have been awarded to the successful competitors at the school examinations held on July 4th, 5th, 7th, and 8th. Senior Chemistry: Mr. Caldecot (medal). Junior Chemistry: Mr. T. B. Tyson (medal). Botany: Miss Mitten (medal). Materia Medica: Mr. F. Ransome (medal). Practical Dispensing and Pharmacy: Mr. C. L. Dillon (medal). Senior Chemistry: Mr. Bain (certificate). Junior Chemistry: Mr. F. Ransome (certificate). Botany: Mr. C. E. Harston (certificate). Materia Medica: Mr. C. E. Harston (certificate). Practical Dispensing and Pharmacy: Mr. T. B. Tyson (certificate). Certificates of Merit were also awarded to Messrs. Dowdeswell, Dillon, Hornby, Schofield, Thomas, and Thistleton.

**MANCHESTER ROYAL INFIRMARY.**—At the annual meeting of the friends of this hospital on the 27th inst., the trustees were able to give a more favourable report of the financial condition of the institution than was possible last year, a result attributable mainly to an increase in the ordinary annual subscriptions and in the Hospital Saturday and Sunday contributions. There appears to have been a gradual diminution in the cost per bed occupied: ten years ago this was represented by the sum of £74 11s. 10d.; now it does not exceed £58 7s. 6d. per bed. A similar decrease in expenditure has also characterised the management of the Cheadle Convalescent Hospital. The total number of patients treated at the infirmary and its associate institutions was for the past year 23,888. Investigation continues to be made into the circumstances of all applicants for hospital relief, with, it would seem, on the whole, satisfactory results.

## ROYAL UNIVERSITY OF IRELAND.

EXAMINATION FOR M.D. DEGREE AND DIPLOMA IN OBSTETRICS.  
June 22nd, 1882, 9.30 A.M. to 12.30 P.M.

Examiners { Professor J. A. Byrne, M.D.,  
Professor H. McN. Jones, M.D.

## Section A.

1. Describe the appearance of an ovum expelled in its integrity from the uterus at the nineteenth day of gestation. Describe in order all its coverings in dissecting it from without inwards, and the appearance and structure of each coat, also the contents of the sac and the exact appearance and size of the embryo at this date.

2. Describe the structure of the uterus at the full term of gestation, the mode of arrangement of its muscular fibres, and the function which one set of those fibres is said to serve, as also the functions of the other muscular strata.

3. At the termination of the third month of pregnancy, and at the termination of the full period, two circumstances may happen which are very serious. What are they, and which would you regard as the more serious?

4. Mention all the actors in producing dilatation of the os uteri in labour.

## Section B.

5. What are the principal changes occurring in the blood during pregnancy? State how such deviations are likely to affect the character of a labour.

6. You are called to a woman in the fourth month of pregnancy; there has been severe but periodical hæmorrhage for nearly two days, with expulsion of clots; on making an examination, the os is found slightly dilated. State how you would manage the case.

7. You are called to a woman some hours in labour; there has been severe hæmorrhage; the os uteri is not dilated to the size of a florin; the placental attachment is complete. State how you would conduct the case.

8. You are in attendance on a case in which you have reason to apprehend the occurrence of post-partum hæmorrhage. What preventive measures would you adopt? Should these fail, mention in order the steps you would take to control it.

In the Oral Examination, on the same day, Dr. Byrne asked—(1) Describe the treatment of ruptured uterus in two words. (2) What is concealed hæmorrhage, and where does it occur? and gave a number of obstetric instruments to have their uses, &c., explained.

## GYNÆCOLOGY.

## Section A.

1. Describe the different treatments of pelvic cellulitis; describe also the anatomical relations of the uterus to the surrounding organs which may influence each particular mode of exit when purulent formation is the result.

2. How would you distinguish between chronic inverted uteri and polypus uteri? What are the causes of the former affection? What would be your treatment of each?

## Section B.

3. Mention the symptoms, course, and treatment of pelvic hæmatocele.  
4. Ovarian tumour, fibro-cyst of uterus, ascites. State the leading diagnostic tests to distinguish each.

## Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

BOISSIER, ARTHUR HENRY, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the First Pocklington District of the Pocklington Union.

COLEMAN, MATTHEW OWEN, M.D. Aber., M.R.C.S., has been re-appointed Medical Officer of Health to the Sribiton Urban Sanitary District.

COOPER, G. F., M.R.C.S., L.R.C.P., has been appointed Resident Accoucheur to St. Thomas's Hospital.

DUNCAN, W. A., M.D., L.R.C.P., M.R.C.S., has been appointed House-Surgeon to St. Thomas's Hospital.

DYER, HENRY GEARY, M.R.C.S., L.R.C.P. Ed., has been appointed Medical Officer to the Ringwood Union and Workhouse, vice Samuel S. Dyer, M.D., resigned.

EVANS, FREDERICK WM., M.D., M.R.C.S., L.S.A. Lond., has been appointed Certifying Factory Surgeon for the Cardiff District, vice H. J. Paine, M.D., M.R.C.S., resigned.

FELL, W., M.A., M.B. Oxon., L.R.C.P., M.R.C.S., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

GIMSON, WILLIAM GIMSON, M.D. St. And., M.R.C.S., L.S.A. Lond., has been appointed Medical Officer for Wickham Bishop's District of the Maldon Union.

GOWAN, CHARLES, M.D., C.M., L.R.C.S. Ed., has been appointed Medical Officer for the Newtown District of the Newtown and Llandiloos Union.

HAG BROWN, C. W., M.R.C.S., L.S.A. Lond., has been appointed House-Surgeon to St. Thomas's Hospital.

HARRIS, ARTHUR G. RAWSON, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Pembroke District of the Kingston Union.

JONES, WANSBROUGH, M.A., M.B. Oxon., B.Sc. Lond., M.R.C.S., has been appointed House-Physician to St. Thomas's Hospital.

MACKENZIE, S. M.B., has been appointed Assistant Medical Officer to the Roxburgh, Berwick, and Selkirk District Asylum, Melrose, vice L. R. Huxtable, M.B., resigned.

MILTON, H. M., M.R.C.S., L.S.A. Lond., has been appointed Assistant House-Physician to St. Thomas's Hospital.

NIXON, CHRISTOPHER JOHN, M.B. Dub., F.K.Q.C.P.I., has been appointed Visiting Physician to the Dandrum Central Criminal Lunatic Asylum, vice Hughes, deceased.

RICH, ARTHUR CRESWELL, M.B. Lond., M.R.C.S., has been appointed a Medical Officer to H.M. Post Office, Liverpool.

THOMPSON, J. A. BAIRD, M.D., C.M. Glas., has been appointed Medical Officer to the Middleton Cheney District of the Banbury Union.

VIVIAN, GEORGE E., M.R.C.S., has been appointed Medical Officer for the Ains District of the Easingwold Union.

WALKER, J. McCLEURE, M.B., C.M. Glas., has been appointed Medical Officer for the Eastern District and Workhouse of the Haltwhistle Union.

WELLS, A. E., L.R.C.P., M.R.C.S., has been appointed House-Physician to St. Thomas's Hospital.

WHITE, EDWARD A., M.D., M.C. Aber., L.S.A. Lond., has been appointed Medical Officer for the Third District of the Malmesbury Union, vice J. C. S. Jennings, F.R.C.S., resigned.

WHITE, E. F., M.R.C.S., L.S.A. Lond., has been appointed House-Physician to St. Thomas's Hospital.

WIGNER, G. W., F.C.S., has been reappointed Public Analyst for the District of Greenwich.

WILLIAMS, CHARLES, L.S.A. Lond., has been appointed Medical Officer for the First District of the Bodmin Union.

WILSON, J. A., M.B., C.M., has been appointed Assistant Medical Officer to the Govan Poorhouse and Asylum, Merryflatts, Govan, vice A. Martin, M.B., resigned.

## Births, Marriages, and Deaths.

## BIRTHS.

BOISSIER.—On the 19th inst., at Oak House, Pocklington, Yorks, the wife of Arthur H. Boissier, L.R.C.P. Lond., M.R.C.S., of a daughter.  
BROWN.—On the 14th inst., at Coombe Lodge, Rye-lane, Peckham, S.E., the wife of J. Alexander Brown, M.R.C.S., of a daughter.

DICKSON.—On the 19th inst., at South View, St. Heller's, Jersey, the wife of John Edward Dickson, M.B., C.M. Ed., of a son.

HARGOOD.—On the 23rd inst., at Stafford House, Eastbourne, the wife of Henry Hargood, M.D., of a son.

MARTIN.—On the 19th inst., at Richmond, Limerick, the wife of Surgeon-Major W. T. Martin, M.D., of a daughter.

MCCREDDY.—On the 11th ult., at Calle Morelos, Pachuca, Hidalgo, Mexico, the wife of Robert H. McCreedy, M.D. &c., of a son.

SHAPTER.—On the 19th inst., at Barnfield-crescent, Exeter, the wife of Lewis Shapter, M.D., of a daughter.

SNOW.—On the 22nd inst., at Bayswater, the wife of Herbert L. Snow, M.D. Lond., of a son.

SYMES.—On the 23rd inst., at Wards End, Halifax, the wife of Edmond West Symes, M.D., of a daughter.

## MARRIAGES.

ALLEN—KING.—On the 21st ult., at St. Cyprian's Church, Durban, Natal, by the Right Rev. the Lord Bishop of Maritzburg, assisted by the Rev. Joseph Taylor, of Richmond, Robert Allen, L.R.C.S.I., L.R.C.P. Ed., &c. &c., of Pietermaritzburg, eldest son of the late Capt. Allen, H.C.S., of Dublin, Ireland, to Clara Elvira (Ella), second daughter of the late Mr. Richard King, of Isipingo, Durban County, Natal.

BRODRICK—CROCKFORD.—On the 20th inst., at the Parish Church, Peasmarsh, Sussex, Charles Cumberland Brodrick, L.R.C.P. and L.R.C.S., son of Charles Cumberland Brodrick, Esq., Paymaster, Royal Navy, to Julia Selina, youngest daughter of Henry Crockford, Esq., of Flackley Ash, Sussex.

HART—BERTHON.—On the 20th inst., at St. Mark's, Woolston, William Hamilton Hart, M.R.C.S., L.S.A., eldest son of J. H. G. Hart C.E., Poona, Bombay, to Frances Elizabeth Margaret, eldest daughter of E. P. Berthon, of Woolston, Southampton.

REES—LEWIS.—On the 14th inst., at St. Mary's Church, Port Elizabeth, Frederick Musson Rees, M.D., J.P., of Bedford, South Africa, to Clara, daughter of W. Lewis, Crews.

RICHARDSON—ETHERIDGE.—On the 13th inst., at the Parish Church, Rain-gate, Thomas William Richardson, M.R.C.S., of Surrey-street, Norwich, to Rose Louise, second daughter of Major-General A. T. Etheridge, C.S.I., late Bombay Staff Corps.

TEMPLETON—ALLEN.—On the 11th inst., at St. John's Church, Malone, R. Scanser, eldest son of Robert Templeton, Esq., Dep. Insp.-Gen., F.R.C.S.I., Cranmore, Belfast, to Jane, eldest daughter of Arthur Chichester Allen, J.P., Collin, county Antrim.

## DEATHS.

ATKINSON.—On the 18th inst., at Broadstairs, John Charles Atkinson, L.R.C.P., M.R.C.S., &c. (son of J. C. Atkinson, M.D., of Kew-green), aged 82.

BARTLEY.—On the 21st inst., at his residence, Norwood House, Weston-super-Mare, Robert T. Hawley Bartley, M.D., late of Clifton, Bristol, aged 62.

CORMACK.—At 364, Rue St. Honoré, Paris, Lady Cormack (Eliza Ann), nee Hine, widow of the late Sir John Ross Cormack, M.D.

HIGHAM.—On the 23rd inst., at Lauderdale House, Northcote-road, Wandsworth, Joseph Higham, Esq., Surgeon, aged 42.

JORDISON.—On the 20th inst., at South Ockendon, Essex, Eliza Frances, widow of Robert Binks Jordison, Surgeon. Friends will please accept this intimation.

OSWALD.—On the 22nd inst., at 215, Kennington-road, London, S.E., Louisa Ann, wife of James W. J. Oswald, M.D., F.R.C.S.E., aged 53.

POPPLETON.—On the 25th inst., at The Grange, Horsforth, Leeds, Joe William Poppleton, F.R.C.S. Lond., for forty years Certifying Surgeon under the Factory Acts for the Bradford District, aged 67.

TAYLOR.—On Feb. 6th, at Goulburn, New South Wales, Charles Lamb Taylor, M.D., eldest son of the late Samuel and Elizabeth Taylor, of Newark-upon-Trent, aged 81.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.



## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that curly intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### SANITATION AT VENTNOR.

A propos of a criticism that appeared some time ago on the sanitary state of Ventnor, *Medicus*, in a letter addressed to us, remarks:—"Attention having been directed in 1875 to the danger then existing in the town of Ventnor, not only as regarded the want of proper sanitary arrangements, but also the risk incurred from an intermittent and inadequate water-supply, the authorities were roused to take steps for the institution of a house-to-house inspection, but which was unfortunately allowed to fall through before completion, and no further effort was made until the official report of Dr. Ballard, when the authorities, instead of kicking against the inevitable, wisely determined to put their house in order, with the striking result of reducing the death-rate from 28.4 in 1880 to 13.3 in 1881: a return which, after eliminating the number of deaths of those who came to Ventnor as strangers in the last stage of disease, shows the gratifying result that the death-rate of the inhabitants proper amounts only to 9.6 per 1000. . . . The difficulties with which local boards have to contend is not so much in the matter of the main drainage as in the connexions and appliances of private houses. And it would be well were the Legislature to amend in many respects the present Health of Towns Act, and render compulsory a house-to-house inspection, of which a record should be kept by the local authority, and such inspection should be annual. . . . Before leaving the question of sanitary arrangements, I feel bound to mention a circumstance that not only marks the progress of Ventnor, but which must tend to improve it greatly in a sanitary point of view—namely, the erection of a large steam washing establishment. It covers a considerable area, is fitted with all the most recent and approved appliances, and embraces, what is of the highest value, a proper chamber for disinfecting purposes. The establishment would appear large enough not only to supply the wants of Ventnor and its immediate neighbourhood, but also those of the adjoining towns of Shanklin and Sandown. To the public the gain is immense. Instead of the clothes being confined to the manipulation of a single tub, they are passed through several waters, and thus properly cleansed, while the appliances for drying, ironing, mangling, &c., are on a scale that attains a perfection which it is impossible to obtain from the ordinary laundress. The dangers which arise for the spread of disease through the common laundress is well known to every medical man, and I need only instance an occurrence which took place some time since, in which a laundress was detected pinning out some curtains over the bed of a party recovering from scarlet fever while the desquamation of the skin was in its most active form."

### OBSCURE SKIN DISEASE.

*To the Editor of THE LANCET.*

SIR,—I shall feel indebted to any of my medical brethren who will assist me in the diagnosis and treatment of the following case:—

A B—, aged thirty-six, married, healthy constitution, contracted syphilis about twelve years since. Six years subsequently appeared a discolouration of skin, resembling a light walnut stain. Parts principally affected are back and around umbilicus. My patient has been prescribed by some eminent practitioners without avail.

I am, Sir, yours faithfully,

July 25th, 1882.

ENQUIRENS.

### SCENES AT THE HOSPITAL IN ALEXANDRIA.

A CORRESPONDENT of a Liverpool paper thus describes a scene he witnessed in his walks about the Egyptian city:—

"I went up to the Arab hospital recently, with Dr. Bell, of the *Helicon*, and a party of blue jackets, to inspect and take measures for relieving the wounded, whom we had heard were without medical attendance, or even the bare necessities of life. The scene on our arrival more than justified this statement. There were thirty-two wounded, including six women, some in a frightful condition. Most of the poor wretches were suffering from gunshot wounds or shell splinters. Three or four were in a state too horrible to describe. Their wounds had not been dressed for three days, and human aid could avail nothing."

Fairplay is thanked for his communication, but we do not think it would be in the interest of the service to publish it.

F. A. D.—No.

Diploma.—The superintendent of Bethnal House Asylum, Cambridge-road, London.

### THE MEDICAL COUNCIL AND ITS FUNCTIONS.

*To the Editor of THE LANCET.*

SIR,—Your article in last week's LANCET on the dormant powers of the Medical Council will meet, I am sure, the approbation of the right-thinking part of the profession. There is another kindred point I think the Council might also take into their serious consideration. I allude to what takes place—I fear, not uncommonly—in the sale of practices. It seems to me that in many cases common honesty is deliberately set aside and deeds done which in any other section of the community would be visited with the severest reprobation. We call ours a noble profession. Should not this, therefore, be a strong reason why all who wish well to the profession should raise a protest against what I am afraid is a growing evil? I shall be glad if this letter will elicit your views and those of the profession on this subject.

I am, Sir, yours truly,  
X.

July 26th, 1882.

*Medicus* is referred to the article on Books in our Students' Number, Sept. 10th, 1881.

Nemo.—Graily Hewitt, in vols. 1 and 2 of the Obstetrical Transactions.

Dr. Allan Jamieson.—Yes.

Mr. G. Abbott (Tunbridge Wells).—The paper will be inserted as early as possible after receipt of the block.

### DEATH FROM CHLOROFORM.

*To the Editor of THE LANCET.*

SIR,—In reference to your report of the two cases of death from chloroform, I find one was a man of the name of Sidders, operated on at the Canterbury Hospital, from whom I removed, some four or five years ago, one of the great toes, under the influence of chloroform, from the effects of which he soon recovered, and the case terminated most satisfactorily. This, I think, shows that although a person may at one time inhale chloroform with impunity, no one can with certainty say it can be administered a second time without some risk or danger.

I am, Sir, yours obediently,

Folkstone, July 26th, 1882.

ALLEN DUKE.

Thesis.—We have not at hand a list of the subjects for which prizes are offered.

Mr. H. A. Smith (Mere).—The paper is under consideration.

### "THE CAUSE OR CAUSES OF ACUTE TONSILLITIS."

*To the Editor of THE LANCET.*

SIR,—Personally my observations, so far as they go, bear out Dr. Atkinson's views. Three times I have had severe attacks, and twice mild ones, always either in May or June. On each occasion either a stress of work or some mental anxiety, coupled with an irregularity of diet, have preceded the attack. The same is true of a case which has occurred during the past week in my house. The patient is a Cambridge man, and has recently been in for examination, and in his case also considerable irregularity of diet preceded the attack.

I am, Sir, yours faithfully,

Warwick, July 24th, 1882.

KENNETH W. MILLICAN, B.A.

Mr. W. Davis.—We have no record of the receipt of the communication.

M.D. (Greenock).—The subject of our correspondent's letter is under consideration, and shall have attention next week.

### SEWER VENTILATION.

*To the Editor of THE LANCET.*

SIR,—Will some one of your engineering correspondents kindly give plan and action of "disconnected chamber" for ventilating sewers? Builders in country towns are ill-informed on the subject.

I am, Sir, yours obediently,

Hitchin, July 24th, 1882.

O. T.

**Martin.**—No licence is required for a single patient. On receipt of papers, notice must be sent to the commissioners. That is all. Two or more patients would require a licence, for which application must be made, in the first instance, to the Commissioners in Lunacy, at Whitehall, London.

**Mr. C. Roberts.**—As early as possible.

**CORRIGENDUM.**—In the second line of Mr. Hume's article on Ectropion, page 100, for "cornea" read *arm*.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. N. Cook, London; Mr. Chute, King William's-town; Dr. Buchanan, Glasgow; Mr. Larmuth, Manchester; Dr. Perkins, Exmouth; Mr. W. E. Bailey, Manchester; Dr. Roe, Patricroft; Mr. G. Abbot, Tunbridge Wells; Mr. J. Rorke, London; Mr. Scammell, Bristol; Mr. Clifford Allbutt, Leeds; Mr. Wilkinson, Rotherham; Dr. Sturges, London; Mr. Smith, Mere; Dr. Thomas, Glasgow; Mr. Millican, Kineton; Dr. Heywood Smith, London; Messrs. Evans, Sons, and Co.; Mr. Roe, Droitwich; Mr. W. J. Collins, London; Dr. Marcy; Mr. O. Foster; Mr. Carroll, London; Dr. Whelan, Loughrea; Dr. Bampton, Plymouth; Mr. Yelf; Mr. G. H. Thomas, London; Dr. Pearson, Maryport; Dr. Bennett, Liverpool; Mr. Wise; Dr. Warner, London; Mr. Duncan, Oldham; Mr. G. N. Stephens, London; Mr. W. Davis; Mr. Langton, London; Mr. Lediard, Carlisle; Mr. Waller, Rugby; Mr. Bailey, Crumpsall; Mr. Vincent Richards, Calcutta; Messrs. Thomas Pratt and Sons, London; Miss Stroad, Bristol; Mr. Codling, St. Albans; Mr. Bulmer, Hereford; Surgeon-Major Ellis, Wardha; Messrs. Thew and Son, King's Lynn; Mr. Gostrooke, Birmingham; Mr. Grayham, Pendlebury; Messrs. Pratt and Son, London; Mr. Trotman, Tunbridge Wells; Dr. Stanley Murray, Putney; Dr. J. B. Gill, Canterbury; Dr. Duke, Folkestone; Mr. Thomson, Dublin; Dr. Goodhart, London; Thesis; One of the Public; L.R.C.P.; H. A. D.; Student; X. Z.; Fairplay; Devonensis; Mac; &c., &c.

LETTERS, each with enclosure, are also acknowledged from—Mr. Scott, Manchester; Messrs. Porteous and Co., Glasgow; Messrs. Richards and Co., London; Mr. Johnson, Shrewsbury; Mr. Pullen, Budleigh, Salterton; Mr. Amplison, Ilchester; Mr. Scatchard, Woodhall Spa; Mrs. Moffat, Hawarden; Dr. Maskew, Lyndhurst; Messrs. Smith and Son, Dublin; Mr. Newey, Dudley; Dr. Rice, Claremont, U.S.A.; Messrs. Fannin and Co., Dublin; Mr. Piet, Baltimore; Messrs. Reid and Co., London; Dr. Scriven, Duffield; Mr. De Fraine, Aylesbury; Mr. King, Lancaster; Mr. Standart; Mr. Milne, Ladywell; Mr. Veale; Mr. Harrison, Liverpool; Mr. Sutherland, Burnockfield; Mr. Hyatt, Gosport; Mr. Hutcheon, Derby; Mr. Hallows, Newark; Dr. Hern, Darlington; Mr. Marriott, Nottingham; Mr. Brown, Westgate-on-Sea; Mr. Bennett, London; Mr. Shepperson, Brighton; Mr. Ewart, Selkirk; Mr. Jones, New Cross; Messrs. Rowe and Co., London; Dr. Shirliff, Kingston-on-Thames; Dr. Bager, Penicuik; Dr. Jones, Resolven; Mr. Jardine, Birmingham; Mr. Allinson, Kingsland; Mr. Williams, Pwllheli; Medicus, Exeter; M.D., Chalk Farm; Medicus, Liverpool; X.; Y.; Medicus, Lenty; Alpha, Caledonian-road; Delta; W. G., Manchester; F. C., Southsea; J. W. P., Holborn; C., Cheltenham; J. O.; A. E. T., Darlington; New North-road; Medicus, Mile-end-road; Chemist; M.D., Piccadilly; Pupil, London; T. W. F., Matlock; L. T.; E. G., Worcester; W. A. E.; Diagnosis; &c., &c.

South Wales Daily News, Liverpool Mercury, Eastern Province Herald, Daily Intelligencer, Scottish Border Record, Newport and Market Drayton Advertiser, &c., have been received.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, July 27th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
July 21	30.04	W.	62	58	112	72	51	..	Hazy
" 22	29.84	W.	61	59	92	63	57	..	Overcast
" 23	29.67	S.W.	58	57	121	73	53	..	Bright
" 24	29.81	W.	63	58	110	72	52	..	Bright
" 25	29.85	W.	58	50	88	65	52	..	Raining
" 26	30.23	W.	60	56	116	71	51	..	Cloudy
" 27	30.44	W.	65	59	115	79	52	..	Bright

## Medical Diary for the ensuing Week.

### Monday, July 31.

ROYAL LONDON OPHTHALMIC HOSPITAL.—MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.  
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.  
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

### Tuesday, August 1.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.  
WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
WEST LONDON HOSPITAL.—Operations, 3 P.M.

### Wednesday, August 2.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
MIDDLESEX HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.  
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.  
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.  
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

### Thursday, August 3.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.  
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.  
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.  
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.  
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

### Friday, August 4.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.  
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.  
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

### Saturday, August 5.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 87, Rue Caumartin, Paris.

## Address

ON THE

INFECTIVENESS OF TUBERCLE,  
WITH SPECIAL REFERENCE TO  
TUBERCULAR CONSUMPTION.*Delivered before the North of Scotland Medical  
Association, July, 1882,*

By WILLIAM PIRRIE, M.D., LL.D., F.R.S.E.,

PROFESSOR OF SURGERY IN THE UNIVERSITY OF ABERDEEN,  
CONSULTING SURGEON TO THE ROYAL INFIRMARY  
OF ABERDEEN.

GENTLEMEN,—I thank you most cordially for the honour you have done me in asking me to preside at this annual meeting of the North of Scotland Medical Association. I consider it not only an honour, but also a great pleasure, inasmuch as it gives me an opportunity of renewing my acquaintance with gentlemen with almost all of whom I have previously been placed in the pleasing relationship of teacher and pupil. As it is customary at these annual gatherings for the President to bring before the associated members some topic of medical or surgical interest, I have thought it would not be unprofitable to dwell for a few minutes on some of the researches in later times on the etiology of tuberculosis, as they tend to enlarge our conceptions of contagion; to correct many previously held doctrines regarding tubercle; to establish a substantial claim of contagiousness for that widespread and awfully fatal malady, consumption; to reveal to us its specific contagium or specific infecting medium; and to explain the facility with which it can be spread in a community. It has been said that one-seventh of all the deaths throughout the world and one-third of the deaths in active middle life are caused by tubercular disease. If this is correct, it must be all-important to be familiar with every addition to our knowledge of this important subject. The elaborate investigations carried on during the last few years regarding the etiology of infective diseases are of the highest interest to the practical surgeon and the sanitarian; but I intend on the present occasion to limit my remarks to the subject of the infectiveness of tubercle, perhaps the chief source of consumption, which is the commonest and most fatal manifestation of tubercular disease; and, as bearing on this important subject, to draw attention to the researches of recent experimental physiologists, ending with the remarkable discoveries of Koch, formerly of Breslau, and now chief of the Imperial Health Department of Berlin. Without going so far as Laennec did in his belief that phthisis is always tubercular, yet, if we grant that this widespread and fatal disease is in the main of tubercular origin, we cannot over-estimate the researches on the infectiveness of tubercle, which must greatly influence the therapeutics of those who believe in them.

It is not my purpose to consider whether the two processes now called by the separate names of the scrofulous and the tuberculous are really identical; nor to enumerate all the opinions promulgated on the pathology of phthisis; nor to review the facts advanced in support of the opinion that the little nodular growths, composed of giant-cells and a branched reticulum, and to which the name tubercle is now commonly limited, are always due to primary non-specific inflammatory action; but rather to trace recent experimental investigations with a view to showing how they prove that consumption is due to an infective process, and some of them to afford demonstrative proof of the morbid agent which so injures the pulmonary tissue as to lead to its subsequent consolidation and ulceration. They seem to justly claim for consumption the character of infectiveness arising from a special parasite. The contagiousness of consumption is not, however, promulgated for the first time in our own immediate day, nor even in the recent past, for in all ages, probably, some have held this belief. Thus Galen believed in its contagiousness, and ordered consumptive patients to inhale the vapours from the crater of Etna, whilst Morgagni, in his day, was of the same opinion. We read also that this

No. 3075.

belief has always prevailed in Italy, Spain, and other countries of Southern Europe. In our country and day many great men have denied this doctrine, whilst some have specially promulgated it. Thus, looking back on the more recent past, we find the late Dr. William Budd of Bristol, thirty years ago, as the result of clinical observation, expressing the opinion that pulmonary consumption was allied to the eruptive fevers, and differed from them only in its degree of virulence, and consequent rate of progress. He entertained no doubt in his own mind that it is of a highly contagious character; that its virulence in any country is in the inverse ratio of its duration there, being most rapid and fatal on its first introduction, and becoming, by long continuance, as in our own country, of a milder type and more chronic character. Thus we are told that when first introduced into the Sandwich Islands it sometimes proved fatal in less than six weeks; and we are all familiar with the fact that it often drags on, in our own country, a slow and at times intermitting course, extending over months or years. Still, these views of Budd obtained but few adherents, for the great bulk of physicians, dependent solely on clinical observation and practical experience, were decidedly of opinion that consumption could not be spoken of as a contagious disease in the same sense as the ordinary eruptive fevers are. Within later years, however, much has been done to give us more enlarged and precise views on the subject of contagion, and much that mere practical experience and clinical observation could not determine has been solved, and made matter of demonstrative proof by recent experimental investigations.

Now, if we assume, as already remarked, that consumption is, in the main, tubercular, its widespread diffusion is easily accounted for by the results of these researches and experiments, which, at the outset, proved that there was something in tubercle which possessed infective properties, and have culminated, in the hands of Koch, in making the special contagium, or the precise infecting organism, a matter of demonstrative proof.

About twenty years ago Buhl taught that acute tuberculosis was of an infective nature, and was owing to the existence of a primary inflammatory induration which had become caseously degenerated, and to the absorption of particles from the caseous mass. His view was that the infective substance was always associated with the secondary caseous change, but recent experiments on the artificial induction of tuberculosis in animals render this view untenable.

In 1865 Villemin commenced a series of experiments to prove that tubercle was an infective disease, and demonstrated the fact that caseation of the tuberculous matter was not necessary to constitute it a focus of infection. He took little bits of tuberculous matter, about a pin's head in size, from the body of a man, or a cow or rabbit, and inserted them under the skin of the ears, groins, or other parts of dogs and rabbits. The result was that the wound at first healed, but afterwards became red and swollen, and ultimately ulcerated, owing to the development of a tuberculous mass. If these animals were killed after fifteen days from the date of inoculation, a caseous mass, surrounded by small yellow granulations, was found at the seat of the wound; tubercles were found in the viscera, especially in the lungs; and, besides grey granulations, infiltrated masses of tubercle were discovered in varying conditions, according to the date of the animal's death. He found like changes to occur in instances where he injected hypodermically small quantities of the sputa of consumptive patients, mixed with water.

Chauveau of Lyons obtained like results from all his experiments, which were of three kinds. First, he gave some oxen, by the stomach, portions of tuberculous matter got in some instances from man, and in other cases from oxen, which are very prone as a class to what is known by the names of "pearl disease," "angle berries," or "grapes," from the peculiar condition of the serous membranes, or, generally, bovine tuberculosis; second, he inserted particles of tuberculous matter into the connective tissue; and, third, he injected into the veins water into which tuberculous matter had been placed and had been filtered. In all cases tubercle granulations were found in the lungs, and all the animals contracted tuberculosis.

We may here conveniently mention that Dr. Charles Creighton, in his interesting work on bovine tuberculosis in man, published last year, describes numerous cases in which a condition of organs in the human subject was found similar to that seen in oxen dead of tuberculosis; and he establishes

the extreme probability that the disease is not unfrequently transmitted to human beings through eating the flesh or drinking the milk of diseased cows. Professor Gerlach also states that healthy oxen can be infected through the milk of sickly cows, or by taking with their food portions of tuberculous matter from the organs of affected animals.

These investigations proved that tuberculosis could be produced in suitable animals by the introduction, in various ways, into their systems of true tuberculous matter; but some years ago Dr. Burdon Sanderson and Dr. Wilson Fox performed various experiments on rabbits and guinea-pigs, which they believed to prove that tuberculosis could be produced in these animals by inoculating them with any of the products of ordinary inflammatory action, or even by such substances as fatty liver or putrid muscle—nay, even by the production of local injuries, such as a deep wound, or the insertion of a seton. For a time many concurred in these opinions, and viewed the bodies found after the experiments of Villemin, Chauveau, and others as mere inflammatory products, or infarctions, and not true tubercles at all; but the tendency of more recent experiments is to cast doubt on the assertion that any irritating foreign body could induce tuberculosis in these animals, and to confirm the belief that true tuberculous matter alone can produce general tuberculosis, and that the products of inoculation with non-tuberculous matter are not true tubercle, but what Dr. Hippolyte Martin of Paris calls false or "pseudo-tubercle." His experiments are so remarkable, and his statements so decided, that we must refer to them; but in doing so we may as well premise that he holds that true tubercle is an infective malady originating in a specific though undetermined virus, and that its propagation arises solely from the conveyance of this virus from body to body. By this one peculiarity, he maintains, is it possible to determine true infective tubercle from the false or non-infective. True tubercle produces general tuberculosis from a local infection, the virus increasing with successive inoculations; whereas non-tuberculous matter after inoculation produces a local tubercle, but inoculation from this secondary tubercle is quite powerless to produce general tuberculosis. He says it is always indispensable to conduct experiments on this matter with the most rigorous regard to antiseptic precautions, lest particles of real tubercle be accidentally injected, and this is the more important because, according to him, it is impossible to distinguish under the microscope, so far as anatomical characters go, between true and false tubercle—the one only distinguishing feature being the infectiveness of true tubercle. In this he is supported by Professor Cohnheim, who, though I am not able to quote his exact words, had previously given his opinion to the effect that under the head of tuberculosis should be ranked all that after its inoculation on suitable animals produces tubercle, whilst all that fails to do this is not tuberculous; and that the anatomical definition of tubercle is useless and must give place to the etiological.

Dr. Martin conducted two sets of experiments to prove the infectiveness of tubercle. With the greatest antiseptic precautions, he injected into the peritoneal cavity of guinea-pigs irritating substances of vegetable and animal nature, such as pepper, cantharides, fragments of sarcoma, particles from a carcinomatous mamma, particles from the caseation of a sarcomatous tumour, and other non-tubercular matters, with the results that in most instances the animals remained quite healthy, and when killed had no disease of the viscera. In other cases he showed that foreign bodies could set up ordinary inflammatory action, the products of which could not be anatomically distinguished by the microscope from the true tubercle, which always followed inoculation with true tuberculous matter. These secondary tubercles, after inoculation with tuberculous matter, had the distinguishing characteristic of increasing infectiveness from successive inoculations. Hence he concludes tubercle is an infective malady, owing to the presence of some morbid agent, peculiar to it, but undetermined. This agent Koch seems to have discovered in the form of a minute organism, which now goes by the name of the bacillus of tubercle. We may, however, previously enumerate experiments which, while proving that tubercle is infective, also demonstrate some additional ways in which the parasite may find an entrance into the bodies of unaffected persons.

Tappeiner, Bertheau, Weichselbaum of Vienna, and other investigators, caused dogs and some other animals to breathe an atmosphere in which the sputa of consumptive patients, and other forms of tuberculous matter, were diffused in the

form of spray; whilst they made others respire air through which they diffused atomised liquids impregnated with non-tuberculous substances. The results of these experiments were as follows. In all cases where real tuberculous matter was used, tubercles were found in the lungs, kidneys, and other organs, but especially in the lungs, the abundance of the tubercle being generally proportionate to the length of the experiments and the frequency of the inhalations. In those cases again where non-tuberculous matter was sprayed into the air, either no tubercles were found, or only a very few nodules, and these, perhaps, of doubtful character.

Again, in France, M. Giboux operated on rabbits directly with the air itself expired by consumptive patients, with a view to determine whether it could induce tuberculosis in healthy animals. Into one room he placed a cage containing two healthy rabbits, and into it he passed daily, for some time, twenty or twenty-five litres of air expired by phthisical patients. Into another separated room he placed a second cage also containing two healthy rabbits, and into it he passed daily a similar amount of air expired by consumptives, but previously filtered through tow charged with carbolic acid. The consequences were, that at the end of about three months, the rabbits in the first-named cage became emaciated and showed signs of disease, and at death tubercles were found in all the organs, but especially in the lungs; whereas, in the second pair of rabbits, there seemed to be no injury to health at the end of a like period, and their organs, when the animals were killed, were found free of tubercles.

All these various modes of artificially producing tuberculosis in suitable experiment-animals—some by inoculating tuberculous matter beneath the skin, some by giving it by the stomach, some by injecting it into the veins, others by giving it through inhaling an atmosphere impregnated with tuberculously tainted spray, and others by directly administering the breath of consumptive patients—point to the conclusion that there must be some special infecting virus in real tubercular matter. About five years ago Professor Klebs stated that the contagiousness of tubercle was owing to a microphyte, and his discovery regarding tubercle was proved, by Dr. Schräller of Greifswald, to hold good regarding certain affections termed scrofulous; as, for example, scrofulous affections of glands and scrofulous disease of joints, in all of which he said the same microphyte was found.

We will, however, in closing, refer at greater length to the experiments of Koch of Berlin, as they are the latest, the most striking, and, perhaps, the most decisive. Koch had previously acquired an extended and great reputation by his exhaustive researches into the contagium of splenic fever. His great aim was to discover what the precise character of the contagium was which rendered tubercular disease communicable from one individual to another, and capable of indefinite reproduction. The result of his experiments was, that in all true tubercles found in cases of general tuberculosis, a special micro-organism was discovered. It may be fittingly asked, Do these micro-organisms or parasites occur in any numbers, do they in any degree infect the tissues of a healthy living body, or do they occur only in special states of disease? Koch and others are decidedly of opinion that they do not occur in the tissues of healthy living bodies, and they have also proved that, though different parasites live and flourish under somewhat varying temperatures and attendant circumstances, yet they all agree in this, that, when once introduced into the living body, their life and increase are greatly favoured by a low state of the general health. According to Koch, the tubercle bacilli are found within the giant-cells, and they are delicate rod-shaped bodies varying in length from one-quarter to one-half the diameter of a blood-corpuscle. We are further told that these bodies are most numerous in recent and advancing tubercle, and that they become fewer in proportion as the tubercle gets older, and finally disappear on the healing up of the tubercular disease. Dr. Koch also tested the expectoration of many who were suffering from consumption, and invariably found in it multitudes of bacilli, while he could discover none in the sputa of non-consumptive patients. He also found that the bacillus of tubercle required, in inhabitants of the temperate zone, about the warmth of the animal body for its growth and increase; and, in this respect, it differs from the bacillus of other diseases, for we are told that the bacillus anthracis found in cases of splenic fever can live in a temperature much lower than that of the body—outside the body in fact. Having discovered the parasite, the next point which Koch set himself to decide

was whether or not it was the real and only cause of infection; or whether some of the matters by which it was surrounded were so. To determine this point it was needful to differentiate the bacilli from the tissues in which they lay; and this he succeeded in effecting by means of a special dye. To make sure that it was the parasite alone that was the medium of infection, and not any surrounding virus, he cultivated the bacilli artificially through many successive generations. With a speck of tuberculous matter from a human lung, he infected different substances, carefully prepared, so as to afford nutriment to the parasite. From these he infected fresh nutritive material, and so on, till many broods of the parasite were obtained. After the bacilli had been several times transferred from one soil to another, the original tubercular matter was at length got rid of, and nothing but the bacilli was left behind. Now, inoculation with these bacilli, isolated from all the original surrounding matter, was followed by reproduction of the parasite, and by the induction of tuberculosis, as certainly as was inoculation with a speck of tuberculous matter containing living bacilli. The same results followed when the bacilli were placed in fluids contained in porous clay vessels—inoculation with the fluid which was sweated through the clay was innocuous, whilst inoculation with the bacilli was followed by their reproduction, and by tuberculosis.

We have thus traced a belief in the contagiousness of consumption held by a few probably in all ages, springing from observation and practical experience; and we have seen how it is justified by the results of experimental research in our own days, and that at last, within the past few months, the precise infecting parasite has been made a subject of microscopic demonstration.

Now, if Koch's statement, already mentioned, that one-seventh of the human race die of tubercular disease, and that this disease causes fully one-third of the deaths occurring in active middle life, be true, it is impossible to overstate the importance of his discoveries regarding the nature of the bacilli found in tubercle, and in the expectoration of consumptive patients, which he says does not lose its virulence though reduced to a state of perfect dryness. The question now arises, If consumption is an infective disease, can anything be done to destroy its virulence, or to arrest its ravages to a degree hitherto unattained? This much we may safely assert, that the results of all the experiments we have detailed clearly indicate the need of recognising the parasitic origin of tubercle, of fortifying the body against the invasion, and against all circumstances favourable to the development, of the bacilli, as well as of aiming at the destruction of those already pervading the infected organs. With this in view, we must remember the importance of attending carefully to the improvement of the general health of all consumptives, to the avoidance of close confinement in over-heated and overcrowded rooms, to the keeping the patient as much as possible in the open air in suitable weather, to the careful ventilation of sleeping apartments and sitting-rooms, whilst guarding against preventable draughts, to the separation of the healthy from the sick as far as possible at night, and to warning the healthy against all avoidable inhalation of the breath of consumptive patients, who, in their turn, must be kept from rebreathing their own breath. Serious attention should be bestowed also on the disinfection of the sputa of consumptive persons; and much good may be expected also from the more assiduous use of antiseptic inhalations than has been practised in the past.

Perhaps, in all that has been said we may find a plea for cottage hospitals in open suburban parts, in place of general or large special hospitals for consumptives; and one without doubt for a more careful supervision of the health of cows, whose milk is an article of daily use by the consumptive, and enters so largely into the dietary of all non-consumptives, especially into that of children; as we are told the milk of animals suffering from tubercular disease is capable of transmitting it to previously healthy human beings.

At the last meeting for the present session of the Court of Common Council of the City of London, the Right Hon. the Lord Mayor in the chair, it was resolved, on the recommendation of the Finance Committee, to distribute two hundred and fifty guineas as follows:—£105 to the British Home for Incurables, £105 to Miss Mary Hardell's Scarlet Fever Convalescent Home, and £52 10s. to the Tower Hamlets Dispensary.

## Arris and Gale Lectures ON THE RELATION OF EXPERIMENTAL PHYSIOLOGY TO PRACTICAL MEDICINE.

*Delivered at the Royal College of Surgeons, June, 1882,*

By G. F. YEO, F.R.C.S.,  
PROFESSOR OF PHYSIOLOGY IN KING'S COLLEGE.

### LECTURE III.—PART II.

#### THE DEPENDENCE OF THE MODERN RATIONAL METHODS OF TREATMENT UPON A KNOWLEDGE OF PHYSIOLOGY.

I HAVE pointed out that it is rather by shedding a general light on the normal functions of the various organs of the body, than by formulating special modes of treatment, that physiological research will advance medical knowledge. Specific examples of immediate benefit to practice are, however, more striking to lay people than the clearest evidence of the effect of general advance. I shall therefore refer to some instances in which these advantages appear in a more concrete form.

Until within the present century it was the practice of surgeons to cut down on and divide the portio dura of the seventh pair of nerves, at its exit from the parotid gland, in order to cure neuralgia of the face. This operation caused loss of motion of one side of the face, without in the least influencing the pain, for this nerve has nothing to do with the transmission of sensory impulses. This useless proceeding was even continued for some time after Sir Charles Bell had shown the real function of this nerve.

This same nerve is often more or less completely deprived of its function by pathological processes of different kinds. The result is the well-known facial paralysis. Its various causes may affect different parts of the nerve,—within the cranium; in the petrous part of the temporal bone, or in the more superficial portion on the side of the face. In each of these situations the prognosis and the treatment should be different, and their differential diagnosis is therefore essential before a rational treatment can be determined. The key to this difficulty lies in what we have learned from vivisection, combined with an exact knowledge of anatomy. There are certain branches that spring from different parts of the nerve whose functions are known to us only as the result of vivisections—e.g., the chorda tympani nerve, which bears secretory impulses from the brain to the submaxillary gland, and the lesser superficial petrosal branch, which carries taste-impulses from the tip of the tongue to the sensorium; these come off from the nerve in its passage through the temporal bone. If, then, a bitter substance applied to the tip of the tongue on the affected side fail to produce a bitter taste, and if weak acetic acid do not produce a flow of saliva from the gland on the affected side, the lesion must implicate the origin of these branchlets, and therefore be deeply seated.

Again, it is to vivisection that we owe the introduction and the perfection of the operation of transfusion as a mode of treatment. By experiments on dogs Lower first demonstrated and made well known to the scientific public, in the seventeenth century, the possibility of replenishing the blood of one animal by that taken from another. I am aware that the claim of priority concerning the operation of transfusion is disputed. Dr. Ogle, in his Harveian Oration, has distinctly shown that the story of the transfusion of the blood of the three boys into the vessels of Pope Innocent VIII. is not to be accepted, the repeated mention of it being merely from hearsay. A description of how the operation might be performed is given by Libavius, the chemist of Halle, but he severely condemns its practice. But whether Libavius did it himself or not, and the former supposition seems very questionable, there can be no doubt that it had been often carried out on the lower animals before it was attempted on man. In more recent times many improvements have been made in the operation by vivisections. For instance, it has been shown that freshly defibrinated blood is as efficacious and as safe as that from which the fibrin has not been removed. Moreover, the danger of using



the blood of dissimilar animals was shown, and surgeons were thus warned against a mode of practice that at one time had proved a great drawback in the adoption of the operation, for it made the result very uncertain. Thus we see that whoever first actually performed the operation, it was by experiment on the lower animals that a method of saving life in cases of severe hæmorrhage was placed in the hands of the surgeon, and by the same means its application has been robbed of its chief dangers, so that by it a large number of human beings have been rescued from bleeding to death. But this wonderful means of saving life is not applicable to cases of dangerous bleeding only. In charcoal suffocation we know—chiefly by experiment—that of the noxious gases evolved by the burning charcoal, one, carbon monoxide (CO), acts differently from the other, carbon dioxide (CO<sub>2</sub>). In the former case the gas forms a stable compound with the colouring matter of the blood, not only replacing the oxygen which the hæmoglobin normally carries, but also preventing the future union of that gas with the blood corpuscles. The blood in which the hæmoglobin is combined with carbonic monoxide is of a brilliant scarlet colour, unlike that of carbonic acid poisoning, or of ordinary suffocation, in which case it is dark. In pure carbonic acid poisoning artificial respiration is most useful, and, as a rule, will suffice to restore the reduced hæmoglobin to its natural oxygenated state. In poisoning with carbonic oxide, on the other hand, experiment has taught us that artificial respiration is useless, and that the permanently spoiled hæmoglobin must be got rid of by bleeding, and fresh blood supplied in its place by transfusion. In calculating the value of transfusion it must be remembered that it really is a means of saving life rather than a mode of treatment, for it is only employed as a last resource in otherwise hopeless cases. In fact it brings back to life one practically dead. Yet I find that more than half of the recorded cases in which it has been used have been successful, and the dying patients have been saved from a sudden and certain death. The following table gives the result of 216 cases:—

	No. of cases treated.	No. cured.	Per. cent. cured.
Post-partum hæmorrhage.....	108	63	58
General hæmorrhage.....	75	38	50
Intestinal hæmorrhage.....	18	10	55
Carbonic oxide poisoning....	15	6	40

I shall not enumerate the many operations—otherwise impossible—which the use of aseptic surgery has enabled the surgeon to perform, although we may in a great measure claim antiseptic remedies as the direct outcome of experiment on living animals. There are, however, several surgical operations which owe their origin or application so directly to experiments on the lower animals, that they must be alluded to, however briefly. The operation for amputation through the hip-joint was performed on dogs, and on its success being reported to the French Academy, it was generally applied in military surgery to the human subject. Of its feasibility as an operation there is now no doubt. The improvements in orthopædic surgery which, though recent, are now regarded as a matter of course, chiefly depend on the physiological investigations which Stromeyer, v. Ammon, Bouvier, Guérin and others carried on in this century. Tenotomy was hazardous and unsatisfactory in the extreme until the subcutaneous method was perfected, and the mode of repair of tendons fully investigated upon the lower animals by the authors just named and many others. So much has already been said about Hunter's experiments in relation to the operation for aneurism, that I shall content myself by reminding you that they have a direct bearing on many methods used in modern surgery in general, and that they were not merely useful in leading to one mode of curing aneurism; and further, that, no matter who first tied the artery above an aneurism to accomplish its cure, such a proceeding was only made justifiable by the knowledge of the circulation which was acquired by vivisection.

There are many operations which have been performed on the stomach and the other abdominal viscera which are the outcome of vivisection. So long as thirty years ago Sédillot was tempted by the facility with which Blondlot established gastric fistulæ in dogs, for the purpose of making experiments on digestion, to perform a similar operation on a human being. Having under his care a case of cancer of the œsophagus, in which life was threatened from inanition, he determined to open the stomach. He did so according to the rules of experimental physiology, and pos-

sibly prolonged the patient's life, and certainly improved his condition while he lived. Since then Billroth has removed a portion of the stomach for cancer. And Czerny of Heidelberg has removed a cancerous tumour involving the pylorus of a man who seemed to be rapidly sinking from the occlusion of the outlet of the stomach and constant vomiting. In a little more than a month after the operation the man increased nearly a stone in weight, and then returned to his work. More striking still is the case of a healthy young girl, who by accident swallowed some corrosive poison, and recovered from its immediate effects. The œsophagus was so much injured that swallowing was out of the question, and even the introduction of food through a tube was attended with great difficulty. The awful death of slow starvation was the only prospect before this otherwise robust girl. She was operated on in exactly the same way as experience had shown was the safest to establish a gastric fistula in a dog. She now feeds herself, and enjoys life. Here, then, is a simple answer to the statement that "not one benefit has accrued from the labours of the physiologist, either to medical or surgical science?"

Wounds of the intestine have always been regarded with great dread by surgeons. By an experiment on a dog it was shown that by securing the union of the serous surfaces a portion of the intestine could be removed, and the ends of the remaining portion sewn together so that the peritoneal surfaces united. Since the original experiment of Shipton, a young Englishman, similar operations have been frequently performed on animals for the purpose of collecting the intestinal fluids. Upon the same principle wounds of the human intestines have frequently been caused to unite, and, as Mr. Benjamin Travers has shown, by this means much of the horror formerly attached to strangulated hernia has been dispelled.

There is further a surgical instrument which, in special cases, is of great value, the invention and applicability of which was aided by experiments on lower animals. M. Chassaignac was led to imagine on *a priori* grounds learned from surgery, that a torn tissue would not bleed as it would when cut with the knife; but humanity forbade his at once applying his theory to human beings; so he first used the écorseur upon dogs. He says, in describing experiments made on the tongue of these animals: "When the crushing was conducted slowly, the solution of continuity was dry; there was no hæmorrhage, either primary or secondary." I have seen M. Chassaignac in his hospital practice sit with most exemplary patience slowly applying the rules he had thus learned from vivisection to the removal of tumours which the knife could not have reached.

In many cases where disease of a bone or joint used in former days to demand the removal of the limb, the bone or the joint now only is removed, and the rest of the extremity—a sound hand or foot probably—is left to the patient. This change in practice was in a great measure brought about by the knowledge of a fact which was derived from experiments on living animals. In the last century Duhamel clearly proved the mode of growth of bone, and placed beyond a doubt the fact that the periosteum can produce bone; and Michael Troja showed by experiment the more accurate details of the process long before subperiosteal operations were thought of for the alleviation of human suffering. Nearly fifty years ago, Mr. Syme made experiments on animals on the subject of the formation of bone from periosteum, and showed the immediate application of his results to surgical practice. In 1867, M. Ollier of Lyons made a more elaborate work on the subject, which brought the matter prominently forward. Probably there is no point which has contributed more to the advance of "conservative surgery" than this. Whether an elbow be flexible or rigid after its excision, or whether a limb be too short or distorted after the subperiosteal resection of the bone, it is an inestimable gain to retain a living and moving hand instead of a stump-hook.

The fact that a dog can live in the enjoyment of perfect health after one kidney has been removed has often been established in physiological laboratories. This operation has now frequently been performed on the human subject, and repeatedly with success in cases where all other means of prolonging life or making it bearable had failed.

A case occurring in his clinique, in which malignant disease of the larynx threatened a man with immediate and sudden death, Billroth conceived the idea of removing the entire organ. One could hardly do such a terrible operation, even on a dying human being, without some kind of

experience to instruct and guide one. Accordingly, Czerny, who was then his assistant, did the operation successfully on a number of dogs, and thereby gained such knowledge as to enable Billroth to carry out his intention. He operated and the patient recovered, and with an artificial larynx could breathe and even speak in a whisper.

The whole history of our knowledge of inflammation is so interwoven with experiments on living animals that I could not attempt in the short space of an hour to trace out the many and great obligations that pathologists owe to vivisection for elucidating the minute changes in this process. I need only refer to the experiments of Hunter, Thomson, Wharton Jones, Paget, Virchow, Lister, Cohnheim, Stricker, and others, who have made this important topic a special subject of study. Nor will time allow me more than to name the application of experiment on the lower animals to the infectious diseases and the febrile state in general. The results of Koch's work on the infection from wounds and splenic fever, and Pasteur's beautiful researches, not only form strong rocks of defence against the clamorous ignorance of those who prefer mystic to common sense and sentiment to rational modes of treatment, but they also afford great encouragement for the future of experimental research by showing what results may thus be attained.

With regard to remedies suggested, or discovered by vivisection, it must be remembered that experimental therapeutics as a science is in its infancy, and therefore their number is not great. There are, however, some very important drugs which owe their introduction into medicine to experiment on the lower animals. Much has been written and said about the few remarkable cases in which drugs have a different effect on some animals from that which they exercise on man. It must be remembered that these are rare exceptions, and only occur in the case of a few animals, so that by using animals of different species the probable effect of any medicament on man may be determined with sufficient certainty for its efficacy on the human subject to be tried with impunity. It is generally the experimenter himself upon whom this trial is first made. Among the drugs which we certainly owe to experiment on living animals—such experiment as would come under the Act though not really vivisection—is chloral hydrate. From the chemical composition of the substance Liebreich thought that it would have much the same effect as chloroform, and he found by trying it on rabbits and other animals that such was the case. It induces sleep, and in larger doses destroys sensibility. In large doses it affects the heart and lowers the animal heat so as to become dangerous. When used to prevent pain in operations on the lower animals care must be taken to keep the temperature from falling, and this should be remembered in treating cases of poisoning by this drug. We knew from vivisection that the alkaloid of deadly nightshade, atropin, checks the secretion of saliva. Often in cases of paralysis, and sometimes in fracture of the skull, dribbling from the mouth is a most distressing symptom; it saturates the pillow and robs the poor patient of much needed rest. A little atropin injected under the skin in the neighbourhood of the gland checks for hours the flow of saliva, and enables the sufferer to enjoy a quiet sleep. But belladonna is a dangerous poison, acting, as vivisection shows, by depressing the heart-nerves; but it has also been demonstrated that a substance which can be extracted from a bean used in Calabar as an ordeal poison, has an antagonistic influence on the nerves of the heart, and acts as an antidote in cases of belladonna poisoning.

We know further from vivisections that a substance called amyl nitrite causes general relaxation of the bloodvessels. It has therefore been used with success in cases of headache arising from spasm of the cerebral vessels, and has been found of more value in that agonising disease called angina pectoris than any other known remedy. The alkaloid of nuxvomica, strychnia, was also introduced into practice by experiments on the lower animals, and its remarkably stimulating effects on the spinal cord were made out by Magendie. It is now in common use, and is recognised as a valuable nerve tonic. Strychnia is known to be a terrible poison, but the alkaloid of tobacco, nicotine, has been put forward as its antidote by Professor Haughton, from the experiments which he performed on living animals. For a very long time the occurrence of sugar in the urine has been recognised as the chief symptom of diabetes. The mechanism of its production and the locality where the sugar was

formed, were alike unknown until Claude Bernard determined the glycogenic function of the liver. We now know that any disturbance of the vaso-motor mechanisms of that great gland causes an excess of sugar to appear in the blood and be eliminated by the kidneys. This is at least a step towards the pathology of this disease. By vivisections we know further that the production of sugar depends upon the presence of a ferment which changes the normal glycogen into grape sugar. Is there nothing that will check this process and save the economy the great loss of sugar? From experiments by Lemaire we learn that carbolic acid checks fermentative changes. Relying on this and other information acquired by vivisection, carbolic acid has been tried internally in some cases of diabetes, and in a certain number of these cases the sugar has disappeared from the urine.

Although I have enumerated these special instances in which vivisection has directly benefited practical medicine and surgery, I do not wish to lay stress upon them as the strongest evidence in favour of the necessity of experimental research. I must once more insist that the immediate object of physiology is not to invent cures for disease, but to learn the normal operations of the living economy. If we could remove from our thoughts of a case of disease the memory of even one of the great facts which form the basis of our physiological knowledge, which have been derived from vivisection, and if then we attempted to arrive at the diagnosis, prognosis, and treatment of the case in question, we should find that the entire fabric upon which we base our arguments would collapse like a house of cards from which one card from beneath has been roughly withdrawn. In his evidence before the Royal Commission the venerable Professor Wm. Sharpey said: "I think that vivisection is of value as promoting the science of physiology, and that again is one of the great foundations of all rational medicine.....It puts a lamp, so to speak, in the hand of the physician when he is studying disease.....In short, I should say that physiology is not to be compared to a reaping machine, but rather to the plough."

Rational therapeutics must grow out of physiological knowledge, as surely as a plant is the outgrowth of its roots. As the remote rootlets are the exact parts which are all-important for the nutrition of the plant, so experiment feeds physiology and thereby nourishes the art of medical practice. It would appear silly to ask to what rootlet any single fruit or flower on a widely-spreading tree owed its existence or nutrition, and so it is idle to expect that each, or even any, therapeutic agent or method of diagnosis should be traced to the definite experimental discoveries that may have led to its adoption or use. As the branches of our medical tree spread wider and wider and its diagnostic flowers and therapeutic fruits become more and more numerous, we find that its physiological roots go deeper and deeper in search of pabulum, and the experimental rootlets become still further removed from the more obviously useful and prolific part of the plant.

## ON THE ABORTIVE TREATMENT OF GONORRHOEA.

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GONORRHOEA, though not generally regarded as a formidable disease, is in reality from its frequent complications and after consequences a very serious affection. A glance at the more important of these complications and after consequences will illustrate the truth of this statement, for among them we have phimosis, paraphimosis, inflammation of the cellular tissue of the penis and scrotum with abscess formation, or even in rare cases strangling and possibly perineal fistula, proctitis, cystitis, nephritis, even peritonitis, orchitis and sterility, bubo, conjunctivitis, scleritis, synovitis, and as more remote consequences we may have stricture of the urethra with all its dangers and complications. The full appreciation of these facts leads to the conclusion that gonorrhoea is by no means a trivial complaint, indeed the consideration of them led the late Professor Bumstead to say that gonorrhoea kills more patients

than does syphilis. The very serious character of the disease and the frequency of complications have induced surgeons to make attempts to cut the malady short in its early stages by what have been termed abortive methods.

The usual methods of treatment I need not discuss. They consist in the use of various means to moderate the intensity of the inflammation and to shorten the duration of the inflammatory stage. The chief of these is rest by keeping the patient in bed; the removal of all causes of excitement, as alcoholic drinks, &c.; and free purgation. Rest is given to the part as far as possible by diminishing the irritating state of the urine by the administration of alkalies to render it neutral or slightly alkaline, by the use of diuretics and plenty of mucilaginous drinks, &c., to dilute it, and so on. No local astringent injections are employed till the acute inflammatory stage has subsided; but copaiba may be given before it has quite passed off. When the scalding and other symptoms of acute inflammation have disappeared, injections of various kinds are used. With regard to the length of time required for the treatment of a patient in this way, it may be instructive to quote what Bumstead and Taylor say: "The reader may be interested to know what is the average duration of treatment required in the hands of the best surgeons for the cure of gonorrhoea, laying aside those cases which are seen in the first stage (i.e., before acute inflammatory symptoms have set in), and which are speedily cured by the abortive method. This may be estimated at four to six weeks. Greater success, on the average, is probably not attainable by any means with which we are at present acquainted." The edition from which I quote is the last, and was published in 1879.

The first method employed with the view of cutting short the disease, and, indeed, the only one, as a rule, mentioned in text-books, is the injection of a strong solution of nitrate of silver into the urethra. This was introduced by Debeney, and has since been variously modified, but is now rarely used. Debeney started on the nowadays untenable theory, though one still to be found in some text-books of surgery, of trying to substitute a healthy inflammation for an unhealthy, and then curing the healthy. Debeney's method was to inject into the urethra a solution of nitrate of silver of the strength of sixty-four grains to the ounce of distilled water; and he used his injection in any stage of the disease. The results were generally disastrous. Cullerier says of it: "As soon as the caustic liquid has touched the urethral walls, a horrible pain is experienced, so great as to make the patient cry out, and often to induce syncope; then a very rapid and enormous swelling of the penis occurs, often with profuse hæmorrhage." As a rule, a cast of the patient's urethra comes out in a few days, and, where the effects subside without such complications as abscesses, diffuse inflammations, or the patient's death, the gonorrhoea is rapidly cured. Since the time of Debeney, and of his follower and advocate, Gueterbock, the attempts at abortive treatment have been confined to the stage prior to the appearance of the acute inflammatory symptoms—that stage where the patient first notices a little irritation, or a slight mucous discharge at the orifice of his urethra, and the strength of the injections has been much diminished. Ricord used for a time an injection of sixteen grains of nitrate of silver to the ounce of water; but this also was found to be much too irritating, and was frequently followed by complications, and he therefore abandoned it. Of late those who have employed the abortive method have reduced the strength of the solution, till now it is only one grain of nitrate of silver to the ounce of water. All authors concur in condemning these attempts, unless they are practised before there is any pain in passing water or any well-marked inflammatory symptoms. This is a condition in which patients are seldom seen, and therefore the method has practically fallen into disuse. This method was modified by Johnson, who advocated the reiterated use of weak injections. He says, writing in 1851: "Perhaps the precise kind of injection is not of so much moment as its dilute character, its early employment, and its frequent repetition." He mentions a variety of solutions of the strength of half a grain of the salt to an ounce of water; some, indeed, as nitrate of silver, so dilute as one grain to six ounces of water. At the same time he administered copaiba. The result was very various. In some cases cure was effected in a few days; in others in two or three weeks; in others the inflammation ran its usual course. Johnson, however, only got the favourable results when the patient commenced the treatment a few hours after the beginning

of the gonorrhoea. If the inflammatory stage had once set in but little benefit was derived.

Another method was advocated by Cullerier. It consisted in the employment of large doses of balams, more especially of copaiba, and also large doses of cubeba. He gave six to eight drachms of cubeba and four to six drachms of copaiba in the day. This is used in cases of gonorrhoea seen within eight days after infection; but once the inflammatory symptoms have reached any height he does not advise the method. As he says, in some cases a rapid cure is effected, but there is a great tendency to disorder of the digestive organs, and sometimes inflammation of the urinary organs may supervene. This method is quite unsatisfactory, and has not taken any hold on the profession.

Niemeyer tried to check gonorrhoea by another plan. He did not inject irritants but astringents, with the idea of constricting the vessels and thus rendering the inflammation impossible. He used tannin dissolved in red wine. He says: "I usually order three powders, each of which contains half a drachm of tannin. One of these is dissolved in half a pint of red wine, and the solution used as an injection. If the result is unsatisfactory the other two powders are to be put into the same quantity of wine, and the injection to be continued with this doubly strong solution." This method, like the others, is only of use in the very early stage; but he says that, when employed in time, he has cut short a large number of recent virulent gonorrhoeas in two or three days. He also adds, "Even where the disease is not quite recent, but where the inflammation is not very violent, I have often used the tannin, and obtained excellent results although the cure was less rapid." I have only tried this method in one case seen a few hours after its commencement, and the result was fairly satisfactory. Inflammatory symptoms never appeared, but a little discharge remained for about three weeks. This method, which I believe to be the best, has, however, the same disadvantages as the others—viz., to be successful treatment must be begun very early, at a period, indeed, at which the surgeon seldom sees the patient. And where it is successful one cannot always be certain that the inflammatory symptoms would have become more marked had it not been employed—i.e., one cannot tell that the case was one of true virulent gonorrhoea.

In the *British Medical Journal* for July 24th, 1880, I published an account of a new method which I had introduced for the purpose of arresting gonorrhoea, and it is with the view of giving the results of my attempts to cut short the gonorrhoeal inflammation that I publish the present paper. The principle on which I started was, to quote from my former paper, that "the extreme contagiousness of this disease, the existence of a distinct period of incubation, and the steady spread of the inflammation, all point strongly to a parasitic origin." I had found micro-organisms of a particular kind always present in gonorrhoeal pus, and they have also been described by other writers, and, reasoning from analogy, I concluded that gonorrhoea was probably due to the growth of an organism in the mucous membrane of the urethra, giving rise to a more or less acute inflammation of its mucous membrane. I will not discuss here the accuracy of my views, for I hope shortly, in conjunction with Mr. Jennings Milles, to publish an account of some investigations which we have been making on the subject.

Granting, however, that these views are incorrect, and that gonorrhoea is due to the continuous growth and spread of something introduced from without, possibly belonging to the group of schizomycetes, it is evident that the destruction of these bodies, or the arrest of their growth, ought to stop the progress of the symptoms, supposing that the agent employed for this purpose is of itself innocuous. This is what I have tried to do, and what, probably, happens in the other methods of abortive treatment when they are successful; for the injections of nitrate of silver and Niemeyer's tannin and alcohol solution are to some extent destructive of plant life: while Johnson's method of frequent irrigation of the urethra washes away the products of growth of these organisms, and possibly many of the organisms themselves. As I pointed out in my former paper, the organisms probably require for their easy spread that the mucous membrane be diminished in vitality. This they do by the products of their growth, which irritate and cause inflammation of the mucous membrane; and when the resisting power of the tissue has been in this way diminished, they grow in it with ease. Now, if these products are constantly washed away, this weakening of the tissue is not so great, and the growth of the organisms

in it occurs only with difficulty. If, however, the organisms have got a good hold of the tissue, very little benefit can be derived; and experience has shown that the method is of little use when the acute symptoms have advanced before it is begun. The mode in which large doses of copaiba act is less evident. We know from Ricord that it does not produce its effect through the blood, but that it is excreted by the kidneys in some altered form, and that it is the urine containing this product of the introduction of copaiba into the system which, passing over the mucous membrane in the urine, brings about the good result. It may be either that it is a parasiticide, or that it has some special effect in arresting the inflammation. I have not yet tested the parasiticide properties of such urine; but in one case, where I kept it for several days, it certainly did not decompose so soon as would have probably been the case had copaiba not been previously administered.

The materials which I employed with the view of destroying the cause of gonorrhœa were chiefly iodoform and eucalyptus oil, and these I still use. As injections are apt not to penetrate sufficiently far, and as their effect is only momentary, I combined these substances with cocoa butter, and made them up in the form of solid rods about 4 in. or 5 in. in length, and about the thickness of a No. 10 catheter. These rods weigh forty grains each, and each contains five grains of iodoform and ten minims of eucalyptus oil. They are dipped into eucalyptus oil, introduced into the urethra, over the orifice of which a pad of boracic lint is applied, and outside this a large piece of gutta-percha tissue, the whole being fastened on by strapping, and retained for four or five hours if possible. The cocoa butter soon melts, and a solution of iodoform in eucalyptus oil bathes the mucous membrane for some hours. Another rod may then be inserted, and a suitable injection employed afterwards. This method is only of use, in my experience, before or during the inflammatory stage, and I employ it at any time till the inflammatory symptoms have disappeared, but generally within the first seven or eight days after the commencement of the discharge.

(To be concluded.)

## MITRAL STENOSIS IN THE GOUTY HEART.

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OUR knowledge of valvular affections of the heart does not rest on the detection of a murmur, its seat, the point of its maximum intensity, and its precise time in the cardiac cycle. Nor does their treatment consist in the administration of digitalis and iron promiscuously. Such simplicity may be admirably adapted to the requirements of an examination table, but it is perilously inadequate to the wants of actual practice. For the latter some familiarity with the natural history of each form of valvular disease is eminently desirable, which alone will enable the medical practitioner to read his case aright. There is first the individual to be estimated; then the disease to be measured. Then 2 and 2, or the nearest approach to that numeral in each case, have to be put together; and then 4 is the resultant product. But the equation has points of practical difficulty not represented in the mathematical formula. It is not always easy to determine the precise "2" of each factor. For instance, let me adduce the following case:—

E. A. W—, aged fifty-four, the mother of a family in a south-western county, came to me a little while ago, as her local medical man had found something amiss with her heart. She had been a very active person, but recently had not felt so equal to effort. Yet she had no shortness of breath on exertion, and only a little palpitation on effort at times. She had some dilatation with hypertrophy of the left ventricle, and beyond that a long mitral stenosis-murmur, heard to the right of the left apex; but over a limited area only. There were no indications of regurgitation. Now, what was the significance of this murmur? Was it—(1) The evidence of the contracting or sclerotic endocarditis of Rosenstein? was it (2) the result of an old-standing injury, the outcome of a bypast acute endocarditis? or was it

(3) a mere peculiarity; a sound produced at the mitral ostium, which had been, and was, and is, and will be, without any significance whatever? I am not ashamed to confess that the problem is insoluble to me. The symptoms were quite accounted for by her general condition, for she was bilious and somewhat malnourished. Any failure of power in her could be perfectly accounted for without the hypothesis of contraction of the mitral ostium. There was no thrill accompanying the murmur; but such is usual in the contracting endocarditis of middle age and advanced life. There was no irregularity in the heart's rhythm. Nor would the presence of irregularity or a thrill have cast the least ray or glimmer of light upon the case, in my opinion. There was the unmistakable murmur—seat, maximum intensity, period in time; and a long murmur to boot. The minutia of mitral stenosis are not recorded in my note-book. There was no possibility of mistake as to the presence of that murmur, which is held to be pathognomonic of stenosis of the mitral ostium. There was the murmur true; but what was the anatomical condition underlying it? That was the essential question to be asked; and, if possible, answered. The murmur in itself was nothing; but its cause was fraught with the most intense interest. With which of the three conditions spoken of above was it causally connected? I summed up the evidence against its being the outcome of a steady progressive diminution of the mitral ostium due to sclerosing endocarditis, and gave a prognosis accordingly. Whether the diagnosis and with it the prognosis was correct or not time alone can tell. The case was certainly one where contracting endocarditis might be present; for its associations were there as regards the general conditions; but the essential features of mitral disease were not sufficiently prominent to establish its presence.

From the negative aspect of a case like this it may be well to go on to describe the positive features of mitral stenosis in elderly persons. Assuming that some of my readers are not thoroughly familiar with the natural history and features of mitral stenosis in all its varieties, it may be well to point out that such mitral stenosis has very different features from the mitral stenosis of young subjects. Perhaps in the dead-house the features are more alike than they are clinically. In the mitral stenosis of the young, set up by acute endocarditis, there is the weak pulse of a small left ventricle; shortness of breath on exertion; enlarged right ventricle; tendency to dropsy in the serous cavities, or the lower limbs. Often there is the "heart-cough," of excess of blood in the pulmonary circulation. There is a murmur, presystolic in time, conveyed to the right of the left apex, often accompanied by a thrill. Such are the leading features. The case may get worse steadily, and even with considerable rapidity; or, as is more commonly the case, the patient is fairly well when quiet, but effort produces distinct shortness of breath, with palpitation. Anything which impairs the strength may elicit some œdema. But though the organism is crippled by the injury done to the mitral valve, the injury itself remains static, and manifests no tendency to go on from bad to worse; or if it does, it is immeasurably slowly. In such a case the administration of digitalis and iron would be likely to be of distinct service.

Now, as to the mitral stenosis of the gouty heart. Here there is a permanent high blood-pressure in the arteries, leading to hypertrophy of the left ventricle, with subsequent hardening of the arteries; the cardio-vascular changes which constitute the first stage of the granular kidney, so ably described by Dr. Mahomed in his recent thesis "Chronic Bright's Disease without Albuminuria." The hypertrophied ventricle contracts with vigour, so overcoming the resistance offered by full arteries to the cardiac systole and forcing the blood into the aorta, which on its recoil closes the aortic valves with a loud sound indicative of forcible closure; and this forcible closure frequently sets up valvulitis, with subsequent mutilation of the aortic valves. This association of aortic disease with the gouty heart is now well recognised. But the powerful contraction of the hypertrophied left ventricle causes also forcible closure of the mitral valves; they have to sustain a strain equal to the force required to overcome the resistance of the full aorta, and this strain tells upon them in time, leading to a slow sclerosing endocarditis. Such valvulitis may give either stenosis or insufficiency of the mitral valve. When the free edges become puckered and contracted, then insufficiency with regurgitation follows; when the valve curtains are soldered together by a slow inflammatory growth extending from the attachments of the valves, then stenosis with obstruction is the result. Now

whatever the form assumed by the valvulitis, the features of the gouty heart will remain to the end; even when all the phenomena of advanced mitral disease are developed and implanted thereon. The aspect is never that of simple primary mitral stenosis; nor does the interest centre round the murmur evoked by the morbid process, but attaches itself rather to the associated general condition of the vascular system.

A certain amount of injury to, and deformity of, the valves has gone on before it is sufficient to produce a murmur. But there may be the rational symptoms of a mitral lesion before the ominous murmur is set up. It may be possible to "suspect" a mitral valvulitis before the tell-tale murmur can be heard; there is, indeed, a pre-murmuric stage in all probability. It is no part of the design of the writer here to discuss this early stage, but to confine himself to the consideration of mitral stenosis—i.e., of a stage so advanced that it carries with it a murmur indicative of the character of the injury done. What are the features of this form of mitral stenosis?

The patient is elderly; has a more or less pronounced senile aspect. The complaint is that the power to undergo exertion is impaired. There is shortness of breath upon effort. There may be nothing more. The pulse may be feeble and rapid, but there is nothing else about it, nothing characteristic. But on auscultating the heart over a very limited area, at or near the right apex, a tiny "whiff" can be caught. Only over a small spot; move the stethoscope ever so little and it is apt to be lost; certainly lost if the stethoscope be distinctly moved. Here the presence of a murmur is significant, and unmistakable enough; at least in the majority of cases. But there is also a strong heart very commonly, and a fairly full artery—i.e., there are the associations of a gouty heart along with the mitral stenosis. Usually the nature of the cause of the murmur is clear and patent, and not a matter for reasonable doubt, as in the case given above. Here is a distinct explanation of the failure of power complained of. Or there may be a more advanced condition attained before the case came under notice, and the patient is confined to bed with or without some positive patch of pulmonary congestion. But there are the significant murmur, the rational features of mitral disease, linked with the cardio-vascular changes of the gouty heart, or granular kidney, as the case may be. The diagnosis bears on the prognosis and the treatment, especially as to the administration of digitalis. Here there is not an old-standing limited injury to valves, as static and non-progressive as the scar of a burn; limiting the patient's powers, but possessing no tendency to further advance. There is a contracting or sclerosing valvulitis afoot, which tends to steadily go on from bad to worse, because the mitral valve has to bear the strain put upon it by an hypertrophied left ventricle. It is a progressive form of valvulitis. Certainly; but granting that, at what rate is it progressing? "*Quien sabe!*" as the Spanish girl said when they asked her who was the father of her child" (Kingsley). One would like to know; but how can one get to know? Only, in the language of Oliver Wendell Holmes, by getting "an arc big enough to determine the size of a circle"—i.e., getting a period of observation long enough to calculate the rate of progress. This may entail personal observation, or may be fairly made out by the history of the case. In one case a definite date can be made out, since which there has been such a falling-off in the patient as reveals pretty plainly the time when the lesion began to tell upon the organism. In another case there will be no data pointing to any special time when the health was obviously impaired. The patient is not very well, feels weak and unequal to exertion, and is scant of breath, and on examination of the chest the murmur of mitral stenosis is audible. Such a case presented itself to me in June, 1880.

A gentleman, aged sixty-seven, who had led an active life, but who latterly had pains which he called "rheumatic," though, he wrote, his "water is more or less high-coloured, and the red sediment is always round the bottom of the pot," which looked like gout—came to me for some "fluttering or palpitation" at the heart. The diagnosis then made was "gouty heart, with mitral stenotic murmur." He was put upon a pill containing some strychnia and digitalis. On this treatment he lost his uncomfortable sensations, and felt very nicely. He went abroad for some time, being conscious of his heart only by some shortness of breath on attempting to climb a hill. A year later he was nicely; his tongue clean, and urine clear; not perceptibly worse. This June he presented himself after an attack of bronchitis,

which had pulled him down considerably. The heart was acting irregularly, and the beats were unequal in force. This was due to muscular debility in the heart, the right heart having been severely taxed by the extra demand upon it made by the bronchitis. He had been given carbonate of ammonia, nux vomica, and digitalis by his medical man, according to the formula at p. 367 of the "Practitioner's Handbook of Treatment" (2nd edition), which had suited him well. Indeed, he feels so well that he will not give the heart the rest required for it to recover itself. On his old pill he is doing well, and the muscular tone of the heart is being regained.<sup>1</sup> Even with the recent demand upon the heart there is no evidence that the mitral lesion is perceptibly advancing. In some other cases the inactivity of the valvulitis seems about the same; but in others, again, the progress has been steadily, if not rapidly, downwards. In one case there are violent paroxysms of angina pectoris present.

As to the treatment of these cases, the prevention of the production of uric acid by an appropriate dietary and the use of hepatic stimulants, its solution by antilithic alkalies, are measures about whose adoption there can be no question. To keep the blood-pressure in the arteries as low as possible means lessening the strain on the diseased mitral valves on each ventricular systole; and this is attained by reducing the amount of albuminoid waste in the blood, or dissolving it and so letting it escape by the water emunctories. So far so good. But how about the administration of digitalis? To increase the vigour of the ventricular contractions means increase of the strain on the valves. Certainly; and therefore grave and valid doubts may honestly be entertained about the wisdom of giving digitalis and iron, in a routine manner, in all such cases of mitral valvulitis. When the heart is fairly vigorous, and there are none of the rational symptoms of mitral mischief present, then, probably, it is well to withhold the digitalis and to be content with an appropriate dietary and regimen. But when there are evidences of cardiac failure, then, in all probability, it is well to give the digitalis; albeit in doing so the ventricle does strike harder, and so tax more the mitral valves. Here the ventricle is striking feebly, and the advantage of improving the heart's vigour is not more than counterbalanced by further strain put on the sclerosing valves. In practice each case must be decided by its own indications; and the indications will vary at times in the same case. Nor is it possible to lay down any rules of thumb for the administration of digitalis. The practitioner must weigh carefully the indications for its adoption or the withholding of it in each case. It is not necessary or desirable to give it merely because there is a mitral murmur present; as Rosenstein puts it, "Digitalis helps the heart to pump the blood out of the veins into the arteries," and the fulness of the veins and the comparatively empty state of arteries are the indications for its exhibition; no matter what the murmur, or whether there be a murmur or not. Probably when the rational symptoms of mitral mischief are present it will always relieve them. Whether at times such relief is antagonistic, or prejudicial to the ultimate interests of the case, and therefore it is better to withhold digitalis, is a matter for the exercise of private judgment on the part of the medical adviser. This is certain, the indications for digitalis in such mitral stenosis (or insufficiency, too, for that matter) are not so unmistakable as is the case in mitral valvulitis in the young, where a distinct injury, be the same more or less, has been wrought; but where there is no tendency in the valves to further mutilation, the distorting process being over and done with, the said injury crippling the organism and leading to death from the disturbance so wrought in the circulation, here digitalis can scarcely do any harm; but the same cannot be said of the sclerosing valvulitis of the gouty heart.

<sup>1</sup> Since writing the above he has had some distinct gouty symptoms.

THE family of the late George Henry Lewes have (says the *Athenæum*) presented the philosophical and scientific portion (over 2000 volume-) of his library to Dr. Williams's trustees in order that the books may be available to special students at the library in Grafton-street. The only condition attaching to the generous gift is that the books be arranged on distinct shelves, and that each volume bear some record that it formed a part of the "George Henry Lewes Library."



## ON THE USE OF VENESECTION IN CASES OF HEART DISEASE.<sup>1</sup>

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"It would be difficult," wrote Dr. Marshall Hall nearly sixty years ago, "to determine whether greater injury has risen in the practice of phlebotomy from undue or from inefficient bleeding. To neglect the full use of this most important of our remedies when it is required, or to institute it when it is not so, is equally to endanger the safety of the patient." When that celebrated teacher and practical physician uttered these weighty words, he could proceed to say: "It sometimes requires no little boldness to abstain from the use of the lancet." Bloodletting is not only the most powerful but the most generally used of all our remedies." How essentially and widely different our teaching and our practice is now need hardly be insisted on. A distinguished practitioner told me the other day that he had never drawn an ounce of blood, or even sent a cupping-glass in all his life. A clinical teacher will name twelve drugs as useful in heart disease, but never once, perhaps, suggest a single leech. In fact we seem to shrink from the lancet as if it were an assassin's dagger, and to look upon the bleeding basin and the measuring tabe as murderous relics of a bygone and a barbarous age. I verily believe that the whole question of venesection in disease has yet to be settled upon a scientific basis. I only hope to treat it as regards affections of the chest, and at present I would only draw attention to the immense benefit derived from its discriminate use in cases of heart disease. I hoped then to be able to show that in venesection, rightly used, we indeed have a "most important," a "most powerful" remedy; and I need hardly add, perhaps, a most neglected and far from a "most generally used" one. It may not be altogether uninteresting to tell how this great truth was forced upon my attention; because, brought up like most men nowadays in the strictest sect of the anti-venesectionists, I frankly confess that I was wont to read accounts of how our fathers were bled semi-annually or oftener, with a sense of quiet satisfaction at our own much greater wisdom.

CASE 1.—Albert L.—was admitted into the London Hospital under the care of Dr. Andrew Clark, when I was acting as his house-physician. He was twenty-three years old and had suffered from rheumatic fever. On admission he was very ill. Stenosis of the mitral orifice and incompetence of the aortic valve with œdema of both lungs were diagnosed. There was very considerable dyspnoea and general œdema, but no marked cyanosis or turgescence of the jugular veins. The urine was very scanty, and despite all our remedial efforts did not increase in quantity. In fact the kidneys seemed "clogged." Digitalis, ether, and senega were given in a mixture three times a day. The bowels and the skin were kept freely acting. He was kept strict in bed on restricted diet. The lungs certainly at first cleared up somewhat, but at the end of a month his general state was none the better, but rather the worse. Then the urine became scantier, the œdema increased, he became drawy, and coma seemed supervening. I was going round the ward late at night, and was just passing the man thinking to myself "no more to be done there," when it suddenly struck me to get a tracing of his pulse. In adjusting the sphygmograph the patient slightly roused, threw up his other hand and struck his nose heavily. It at once began to bleed. Thinking that in his state it could do him no harm and would probably stop at once, I put a towel under his cheek and went on with my work. Having leisurely taken about half a dozen tracings I removed the instrument and fixed my slides. I was then surprised to observe that the last one or two tracings were wonderfully steadier, more even and regular throughout than the first one or two. Involuntarily I went back to the bed. The towel under the man's cheek was soaked right through with blood. He must have lost at least twelve or fourteen ounces, and the bleeding must have been very rapid while it lasted, for it had now ceased. He lay

there looking at me wide awake and perfectly conscious, breathing quietly, with soft, slightly jerking pulse, and calmly said that he had had a good sleep, and felt better for it. Next morning I went in at an early hour to see him. He was sitting up in bed, and complained bitterly of being kept there. He said he had been passing urine all night long. His pulse was still soft, and his breathing quiet, and for him wonderfully easy. In less than a week the œdema was perfectly gone, his pulse was 80, his respiration 24, his appetite was becoming voracious; and he insisted upon returning home, feeling better, he said, than he had done for months. The ridiculous side of the story remains to be told. No one had noticed the bleeding except myself, and I never thought of naming it. I afterwards heard, however, that his rapid recovery was attributed both by himself and his fellow-patients to the mysterious clockwork operation performed on him that midnight by the magical sphygmograph.

Now, I venture to consider that this case is a very important one. Many practical physicians would, and do, say if there is great blueness of the face, or pulsation of the jugular veins, or such like evidence of obstruction to the passage of the blood through the right heart—bleed, to remove part of the excessive forward pressure. But there they stop; and here we had no cyanosis, no jugular distension. We had, however, evident blood stasis in the cerebral and renal organs; and it will not be denied, I think, that the epistaxis saved the patient's life. It is perfectly plain, therefore, that we imperatively need, and must have, some definite scientific principles laid down applicable to all cases of heart disease. In attempting to do this, which I cannot find has ever been done before, I deeply feel my own incompetency to the task, and, indeed, attempt it here not by any means with the hope of settling the question, but rather of raising it as a matter of the most vital interest to every patient with heart disease, and to every practitioner who may have to treat such a case. And first with regard to chronic valvular disease, of which we have naturally two great classes, those with contraction and those with insufficiency of the valves. In both classes we have one common sequence to ward off, the onset of dilatation; and one common danger to guard against, the occurrence of fatty degeneration of the muscular walls. I need hardly point out here that loss of blood is a most common cause of fatty degeneration, and that once this fatal metamorphosis has commenced dilatation rapidly ensues. I may, however, mention that I have observed that fatty degeneration seems to occur, as a rule, much earlier, and to a more extreme degree in cases of incompetency of the valves than in cases of stenosis of their orifices, from which it follows that we must bleed more carefully and less often in cases of valvular incompetency than in cases of stenosis. With regard, now, to the latter class. Common sense would almost seem to dictate the advisability of keeping the blood to be forced through an abnormally small opening abnormally small in quantity. Now, probably, every practitioner of any standing knows how cases of mitral stenosis, for example, may go on in comfort and fairly good health year after year, and yet always seem rather anæmic, and how a single indiscretion in diet, or a trivial attack of bronchitis, will so upset the evenly balanced circulation as to bring the patient in a few hours into grave peril of his life. I am firmly convinced that in such cases venesection is invaluable, and that on the slightest indication that the balance is trembling we shall only and alone do justice to our patient if we remove the cause by removing blood; and it is wonderful how little need be taken to give rapid and often long-continued relief. Therefore, having regard also to our foe, fatty degeneration, I would venture to suggest this clear rule—in cases of stenosis, if necessary, bleed at once; bleed often, if requisite, but take little each time.

CASE 2.—Mary R.—aged fifteen, was admitted into the London Hospital in July, 1879, under the care of Dr. Andrew Clark, suffering from intense dyspnoea and cyanosis. The extremities were cold; there was considerable œdema of the legs. The urine was very scanty. The pulse was scarcely perceptible, though the heart's action was powerful. There was a presystolic thrill and murmur audible at the apex, and a systolic bruit at the base.

On July 10th, in addition to the above symptoms, she became very drowsy and hard to rouse, and it seemed probable that coma would supervene. She was bled from the right arm to the amount of four ounces and a half, when she roused herself and declared she felt much better. The breathing certainly was easier, and the lips became less blue, and the pulse softer and distinctly fuller. On the following

<sup>1</sup> Read before the Hunterian Society, March, 1882.

day, however, dyspnoea came on again, and she was bled from the left arm to three ounces, when she expressed herself as feeling much relieved. A rapid increase in the daily quantity of urine at once began, and the oedema quickly diminished. She, however, felt so well that, against orders, she got out of bed, walked about the ward in an undressed state, and caught cold. Acute bronchitis set in, and the dyspnoea returned. On the 19th she was accordingly bled from the right arm to three ounces, with great relief to the breathing. The bronchial trouble rapidly cleared up, and she declared that she felt better than she had done for months. I was now invalided myself, and she passed into the charge of a very able locum tenens. He, however, did not believe in venesection, and when on the 29th, after fresh exposure and a fresh cold, she sank into the same state as described on July 10th, she was not bled. She became comatose, and died the same evening.

The post-mortem revealed the accuracy of the diagnosis—a very extreme degree of mitral and aortic stenosis being found. As on every occasion when blood was removed, the patient was in urgent danger, and as each time only a small quantity was taken, and yet nevertheless each time with great relief, the whole case, I think, amply supports the practical lesson that I above pointed out. Latterly, I have only used leeches or cupping to remove blood directly from the cardiac region in cases where stenosis existed. I imagine that we obtain thereby more certain and more rapid results with a more accurate loss of blood than when venesection from the arm is resorted to. Still this is a matter of such great practical importance to the patient's welfare, and to our own success, that I feel bound to state distinctly some reasons for my judgment:—1. The patient, and the patient's friends, usually object less when leeching or cupping is suggested, than when "bleeding" is proposed, and they are less alarmed at a local application to the seat of disease than at the procedure necessary to open a vein and keep it bleeding. 2. The quantity of blood to be abstracted can be more accurately measured and controlled, and is generally much more easily obtained in cases of advanced stenosis by local than by brachial venesection. 3. Even as, like all practical men, I give a hypodermic injection of morphia at the seat of pain, although I cannot explain why its insertion there should give so much greater and more rapid relief than when introduced into the same blood at a distance, so I cannot explain why a little blood removed from the cardiac region should afford greater and quicker relief than is derived by the abstraction of even a somewhat larger quantity from the arm. I do the former and leave the latter undone in these cases, because I am convinced of the great practical truth that thereby greater good is gained.

CASE 3.—William H—, aged fifteen, was admitted into the London Hospital, in 1880, suffering from contracted mitral and aortic orifices, dilated left ventricle, and bronchitis. A mixture, containing digitalis, ether, squills, and senega, was given. Absolute rest in bed and restricted fluid diet was ordered. He improved somewhat, but very slowly; but at the beginning of March he began to suffer from increasing dyspnoea, and became rather cyanosed. On March 4th his breathing was rapid; he was drowsy and hard to rouse; his pulse was scarcely perceptible; while his heart's action was laboured, heaving, and irregular; his face and hands were covered with a cold sweat; his breath was cool; he seemed moribund. I put a number of leeches on the cardiac region, and they were very freely fomented. When they had bled to about six ounces, he roused himself a little and said that the pain at his heart was almost gone. In an hour or two his pulse was 80, weak still, but decidedly fuller than it had been for days past. I now increased the dose of the infusion of digitalis from three to four fluid drachms thrice a day. And I may here say how often I have been astonished to find how drugs which had been given for days or weeks without apparent benefit, as soon as even a little blood has been removed, seem at once to assert their power again. The patient now rapidly improved. In a week he was out of bed; and on March 23rd he was discharged, feeling better, he said, than he had done for months past. I might easily multiply cases, but I think these amply illustrate the principle I desire to enforce.

With regard now to incompetency of the valves. Here we have, I believe, a more dangerous form of disease. For I am convinced that we have in such cases a greater tendency to the early occurrence of dilatation, and, therefore, of sudden death. And so it appears to me that we should only

bleed in such cases when there is urgent dyspnoea, or other evidence of danger. Further, that then we should bleed boldly from the arm till that danger is removed, and for fear of inducing a state of fatty degeneration of the already weakened muscular walls, that, if possible, the bleeding should not be repeated. For in this class of cases we do not want to keep up a permanent effect—that is to say, a constant restriction of the quantity of blood in the body; but we have to counteract, and suddenly may be, an imminent peril. That venesection, however judiciously used, is most beneficial in these cases is amply evidenced by such as the following:—

CASE 4.—Thomas C— was admitted into the London Hospital on May 21st, 1867, under the care of Dr. Ram-kill. On entering the hospital he was found to be suffering from aortic regurgitation, emphysema, and acute bronchitis. His urine was albuminous. At 3 P.M. on the day of admission his face and neck were livid; his eyeballs projected, and his lips were bloated looking. The veins of his neck were very much distended. His skin was perspiring and felt cold. His pulse was small, irregular, and quick. Respiration forty a minute, and his breathing was so laboured and quick that he could hardly speak. At midnight on the day of admission he was much worse; his face was livid, his breathing gasping. His face was covered with cold sweat, and his pulse could hardly be felt. He was bled to sixteen ounces, and at once he expressed himself as feeling relieved. His breathing in the course of an hour became much freer, and he was able to sleep a little. Next day he looked much better, he appeared altogether a different man. His pulse was still very irregular and quick, but his respiration was slower. He continued to improve and left the hospital very much relieved. He returned in two months in much the same state as before. He was bled to fifteen ounces, with considerable temporary relief, but died suddenly five days afterwards.

CASE 5.—"A costermonger,<sup>1</sup> aged sixty-two, was admitted, under the care of Dr. Herbert Davies, suffering from tricuspid incompetency and dilated right heart. He was extremely livid in the face; it might fairly be said to be of a purple colour. The superficial veins were dilated. The dyspnoea was so great that he could not lie down. He sat on the edge of the bed, nodding, in a kind of stupor, the whole day long. Expectant medicines were tried without any relief, and the dyspnoea increasing every day he was bled to 14 oz. He expressed himself as much relieved, and there was a marked decrease in the lividity. The dyspnoea was much relieved. He felt so much better that he insisted upon being discharged from the hospital. After being out a few weeks he returned in much the same state as at first. He was again bled from the arm, and greatly benefited, and he left the hospital. After about two months he was again admitted, under the care of Dr. Andrew Clark, in even a worse condition than before. He was bled again, but without relief, and he died very soon after."

In each of these cases the post-mortem revealed considerable ventricular dilatation. Besides the above, Dr. Sutton quotes other illustrative cases, and Dr. Dickinson has recorded one in the Pathological Society's Transactions. I would, however, while fully recognising the great benefit obtained in the above cases, point out that a sudden death in each followed rapidly on a venesection. In private practice the chances would be that in such a case the fatal result would be laid on the doctor's shoulders; and therefore, for a double reason—for the practitioner's as well as for the patient's welfare,—the rule above suggested should be kept in mind till a better one is laid down for venesection in cases of valvular incompetency.

Next, with regard to acute pericarditis and endocarditis. I have not had the opportunity of using venesection in many such cases, but where I have done so I have invariably bled by cupping the cardiac region, and always with good result—so successfully, indeed, as to make me believe that if this measure be taken at the onset of the disease it will very often if not always cut the attack short, or at least greatly mitigate its severity.

CASE 6.—Thomas H—, aged twenty-eight, was admitted under the care of Dr. Clark, suffering from dyspnoea and a slight grasping pain over the cardiac region. The heart's action was rapid and excited, and there was a rough, rubbing friction sound audible over the whole cardiac area. He was cupped at once to eight ounces, and expressed himself

<sup>1</sup> Medical Times and Gazette, Dec. 18th, 1866, p. 707.

greatly relieved. The next morning the heart's action was quiet and regular, the rubbing sound had completely disappeared, and no evidence of effusion having occurred ever showed itself.

Finally, with regard to that troublesome symptom in heart cases—pain more or less severe, more or less persistent in the cardiac region—I have found nothing give such complete and rapid relief as the local abstraction of blood. Whether the symptom arises from local hyperæmia or not I do not profess to know, but of the great practical value of the remedy here I am firmly convinced.

CASE 7.—A young gentleman was brought to me a few weeks ago. He had been seen by several eminent specialists, and was, as I afterwards found out, under the care of a justly distinguished practitioner. He had old mitral valve disease, but for some weeks past had suffered from extreme aching and often agonising pain localised to the cardiac area. I could detect no sign of pericarditis. The temperature was only 99° F. There was no tenderness on pressure, no herpes; in fact, there was nothing to account for the pain. His parents and friends were much depressed because blisters and poultices, ether spray and galvanism, and a host of other remedies and drugs had been tried, but without the slightest alleviation of the pain. I prescribed a mixture containing belladonna and digitalis, and recommended that he should be cupped to seven ounces over the cardiac area. I have since heard that this was done with complete and immediate, and till now permanent, relief from pain.

To summarise, then, I would conclude that:

1. In cases of valvular stenosis, if dyspnoea or pain or urgent symptoms be present, bleeding is generally useful; that it appears to be better to bleed often if necessary, but to take only a small quantity each time, and this by means of leeches or the cupping glass direct from the cardiac region.

2. In cases of valvular incompetency, if urgent dyspnoea or cyanosis or stupor be present, it appears best to bleed freely from the arm to about sixteen or twenty ounces if necessary, and if possible once for all.

3. In cases of acute pericarditis and endocarditis the attack may possibly be cut short by freely cupping the cardiac region at once.

4. In cases of cardialgia, without any evident cause, leeching or cupping over the heart's area will probably give relief.

West-street, Finsbury-circus, E.C.

## THE TREATMENT OF ACUTE CHOREA BY "MASSAGE" AND THE FREE ADMINIS- TRATION OF NOURISHMENT.

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AND

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THE treatment of chorea has never been uniformly successful or flattering to the skill of the physician. When examined from the standpoint of the non-professional mind, there is not often any obvious relation between the drugs swallowed and the lessened muscular movements; and chorea drags its slow course along, disheartening alike the doctor and the parents of his patient. In all probability, what chorea has proved in the past with respect to treatment, so in many cases it will prove in the future. It is not a disease to which speedy cure is applicable or possible. It may almost always be improved, and considerably so by many forms of treatment. Still none are so satisfactory but what others may prove useful in properly selected cases, and thus it is that one is always willing to try anything new.

The object of this paper being purely a clinical one, the interesting question of the nature of chorea must be passed by; for present purposes we shall content ourselves by saying that it is a nervous habit, which, by neglect and nerve exhaustion combined, becomes aggravated into an acute disease.

Thus thinking, Weir Mitchell's plan of treating the nervous exhaustion of women as detailed of late by him and by Dr. Playfair seemed one that might possibly be productive of good results, and it has accordingly been carried out, perhaps not always quite strictly, in two cases that have been admitted into Guy's Hospital for that purpose, and in a series of ten cases at the Evelina Hospital. The Evelina Hospital cases constitute in fact the total of Dr. Goodhart's cases there during the past nine months, with the exception of three which suffered from heart disease and fever, of such severity that they speedily proved fatal—for such as these the treatment is not applicable—and four or five which were not of such severity as to afford a fair test of the treatment. Weir Mitchell's treatment, it will be remembered, in the case of women, is one of absolute rest, so far as voluntary movement is concerned; of the supply of nourishment in large quantity; and of the exercise of the skin and muscles, by what is now called "massage," but which let us call, as of yore, shampooing. It can hardly be called new as regards chorea, so far as the individual factors of it are concerned; perhaps there is more of novelty in the combination of these and in the aim which suggests it. Choreic children are the subjects of a faulty habit; are badly educated so far as their nervous system is concerned. Once choreic is to be always so, more or less, and it is education—practice, that is, in the art of muscular control—which such children require throughout life. But acute chorea is a bad habit and much more, and education under the circumstances of violent chorea is not only useless but harmful. The more a child is incited to voluntary muscular movements the more it moves choreically, and by so much tends to perpetuate the aggravation of its habit, and, as is well known, simple rest in bed will often much ameliorate the violence of the choreic movement. But to passive movement there are few objections, and for it may be claimed some very distinct advantages:—1. If carefully performed the muscles, flabby and poor in these children, become plump and healthy. 2. The various groups being manipulated in an orderly manner, some influence will probably be exerted towards restoring more equable nerve discharges from the centres which control them, and displacing a disorderly habit by an orderly one. 3. The supplies are utilised to their utmost without call upon the diminished capital of brain power.

Each case has been kept at rest in bed without other treatment of any kind for the first two days, in order that the amount of erratic movement under such conditions might be observed. Then shampooing has been commenced and feeding has been pushed in gradually increasing quantity, with the hope that a more healthy brain might be built up on the one hand and more regular habit induced on the other.

No one who knows anything of chorea will suppose that the success has been in all cases convincing, but some advantages may certainly be claimed for the treatment, and we think it is one which deserves a trial. The chief of these are:—1. A decided increase in weight. 2. Rapid subsidence of all the more violent movements, and it has happened that after two or three days' treatment a child quite uncontrollable has been able to sit up in bed, in a fairly quiet mind. 3. The extremities are no longer cold, and as a further evidence of the good influence on the circulation, the pulse falls and becomes more regular. 4. Shampooing is a powerful sleep producer; children as a rule sleep soundly after being shampooed. It might have been supposed that the patient would be frightened and dislike the treatment, but this has never been the case, nor has there at any time been any dyspeptic disturbance to indicate that the digestive organs have been over-taxed by the excess of work they have been called upon to perform. We make no statement with reference to the actual duration of the cases, because this is a treatment for chorea in the active stage; and when it has been successful there is still a range of lesser movement which must be covered by subsequent careful education, which must always make a prudent man chary in his use of the word "cure," and it will be better on this head to let each case speak for itself. For the rest, to Dr. Phillips belongs all the credit of carrying out the suggested treatment, and of reporting the cases in the most careful and elaborate manner, as will be seen from what follows.

We purpose to give a full report of one case, showing the course of treatment pursued, and the diet-tables used, and then to give an abstract of the remaining cases in order. On admission the patient is put into a padded bed. Milk

only is given for three days; during this time the movements are carefully watched, grasping and articulating power noted, and bowels regulated. If the movements show no sign of abatement, massage is begun twice daily for fifteen minutes for the first seven days, and for twenty minutes afterwards. The diet-table for the first and second weeks is given below. The temperature and pulse are taken immediately before and after massage. The patient is weighed every week.

CASE 1.—Alice O—, aged ten years, was admitted on Feb. 18th, 1882; second attack; history of acute rheumatism on maternal side; first attack very slight, but lasting nine months; supposed cause a dog flying at her. The present attack began more than twelve weeks ago; twitchings have been getting rapidly worse; loss of articulation occurred six weeks ago; the patient has had night terrors during the last seven days; she has been in bed during the last month, but seems to get worse; during the last six weeks has been treated with digitalis and iron. Condition on admission: She cannot walk; throws herself about in bed; tongue bitten; no grasping power; cannot articulate; bursts into a paroxysm of shouting and crying if looked at; cannot swallow, the food dribbling out of her mouth. There was a presystolic and systolic murmur at apex. On Feb. 19th and 20th she was quite uncontrollable; took no food; knuckles abraded; sacrum and other prominences reddened; no sleep at nights; anxious expression; considerable pain in head. Massage began on Feb. 21st; weight 3 st. 10 lb. 10 oz.

Diet: At 5.30 A.M. half a pint of warm milk; 7 A.M., half a pint of milk and three slices of bread-and-butter (each slice to weigh 1 oz.); 9.45 A.M., half an ounce of Kepler's malt extract in lemonade; 10 A.M., massage (fifteen minutes), followed by half a pint of warm milk flavoured with cinnamon-water; 12.30 P.M., rice pudding, half a pint of milk, green food and potatoes; 4.15 P.M., half a pint of warm milk, three slices of bread-and-butter, and one egg (half boiled); 7 P.M., half an ounce of Kepler's malt extract in lemonade; 7.30 P.M., massage for second time, followed by half a pint of milk immediately.

		Morning.		Evening.	
		Pulse.	Temp.	Pulse.	Temp.
Feb. 21st <sup>1</sup>	Before massage	120 ...	99.2°	104 ...	99.2°
	After „	118 ...	97.0°	100 ...	98.8°
„ 22nd <sup>2</sup>	Before massage	108 ...	98.8°	112 ...	97.2°
	After „	120 ...	97.8°	100 ...	97.4°
		Quite quiet for 3 hours, but no sleep.		Four hours sleep, fol. by 2 more.	
„ 23rd <sup>3</sup>	Before massage	112 ...	98.8°	112 ...	97.2°
	After „	100 ...	97.2°	114 ...	96.6°
				Slept well all night.	
„ 24th <sup>4</sup>	Before massage	100 ...	98.8°	104 ...	97.6°
	After „	96 ...	96.8°	96 ...	95.8°
		Slept 1 hour after massage.		Slept immediately after; no night terrors.	
„ 25th <sup>5</sup>	Before massage	96 ...	97.4°	96 ...	97.2°
	After „	83 ...	96.0°	88 ...	96.2°
„ 26th	Before massage	92 ...	97.2°	100 ...	97.2°
	After „	83 ...	97.0°	96 ...	97.0°
„ 27th <sup>6</sup>	Before massage	96 ...	98.0°	86 ...	98.2°
	After „	92 ...	98.0°	90 ...	97.0°
		Quite quiet for 2 hours.		Slept well all night.	
„ 28th <sup>7</sup>	Before massage	72 ...	97.0°	80 ...	96.0°
	After „	63 ...	95.8°	72 ...	95.6°

<sup>1</sup> Much quieter after morning massage, and slept well for six hours during the night.

<sup>2</sup> Was spoken to and handled without any emotion; has complained of no pain; does not object to massage in the least.

<sup>3</sup> Movements are already diminished; she can take milk with much less "slobbering"; articulation better.

<sup>4</sup> Tongue protruded much more regularly; tongue has not been bitten; no night terror.

<sup>5</sup> "Systolic" murmur very slight, and presystolic has disappeared; can articulate the word "Better" when spoken to.

<sup>6</sup> Systolic bruit has quite disappeared; can to-day articulate her name; takes all her food well; tongue protruded straight; grasping power weak.

<sup>7</sup> Weight 3st. 11lb. 12oz.

		Morning.		Evening.	
		Pulse.	Temp.	Pulse.	Temp.
March 1st	Before massage	72 ...	97.8°	80 ...	97.0°
	After „	63 ...	97.2°	72 ...	97.0°
„ 2nd <sup>8</sup>	Before massage	120 ...	100.8°	128 ...	101.0°
	After „	118 ...	100.0°	120 ...	100.8°
„ 6th <sup>9</sup>	Before massage	96 ...	97.2°	84 ...	97.0°
	After „	92 ...	97.0°	80 ...	96.6°
		Slept well.			
„ 7th	Before massage	80 ...	97.8°	96 ...	97.8°
	After „	72 ...	98.0°	92 ...	98.0°
		Slept 2 hours immediately after.			
„ 8th <sup>10</sup>	Before massage	80 ...	98.0°	96 ...	98.6°
	After „	76 ...	97.6°	88 ...	98.2°
„ 9th <sup>11</sup>	Before massage	80 ...	98.8°	104 ...	99.8°
	After „	76 ...	98.0°	100 ...	98.8°
„ 10th <sup>12</sup>	Before massage	96 ...	99.0°	104 ...	99.2°
	After „	92 ...	98.0°	96 ...	98.2°
„ 11th <sup>13</sup>	Before massage	80 ...	99.2°	90 ...	98.8°
	After „	76 ...	98.2°	88 ...	98.0°
„ 12th <sup>14</sup>	Before massage	80 ...	99.2°	80 ...	98.0°
	After „	76 ...	98.0°	74 ...	98.0°
„ 13th <sup>15</sup>	Before massage	76 ...	99.0°	80 ...	98.0°
	After „	70 ...	98.0°	76 ...	97.0°

All active movements have ceased, and she has now nothing but the occasional twitching usual in these cases. Massage was kept on for fourteen days longer, in the hope that these too might disappear, but although they were materially lessened, and entirely ceased in three weeks, the diminution was scarcely marked enough to say that it was caused by the treatment.

CASE 2.—Eliza G—, aged nine years. Third attack. Strong history of acute rheumatism on paternal side; no cause. Condition on admission: Tumbles down; great headache; night terrors. Palms in her limbs; muscles flabby; skin rough and dry; loud systolic murmur at apex. Weight 3 st. 6 lb. 6 oz. After eight days' massage all violent movements ceased; headache and night terrors disappeared; skin supple and moist. Weight 3 st. 7 lb. The massage was continued, as in Case 1, and certainly with better results.

CASE 3.—George S—, aged seven years. First attack. Acute rheumatism on maternal side; strong history of epilepsy in father; no cause. Condition on admission: General movements; strabismus. Cannot feed himself; continually grinding teeth. Night terrors. Slight systolic brush at apex. Weight 3 st. 3 lb. 4 oz. After ten days' massage movements scarcely perceptible. Night terrors ceased. Weight 3 st. 4 lb. After twenty-one days' massage movements had entirely ceased. Weight 3 st. 4 lb. 10 oz.

CASE 4.—Maude G—, aged seven years. First attack began four months ago, after having her ears boxed; since then she has become mischievous and spiteful; movements sometimes very severe, at others slight. Condition on admission: General chorea; cannot stand. Heart sound normal. Cannot hold anything; milk dribbles out of her mouth. Weight 3 st. 10 lb. After seven days' massage all severe movements ceased. Food taken well; holds her own spoon. Weight 3 st. 10 lb. 5 oz. Continued massage had scarcely any effect on minor movements, which gradually ceased in twenty-one days.

CASE 5.—Henry C—, aged seven years. First attack. No rheumatic history, but epilepsy in a sister who died in a

<sup>8</sup> Last night some Kepler's malt extract was given which had been open for some time; this caused an epidemic of diarrhoea in these patients taking it. A mixture of opium and bismuth was given, and massage was stopped for three days.

<sup>9</sup> The systolic murmur has returned. In consequence of this illness she lost 1lb. 3oz. (3st. 10lb. 9oz.)

<sup>10</sup> Diet as before, except at 7 A.M. half a pint of warm milk and four slices of bread-and-butter; 12.30 P.M., chop (meat cut from bone, no fat), rice pudding, &c.; 4.15 P.M., half a pint of warm milk and four slices of bread-and-butter, another pint of milk distributed over the twenty-four hours.

<sup>11</sup> All difficulty in swallowing has disappeared; systolic bruit scarcely audible; movements much less.

<sup>12</sup> Fed herself twice yesterday, can articulate ordinary sentences.

<sup>13</sup> Takes all her food well; sits up in bed; is able to hold a spoon.

<sup>14</sup> Muscles have become no resistant, from increase of their volume and tone, that massage is very difficult; sleeps well all night and an hour or so after morning massage.

<sup>15</sup> Weight 3st. 12lb. 10oz., an increase of 2lb. in seven days.

fit. The patient seems *non compos mentis*. Cause over-study. Movements began three weeks ago. Condition on admission: Cannot stand; movements very violent; attempts to bite anyone going near him. Cannot feed himself. Heart sounds normal. Weight, 3 st. 2 oz. He became uncontrollable during the first three days, but at the end of the first massage he slept one hour and improved rapidly. Fourteen days after massage was begun his weight was 3 st. 2 lb. 2 oz. Took food well; movements scarcely perceptible. No further improvement was obtained by seven days' additional massage.

CASE 6.—Elizabeth S.—, aged nine years. Strong history of rheumatism on the maternal side, and of epilepsy in the father. Brother died of tubercular peritonitis. Has been in bed for the past three weeks; no cause. Condition on admission: Dyspnoea on exertion; good deal of frontal headache; facial muscles in continual motion. Cannot stand. Heart sounds normal. Weight 3 st. 7 lb. 12 oz. After twelve days' massage her weight was 3 st. 10 lb. 2 oz. All headache and facial movement disappeared. General movements very slight. Entirely cured after twenty-one days' massage.

CASE 7.—Annie H.—, age seven years. Cause a fright; duration of illness two months. No family history of importance. Condition on admission: Stumbles, but does not fall. Bites her tongue. Frontal headache. Night terrors. Dyspnoea on exertion. Distinct purring bruit at apex, and reduplicated second sound. Grasping power *nil*. Weight 3 st. 4 lb. 6 oz. After fourteen days' massage weight 3 st. 6 lb. 8 oz.; no night terrors; takes food well. Heart sounds *in statu quo*. No further effect could be produced, and this was one of our decided failures.

CASE 8.—William T.—, aged four years. Acute rheumatism on mother's side, with cardiac disease. No cause. Duration of illness five days, the movements coming on suddenly. Condition on admission: Cries passionately if touched; tumbles if allowed to stand; cannot articulate, but makes a noise of a nasal character; cannot feed himself or hold anything; passes everything unconsciously; movements were so great that it was impossible to take his temperature. Weight 2 st. 5 lb. Heart sounds: Slight post-systolic brush at apex. After seven days' massage he could feed himself; articulated indistinctly; tongue protruded straight; post-systolic brush has disappeared; motions and urine passed consciously; movements very slight. Weight 2 st. 5 lb. 8 oz. Fourteen days' further massage increased his weight to 2 st. 6 lb. 12 oz., and improved his articulation, but no other improvement was noticed.

CASE 9.—Florence G.—, aged nine years. One sister had chorea; duration of illness three months. No history of rheumatism; cause a fright; has been in bed during the last three weeks. Condition on admission: Cannot stand; movements very violent; crying with headache; heart sounds normal. Weight 3 st. 8 lb. 12 oz. After seven days' massage movement had almost ceased; headache gone. Weight 3 st. 9 lb. 12 oz. After fourteen days' massage was allowed to get up. Weight 3 st. 11 lb. No return of movements brought on by getting up.

CASE 10.—Harry C.—, aged nine years. Family history unimportant. Illness began three weeks ago with pains in ankles; two days ago lost all power of articulation; no sleep at nights. Condition on admission: Tumbles down if placed on his feet; grasping power *nil*; cannot hold a spoon. Headache severe; large callous patches on knuckles of fingers; right arm almost useless. Weight 3 st. 6 lb. 4 oz. After fourteen days' massage all headache had disappeared; movements quite ceased; has some grasping power in right arm. Weight 3 st. 9 lb. 4 oz. After nineteen days' massage he was allowed to get up, with no return of his movements.

CASES 11 and 12 were treated at Guy's Hospital. The one was a young woman and the other a girl of nine or ten, and in both the results were similar to those noted in the foregoing, chiefly the quieting of the more violent movements and the tendency to sleep induced by the massage.

The amount of urea excreted was tested daily, but no increase or decrease could be found to correspond with the increased nitrogenous waste.

From the above cases it will be seen that in four of them (1, 3, 5, 8) the treatment had a most marked result, and we believe it was influential in saving the child's life. In all the treatment produced some good effects, general or other, and in several even upon the chronic movements, except, perhaps, in Case 7.

We must in conclusion once more insist on the fact that

the treatment we advocate is for the acute stage of chorea, not the chronic, although (as will be seen from perusal of the above) much benefit may indeed be derived from it, even in these latter cases. "Massage" and the mode of performing it is well described in Weir Mitchell's book, "Flesh and Blood, and how to make them." There are two or three essential points, however, to bear in mind: 1. Fifteen minutes twice a day, increased at the end of seven days to twenty minutes, is as much as the strongest child will bear. 2. After the operation the warm milk should be given and the bed-curtains closed, and all noise stopped, sleep then generally follows. 3. Neat's-foot oil, if used alone, often produces small boils, which cause the patient a good deal of discomfort. A mixture of an equal amount of olive oil will be found to obviate this trouble. 4. Care should be taken to give the Kepler's malt extract *fresh*. If any fermentation has taken place troublesome diarrhoea will probably result.

## AN EASY METHOD OF DETECTING BACILLUS TUBERCULOSUS FOR DIAGNOSTIC PURPOSES.

BY HENEAGE GIBBES, M.D.,  
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SINCE the publication of Koch's discovery of an organism in phthisis and his method of demonstrating it, many experiments have been made and, as far as I know, have failed to show it by his method. In my own case I have never been able to see it in sputum or tuberculous tissue when stained on this plan. Dr. Ehrlich's method threw more light on the subject, but his process is in many cases unsatisfactory. He, however, gave the clue to what was wanted in Koch's process. The anilin colours used will not stain the tubercle bacillus without the addition of another base in the shape of pure anilin, and the manner in which Dr. Ehrlich does this is open to objection and may account for his process not always succeeding. Pure anilin is sparingly soluble in water, and the amount taken up by the water will vary very much when his method is used.

The following process is one which will bring out the bacillus with ease and certainty, and in my hands has never failed. The colours used are magenta crystals and chrysoidin; the latter is a brown, which does not stain the ground substance so intensely as vesuvium. They can be procured from the Badesche Anilin Fabrik, 22, Bush-lane, Cannon-street, E.C. The following are the formulæ I have used: Two grammes of magenta crystals, three grammes of pure anilin, twenty cubic centimetres of alcohol, specific gravity 830, twenty cubic centimetres of distilled water. Dissolve the anilin in the spirit and then rub up the colour with it in a glass mortar, adding the spirit gradually until it is all dissolved, then add the water slowly, while stirring, and keep in a stoppered bottle. Make a saturated solution of chrysoidin in distilled water and add a crystal of thymol to make it keep; a dilute solution of nitric acid (Coml) is made, one part of acid to two of distilled water. For sputum the following process is the most simple. Spread a thin layer on a cover glass and let it dry, when quite dry pass it two or three times through the flame of a small Bunsen burner and let it cool. Filter two or three drops of magenta solution in a watch glass, place the cover glass with the sputum downwards on the stain, taking care there are no air bubbles under it. Let it remain for fifteen or twenty minutes, then wash in the dilute acid until all colour has disappeared, remove the acid with distilled water, when a faint colour will return; then place the cover glass in the same manner as before on a few drops of chrysoidin filtered into the bottom of a watch glass, and let it remain a few minutes until it has taken on the brown stain; wash off the superfluous colour in distilled water and place the cover glass in absolute alcohol for a few minutes, remove and dry perfectly in the air, place a drop of Canada balsam solution on the cover glass and mount. It is better to use small glass funnels for filtering the stains, as they protect the fingers. Sections of hardened tissue are treated in the same manner with the necessary modifications. With regard to the powers required to examine these bacilli after they have been mounted by this process an ordinary  $\frac{1}{4}$  inch with daylight



will show them perfectly, and a  $\frac{1}{2}$  dry glass will show that they are rows of spherical bodies with the same illumination. Their diagnostic value of course remains to be settled; I can only say that in a number of my own cases and some sent me, where there has been undisputed evidence of phthisis, there I have found the bacilli. In others where the signs have been suspicious, but not positive, some have given the organism, others have not. The progress of these last cases will be closely watched. In a number of cases of chronic bronchitis and emphysema and other chronic diseases of the respiratory organs, I have entirely failed to find the bacillus. In every case where the sputum has shown the tubercle bacillus, other slides have been prepared and stained, to show the putrefactive bacilli, which exist in large numbers and in several varieties in the same sputum, but none of these are stained by the magenta process. I have also made a series of experiments to see whether the bacilli increased in the sputum by keeping, and after taking the mean of a number of given areas from the first to the tenth day of the same sputum, I find no increase of the tubercle bacilli; but on staining duplicates to bring out the putrefactive bacilli, I find them enormously increased, and still they are not stained by the magenta process.

### LATENT PLEURITIC EFFUSION; ASPIRATION; RAPID RECOVERY.

By FREDERICK S. PALMER, M.D., M.R.C.S.

R. G. M.—, aged eighteen years, a watchmaker's assistant, came to my house on the evening of Friday, Feb. 17th, 1882. Upon his arrival he appeared much exhausted, very anæmic, and I noticed that his breathing was extremely short.

The patient gave the following account of himself. On Saturday, Feb. 4th (thirteen days previously), he played in a football match, when, in addition to rather rough treatment, he experienced a chill from wet feet. Next day he was stiff and sore, felt alternately hot and cold, had a short dry cough, and complained of pain under the left breast. On the following day he was better, the pain and cough disappeared, and he resumed his employment. Since then his breathing had become gradually shorter, and his weakness increasing with the dyspnoea obliged him to give up his work on the day he applied to me for assistance.

Upon examination of his chest, I discovered well-marked signs of effusion into the left side. The notes recorded in my diary at the time are: Absolute dullness anteriorly in the left infra-mammary region, and in the infra-scapular and lower part of the inter-scapular regions posteriorly, together with entire absence of respiration, voice sounds, and vocal fremitus; slight bulging of intercostal spaces; movements of chest on the same side impaired; complete absence of cardiac sounds; heart pushed over to the right side, the apex-beat being felt to the right of the sternum; breath sounds on right side and upper part of left lung exaggerated; no evidence of tubercular mischief, nor any family history of phthisis. Temperature in axilla 100°; pulse 104; respiration 48.

With these unmistakable signs of latent effusion, I sent him home with directions to go to bed at once, to apply hot linseed poultices to the side, and prescribed some diaphoretic mixture with small doses of infusion of digitalis every four hours. When I saw him the next day the physical signs were the same. He had passed a restless night, perspired profusely, had several slight attacks of syncope, and vomited twice. His urine was scanty, high coloured, free from albumen, and gave a copious precipitate with the silver nitrate test. For several days following his temperature, pulse, and respiration were much the same. There was an entire absence of pain. He coughed only slightly at long intervals, and lay upon the affected side. The attacks of syncope were frequent, and always followed any attempt to sit upright. He vomited occasionally after taking nourishment, and suffered each night from profuse perspiration.

On Feb. 23rd, his temperature fell to 99°, and his pulse to 96. I put him upon drachm doses of syrup of iodide of iron three times a day, and painted his chest back and front

with equal parts of tincture and liniment of iodine. He also took a teaspoonful of cod-liver oil twice daily. This treatment was continued for three weeks, with marked improvement in his general health. The attacks of syncope and vomiting were less frequent. There was no history of any rigor, but his night sweats were constant and distressing. The effusion, however, remained practically the same. There was no diminution in the area of dullness. The respiratory murmurs, vocal vibration, and voice sounds were absent, and the apex beat continued to the sternal side of the right nipple. On March 16th I introduced a medium-sized aspirator needle into the sixth interspace in the mid-axillary line, and drew off two pints of pale, straw-coloured serum, rich in fibrine, which almost immediately coagulated. Just as I withdrew the last quantity, the piston of my exhausting syringe was rendered useless by the washer becoming detached, and I was compelled to remove the needle at once. Before leaving the house I had the satisfaction of observing the apex beat restored to its normal position. The lung came down directly, and the vesicular murmur was apparent in the infra-scapular region. He made an excellent recovery. Four days after aspiration he was able to sit up, and at the end of a fortnight left home on a visit to some relations in Essex. When I last saw him, May 20th, he looked the picture of health. The respiration was almost identical at both bases, the movements of the chest perfect, and he told me that he had gained a stone in weight since his illness.

*Remarks.*—Cases of latent pleurisy are by no means rare, and are familiar to every practitioner of medicine. In the one reported above there are, I think, several points of interest. Experience has taught me the value, nay more, the importance, of early aspiration in cases of extreme, or even moderate-sized, pleuritic effusions. It is chiefly due to the researches of Trousseau, following those of Schuch and Skoda of the Vienna school, that the removal of the fluid by artificial means is now regarded as a wise and judicious proceeding, and averting the tendency to sudden death which occasionally happens in these cases. Dr. Roberts, in his Handbook of Medicine, gives his opinion that "ordinarily the fluid is best taken away by the aspirator; in exceptional cases the trocar must be used." This treatment is ably advocated by Dr. Bowditch, who recommends the introduction of the instrument immediately below the angle of the scapula. In three cases of extreme pleuritic effusion under my care during the last eighteen months, treated by early aspiration, the operation was followed by the happiest results. I was able to empty the chest, nor was any repetition of the proceeding required. Had it been possible to overcome sooner the objection of his parents to operative measures this poor boy would, in all probability, have been spared many weeks of suffering, confinement to bed, and saved much loss of time. The existence of a large amount of exudation arrests adhesion between the surfaces of the pulmonary and costal pleura, and by its pressure delays, or even prevents, absorption by hindering the circulation in the bloodvessels and lymphatics. "It must also be evident," as Niemeyer remarks, "that every additional day during which the lung is exposed to pressure, and the longer time allowed for cells to multiply in the exudation, so much the more are the chances of complete recovery diminished, and the danger of a fatal termination increased." The natural process of cure by absorption is uncertain, tedious (in large effusions extending sometimes over many months), and exposes the patient to chest deformity, anæmia, and its pernicious consequences, tuberculosis, syncope, and hypertrophy, with dilatation of the right heart. Early removal of the liquid by aspiration gives the compressed lung the chance of again becoming pervious to air, enables the displaced organs to regain their normal positions and prevents agglutination of the pulmonary alveoli. So far as my experience is concerned, it is an operation almost free from risk, and does not in any way interfere with the subsequent performance of paracentesis, if necessary. The inferences gathered from the case are that the ordinary therapeutical agents have little or no influence in promoting absorption in large pleuritic effusions. The continued existence of the exudation, although presumptive, is not *per se* conclusive evidence of the effused matter having undergone puriform degeneration. The absence of rigors correctly indicated the serous nature of the exudation. Lastly, that it is advisable to carefully examine the condition of the instrument and exhausting syringe before using it.

East Sheen, S.W.

# A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORBORENTI De Sed. et Caus. Morb., lib. iv. Proœmium.

### ST. THOMAS'S HOSPITAL.

#### STRANGULATED UMBILICAL HERNIA; OPERATION; RECOVERY.

(Under the care of Mr. SYDNEY JONES.)

C. C—, a female, aged fifty-two, married, was admitted into the hospital on March 3rd, suffering from symptoms of strangulated hernia, with the following history: For twenty years she had had a swelling at the umbilicus; it had never been quite reducible, but had at times been small and soft. She had worn no apparatus, as it caused her no inconvenience. She was quite well on going to bed on the evening of the 25th of February, but on waking next morning at seven o'clock, she was attacked with severe vomiting; between seven and ten A.M. she passed two loose motions, but there had been nothing passed after. From seven o'clock on March 1st until admission she had had constant sickness, and had been unable to keep down any food. At the same time she had had considerable pain in the abdomen and over the swelling.

On examination of the abdomen there was found an umbilical hernia, which the patient said was larger than usual; it was about the size of an orange, of an irregularly quadrangular shape, deeply congested, and with distinct impulse on coughing. She was a stout woman with a feeble compressible pulse, in a weak condition, and appeared to have considerable pain in the hernia at intervals; the tongue was furred, but moist. A little brandy was given, and an ice-bag was applied to the hernia. The patient vomited twice after admission; the second time the vomit was rather offensive, and as her general condition was worse and there was no local improvement, Mr. Sydney Jones decided to operate.

The operation was performed sixty-six hours and a half after the first symptom. Ether was administered and antiseptic precautions were taken. An incision was made in the middle line over the lower part of the swelling, and an attempt to divide the constricting part at the neck was made, but this failing, the sac was opened and found to contain a mass of deeply congested intestine, and a good deal of omentum. An incision in the lower part of the opening relieved the strangulation, the intestine was returned, and the omentum ligatured with catgut and removed. The edges of the wound were brought together with catgut sutures, and a drainage-tube was introduced.

Next morning she was looking much better. Pulse regular and of fair strength. No further sickness and no pain.

On March 5th the temperature in the evening went up to 101.8° without apparent cause. The urine was drawn off by catheter. On the 6th the urine was again drawn off. The wound was dressed, some sutures were removed, and strapping was applied. The wound looked well. On the 7th there was some diarrhoea, and this continued on and off until the 17th, when two enemata were given and a good deal of faecal matter came away. Opium had been given but had not checked it.

On the 14th the antiseptic dressing was discontinued and warm water dressing substituted. The wound was nearly healed. After the 17th she had no further trouble, and with the one exception mentioned above there was no rise of temperature throughout. She left cured on April 8th.

#### STRANGULATED CONGENITAL HERNIA IN A CHILD TWELVE MONTHS OLD.

C. B—, a boy, aged twelve months, was admitted on May 25th for a congenital hernia on the right side. The case was sent in by Mr. Verdon of Brixton. The child

had had severe vomiting for twenty-four hours. The hernia was very tense, and there seemed to be much thickening about the neck of the sac. Taxis was tried with a hot bath, and afterwards ice was laid over the rupture, a piece of flannel being interposed between the skin and the ice bag. After a few hours, the vomiting having continued severely and the child being pale and restless and evidently in much pain, chloroform was administered, and Mr. Sydney Jones dissected the parts down to the neck of the sac and divided the structures exterior to this, when the hernia was easily reduced. The edges of the wound were brought together by catgut sutures, and a small drainage-tube was inserted. Vomiting ceased after the operation and the child passed a motion. Next morning the child was quiet and looked better. On May 30th the child had some slight bronchial attack, but this soon passed off, and the child was presented well.

### VICTORIA HOSPITAL FOR CHILDREN.

#### A CASE OF ACUTE RHEUMATISM SIMULATING PYÆMIA.

(Under the care of Dr. RIDGE JONES.)

FOR the following notes we are indebted to Dr. George Weldon, registrar.

George S—, aged five years, was admitted on March 16th, 1882. Family history good. Patient never had rheumatism previously. About a month ago he was struck on the left side of the head by a stone, but no ill effects followed. On March 12th he was taken ill suddenly, with pain in the left side of the head and left eye, vomiting and diarrhoea, which lasted for two or three days, and pain in hands and toes; acute pain in left ear, but no discharge therefrom. There were a few spots on the arms and legs.—13th, 2 A.M.: Delirious; screaming and struggling; continued thus on and off until the 16th, the day of admission, when he slept a little. On admission the child seemed only partially conscious; temperature 102.6°; very restless. He experienced pain wherever touched; both elbows were swollen and fluctuating indistinctly; back of knuckles in a similar state; both ankles and all the metacarpophalangeal articulations swollen. All the joints appeared painful. Sterno-clavicular articulations enlarged and painful. Several petechial spots on limbs and body. Left eye: Deep vessels of conjunctiva injected. Iris clouded and discoloured. Pupil contracted; can only distinguish light and shadow with left eye. Tension diminished—2. Pulse 136, feeble.—18th: Rigidity of neck; less screaming, but a good deal of restlessness.—19th: Hands and joints of toes much swollen; rather quieter; head still retracted.—21st: Slept nearly all day.—25th: The heart's apex was one inch below and a little to the outer side of the nipple. The area of præcordial dulness was much increased. There was loud pericardial friction. The respiratory sounds were good.—29th: The temperature had risen to 104.8°, and there was much delirium.—30th: Temperature 102.4°; skin hot and dry; pulse 135, weak and thready; pericardial friction as before. The child did not now complain of pain. The bowels were open, and the tongue furred.

April 13th: The temperature has been fluctuating considerably, showing evening exacerbations and morning remissions. To-day acute pain in the head and abdomen came on. The pericardial friction has disappeared.—14th: Pain less.—22nd: Acute pain in the left eye, which is quite useless for vision. Tension—3. Atropine causes a very irregular dilatation of the pupil. Capsule of lens posteriorly coated with lymph, which obscures the retina from view.

May 1st: In a good deal of pain at night. Temperature 102°; pulse 135; tongue clean; vomits occasionally.—3rd: For about half an hour last night intense pain in the left eye.—6th: Chloroform administered. Mr. Cowell then removed the left eye. The sclerotic was found to be thickened, and the choroid also slightly. The capsule of the lens posteriorly was thickened and coated with firm lymph. Had little or no pain in the orbit after the removal of the eye, which seemed to give great relief. The temperature now showed some evening rise and morning remission for the next fortnight, when it became normal, and the child seemed cheerful, and, in fact, was convalescent, going out daily for

exercise in the grounds.—31st: The child suddenly to-day became worse, after being apparently well. Vomited four times in the night; slightly delirious; pulse weak; face pale.

June 1st: Continues the same. Vomiting without effort; cannot take food.—2nd: Fed per rectum; screams at night occasionally. The temperature is normal, and has remained so since May 17th. 4.30 P.M.: Convulsed down the left side; unconscious for about four minutes; breathing quiet.—3rd: Screaming about every three hours in the night; complaining of acute pain in the head; slept quietly in the intervals of the attacks. All day the screaming continued at intervals of two hours, and later on every hour. A regular epileptic fit at 3 P.M.; another between 5 and 6 P.M., commencing with screaming; squinted; in this fit for a quarter of an hour. Passed water during the fit, and came round at the finish with stertorous breathing. Another screaming fit at 7.45 P.M., with slight convulsions. Bowels acted during the fit. 8.20 P.M.: Died quietly, without any further convulsions.

*Necropsy.*—Pericardium adherent. Brain soft. Convolutions flattened. Both ventricles distended with fluid, about six ounces. No lymph or signs of inflammation about the optic nerve. No disease of mastoid cells.

#### ULCERATIVE ENDOCARDITIS SIMULATING PYÆMIA.

(Under the care of Dr. JULIAN EVANS.)

Louisa W.—aged thirteen, was admitted May 6th, 1882. History good. Has been treated previously at Brompton for heart disease. No distinct history of rheumatism previously. On May 2nd she was suddenly taken ill. Vomiting but no diarrhoea. Pain in chest and left leg. Left knee became painful and swollen. On admission loud systolic bruit at apex of the heart. Sound loud and clear over aortic valves. Behind, the systolic mitral bruit is heard. Slight presystolic bruit. Left knee-joint is extended by fluid and red, especially above and to the outer side of the patella. A small needle inserted and serum drawn off slightly cloudy. Other joints not red or painful.—7th: Ordered five grains of salicylate of soda every two hours, but stopped next day owing to much delirium and deafness during the night. Tongue brown.—9th: Pain in right knee.—10th: Passed a better night under the influence of opium. In great pain this morning. Delirious. Left knee less swollen, but pain in nearly all the joints, especially in knees, elbows, and ankles. Small joints of fingers not affected. Red patches and some vesicles and bullæ on hands and feet. Delirious during the night. Temperature 105°. Much injection of sclerotic vessels of left eye. Area of præcordial dullness much increased. Heart sounds loud and thumping. Friction sound chiefly with first sound. Respiratory sounds feeble.—11th: Much worse. Temperature 105.6°. Bullæ increasing in size and number, filled with serum, and pus around the margins. Left pupil dilated. Cornea and iris cloudy. Much chemosis of lower half of conjunctiva. Tension - 2. Tongue brown and furred. Much delirium. Ice bag applied and cold packing, but without materially reducing the temperature. Heart's area larger still. Some twitching of arms and resistance to extension. Some fluctuation in both knees, and slight redness over ankles.—12th: The temperature has fallen to 103°. Passed a better night under the influence of morphia; remains about the same in other respects.—13th: The temperature remained at 103° until 8 A.M., when death occurred.

*Necropsy.*—Dusky spots over body. Numerous bullæ, in size from that of a pin's head up to that of a shilling, on arms and legs. Heart: in left auricle a large vegetation about the size of a small raspberry; from upper surface of left auriculo-ventricular valve another growth, extending upwards, and just touching the former growth. Numerous inflammatory papillary granulations around, and fringing the free surface of the auriculo-ventricular valve, which is much thickened. Aortic valves thickened, irregular, and fringed with similar granulations. Right lung slightly bound down by adhesions; lung tissue fairly healthy, but slightly congested at bases; liver normal; spleen large, numerous infarcts scattered through it both old and recent; kidneys in same state as spleen; brain and meninges healthy. In both knee-joints a quantity of sero-pus, but no ulceration of cartilages or degeneration of synovial membrane. Both conjunctivæ were much injected and oedematous; both irides cloudy; vitreous of left eye thick and yellowish.

#### LIVERPOOL ROYAL INFIRMARY.

TUBERCULOSIS OF URINARY APPARATUS; SYMPTOMS  
SIMULATING VESICAL CALCULUS; MENINGITIS;  
DEATH; NECROPSY; REMARKS.

(Under the care of Mr. REGINALD HARRISON.)

FOR the following notes we are indebted to Mr. Ernest Barnes.

E. S.—, aged eleven, a schoolboy, was admitted on June 19th, 1882. About eight weeks before admission the patient after micturition passed some pus, which he described as being in little nodules. The symptom continued occasionally for twelve days. This was followed by the discharge of minute clots of blood at intervals after micturition. On admission, in addition to this history, he complained of micturating frequently with pain, afterwards referred to the penis and neck of the bladder. He was a fair delicate-looking boy, and for twelve months had often complained of headache. The urine was normal in appearance; sp. gr. 1010, acid; contained mucus and a trace of albumen.

June 20th: Mr. Harrison introduced a sound under ether, but no stone could be detected. Volkmann's bimanual method of examining the bladder was then employed, when a nodule at the fundus was distinctly felt. In the evening the temperature rose to 102°, falling in the morning to 97°. The patient was placed on a milk diet, and kept in bed. The evening rise in temperature continued.—24th: It was noted that he was slightly delirious during the night. Cold applications to the head were employed.—26th: Had a very restless night. In the morning he passed into a semi-conscious state, with strabismus and other symptoms of acute tubercular meningitis.—On the 27th he remained in much the same state of semi-unconsciousness. Some urine that he passed was found to be of sp. gr. 1020, acid, one-sixth albuminous.—30th: Died, having been quite unconscious for some hours.

*Necropsy.*—Lungs contained recent miliary tubercles. Liver was normal in size, also containing tubercles. The right kidney was healthy, ureter dilated; the left was enlarged, and, on section, the pelvis and calyces were dilated, and contained a yellow strumous membrane. This yellow, almost puriform, membrane extended along the whole length of the dilated left ureter to the bladder. There were tubercles in the substance of the kidneys, and some of the pyramids were partly absorbed. Bladder: the mucous membrane was covered with a multitude of minute superficial ulcerations, not apparently of a tuberculous kind; the mucous membrane of the trigone was roughened; at the apex of urachus a caseous tubercular nodule was formed which had been felt during life. Brain: convolutions flattened, lymph at base, ventricles very much dilated; recent miliary tubercles were found in both Sylvian fissures.

*Remarks.*—Mr. Harrison observed that there were points of special interest in this case, which was a good illustration of what might be seen in a class of disorders to which the term "urinary phthisis" had been applied. He had seen a good many instances of it in hospital practice, the patients being usually sent there on the suspicion that they were suffering from stone. The symptoms of urinary tuberculosis so closely resembled those of stone that an examination of the bladder with the sound was unavoidable. Under all circumstances it was necessary that such an examination should be conducted with the greatest gentleness and delicacy. Though the symptoms which followed made their appearance during the third day after the sounding, he felt sure that the latter proceeding was in no way responsible for arousing them. The patient was under ether and felt no pain either during or after the passing of the instrument. Whilst the patient was under the anæsthetic the value of Volkmann's method of examining the bladder with the finger or fingers of one hand in the rectum and the other hand above the pubes was demonstrated. The tubercular nodule in the fundus of the bladder was distinctly felt. In the diagnosis of growths and deposits in the bladder other than stone, Mr. Harrison had on several occasions demonstrated its assistance. Lastly, in the diagnosis of urinary tuberculosis attention was directed to the great value of careful and continued thermometric observation. In the irritability which accompanies stone in the bladder and tumours, an evening rise in temperature is only met with under very exceptional

circumstances—it cannot be said to be symptomatic of these affections—whilst in urinary tuberculosis it is constantly observed, and is to be regarded as an objective symptom of importance. Though in these cases the evidence afforded by an examination of the bladder with the sound is valuable, it would be quite possible to arrive at a conclusion by the other means of observation to which reference has been made.

## Reviews and Notices of Books.

*Physiologie des Muscles et des Nerfs.* Par CHARLES RICHEL. Avec 100 Figures. Paris: Germer Baillière et Cie.

IN this series of twenty-four lectures the reader must not expect to find a complete treatise on the physiology of muscle and nerve, for although many parts of the large subject of which it treats are considered at great length, others—such, for example, as the flow of blood through muscle during and in the intervals of contraction—are almost entirely neglected. In fact, M. Richet tells us himself that he was inclined to designate his work *Lectures on Irritability*. Throughout their whole extent he seeks to show that the laws of excitability are alike for nerve and muscle, and that there is little to distinguish the wave of undulation that accompanies muscular contraction from that which traverses the nerve-cell when stimulated or the nerve-fibre when it is the means for conducting a stimulus.

M. Richet commences, as might be expected, with an account of the movements of the cell. He gives, as a definition of irritability, “the reaction of the being to the external forces acting on it,” a definition not very dissimilar to that of life given by Herbert Spencer.

M. Richet proceeds to describe the effects produced on excitability by various stimuli, as thermic, mechanical, chemical, and electric agents, constructing curves which represent them graphically. He gives the following as a *résumé* of the conditions of cellular irritability. Oxygen is necessary, since that gas is consumed throughout the life of the cell. The vigour of the movements augments with the increase of temperature from 0° to 40° C., but after 40° C. the movements cease. Neutral and feeble alkaline solutions are favourable, acid are fatal, to them. Every change of state is an irritant to a cell, and consequently provokes its contractility. This change of state must be sudden; if slow, it does not provoke any reaction. Reaction to excitation is not sudden, but there is a period of latent excitation, a period which diminishes in proportion as the intensity of the excitability increases. Excitations so feeble as to be without effect when isolated, become effective when repeated at short intervals. A very short excitation provokes a prolonged movement. M. Richet coincides with Sewell in believing that the latent period in the contraction of muscle is very short; if it exist at all, it probably does not at most exceed 0.002 second. He gives the graphic tracings of the muscle curve from Marey, and shows the effects of weighting and of successive shocks with different intervals. He divides the relaxation consecutive upon contraction into two periods—a primary period, which is quick and sudden, and a secondary one, which is much slower. The latter he proposes to term *contracture*, which we think is to be regretted, since the word has already an accepted signification in surgery and pathology. In regard to this muscular contraction, he considers it to be a transient modification of the elastic tissue of muscular tissue; it is only observable in muscles that have few motor nerves, or in muscles the motor nerves of which are exhausted. It is a matter of regret that we have no term in English synonymous with *secousse*, which means the shock of a single muscular contraction; but gynaecologists will be interested to learn that the contraction of the uterus in labour-pains is not of the nature of a tetanic contraction or fusion of many contractions into one, but is a single long

contraction, lasting on an average 106 seconds. In regard to the effects of stimuli it is shown that when very feeble they may fail to cause contraction in a muscle, but that they nevertheless have a cumulative action, so that contraction occurs after the application of five or six stimuli, which would individually have been without effect; good tracings of this are given. M. Richet gives a table of the number of excitations required to produce tetanus, which shows that it varies greatly in different instances, amounting to 300 per second for the insect, 100 for the bird, 40 for the striated and 2 for the unstriated muscles of man, and 3 per second in the tortoise, whilst in the snail one excitation in ten seconds will produce tetanus. He gives as the result of his own researches the duration of the excitability of muscle, when no longer irritated by a current of oxygenated blood, and finds it to be one minute for the caudal muscle of the lobster, twelve minutes for the gastrocnemius of the frog in summer, forty minutes for the tortoise, five minutes for the dog, and one hour for the snail. But he acknowledges that great differences exist in the physiological states of the muscle which may in turn modify the duration of their excitability; in one instance, for example, the flexor muscles of the foot of the dog were excited for two hours at the rate of twenty induction shocks per second without being exhausted, so that it had received no less than 100,000 shocks.

We turned with some interest to see what M. Richet had to say in regard to the first sound of the heart, but he is too wary to make any positive assertion. The admission of a muscular sound as an element of the systolic bruit is, he says, in contradiction to the hypothesis that the cardiac contraction is a simple shock; but we do not know enough of the internal mechanism of contraction to conclude that the cardiac systole results from the fusion of several elementary shocks. On the other hand, it may be true that the shock occasioned by a single electrical excitation is composed of several smaller vibrations. On the whole, the question is left an open one.

A chapter is devoted to the elasticity, absolute force, and work of muscle. Tonicity, the author considers, may be only a modification of muscular elasticity, but this elasticity is subject to the control of the nervous system; and in support of this he points out that if the motor nerve of a muscle be cut the muscle relaxes, but it only relaxes if stretched by a weight. The relaxation, therefore, he maintains, is only a diminution in the elastic force of the muscle, or an augmentation of the extensibility. Speaking of the chemical constitution of muscle, he finds that, operating with 60 kilos. or 125 lb. of muscle, he was able to obtain 30 grammes, or about 0.5 per cent., of sarcolactic acid. The chemical and other phenomena accompanying muscular contraction are very fully given, and there is a short exposition of the pathological physiology of muscle.

The second half of the volume is occupied with the consideration of the physiology of the nerves, but we have no space to comment upon it.

The value of the work to a large number of readers will probably consist in the references it contains to other works, and the very clear summary of recent papers that it presents.

*The Journal of Anatomy and Physiology.* Conducted by Professors HUMPHRY, TURNER, and M'KENDRICK. Vol. XVI., Part IV. July, 1882. London: Macmillan and Co.

THIS part completes the sixteenth volume of this valuable and well-sustained journal. It contains six original articles: 1. Observations in Comparative Myology, by Hans Gadov, in which he discusses the question of the naming of muscles according to a uniform morphological principle; he then endeavours to illustrate the changes which the muscles of the vertebrata may undergo; and lastly, he describes the arrangement of the muscles of the hind limb, and traces

their homologies through the Amphibia and Sauropsida to man. 2. Fat Embolism, by Robert Saundby and Gilbert Barling, who append several cases which have come to their knowledge. 3. Micrococcus-poisoning, by Alex. Ogston. This observer, referring to recent writings, asks, Is it difficult to believe that micrococcus can be injurious or innocent just as it is allowed to grow under suitable or unsuitable conditions of culture or soil? His conviction is that the common micrococci which exist around, on, and in the human intestines, and which are resisted in their attempts at entrance by healthy individuals, but sometimes enter under conditions of lessened vitality, are one and the same with the virulent cocci which cause inflammation; that the difference is only that the production of acute inflammation shows they have found a suitable soil, a weak spot, or a weak individual, where they are cultivated in a mode calculated to elicit their virulent qualities. This paper is a very interesting one. 4. The Action of Saline Cathartics, by Matthew Hay. This article deals chiefly with the action of sodium sulphate. 5. A variety of Pulmonary Lobation, and its relations to the Thoracic Parietes, as illustrated by Comparative Anatomy and Abnormalities in the Human Subject, by William Allen. 6. Critical remarks on Polydactyly as Atavism, by C. Gegenbaur.

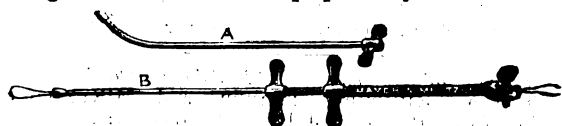
*The Illustrated Quarterly Journal of Medicine and Surgery.*  
Edited by GEORGE H. FOX and FRED. R. STURGIS.  
Vol. I, Nos. I. and II. New York: E. B. Treat.  
London: J. and A. Churchill.

THE first two numbers of a new American illustrated journal are before us. Each consists of twenty-four quarto pages of text, illustrated with wood engravings, and of four quarto coloured plates. The editors are promised the help of some of the most esteemed members of our profession in America. The illustrations are well done, and are abundant even to profusion, numbering twenty-one and twenty-eight respectively in these two parts. The cases have been well chosen, and care has evidently been taken to have a fair variety in each number. If the editors are able to make as good a selection of cases in the future, and can successfully resist applications to publish unimportant communications which happen to be well illustrated, we anticipate that this will be a popular and useful publication.

## New Inventions.

### JARVIS'S WIRE ÉCRASEUR MODIFIED BY JEFFERSON BETTMAN, M.D.

THIS is a modification of the Jarvis snare, shown at the International Medical Congress. It was devised specially for the removal of nasal polypi and hypertrophic tissue covering the turbinated bones. Its action is simple and efficient, and when properly used it should occasion but little pain and loss of blood. In the original instrument the sliding or outer cannula was propelled by a milled nut or

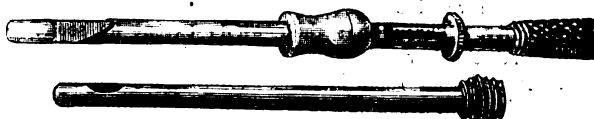


wheel, which has now been replaced by a flattened bar; this, for mechanical reasons, entails less expenditure of force and can be manipulated with greater ease and comfort. One of the chief points in the modified écraseur consists in the clamp screw to fasten the free ends of the wire loop. In Jarvis's instrument these were wound around small retention pins, and, if the case required, had to be undone and rewound. This is obviated in the modification; a simple turn of the screw releasing or clamping the wire.

Another point hereby gained is the impossibility of a fracture, the wire, except at its looped extremity, remaining straight throughout its entire length. The straight tube, which is used for operations in the nasal cavity, can be unscrewed from the handle and replaced by a long tube with the post-nasal curve, so that tumours or redundant tissue, growing from the posterior nares or in the naso-pharyngeal space, can be operated upon through the mouth. The wire used is the same as has been already recommended by Voltolini (*Anwendung der Galvano-caustik*, Wien, 1872, s. 251)—i.e., annealed steel pianoforte strings, Nos. 5 or 6. The instrument is made by Messrs. Mayer and Meltzer.

### AN ANTISEPTIC TROCAR CONVERTIBLE INTO A PROBE-POINTED KNIFE.

MESSRS. ARNOLD AND SONS have made for Dr. Ward Cousins a modification of the antiseptic trocar described in *THE LANCET*, Nov. 26th, 1881. After, by means of the trocar, the existence of fluid has been determined, the inner



tube of the instrument can be removed, and a probe-pointed knife, which fits exactly, can be passed along it, and is made so as to leave a cutting edge of one inch and a quarter in length. The direction of the edge of the knife is shown by a mark on the handle. This instrument may prove useful in cases of deep-seated abscesses and empyema.

### ARTIFICIAL RESPIRATION IN PUERPERAL CONVULSIONS.

To the Editor of *THE LANCET*.

SIR,—While congratulating Mr. Millican on the result of his case, recorded in *THE LANCET* of July 22nd, I may mention that artificial respiration was used in a case of puerperal eclampsia which I saw with Dr. Lambert of this town on June the 12th, 1881. The patient, a primipara, aged twenty-one, was seized with a convulsion at midnight, and though she lost consciousness, which never returned and the convulsions recurred frequently during the night, her husband did not seek for medical aid till seven in the morning, supposing her condition to be the usual symptom of approaching labour. Notwithstanding the inhalation of chloroform and the hypodermic injection of morphia, the convulsions increased in frequency and intensity, and about one o'clock, as she was evidently sinking, and the foetal heart's sounds were becoming fainter and fainter, it was decided to remove the foetus with the forceps; but before this was attempted she had another convulsion, and when it had passed off she lay motionless, having ceased to breathe, and was apparently dead. Air was made to enter her lungs by the method of Silvester, and after a little time natural respiratory efforts returned, but as they frequently failed, artificial respiration had to be fallen back upon several times, till at half-past four she had a convulsion, in which she died, all restorative measures, including the hypodermic injection of sulphuric ether, proving useless. Artificial respiration undoubtedly prolonged her life for more than three hours, and gave time for the extraction of the foetus, which was, however, dead; but had the convulsions been caused by the nervous supply of the respiratory muscles being temporarily knocked off its balance by reflex irritation, the result might possibly have been as satisfactory as Mr. Millican's, but unfortunately the uræmic odour was very marked, and the small amount of smoky urine found in the bladder almost completely solidified when heated, showing the presence of the usual cause of true puerperal eclampsia.

I am, Sir, yours faithfully,

Sunderland, July 26th, 1882.

JAMES MURPHY, M.D.



# THE LANCET.

LONDON: SATURDAY, AUGUST 5, 1882.

THE Executive Committee have quickly followed up their report to the meeting of the Association for the Advancement of Medicine by Research, by the publication of a valuable "Memorandum of Facts and Considerations relating to the practice of Scientific Experiments on Living Animals, commonly called Vivisection." It was necessary that some such statement should be the first publication issued by the Society, and the admirable manner in which this Memorandum has been drawn up promises well for the future prosperity of the Association. Calm and clear in its statements, it is yet most cogent in its reasoning, and we confidently expect that it will be very useful as a temperate, well-reasoned expression of the truth. The question of the even further restriction of experimental research in physiology and pathology in this country is almost sure to arise in Parliament before long, and the opportunity should be seized to make known in the Legislature the real facts of the case, and to strengthen the hands of the Government in the wise administration of the existing Act.

The Memorandum starts with the assertion that the art of medicine "does not depend upon arbitrary dogmas, or upon the theories of one or another school; it depends upon accurate knowledge of the structure and functions of the body in health and disease, and of the effects of various agents upon it, applied in each case by the aid of bedside experience." Knowledge of physiology, pathology, and pharmacology depends entirely upon observation and experiment; and it is pointed out that, in spite of the difficulties of research into the natural laws of living beings, "it would be as reasonable to expect the institutes of medicine to advance without laboratories and experiments on animals, as to hope for progress in chemistry or physics by allowing only observation upon metals and gases and forbidding the performance of experiments." The experience of the whole profession in all parts of the civilised world supports this assertion, and those most busy with the practical duties of their calling are among the most keen in their appreciation of the efforts and results of the more purely scientific investigators. The moral consideration arising from the fact that some physiological and pathological experiments cause pain, and some even loss of animal life, is next dealt with; and the duty of making a comparison between the injury to a sentient creature and the probable benefit to mankind or to others of his own species is freely accepted. A classification of experiments clearly shows that it is only a small number of them which are attended with pain at all, and that of these the large majority entail pain of quite insignificant amount; as the prick of a hypodermic syringe, or more prolonged discomfort, which in no way approaches what in other relations is spoken of as torture. The medical profession has never been behind the age in its feeling for the sufferings either of humanity or of the animal creation, and although there are exceptions to this as to every rule, it is yet true that the charge of

wanton cruelty has never been established against any investigator of repute in this country. The latter part of this Memorandum states the objects of scientific experiments on living animals, and it ranges these under six heads, as follows: (1) To extend, correct, and define our knowledge of the functions of the living body; (2) to obtain direct and exact knowledge of the processes of disease; (3) to test various remedial measures directly; (4) to ascertain the means of checking contagion and preventing epidemic disease both in men and brutes; (5) for instruction, and (6) for the detection of poisons. Under the first four heads many examples of experiments upon living animals which have proved of great value for those special purposes are detailed, and it is clearly shown that the advantages which have been derived by the experimental method of research are experienced in every branch of our art, and that dumb animals have participated in them in no small proportion. If a more mercenary view should commend itself to some in this utilitarian age, they will find that the now much abused and misnamed "vivisection" has added not inconsiderably to the wealth of nations. While it is only fair that physiologists should be required to answer the question *Cui bono?* in reference to the experimental method as practised for long periods of time—and it is a demand they need not shrink from—it is entirely unfair to ask the question of an experimenter as applied to each experiment. It is enough that its object be the elucidation of truth, and he may be content to wait for the recognition of the practical value of any given portion of truth—of any natural fact—until knowledge has so advanced as to show its appropriate place in the order of nature. In reference to the question of demonstrations to students, while it is insisted that physiology, like other sciences, should be taught practically, if at all, it is pointed out that long before the passing of the present Act experiments involving pain to animals were by common consent excluded from all courses of Practical Physiology, at any rate in this country. We believe that it is no exaggeration to say that "the evidence is ample to show what no one conversant with the subject doubts that the great strides made in the practice of medicine during the last fifty years have been chiefly due to the exact scientific and experimental inquiries of this epoch." And this being so, "so long as scientific men exercise their responsibility in the humane spirit which has hitherto guided investigation in this country, they have a right to ask that no unnecessary obstacles should be placed in their way."

THE question of the Notification of Disease seems to be exciting considerable attention in Greenock, which happens to be one of the few towns in which such a system has been more or less in force for some years. In consequence of this fact, Dr. WALLACE, the medical officer of health, was requested, some months ago, to furnish a report of the working of the system for the guidance of the Select Committee of the House of Commons on Police and Sanitary Regulations. The Report is in favour of a system of notification by the medical practitioner. Hitherto the practice has been that of notification by the householder. It was originally proposed in the Police Bill of 1876 to require the medical practitioner to report to the sanitary inspector every case of infectious disease in his practice. For this report he was to receive

2s. 6d. In default of such report he was to be liable to a fine not exceeding 40s. This clause was altered out of deference to the opposition of medical men, who thought it would tend to impair the confidence placed in them by the public and defeat the object of the Bill. The responsibility of notifying was then thrown on the householder. Dr. WALLACE says that many medical men then expressed an inclination to help the working of the Act. But though he admits that "the more respectable" practitioners in the town have done what they could to help him, the tone with regard to the profession generally is one of complaint, and one which we cannot but regret he should feel called on to use. "Covert if not open hostility, he observes, has been shown by others." He says in this Report, addressed primarily to the Board of Supervision of Scotland, that some practitioners not only did not advise the householders to report, but failed to give any advice themselves about disinfection and other measures of protection. "In several instances, practitioners studiously avoided naming the disease, in order, apparently, that the householder might say that he did not know the patient was labouring under an infectious disease. Indeed, instances have occurred of the practitioner having refused to specify the disease even when asked by the householder who had suspected the real nature of it, and was willing to comply with the law," &c. Dr. WALLACE thinks that "many medical men, in many cases requiring removal to a hospital, believe that the duty of reporting is an arbitrary mode of depriving them of their means of livelihood," &c.

Notwithstanding Dr. WALLACE's complaints against many of the practitioners, he is able to offer a very strong proof of the advantages of even the imperfect notification he has received. A large number of the reports reach him from registrars in cases of death—805 out of 4423; a small number direct from medical men—106; a large number of cases are discovered by sanitary officers, and a large number by neighbours who begin to know and appreciate the law. Though the present system admits of no further development—there being no substantial increase in the number of Reports for the last two years—it has still wrought a considerable improvement in the public health. The average death-rate has fallen considerably, as well as the average annual percentage of deaths from diseases of the zymotic class, so that Greenock now has the lowest mortality among the large Scotch towns, instead of almost the highest. The reduction in some particular zymotic diseases is very striking, as shown, e.g., in two five-year periods, 1871-5 and 1876-80, respectively, from the following diseases: Small-pox 55.20, 28.13; measles 50, 28.20; scarlet fever 93.40, 12.20; typhus 29.80, 19.20. The mortality from scarlet fever used to be 4.64 per cent. of all deaths in twenty-two years; in the last five the mortality has been .89 per cent. Dr. WALLACE says the mortality of cases removed to hospitals as compared with those treated at home was in 1878-81 as follows, in whole numbers: Typhus 15, 23; enteric 11, 22; scarlet fever 5, 11; measles 3, 1.

It must be remembered that Dr. WALLACE's statement is an *ex parte* one so far as it is made from the standpoint of the medical officer of health. We cannot but think it would have been better to have taken his evidence direct before the Committee, and to have had in sharp succession

to it that of the practitioners in Greenock. *Audi alteram partem.* We are loth to believe that any considerable number of practitioners, rightly appealed to, would be found unwilling to facilitate such an object as the restriction and limitation of infectious disease. Dr. WALLACE thinks that no further results will be got out of the householders' notification. He gives a singular reason for preferring that the medical officer should be made responsible. The householder, he says, is apt, by the intimation of the diagnosis of infectious disease, to be thrown into confusion and distraction. But is the doctor a man of leisure, with nothing to do but write and send to sanitary inspectors reports of infectious disease? Certainly he is not. Our belief is that Dr. WALLACE and other medical officers of health will find valuable co-operators in the isolation of disease in medical men if they will give them credit for being willing to be such, and if they will not strive to put upon their shoulders legal duties which attach properly to householders and parents.

FROM the brief report of the meeting held at the Royal College of Physicians on the 27th ult., which appeared in our columns last week, it will have been seen that the Fellows passed a resolution to the effect that the system of extensively advertising medical works, and the custom of giving, whether for publication or not, laudatory certificates of medicinal and other preparations, and of medical and surgical appliances, is misleading to the public, derogatory to the dignity of the profession, and contrary to the traditions and resolutions of the Royal College of Physicians. The College is to be congratulated on the action it has taken in this matter. Medical authors we are sure will take care, if publishers insist on advertising works of which they have the copyright in the columns of the daily press, that at least in future the advertisements will be shorn of laudatory notices. It is a matter, however, of regret that a more decided expression of disapproval was not given with regard to advertising medical works in the lay press. As the resolution at present stands, it leaves this open to the conscience of individual Fellows. As regards the majority, there can be little doubt that the liberty will not be abused; still there are some who are well known to have peculiar views on the subject, and a stringent resolution might have had the effect of making them conform to the general practice. Undoubtedly the profession as a body views with growing suspicion those of its members who are continually sounding their own trumpets, whether the note takes the form of extensively advertising their own works, or connecting their names with every pharmaceutical preparation, aperient waters, patent foods, or medical and surgical appliances, or of signing bulletins for insertion in the public journals with regard to the health of some comparatively insignificant personage who may happen to have the gout or an attack of influenza; or of a more ingenious form, which has lately come into vogue, of publishing cases which appeal to the sympathy and the imagination of the public in the reports intended for general circulation on the part of special hospitals. At the present day no excuse can be admitted for these practices. Forty or fifty years ago it might have been urged that a professional man had few opportunities of making himself known except to the limited circle of his school and a few professional

friends. But such an excuse cannot be maintained at present. Since that time the Medical Societies have multiplied to a prodigious extent, so that it is not difficult for a man who has anything to show or say, worth showing or saying, to bring it directly under the notice of the profession. The same may be said of the medical press: not only have the old-established journals vastly extended their columns for the reception of original articles, but nearly every branch of the profession has its own journal in which matters of special interest may be discussed. With so many legitimate means at command of bringing himself into notice, a man must indeed be perverse, and even blind to his own interests, to seek for ephemeral public approbation at the risk of losing the substantial rewards that surely, if somewhat slowly, await those whose work has received the stamp of approval from their professional brethren.

IN our Local Government Department we give a summary of eight reports on certain sanitary districts in the county of Denbigh, the reports having been prepared with a view of facilitating a final decision as to whether the districts in question can best be served by being formed into a united district for the purposes of the appointment of a medical officer of health, or whether the existing arrangements, which are without uniformity, and which involve the appointment of thirteen health officers, all engaged in private practice, shall be maintained. Acting, we assume, under official instructions, the Local Government Board inspector for North Wales has made a statutory representation, such as is required under the Public Health Act, 1875, to the effect that such a combination of districts is desirable in the interest of the several contributory places concerned; his action in this matter having received the support of the St. Asaph Rural Sanitary Authority, who in 1873 expressed a desire to see some such combination brought about; and that of the Ruthin Rural Authority, who in 1875 passed a resolution, which they soon after rescinded, to the effect that a combined appointment of one officer of health for the several sanitary districts of the county of Denbigh would conduce to a more efficient system of sanitary administration.

The reports referred to raise the whole question as to whether it is desirable as a rule to employ medical officers of health, not engaged in private practice, to act for a combination of sanitary districts, or whether it is more advantageous to appoint medical practitioners having other duties to act as resident health officers over smaller areas. Very valid arguments may be brought forward in favour of both methods of appointment, and it is by no means easy to lay down a rule which shall be applicable to all districts alike. On the one hand, it is contended that in his own immediate district a medical man who is both health officer and engaged in actual practice has special facilities for hearing of cases of infectious disease, and for suggesting immediate remedy, that he must of necessity have constant opportunity of acquainting himself with the sanitary condition of the localities in which his work lies, and that his occupation limits him to a comparatively small area, where he can, as a rule, be found on any emergency when immediate action or advice is needed. On the other hand, it is held that a medical officer of health who is appointed for a

term of years over a district large enough to secure for him an income apart from private practice, occupies a position of independence such as is necessary to the proper performance of the duties of his office, that he is free from the risk of offending patients, that he can secure in his work the needful aid of medical practitioners in a way which no competing colleague could aspire to, and that he has the special inducement, together with the favourable opportunities, for making himself thoroughly conversant with the scientific and practical aspects of public health questions, and that he hence acquires an influence both with the public, and as regards his advice to sanitary authorities, which could not otherwise be expected.

Speaking generally, we cannot but feel that the more weighty arguments lie on the side of those who would require the officer of health to devote his whole time to his duties. Perhaps the most prominent objection to this plan has reference to the fact that in a wide district such an officer might not be found in moments of urgency. But as a matter of experience, these sudden emergencies do not often arise, and the possible delay in securing the attendance of the health officer on some such special occasion is not to be compared in importance with the hindrances due to the endless and daily recurring ties of active practice, which compel the ordinary medical practitioner constantly to postpone his visits as officer of health until they become practically useless for the matter immediately under consideration. Besides which, too much importance must not be attached to instantaneous advice given on these occasions of emergency, and which has for its object to deal with some impending mischief, such as an epidemic; for it is rarely that proper effect can at such a moment be given to the advice, and even if efficiently adopted, it is seldom to be compared in value with the continuous action which is undertaken on the advice of a competent and trusted health officer, and which steadily does away with the very conditions which would otherwise tend to favour the occurrence of the emergencies anticipated. Regarding the proposed Denbighshire combination from these several points of view, it is quite obvious that, with one or two exceptions, real progress in sanitary administration has been all but limited to the sanitary districts employing as medical officer of health the only officer out of the thirteen referred to who has been able to give a large portion of his time to the duties of that office, and who is specially referred to as having taken pains to acquaint himself fully with the principles of sanitary science. Other officers have been assiduous, but they have, as a rule, failed to induce their authorities to carry out the remedial measures suggested.

Hitherto the sanitary authorities concerned have been unable to arrive at any decision as to which sort of appointment they should make, and, judging from the account of their more recent deliberations, unanimity does not seem to be near at hand. The proposed district is not extensive to a fault, as some combined districts have been; it is almost surrounded by railways, giving reasonably easy access to most of its populous localities, and, in view of past experience in the sanitary administration of its several component parts, it certainly seems desirable to secure for the whole county that uniform advice on health requirements

which emanate from one skilled officer, and which has already led to good results in some three or four of the sanitary areas comprised within it.

## Annotations.

"Ne quid nimis."

### HOSPITAL SUNDAY.

It is very gratifying to us to notice the steady growth of the Hospital Sunday Fund. The effects of the commercial depression upon the natural growth are now passing away, and the collection of 1882 exceeds that of 1878 by nearly £10,000. The cash received to July 18th amounts to £34,424 12s. 2d. After paying £1380, the proportion set apart for the purchase of surgical appliances, and allowing sufficient for liabilities and current expenses, the amount available for distribution is £32,415 13s. 9d., which, thanks to the prompt action of the Council, is now being distributed among the needy hospitals and dispensaries of the metropolis. On the Saturday preceding the collection we were at some pains to illustrate what we called the starvation of our hospitals. We are glad to know that our facts and statements received attention in the pulpits of the metropolis on Hospital Sunday, and were found very useful as a basis for the appeals of clergymen and ministers, which resulted in a collection exceeding by about a couple of thousand pounds the collection of last year. We are not yet satisfied with the collection. It represents neither the wealth of London nor its religion, nor the amount and gravity of the disease which is carefully and skilfully attended to in hospitals and dispensaries. We are, nevertheless, grateful for the strides by which the collection seems to mount up to the £50,000 which we think it ought to reach, and we regard these strides as an indication of the growing interest of the people, at least of religious people, in the great problem and duty of mitigating human suffering. There is another serious reason for a steady and considerable increase in the amount of the collection—viz., the gradual increase of the number of institutions claiming to share in the benefit of the Fund. It was shown by Dr. Glover on Wednesday, at the meeting of the Council, that while the collection of this year exceeds that of 1880 by £4000, many of the best hospitals are getting less out of the larger collection than they got out of the smaller. This was true of no less than half of the hospitals. The explanation given by Mr. Thomson Hankey, and no doubt largely the right one, was that the number of institutions claiming to share was constantly increasing, being now 145 against 130 in 1880. The value of this collection is intrinsically great. Let anyone try to collect such a sum for any other purpose that is not occasional, and in its nature sensational and temporary, and he will find how impossible it would be to get such a consensus of benevolent effort, in which Jew and Gentile, Protestant and Catholic, vie with each other. But it is not so much the amount of the collection that is so valuable, as the wide area of popular sympathy and interest in which it takes its rise. Until the institution of Hospital Sunday, the maintenance of hospitals had been the special and almost exclusive care of the wealthy and aristocratic classes of society, who, to their credit, supported them well. It is far better, however, and altogether fitter, in these days, when wealth is more equally distributed, that all classes should share in the pleasure of supporting hospitals and dispensaries; and it is the great value of Hospital Sunday that it brings this pleasure and this duty directly before thousands of people who would otherwise not be so appealed to.

### BRIGHTON SEWERAGE.

It is in no hostile spirit that we publish the report of Mr. Bailey-Denton on the sewerage of Brighton. The views and suggestions he has made seem to us so important, that it is only fair to the authorities and rate-payers of Brighton to place them at their disposal while there is yet opportunity to make use of them in the way of practical reform. It is needless to point out that the judgment formed and expressed by Mr. Bailey-Denton is no more dictated by prejudice than our own strictures have been prompted by malice against the most conveniently placed and generally eligible of seaside resorts in which Londoners are personally interested. It is childish to treat the friendly remonstrances of professional critics as the outpourings of a spirit of envy or animosity. It is solely in the interests of public health and of the visitors to and residents in Brighton we have interposed. It is indispensable to the comfort of the metropolitan population that Brighton should be placed in a satisfactory condition as regards its sewerage. No other locality can well be substituted for it as a popular sojourn, considering its proximity to the metropolis, but at the same time it is manifest that unless perfectly notorious defects in the sewage disposal of the town and neighbourhood are removed, Brighton must, and will assuredly, be avoided, let the Corporation resent plain truth-speaking as vehemently as it may. If the authorities of Brighton are well advised they will take the report we now publish into very serious consideration, and, before expending large sums of money on works which besides being costly may prove ineffectual, endeavour to arrive at a sound conclusion as to what it is best to do, not only in the interests of the resident population, but of that large class of visitors who regard this particular watering-place as the one accessible and attractive resort.

### THE BRITISH MEDICAL ASSOCIATION.

THE meeting of the British Medical Association, which takes place at Worcester next week, under the presidency of Dr. W. Strange, is one of especial interest from the fact that it is the fiftieth anniversary of the Association, which is to be celebrated in the same city that saw its inauguration by Sir Charles Hastings. Doubtless many references will be made in the course of the week to the growth of this important Association from the small "provincial" body of 1832 to the present large and influential organization, with its numerous branches. The programme of the meeting contains promise of good scientific work. There are no fewer than eight sections—viz., Medicine, Surgery, Obstetric Medicine, Public Medicine, Anatomy and Physiology, Pathology, Ophthalmology, and Otology; and in almost all of them one or more special debates have been arranged upon subjects of particular interest. The session may be said to open on Tuesday afternoon, the 8th inst., with service in the cathedral and a sermon by the Dean of Worcester. In the evening, at the Assembly Rooms, Guildhall, the opening general meeting will take place, when the president's address will be delivered, the annual report of the Council presented, and other business transacted. Notices of motion of two resolutions affecting alteration in the by-laws have been given: one by Dr. Milner Fothergill, limiting the term of office of editor of the *Journal* to five years, but eligible for extension to a like period; and the other by Dr. Ward Cousins, to the effect that the President of the Association shall be *ex officio* member of the General and Finance Committee, and providing for the annual retirement of four of the elected members of that Committee, who shall remain ineligible for re-election for two years. This resolution will be seconded by Dr. Grigg, and as it has a rather important constitutional bearing, it is

likely to give rise to some discussion. On the morning of the 9th, after the second general meeting, the address in Medicine will be delivered by Dr. Wade of Birmingham. A luncheon will follow, to be given to 500 members, by the Worcester and Hereford Branch, after which a bust of Sir Charles Hastings will be presented to the Mayor and Corporation of Worcester. The Sections meet at 3 o'clock, and sit for two hours and a half, and in the evening there will be a special service in the cathedral, at which Haydn's "Creation" will be performed by the Philharmonic Society, assisted by members of the Worcester, Gloucester, and Hereford choirs. On Thursday, the 10th, at the third general meeting, the reports of committees will be presented, and the address in Surgery delivered by Dr. William Stokes, of Dublin. The annual dinner will take place the same evening. On Friday, the 11th, the sections will meet in the forenoon, and the concluding general meeting is to be held. A garden party will be given in the afternoon at Madresfield Court, Great Malvern, by the Lord-Lieutenant and the Countess Beauchamp, the proceedings terminating by a *sermo* given by the President and G. W. Hastings, Esq., M.P. Excursions to the Malvern Hills, the Wye, Stratford-on-Avon, and the Severn, have been planned for Saturday, the 12th.

#### ARMY MEDICAL SCHOOL.

THE forty-fourth term of the School ended on Wednesday, when fifteen surgeons on probation for the British Army, and eight for H.M. Indian Army, were declared qualified to exercise commissions in their respective services. The Military Commandant of Netley, Colonel Sir Charles Pearson, K.C.M.G., Colonel Farman, the Director-General of the Department of the Army, Sir Joseph Fayrer, K.C.S.I., the Professors of the Army Medical School, and the whole of the medical staff of the hospital, and other officers and gentlemen, were present. Surgeon-General Longmore, C.B., read the reports of the session addressed to the Director-General for transmission to the Secretaries of State for War and India, with the names of the successful competitors for the various prizes published in another column, as well as those who had won honourable mention by their zeal and attention to the special studies of the place. The Director-General then presented the prizes, and addressed the gentlemen about to leave the School to enter on their career in their respective services. Dr. Crawford expressed regret at the absence of Sir Ralph Thompson, K.C.B., Permanent Under-Secretary for War, who was to have represented the War Office on the occasion, but who was detained in London by the pressure of his official duties in connexion with the expedition to Egypt. The Director-General, in graceful and hearty terms, congratulated the prize winners on the honours they had gained, and congratulated them all on having passed successfully their final examinations. Dwelling on the responsible and arduous nature of the duties of army medical officers, the Director-General pressed on their attention the responsibilities of their position in regard not only to the State, but to the soldier who is thrown on their hands in his hour of need without appeal. With great earnestness Dr. Crawford urged them never to delegate to irresponsible assistants duties that should be performed by themselves. He expressed the high opinion he entertained of the great value to the State of the Army Medical School, and congratulated the gentlemen before him on having had the advantage, unknown to officers of his standing, of acquiring knowledge special to their calling under its professors. The Director-General concluded by wishing the young medical officers a useful and honourable career in their respective services. Sir Joseph Fayrer added a few words of congratulation, and the proceedings terminated. The company were entertained at

luncheon in the handsome mess-room of the medical staff. The visitors saw Netley to great advantage. The day was beautiful. The corridors of the hospital and the wards, under the skilful hands of Surgeon-Major Dobson, were gay with flowers, as were the parterres about the mess-house; and to add to the beauty of the scene the yachts of the Royal Southern Yacht Club, competing for the annual regatta prizes, twice passed the hospital under full sail.

#### "DOCTOR" AND "CHAPLAIN."

It is much to be regretted when doctor and chaplain of a public institution do not agree. Generally they do; but the state of amity which exists is probably, in a majority of instances, due to concessions made by the former. This is not right; and we are glad to see that, in one case at least, the medical superintendent of an infirmary has had the moral courage to make a stand, and that a board of guardians has shown excellent good sense in enforcing his authority. We yield place to none in respect for the official character and work of ministers of religion generally, and would not be supposed desirous, or even willing, to under-rate the value of the services they render to suffering and distressed humanity in hospitals and infirmaries; but it should be clearly understood that the ministrations of the chaplain must on no account be allowed to interfere with the functions of the doctor or his assistants, or with the patients' meals. We have known instances in which the chaplain of an infirmary has shown such bad taste as to obtrude his presence in the wards during the time of medical attendance. In such a case he should be required to leave and prohibited from returning. If he declines to retire he is not fit for his post, and ought to be removed—from the ward and from the chaplaincy. Again, we have known chaplains who have persisted in troubling the patients with their presence and functions at times when they ought to have been quietly enjoying their meals or repose. This, again, should be peremptorily interdicted. Medical men ought to show themselves equal to the emergency, and without needless discourtesy protect their own rights and those of their patients from overbearing or thoughtless interference.

#### MOUNTAINEERING AS EXERCISE.

MOUNTAINEERING is doubtless excellent exercise for the nervously strong and the muscular, but it is unfortunate that it should be the pastime of the very class of persons least well-fitted for its pursuit. Those who lead habitually intellectual and, to a large extent, sedentary lives, incur great peril of injury and accident when they resort to this arduous and altogether exceptional form of exercise in their annual holiday. They may be steady of nerve and clear-headed, strong of wind and limb; but the strain is too severe, and the overtaxed faculties of sense and power may, at any moment, give way suddenly, when life will be jeopardised or sacrificed. Members of our own profession need a word of caution in respect to the way they spend their hardly earned vacation. We do not think that, as a class, they are particularly addicted to the climbing of mountains, but there are some who forget that unaccustomed labour of any kind, although it may be performed impulsively and perhaps with seeming ease—because there is for the moment some reserve of force on hand—is not safe work. A breakdown must reasonably be expected, and it is not prudent to venture life or limb on the hazard. Mountaineering, like everything else, requires long and continuous practice to make it an exercise which can be reasonably reckoned as salutary and within the bounds of a sound discretion. It is too laborious, too exacting to the sense-organs, and too severely exhausting to all the powers of life and energy, to be undertaken



without more than a mere feeling of courage and power, which may be misleading. The mountaineer should be always in training, or he should only attempt such climbing as calls for no particular expenditure of nerve or muscle force, and involves no extraordinary risk.

### THE EGYPTIAN EXPEDITION.

PREPARATIONS for the medical services of the campaign in Egypt have been unremittingly pushed on by the War Office authorities during the past week. The equipment of the field hospitals and bearer companies has been collected at the Woolwich Arsenal, under the superintendence of the Brigade-Surgeon in charge and the quartermaster of the Army Hospital Corps; the non-commissioned officers and men detailed for each hospital and company have been mobilised at Aldershot, so that as soon as the Admiralty provide transport the remaining seven field hospitals can embark at a few hours' notice. Between eight and nine hundred men of the Army Hospital Corps are required for the expedition, and of these six hundred have already joined the depot at Aldershot. The Peninsular and Oriental Company have placed the steamship *Carthage* at the disposal of Government, and she has been selected as the principal hospital ship. She has been fitted out to carry two hundred and twenty sick and convalescents, and when full will proceed to one of the general hospitals at Cyprus or Gozo to discharge her invalids, and return to Egypt for a fresh instalment. Brigade Surgeon H. Fergusson has been selected for her medical charge, with a staff of medical officers, an officer of orderlies (Captain Joseph), and four nursing sisters. Every attention has been paid in fitting the hospital to the requirements of the sick; ice houses are provided; and she will be liberally supplied with medical and surgical stores. The *Carthage* sails on the 9th. The steamship *Courland* has been detailed by the Admiralty for an additional hospital ship, and will be fitted in a similar manner to the *Carthage*, though on a smaller scale. Deputy Surgeon-General J. Lamprey is under orders for Cyprus to supervise the medical arrangements of the island, which, as a base of operations, will have allotted to it a general hospital of four hundred beds. The steamships *Pelican* and *Marathon* have been selected by the Admiralty to take out the 1st Bearer Company, and Nos. 2 and 3 Field Hospitals, leaving Portsmouth on the 5th. The principal medical officer, Surgeon-General Hanbury, C.B., and his staff, proceed in the *Capella* from Liverpool on the 6th.

### CEREBRAL LOCALISATION.

IN the *Medical News* Dr. H. J. Berkley publishes an interesting case bearing upon the question of cerebral localisation. The patient was a gentleman, aged seventy-three, who had suffered for many years from mitral and aortic disease. About two years and a half before his death he was suddenly seized with a twitching of the left angle of the mouth, apparently limited to the zygomatic muscles; it was unattended with unconsciousness, or other symptom of cerebral disturbance, and continued unaltered to the time of his death. At the autopsy the cerebral membranes were healthy, the cerebral arteries were atheromatous to their smallest visible branches; no embolism or rupture was found. The convolutions were very intricate; "on the ascending frontal convolution of the right side, one and a half inches above the margin of the Sylvian fissure, in a location corresponding to the seventh centre of Ferrier, a nodule of calcareous degeneration was found of nearly circular shape, three-sixteenths of an inch from side to side, and of a corresponding diameter from above downwards. The depth was very slight, certainly not greater than half of the thickness of the cortical grey matter." The remainder

of the brain was healthy. Dr. Berkley suggests that the lesion was an arterial occlusion, probably embolic, which underwent calcification. The case is of very great value, as the lesion was of minimum size, was unaccompanied by any other cerebral lesions, and was the cause of distinct and well-defined motor disturbance.

### JAMAICA MEDICAL SERVICE.

WE have recently referred to the deplorable state of the Government Medical Service in Demerara. The facts in relation to the same service in the island of Jamaica are, if anything, still more disgraceful, and we feel bound to call attention to them, both to warn the younger members of the profession against accepting appointments in the service, and in the hope that our remarks may lead someone in authority to investigate the matter and attempt to correct the evil. There are forty-eight medical districts in the island, each of which has one medical officer appointed to it; the salaries range from £150 to £200, and one of the great grievances is that during leave of absence, even when this is necessitated by overwork and disease brought on by the climate, only half of this paltry pay is granted. There are also complaints as to personal injustice, favouritism, and irregular promotion—offences which perhaps more than any others cause ill feelings in the service. During the last thirteen years no fewer than sixty-nine men have passed out of the service. Of this number twenty-two have died, nine have been dismissed, and thirty-eight have resigned their appointments (nine of these resignations have been compulsory), while only four have been pensioned. Such a state of things calls for redress in the interest of the colony quite as much as in that of the medical profession. These colonial appointments offer certain temptations—we cannot call them attractions—to many young men, but the real prospect they offer is gloomy in the extreme—hard work ill required! Our earnest advice to those who may contemplate offering their services to this colony is that of *Punch* to those about to marry, "Don't!"

### DEATH CERTIFICATES AT GUY'S HOSPITAL.

THE recently completed inquest in Southwark on newly-born children whose mothers had been attended in child-bed by students at Guy's Hospital has probably served a useful purpose in once more calling attention to the unsatisfactory state of the law respecting the registration of uncertified causes of death. We have to thank the medical authorities at Guy's Hospital for having been the unwilling and unintentional cause of the ventilation of this old-standing defect of the law. It is difficult to account for the objectionable and highly injudicious practice of the medical staff at Guy's in giving medical certificates of the cause of death of infants they had not even seen, on the mere information of the students. The inquest does not appear to have elicited the real object of giving these certificates. It is possible that there may have been some local opposition to the employment of the students in maternity cases on account of their inability to give a legal certificate in case of the death of the infant. The inquest will probably have the effect of securing in future the attendance of a duly qualified and registered member of Guy's medical staff in all cases which take a serious turn either for the mother or the child. In maternity societies there is too frequently a tendency not to insist rigidly enough upon a precise report as to the fate or health of the child at the termination of each maternity case. The influence of a well-conducted maternity society upon infant mortality, and the great importance of thoroughly trustworthy statistics of infant mortality in the first few weeks of life, which these societies could and ought to furnish, are

far too often lost sight of. The present record of infant mortality of most maternity societies is simply worthless. The Registrar-General's letter to the coroner on the facts brought to light at the inquest, in which he avows his helplessness in the matter, is a simple statement of the present condition of registration law, and, as the coroner remarked, leaves us precisely where we were before. In the present unsatisfactory state of the law lies the whole gist of the matter. Although we have no satisfactory statistics on the subject, we know that a large number of maternity cases are solely attended by midwives. We know that but a very small proportion of midwives are certificated or really qualified, and also that at present there is no system for registering midwives. Now all the deaths of infants born alive in midwifery cases so attended must be registered, and can only be registered as uncertified, and without any satisfactory evidence of the cause of death. What is still more objectionable, these midwives have the power of certifying (in cases where no registered medical practitioner has been in attendance) the infants as still-born. The effect of this laxity of legislation upon early infant mortality, and its statistics, is fast becoming a burning question, which far outweighs in importance the local question of the due superintendence of midwifery cases attended by the students at Guy's Hospital.

#### THE "ASYLUM POPULATION" AND THE "INSANE."

THE two terms are not synonymous. Although every inmate of an asylum for lunatics must needs be "certified," it does not, by any means, follow that every member of the asylum population is insane. Some have recovered and are simply drifting on because no one is specially interested to get them out. Others may have been sent in under misapprehension as to the real nature of their cases, which are, perhaps, the results of some temporary physico-mental excitement. Again, there are many who never were, and never will be, anything more than a little "queer." We are glad to see that in certain parochial districts attention is beginning to be aroused to the policy of instituting a detailed inquiry as to the present condition of the many paupers who have from time to time been sent into the county asylum, and who are practically forgotten. By an investigation of this nature, in some unions at least, the rates might be sensibly reduced, and the enormous demands every now and again made for money to build colossal asylums would be rendered unnecessary.

#### TWO NEW ANTISEPTICS.

M. G. LE BON has just presented to the Academy of Sciences two new and very effective antiseptics, the glyceroborate of calcium and the glyceroborate of sodium. Both of these compounds have the advantages of being very soluble, destitute of odour, and free from all toxic action. When exposed to the air they both deliquesce with great rapidity, absorbing from the air an equivalent weight of moisture. Both alcohol and water dissolve twice their own weight of these salts. They are powerful antiseptic agents even in very dilute solution; the most effective in a therapeutic point of view appears to be the calcic salt. It is absolutely innocuous, and it can be applied in strong solution to so delicate an organ as the eye without bad results. In a hygienic sense both can be employed with advantage as disinfectants and as preservers of meat and other alimentary products. M. le Bon has transmitted meat simply coated with a varnish of the glyceroborate to La Plata, and it has arrived in a perfectly fresh and sound condition. He thinks both salts will prove very useful as antiseptics in Lister's mode of dressing wounds.

#### HOSPITAL SATURDAY.

THE position and claims of Hospital Saturday are well set forth in an address by Mr. Sampson Gamgee on the subject, delivered lately before the Birmingham Medical Institute. Mr. Gamgee shows the importance of engaging the interest of the working-classes in the anxieties and responsibilities of hospital administration. He recommends for this end the representation of these classes on hospital committees. In principle we are very much inclined to agree with Mr. Gamgee. We are persuaded that these classes have only to display in the metropolis the same energy in the cause of hospitals which they have displayed in Birmingham to secure a reasonable representation on hospital committees. Mr. Gamgee reckons that the contributions of the working-classes in Birmingham to hospitals have grown from *nil* up to something like £8000 a year, if we include registration fees, provident payments, &c.

#### URETHRAL DIVERTICULA IN THE FEMALE.

AT the recent annual meeting of the Maine Medical Association Dr. Gerrish related a case which had occasioned him considerable difficulty. He was called upon to catheterise a patient after a difficult labour. After prolonged and fruitless efforts to pass the catheter, which he thought was prevented by "spasm," he etherised the patient, but even then could not succeed. Another practitioner was then called in, who tried for half an hour without success. It was then discovered that the urethra made a rather sharp turn in its course, and that a diverticulum passed off from each side of it, one two inches, the other one inch in length. The woman had never had a catheter used before. Subsequently there was no difficulty in entering either diverticulum or the bladder at will. The report of the case leaves us to assume that these "diverticula" were not made during the hour's fruitless attempts at catheterism!

#### DANGEROUS DRUGS IN THE HOUSE.

WE have repeatedly protested against the use of powerful and even poisonous drugs by unprofessional persons. We must go further, and warn those of the public who may be within our reach of the danger of having dangerous drugs in their keeping. A recent case of death from chloroform taken to relieve the toothache points this moral very painfully. It is a most distressing thing to be unable to obtain relief promptly in the moment of agony; but certainly no one who is suffering severely is in a condition to be trusted with a dangerous drug. Better put the perilous remedy out of reach. It is a grave mistake to keep chloroform, opium, and chlorodyne in any house, even though they are kept under lock and key. In a moment of maddening pain a sufferer forgets everything but the fact that ease can be obtained by recourse to a particular drug, and takes it recklessly, it may be with a dire result.

#### THE RIBERI PRIZE.

Is there no Englishman who will try for the "Prix Ribéri?" The prize is 20,000 francs, or about £600, and will be given by the Academy of Medicine of Turin in 1886, for the best embryological researches advancing our knowledge of the anatomy, physiology, and pathology of man. The essay must be legibly written or printed in Italian, French, or Latin. It must be published subsequently to 1881, and two copies must be sent free of expense to the Academy. The Academy will preserve the original, but the author may have copies at his own expense. If the prize is given to a manuscript, it will have to be printed and duplicate copies sent to the Academy before the prize is awarded.

### THE FUNCTION OF THE INTESTINAL JUICE.

PROFESSOR DANA of New York has recently been experimenting on the function of the succus entericus. His mode of procedure was to open the abdomen of an etherised animal, to ligature each end of a loop of ileum one to two feet long, then wash out this loop of intestine, inject albumen, fat, or starch, return the intestine, close the wound in the abdominal wall, and examine the contents of the intestine after four or six hours. He found that the intestinal juice had the power of converting coagulated white of egg into peptone, and hydrated starch into sugar. He failed to get any evidence of its power of digesting fats.

### EXCISION OF THE TONGUE.

MR. CROLY, of Dublin, performs the following operation for cancer of the tongue, even when the disease is situated in the anterior portion of the organ. He first ligatures each lingual artery close to the hyoid bone, through a curved incision reaching from the symphysis down to the hyoid bone, and up and back to the angle of the jaw. Through these incisions he withdraws the tongue, as in Ragnoli's operation, and removes the requisite amount of it by the benzoline cantery. Lastly, he divides the gustatory nerve where it lies along the inner border of the jaw-bone.

DR. A. J. FULLER, of Bath, U.S., reports a case of ascites which was tapped no less than forty-three times within a period of one year and three-quarters. The total quantity of fluid removed at the several operations was 1420 pints. The patient, a married lady, aged sixty-five, died a fortnight after the last operation.

DR. GAILLARD THOMAS has, it is stated, consented to resume his occupancy of the chair of Gynecology at the College of Physicians and Surgeons, New York, with Dr. Charles S. Ward as chief clinical assistant.

THE Irish College of Physicians is about to make arrangements for granting certificates in Sanitary Science to licentiates of the College. The fee is fixed at five guineas, not returnable in case of rejection.

A TOMBSTONE has, we are informed, been placed in Walmer churchyard over the grave of the late Fleet Surgeon William Anderson, by subscription amongst the officers of the Royal Navy and Royal Marines.

DR. DAVID W. CHEEVER has been nominated to the Professorship of Surgery in the Harvard Medical School, rendered vacant by the resignation of Dr. Henry J. Bigelow.

AN outbreak of typhoid fever has occurred at Bangor, and is, we hear, being investigated by the medical department of the Local Government Board.

WE regret to hear that Dr. M'Ewen, J.P. for Chester, has been stricken with paralysis, and remains in a precarious condition.

MR. THOMAS COLLINS has been re-elected a representative on the General Medical Council for the Apothecaries' Hall of Ireland.

A PROJECT of law making vaccination compulsory has been rejected by the vote of the Swiss people.

MR. C. G. WHEELHOUSE will preside at a meeting of the Fellows of the College of Surgeons of England, to be held at the Guildhall, Worcester, on Wednesday next, to consider matters affecting the interests of the Fellows generally.

### REPORT ON THE

## BRIGHTON SEWERAGE.

By J. BAILEY-DENTON, C.E.

IN compliance with the request of the Editor of THE LANCET that I should examine the present condition of the sewerage system of Brighton with special reference to the ventilation of the sewers, I have visited that town, and having had the advantage of reading Sir Joseph Bazalgette's report of June 27th, as well as receiving certain explanations from Mr. Lockwood and his assistant Mr. Palmer, I beg to submit the following observations.

I should state, prefatorily, that in the year 1875 I was called in by the sanitary authority of Hove to advise on their general system of internal sewerage, which is so far connected with the Brighton system as to be dependent for discharge upon the same outfall sewer as that provided for Brighton, and which is known as "Sir John Hawkshaw's intercepting outfall sewer." It had been completed about eighteen months.

The investigation I then made led me to form a judgment on that important work which my recent examination has confirmed, and, as I believe that the evils pointed out in THE LANCET on behalf of the residents and visitors to Brighton are greatly due to the defects appertaining to this intercepting sewer and its influence upon the internal sewers of both Brighton and Hove, I think it right to cite an extract from a lecture I gave before the School of Military Engineering at Chatham in the year following my investigations at Hove. I then stated that Brighton might be taken as an illustration of the evils arising from the impounding of sewage in the main sewers of seaside places.

I stated that "a visitor standing on the cliff at the ebb of the tide may see the sewage pouring from the outlet and marking its own passage through the sea for a considerable distance; and if he takes a drive on the parade while the sewage is impounded, he may smell it, to his utter disgust. If an engineer desires to study what to avoid, and to see works which have been admirably carried out in themselves, he should visit the sewage-disposal works of Brighton." While the average death-rate "of healthy districts is 17 per 1000, that of Brighton frequently rises above 20" (first quarter of 1882, 29 per 1000); "and this excess is only to be explained by the character of its sewerage, the treatment of its sewage, and the overcrowding of dwellings; for the town possesses all the advantages due to a southern aspect, an open sea, and a wide reach of downs to shelter it from cold wind and to afford the means of healthful exercise."

The grounds upon which I formed the judgment thus expressed, and which my subsequent visits to Brighton have confirmed, may be stated to be as follows.

1. The daily water-supply of Brighton and Hove, reckoned at from twenty-eight to thirty gallons per head, may be taken to be approximately 4,000,000 gallons, and this represents pretty nearly the measure of the sewage-proper discharged from the internal sewers into the intercepting sewer in twenty-four hours, irrespective of the subsoil water, which finds its way into certain sewers from the surrounding ground.

2. The total capacity (power of storage) of the intercepting outfall sewer between the tidal flaps at the Portobello outlet and the uppermost end at Hove closely approximates

3,000,000 gallons, the present storm overflows only coming into action when the sewer is practically full.

2. Twice in twenty-four hours—i.e., during the rise of each tide—the sewage of Brighton and Hove collects in this outfall sewer, and when such collection happens to take place during those hours of the day in which the water-supply is most largely used for domestic purposes, the quantity of sewage, diluted by subsoil water, is found to occupy as much as half the total storage space afforded by the sewer, leaving the remaining half as *air space*. In other words, the occupation of half the sewer by diluted sewage leaves room in the sewer for an equal quantity of surface waters (the rainfall), which, as they enter, will displace the air. The fact, which is striking, that during each tide in dry weather the diluted sewage collected in this sewer amounts to about 4,000,000 gallons, which is equal to the whole day's water-supply of Brighton and Hove, can only be explained by the leaky condition of the intercepting and, possibly, other sewers, which allows of the copious influx of subsoil water. Upon the only data I have been able to obtain in the time at command I am led to believe that the aggregate outflow from the intercepting sewer, without any increase due to the rainfall, may amount to at least three times the sewage proper, or above 12,000,000 gallons daily.

Sir Joseph Bazalgette says, in his report of June 27th:—"From the Steine to the outfall it (the intercepting sewer) is 7ft. in diameter, and it has an average fall of 3ft. in a mile, and this gives a mean velocity of flow of about  $1\frac{1}{2}$  mile per hour when running half full. But in dry weather the rising tide closes the outfall for thirteen hours out of twenty-four, and thus the lower portion of the sewer becomes a reservoir and stores the sewage until the tide has again fallen below its level. From the observations recently made and furnished to me by Mr. Lockwood, it appears that the ordinary dry weather flow of sewage rises during the time the outfall is closed to a maximum height of three to four feet above the sewer invert at the Roedean furnace, and it reaches the maximum there at about three hours after high water; the tide has by that time fallen below its level, and it again falls to its normal condition."

When I visited the Roedean furnace, on Tuesday, the 4th of July, I learnt from the man in charge that the depth of sewage in the sewer was 3ft. 8in.

4. The whole of the rainfall, I am informed, is admitted from the surface into the sewers, and the extent of impervious surfaces (roads, streets, roofs, yards, pavements, &c.) within Brighton and Hove, which may be taken as tributary to the intercepting outfall sewer, will probably amount to 1200 acres, and as it only requires about one-seventh of an inch of rain to fill the "air space," when the maximum quantity of diluted sewage is in possession of half the sewer, the times must be numerous when the force by which the sewer air is expelled and driven up the side sewers is sufficient to convey it into dwellings within its reach.

5. That this expulsion of air by the rushing in of surface waters does take place with great force is proved by the fact, I have heard stated, that the trapped gullies placed in the road gutters have been known to yield to the pressure, and afford the escaping gases a passage through the traps into the open atmosphere.

6. The number of public and private sewers joining the intercepting outfall sewers are much more numerous in Hove than in Brighton, and as there is a tendency in all sewer gases and organic vapours to collect in the higher portions of sewers, these lateral sewers become the outlets for more than their share of the foul air collected in the outfall sewer. This is made manifest by the circumstance that the Roedean furnace, which draws the sewer air in a direction contrary to its natural course, does not affect the outfall sewer much beyond the Steine.

7. The lateral sewers, up which the pent-up air for the most part escapes, having very rapid inclinations (rising in

fact in some instances with gradients of 1 foot in 12 feet), serve as shafts to ventilate the main outfall at the expense of the streets in which they exist and of those dwellings which may not have been perfectly disconnected from them. This assumption is based upon an experience which permits me to assert without fear of contradiction that there are few dwellings (which have not been specially treated with regard to internal sanitation) of which the traps in use will not yield to extra pressure, particularly where the heat, maintained within the houses themselves, exerts an inductive influence. I have reason to believe that the sanitary authorities of both Brighton and Hove require the private sewers connecting new houses with the public sewers to have inserted in them a syphon or a dip trap; but neither of these expedients without the admission of fresh air into the house sewer is sufficient to prevent the intrusion of sewer air under the conditions I have pointed out.

This exposition of facts, rather than opinions, will I trust serve to show that no amount of money expended in palliations such as those recommended by Sir Joseph Bazalgette will render the sewerage of Brighton what it ought to be. As a health resort Brighton is often frequented by invalids, who are especially sensitive of bad smells; and unless the sewers have a constant discharge, associated with a perfect system of sewer ventilation, the present evils will be maintained.

The facts stated, without any personal bias, afford evidence that THE LANCET was justified in declaring that the sewerage of Brighton and Hove was *radically defective*, in spite of the efforts made of late years to minimise existing evils which could not readily be removed.

I do not understand that it is either the duty or the intention of THE LANCET to point out how existing evils may be removed; how, in fact, a constant flow and discharge of the sewage may be effected, and the detention of foul matters to give off sewer gases avoided; how the separation of surface waters from the sewage may be secured; or how the sewers may be economically ventilated and the escape of deleterious gases and bad smells prevented.

In 1875-6, after advising at Hove, I stated publicly that "sooner or later there will be provided for the sewage of this important metropolitan watering-place (Brighton) a constant means of discharge by the application of steam power to raise and dispose of it above tidal influences"; and seeing that the present complaints are due to the conversion of an outfall sewer, which should act simply as a means of free discharge, into a reservoir of decomposing sewage and a container of effluvium and vapour extending along the leading thoroughfare from the extreme end of Kemp Town in Brighton to the extreme end of Cliftonville, in Hove, I can only, after my renewed examination, reiterate the conviction. I do so with increased earnestness, because the cost of lifting the sewage the necessary height to override the highest tide can be effected as a supplement to existing arrangements (after the partial separation of surface waters from the sewage) with comparative economy. If these two objects were carried out the question of ventilation would be simplified. Though the objectionable smells from manholes and gullies might still exist in places, all danger attending sewage decomposition would vanish, inasmuch as with a discharge at the outlet, independently of the tide, the rapid flow of the sewage, due to the rapid inclination of the internal sewers, there would be no detention nor any perceptible deposit in the outfall sewer. Such ventilation as would still be required might then be applied, without difficulty or any great expense, by the provision of shafts at the head of selected sewers, and by carrying pipes of sufficient size directly from such sewers to the top of houses. This might involve the purchase by the authority of certain houses for the purpose, without any great sacrifice of either money or appearance.

I think it only necessary to add that whilst concurring in much that Sir Joseph Bazalgette has advanced, I view with great misgiving his suggestion of a storm overflow at Roedean, to be constructed on a level with the invert of the intercepting outfall sewer, and additional storm outlets at Hove, as I am strongly of opinion that by the adoption of such a suggestion the advantage gained in freeing the shore of sewage pollution by extending the outfall sewer to Portobello would be lost to a great extent, and that the reputation of Brighton as a sea-bathing place would greatly suffer.

In a word, I would summarise what I have said by repeating that so long as Brighton remains with a tide-locked sewer extending along the whole length of its frontage to

receive surface water as well as sewage, without making an effort to prevent their detention, there will be cause for the strictures made by THE LANCET on the sewerage of Brighton.

22, Whitehall-place, London, S.W., July, 1882.

### WILLS AND BEQUESTS.

THE will of Mr. Edward Grestre, Surgeon-Major, half-pay, Coldstream Guards, of Torriano-villas, Broadstairs, Kent, who died on June 1st last, was proved on the 20th ult. by Mrs. Sarah Jane Grestre, the widow and sole executrix, the value of the personal estate exceeding £3500. The testator gives and appoints all his real and personal estate to his wife absolutely.

The will of Mr. Adam Taylor, Surgeon-Major, Bengal Military Service, formerly of 53, Warwick-road, Maida-hill, but late of Delhi, who died on October 21st last, was proved on the 22nd ult. by Mrs. Alice Johnston Taylor, the widow and acting executrix, the value of the personal estate exceeding £4300. The testator leaves £500 and all his furniture, plate, and household effects to his wife; and the residue of his real and personal estate upon trust for her for life, or until she shall marry again, and then for his issue as she shall by deed or will appoint.

The will of Tertius Ball, M.D., of 8, Bruce-grove, Tottenham, who died on the 2nd ult., was proved on the 25th ult. by the Rev. Charles Richard Ball, the brother and sole executor, the value of the personal estate being over £12,000. The testator gives to his wife, Mrs. Sophia Augusta Ball, in addition to some specific bequests, furniture and effects to the value of £250, a cash legacy of £450, and an annuity of £350; to his brother Charles Richard, his house in Bruce-grove; to his sisters Hannah Mary and Susan Helen, his freehold property in Shropshire and the residue of his real estate; and there are legacies, pecuniary and specific, to his own and his wife's relatives, servants, and others. The residue of the personalty he leaves to his brothers Alfred William and Charles Richard.

The will of Dr. Thomas Beville Peacock, Honorary Consulting Physician to St. Thomas's Hospital, late of 20, Finsbury-circus, who died at St. Thomas's Hospital on May 30th last, has been proved by Mrs. Maria Tucker, the sister, the value of the personal estate amounting to £18,000. The testator leaves all his medical books and surgical instruments and £100 to the City of London Hospital for Diseases of the Chest; and the residue of his property to his next of kin, according to the statute for the distribution of an intestate's effects.

The following legacies have recently been left to hospitals and other medical charities:—Mrs. Mary Sarah Burd, of 36, Connaught-square, Hyde-park, the residue of her personal estate, including the reversion to two sums of £5300 and £5800 Government stock, on the respective deaths of her sisters, Mrs. Clutterbuck and Mrs. Olive, to St. Mary's Hospital, Paddington, and St. George's Hospital, Hyde-park-corner. — Miss Elizabeth Baxter, formerly of Old Broad-street, but late of 309, Oxford-street, £1000 to St. Bartholomew's Hospital and £500 each to the Consumption Hospital, Brompton, and St. Mary's Hospital, Paddington.

### DISTRIBUTION OF THE HOSPITAL SUNDAY FUND.

A MEETING of the Council of the Hospital Sunday Fund was held at the Mansion-house on Wednesday. The Lord Mayor presided, and there were present, among others, Bishop Beckles, Alderman Sir Sydney H. Waterlow, M.P., Mr. Alderman M'Arthur, M.P., Sir E. H. Currie, Mr. Thomson Hanky, Rev. Canon Nisbet, Mr. Coope, M.P., Dr. Wakley, Dr. Glover, Mr. J. H. Buxton, Mr. R. Moreland, Mr. J. G. Piteira, Rev. Dr. Finch, Rev. A. A. Harland, Rev. R. S. Simpson, and Mr. H. N. Custance, the secretary. The committee of distribution submitted their report of the several awards they recommended for pay-

ment this year to 145 institutions, showing an increase of five since last year, and of forty since the establishment of the fund in 1873. Four per cent. of the total amount of the collections (£1390) was ordered to be set aside this year for the purchase of surgical appliances. The cash received to July 18th amounted to £34,424 12s. 2d. After payment of the sum of £1380 for surgical appliances, and allowing sufficiently for liabilities and for the usual current expenses, the amount available for distribution was £32,415 13s. 9d. Of that, £28,446 15s. was now recommended to 93 hospitals, including four institutions which may be classed as hospitals; and £2588 18s. 9d. to 52 dispensaries. They also recommended that all payments to the fund after that date be carried to the credit of next year's fund. In compliance with the order of the Council, and for the special use of its members, tables have been prepared as usual, showing a statistical analysis of the number of beds in hospitals, the cost of patients both in hospitals and at dispensaries, the proportionate expenses of management, as well as other valuable information. The committee had great satisfaction in reporting that the number of deputations invited to confer with them, and to offer explanations on matters of apparently unsatisfactory character, was gradually diminishing. Seven invitations were issued this year, as compared with eleven in 1881. Of that number three sent letters in reply, from two no answers were received, and two hospitals sent deputations.

Sir SYDNEY WATERLOW, M.P., in moving that the report of the Committee of Distribution be approved, and the several awards recommended be paid as soon as possible, congratulated the public that the result of the collection this year had been the receipt of the largest aggregate sum ever yet sent in. It was now nine years since the fund was started, and, like most enterprises, it had had its trials and difficulties, but they had all been amicably and successfully overcome. The greatest possible care had been taken to distribute the Fund according to the comparative needs and merits of the institutions; and he believed that not only the public, but even the managers of the hospitals themselves, had been satisfied with the awards. He added that it should be understood that the great endowed hospitals, such as St. Bartholomew's, Guy's, and St. Thomas's, did not participate in the Fund, but that the whole sum was distributed among institutions which for the most part were entirely dependent on the voluntary contributions of the public. The Fund, moreover, was collected and distributed at the very lowest percentage of cost.

Sir E. H. CURRIE seconded and Dr. GLOVER supported the motion, and it was adopted unanimously.

On the motion of the Rev. Dr. KENNEDY, seconded by Mr. COOPE, M.P., thanks were conveyed to the Committee of Distribution, and at the instance of Sir Sydney Waterlow, M.P., the Council thanked the Lord Mayor (Sir John Ellis) for the zeal and energy by which he, as president and treasurer, had succeeded in securing to the Fund the largest amount that had, as yet, been collected in any one year.

The LORD MAYOR acknowledged the compliment, and the meeting separated.

### NOTIFICATION OF INFECTIOUS DISEASES.

AT a meeting of the medical profession of Sheffield and the neighbourhood, held at Sheffield on August 1st, to consider Mr. Hastings' Bill relating to compulsory notification of infectious diseases, with Dr. de Bartolomé in the chair, and at which there were forty-one members of the profession present, the following resolutions were passed, with only three dissentients:—

1. "That this meeting views with entire disapprobation the proposal to compel medical men, without any discretionary power, to report cases of infectious disease to the sanitary authorities, feeling it to be an unwise interference with the relations in which medical men stand to their patients."

2. "That a petition embodying the views of the previous resolution be drawn up, signed, and presented through our members to the House of Commons and to the forthcoming meeting of the British Medical Association at Worcester; and that a deputation, consisting of the chairman, Mr. Favell, Dr. Keeling, Mr. Arthur Jackson, and Dr. Cleaver, wait upon the Mayor, to explain the views of the meeting."

An amendment, "That it is desirable, in the interests of



sanitary science, that Mr. Hastings' Bill become law," moved by Mr. Sykes, medical officer of health at Mexborough, found only three supporters, including the mover and seconder.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF INSPECTORS TO THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*Denbighshire Sanitary Districts.*—Under Section 286 of the Public Health Act, 1875, the Local Government Board have power, subject to certain specified conditions, to unite sanitary districts lying either wholly or partially in the same county for the purposes of the appointment of a medical officer of health, and early in 1881 the Board's resident inspector for North Wales made the necessary representation required under that section to the effect that such a union of a number of districts comprised in the county of Denbigh was desirable. But before an order giving effect to their intention was issued by the Local Government Board a deputation of the sanitary authorities concerned urged that such a course was most undesirable, and hence, before proceeding further, the board instructed their medical inspector, Dr. Parsons, to report to them on the sanitary condition and administration of the districts concerned. As the result of this inquiry eight reports have been issued. 1. *Holywell Rural District:* Formerly five district medical officers held the posts of medical officers of health, but later on the district was divided between two officers, and the reports which have been prepared by them have, for a series of years, shown that they had made themselves well acquainted with the sanitary condition of their districts; but the advice which was based on this knowledge appears to have had but little effect, for sanitary neglect, which was reported to the Local Government Board in 1871 by Mr. W. H. Power to be rife in the district, remained much the same in 1881. There has evidently been great lack of progress in sanitary administration, and this has certainly not been, even in the main, due to circumstances which could not be overcome. 2. *St. Asaph Rural District:* Here, also, five district medical officers were originally appointed to take sanitary charge of their respective districts, but in 1873 Dr. J. Lloyd-Roberts, of Denbigh, was appointed to the entire district. He is reported to have made himself acquainted not only with the sanitary circumstances of the district, but to have taken much pains to fit himself for his duties by making himself fully acquainted with the principles of sanitary science. The result has been a large amount of sanitary activity both in the execution of public works and in the abatement of conditions causing nuisance, such abatement being not merely temporary, but of a permanent character. 3. *Abergele and Pensarn Urban District:* Dr. Lloyd-Roberts is also medical officer of health for this district, which has been sewered and is provided with a constant service of water. Scavenging is irregular, and the waterclosets are not so ventilated as to free them from nuisance. These and similar defects have, however, been properly brought under the notice of the sanitary authority. By-laws relating to several matters are in force within the district. 4. *Denbigh Urban District:* This district was formerly under Dr. Lloyd-Roberts' care, but he resigned office in 1878, and was succeeded by Mr. G. Roberts. This district consists of Denbigh town and of Henllan village. It was inspected in 1877 by Dr. Thorne Thorne, who wrote a report strongly condemnatory of the sanitary neglect which the Town Council allowed to prevail. Since then, although certain grave defects remain, some substantial sanitary action has been taken in Denbigh town, but the Corporation still leave Henllan the subject of gross nuisances. By-laws are not enforced; the present medical officer of health admits that he does not make any systematic inspection of his district; and of Henllan Dr. Parsons says: "A more neglected place as regards sanitary condition I have never seen." The Denbigh Town Council cannot be congratulated on the proper exercise of their sanitary functions. 5. *Ruthin Rural District:* The sanitary authority for this district in 1875

represented to the Local Government Board that it would conduce to efficient health administration if the sanitary districts in the county of Denbigh were placed under one medical officer of health, but when the board proposed to act on the representation they rescinded their resolution, and strongly opposed action being based on it. They then made first one and then another appointment, apparently uncertain how to act, and recently a new officer has been elected for the entire district. No special sanitary work has been done in the district; but it appears to be a scattered locality, and its sanitary wants are not of a glaring and urgent description. 6. *Ruthin Urban District:* Dr. Lloyd-Roberts is officer of health for this district. A new and an abundant water-supply has been brought in, a system of sewerage has been carried out, house drains appear to be, as a rule, well constructed, by-laws are in operation as to removal of filth, pig-keeping is fairly well regulated, and the district is in the main subject to an efficient sanitary administration. 7. *Corwen Rural District:* This district has been divided into three portions for the purposes of the post of medical officer of health, two of the officers appointed being Poor-law medical officers. It is said that but little has been done towards the abatement of nuisances on private property; overcrowding of the worst description was ascertained to exist; many houses are without any privy accommodation; and conditions dangerous to health, when reported to the sanitary authority by their officers, are at times "left for consideration." Garth Trevor is evidently suffering much from such inaction. 8. *Llangollen Urban District:* Mr. J. P. Drinkwater has for some years had sanitary charge of this district, and his reports, though not deemed to be patterns, yet show that he has been active in the discharge of his official duties. The sanitary authority have yet many improvements to effect, but they have been by no means unmindful of their duties, and they are stated to be specially careful to curtail the spread of those infectious diseases which are liable to be imported into a district having picturesque scenery and a consequent inflow of excursionists. Since the issue of these eight reports meetings have been held as to the question of the health officer appointments, but from the reports which we have received there does not seem to be any immediate prospect of a satisfactory settlement of the difficulty being arrived at.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Huddersfield.*—We learn from Dr. J. S. Cameron's annual report for 1881, that the rate of mortality during the past year was the lowest on record since Huddersfield was incorporated in 1868; and this result is the more satisfactory because it has followed on a gradual diminution in the number of deaths during a series of years. The population in 1881 was 81,825, and the rate of mortality 20·3 per 1000. Amongst other sanitary advantages, Huddersfield possesses a hospital for infectious diseases, to which a new and excellently designed detached ward-building has recently been added, the need for extension having arisen together with an increasing appreciation on the part of the public of the advantage of isolation. For some five years past a system of compulsory notification of infectious diseases has also been in operation in the borough. At first, under an Act passed in 1876, medical men were required to give a written notice to the occupier, and this only when they regarded the accommodation as being inadequate for the treatment of infectious cases. The compulsory clauses in this form were not found to act satisfactorily, and hence, in 1880, fresh powers were sought by the Corporation, who still desired that the certificate filled in by the medical practitioner should be given by him to the occupier. But in Committee the clause was altered by the House of Lords so as to make the medical man responsible for the delivery of the certificate to the sanitary authority. Dr. Cameron regards the alteration as unfair towards the profession; but he explains that the plan has nevertheless worked well. Under the new clause all cases of infectious disease must be reported, irrespective of the means of isolation available; and Dr. Cameron has been informed by his medical colleagues that they find less difficulty in reporting now that the responsibility of deciding as to the quality of the accommodation no longer rests with them. The present system is stated to have "acted on the whole very smoothly," and not only are the certificates sent in with increasing promptitude, but, except in the case of "three or four" medical men, a number of optional ques-

tions at the foot of the notice are also answered. The effect has been greatly to extend the usefulness of the hospital for infectious diseases. From a table appended to the report we gather that out of 278 cases of small-pox, scarlet fever, and enteric fever which came under notice, all but 9 were duly certified under the Act, and as many as 164 cases were removed to hospital. The only disease in which any failure, as regards isolation, has occurred is scarlet fever, and the amount of accommodation available did not suffice for the isolation of all cases needing removal from their homes. This must for some years to come be expected in our large towns, where the poison of this disease lies hidden away in all portions of the districts concerned, ready to manifest itself directly a favourable occasion offers. But every case which is isolated will reduce the number of these hidden sources of infection, and the time may, we trust, soon come when even a reasonable number of beds provided by a sanitary authority will suffice for such isolation as is needed to protect the public against what may then be only occasional appearances of this now widely spread and fatal infection.

*Carlisle Urban District.*—In his report for 1881, Dr. Robert Elliot speaks generally as to the satisfactory sanitary condition of the city. He refers, however, to the fact that scarlet fever has for some time past been epidemic, 175 cases having been reported during the year. Out of 102 scarlet fever patients who remained in their own homes 29 died, whereas out of 73 who were removed to the city hospital for infectious diseases only 2 died. In view of this fact Dr. Elliot urges strongly that the compulsory notification of infectious diseases should become general, for under such a system alone can isolation on any comprehensive scale be carried out. The important work of providing for the efficient ventilation of the sewers is steadily in progress. In his efforts to secure this end Dr. Elliot has in the past met with much opposition from some who were evidently ignorant of the first principles relating to the subject. Now, however, the object for which he has contended is on the point of being attained, and we trust nothing will be allowed to frustrate its completion.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5652 births and 3176 deaths were registered during the week ending the 29th ult. The annual death-rate in these towns, which had been equal to 19.2 and 19.0 in the two preceding weeks, rose again last week to 19.6. The lowest rates in these towns last week were 13.2 in Cardiff, 13.3 in Portsmouth and in Brighton, 15.1 in Bradford, and 15.6 in Wolverhampton. The rates in the other towns ranged upwards to 24.4 in Newcastle-upon-Tyne, 25.2 in Leicester, 25.6 in Huddersfield, and 28.9 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 635, showing a further increase of 66 upon recent weekly numbers; 299 resulted from diarrhoea, 107 from whooping-cough, 84 from scarlet fever, 83 from measles, 46 from "fever" (principally enteric), 12 from diphtheria, and 4 from small-pox. The lowest death-rates from these diseases occurred in Halifax, Bristol, and Bolton, and the highest in Leicester and Huddersfield. Whooping-cough caused the highest death-rates in Liverpool and Sunderland; measles in Huddersfield; scarlet fever in Hull; and "fever" in Derby and Newcastle-upon-Tyne. The deaths referred to diarrhoea last week in the twenty-eight towns, though still considerably below the average for the season, showed a further increase upon recent weekly numbers; the highest death-rates from this disease were recorded in Leeds and Leicester. Only two fatal cases of small-pox were recorded in London and its outer ring of suburban districts, 1 in Birmingham, and 1 in Leeds. The number of small-pox patients in the metropolitan asylum hospitals, which had declined in the thirteen preceding weeks from 350 to 193, further fell to 159 on Saturday last; only 10 new cases of small-pox were admitted to these hospitals during last week, against 30, 23, and 20 in the three previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 199 and 157 in the two preceding weeks, rose again to 183 last week, but were 1 below the corrected average number in the corresponding week of the last ten years. The causes of 74, or 2.3 per cent., of the

deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Plymouth, and three other towns; whereas the proportions of uncertified deaths were largest in Bristol, Leeds, Salford, and Hull.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 21.3 and 21.7 per 1000 in the two preceding weeks, declined again to 21.3 in the week ending the 29th ult.; it exceeded, however, by 1.7 the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 111 last week, and within 2 of the number returned in the previous week; they included 64 from diarrhoea, 16 from whooping-cough, 13 from "fever," 7 from measles, 6 from scarlet fever, 5 from diphtheria, and not one from small-pox. The death-rate from these principal zymotic diseases averaged 4.7 per 1000 in the eight towns, and exceeded by 0.8 the mean rate from the same diseases in the large English towns. The 64 fatal cases of diarrhoea showed a further increase upon recent weekly numbers, and exceeded by no fewer than 25 the number returned in the corresponding week of last year; 39 occurred in Glasgow, 7 in Edinburgh (Dr. Littlejohn, however, only attributes 3 deaths to this cause), and 5 both in Dundee and Paisley. The annual death-rate from diarrhoea in the Scotch towns was again last week very considerably higher than that which prevailed in the English towns. The 16 deaths from whooping-cough, which included 9 in Glasgow and 3 in Aberdeen, corresponded with the number in the previous week. The 7 fatal cases of measles showed a marked decline from recent weekly numbers, but included 4 more in Dundee, against 9 in the previous week. The deaths referred to "fever," which had been but 7 in each of the two previous weeks, rose to 13 last week, of which 6 occurred in Glasgow, and 2 each in Paisley and Perth. All the 5 fatal cases of diphtheria, and 3 of the 6 of scarlet fever, were returned in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 95 and 80 in the two previous weeks, were 82 last week, and exceeded by nine the number attributed to these diseases in the corresponding week of last year.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which in the two preceding weeks had been 21.9 and 20.8 per 1000, declined again to 20.8 in the week ending the 29th ult. During the first four weeks of the current quarter the death-rate in the city averaged 20.0 per 1000, against 18.0 in London and 18.6 in Edinburgh. The 139 deaths in Dublin last week were 7 less than those returned in the preceding week, and included 5 which were referred to diarrhoea, 3 to measles, 3 to "fever," 1 to whooping-cough, and not one either to small-pox, scarlet fever, or diphtheria. Thus 12 deaths resulted from these principal zymotic diseases, against 9 and 8 in the two previous weeks; these 12 deaths were equal to an annual rate of but 1.8 per 1000, against 3.9 in London and 2.5 in Edinburgh. The fatal cases of diarrhoea, which in the two preceding weeks had been 5 and 7, declined again to 5 last week, and were considerably below the average for the season. The 3 deaths from measles exceeded the number returned in recent weeks, and the three fatal cases of "fever" raised the number recorded in the first four weeks of the current quarter to 11. The death referred to whooping-cough was the first registered since the end of April last. The deaths both of infants and elderly persons showed a considerable increase upon those returned in recent weeks. The causes of 15 or nearly 11 per cent. of the deaths in the week were uncertified.

**A MEDICAL MISSIONARY FOR CENTRAL AFRICA.**—A farewell service was held at St. Thomas's, Regent-street, on Tuesday last, to bid God speed to Dr. James Petrie, who has been selected by the Guild of St. Luke as the medical missionary for Central Africa. Dr. Petrie received his medical education at Aberdeen University, where he graduated M.B., M.Ch., in July last. The salary of this medical missionary is provided by the Guild of St. Luke—viz., £200 a year for three years.

## THE SERVICES.

Surgeon Major de Faback, Bengal Army, has been appointed Sanitary Commissioner for Bengal, vice Surgeon Major Lidderdale.

Brigade Surgeon R. Wolseley succeeds Brigade Surgeon J. A. Marston as Secretary to Surgeon General Sir Anthony D. Home, V.C., K.C.B., Principal Medical Officer in India.

Deputy Surgeon General C. Smith, M.D., Madras Medical Service, has been appointed Principal Medical Officer of the Indian Contingent for service in Egypt.

Surgeon Major G. Macnalty has been appointed to the medical charge of the Station Hospital, Roorkee, N.W. Province, India, vice Surgeon Major Douglas, V.C., who is retiring from the service.

ARMY MEDICAL DEPARTMENT. — Director-General Sir William Muir Muir, M.D., K.C.B., has been granted a retired allowance, in addition to his good service pension; Surgeon Frederick Simon Young, half-pay, has been granted retired pay.

YEOMANRY CAVALRY. — Middlesex: Thomas William Thompson, Esq., late Surgeon, 1st Life Guards, to be Surgeon, vice J. S. Ferris, resigned.

RIFLE VOLUNTEERS. — 2nd Glamorgan: Acting Surgeon John Lindsay Leckie to be Surgeon. — 19th Lanarkshire (Liverpool Press Guard): James Booth Clarkson, Gent. (Medical Officer Inman Line), to be Lieutenant. — 1st Lincathgowshire: Robert Kirk, M.D., to be Acting Surgeon. — 2nd East Riding of Yorkshire: Acting Surgeon Charles Danson, M.D., resigns his appointment; Arthur Henry Bissier, Gent., to be Acting Surgeon.

ADMIRALTY. — Fleet Surgeon John Black Nicoll, M.D., has been placed on the retired list of his rank.

The following appointment has been made: Surgeon George Despard Twigg to Chatham Division of the Royal Marines, vice Charles C. Godding.

## Correspondence.

"*Andi alteram partem.*"

## "THE RIDER'S SPRAIN."

*To the Editor of THE LANCET.*

SIR,—The interesting communications from Mr. Morris and Dr. Henderson, in *THE LANCET* of July 29th, call the attention of surgeons to a very important, but not very common, kind of injury. It is doubtful whether the term "rider's sprain" could be applied to all these particular injuries. The following case might probably be classed under this heading; it was, however, clearly a case of complete rupture of the tendon of the adductor longus near its origin from the tubercle at the angle of the pubes.

W. C—, a gentleman aged forty-five years, was riding a young restive horse at the end of last year. The animal, being startled at something, plunged violently, causing the rider to grip the saddle suddenly and forcibly with his knees to prevent himself being unseated. He felt a violent pain at the upper and inner part of his right thigh; he was compelled to dismount at once and hobbled home with great difficulty. He was seen immediately by Dr. John Lloyd of Small Heath, who found a distinct depression, large enough to lay the thumb in, over the site of the tendon of the adductor longus muscle, with a contracted muscular belly below this sulcus. He diagnosed readily the nature of the injury, and applied a firm bandage from below upwards, with a spica about the groin. A few days afterwards a sharply defined triangular ecchymosis appeared, having its apex upwards at the pubes, and its base downwards and outwards, disappearing towards the middle of the thigh. After a few weeks' treatment the patient made a perfect recovery; a small swelling remained at the site of injury for many weeks.

The features presented in this case are quite in accordance with those known to be present in the other more frequently ruptured muscles—viz., the calf muscles, biceps humeri, and rectus femoris. It is noteworthy that all these muscles commonly yield at their rounded and tendinous portions—

thus: the calf muscles at the tendo Achillis; the biceps at its tendinous origin from the glenoid cavity; the quadriceps just above or below the patella; and the adductor longus near to the pubes.

I am, Sir, your obedient servant,

JORDAN LLOYD, M.B., F.R.C.S. Eng.,  
Casualty Surgeon to Queen's Hospital, Birmingham.  
Broad-street, Birmingham, July 31st, 1882.

*To the Editor of THE LANCET.*

SIR,—Rider's sprain, according to Mr. Morris and Dr. Henderson, seems a much more common accident in civil than in military life. I can only remember three cases of rupture of the adductor longus muscle during a period of sixteen years in a cavalry regiment—once in England, in the rough-riding sergeant-major; the other two cases occurred in India. I cannot remember a case occurring amongst men in robust health and riding hard. I therefore think that the accident is due to want of muscular tonicity, and from the muscle in that state being suddenly called into violent action by the horse plunging forward when the rider is sitting loosely in the saddle. I never met with a sprain of the pronator radii teres, and I am not satisfied with Mr. Morris's explanation that it is the back stroke, because I have seen a great deal of racquet playing, when the back stroke is constantly practised, and I never heard any complaint such as Mr. Morris describes as the lawn tennis arm. I should be more inclined to attribute the accident to the heavy tennis ball and bat, which latter is year by year becoming heavier, and naturally taxes severely all the muscles having their attachment or insertion in the radius, the heavy bat being at the end of a long lever.

There is another accident which was very common during the Badminton rap in India, and I have also seen it at home with lawn tennis—viz., acute pain of the external condyle of the humerus, with occasionally swelling and thickening of the bone. I attribute this accident to the head of the radius constantly jarring against the condyle during the game.

I remain, Sir, yours faithfully,

C. A. INNES, M.D.,  
Deputy Surgeon-General, H.P., A.M.D.,  
late Surgeon-Major, 16th Lancers.  
Hull, Aug. 1st, 1882.

## "VACCINATION IN SCOTLAND."

*To the Editor of THE LANCET.*

SIR,—In your annotations last week you refer to vaccination in Scotland, pointing out some defects which would be remedied by a partial adoption of the English system. 1st. You look upon the provision that "no child need be vaccinated until it is six months old" as a disadvantage in our system, whereas here we consider that as the chief reason why vaccination is with us so popular, and so little liable to be followed by bad results. It is well known that constitutional diseases, such as syphilis and ecthyma capitis, manifest themselves in the first three months of life, and these, if following vaccination, are popularly believed to be the result of that operation. If we wait until the fourth or fifth month we, in a great measure, escape these dangers, and are more certain to have uncontaminated lymph. 2nd. "Many escape until the age of nine to twelve months, on account of the want of a system of inspection." This indeed must be extremely rare when the registrars do their work faithfully, and in that they are well looked after by the periodical examiners. 3rd. "The absence of Government grants for special success is much felt." I have practised in Scotland now for several years, and have never once heard this complained of, but have often heard my professional brethren criticise severely such a system in England. It is rather a slur upon the profession generally to think that without some specially recognised reward they will not properly perform their duty. 4th. Ample provision is made for all those who are unable to pay the vaccination fee. 5th. "In truth the lymph in general use is thoroughly humanised." This again is a mistake. It may be in the hands of some, but in our district at least this is not general. 6th. "Effectual protection in the face of a virulent epidemic cannot be anticipated unless the vaccination is not only as regularly, but much more thoroughly, performed

than it is at present." In answer to this, I can only point out the freedom of Scotland from small-pox, and I should hardly think you would wish better proof of the success of our system.

I shall be glad if this letter will in any way assist in altering the views of the profession in England so that they may adopt the six months' limit instead of three, which I am sure would materially assist in stopping the continual prosecutions in England, and in rapidly increasing the popularity of the operation.

I remain, Sir, yours truly,  
Hawick, July 31st, 1882. JOHN R. HAMILTON, M.D.

## DRY AND INFREQUENT WOUND DRESSING.

To the Editor of THE LANCET.

SIR,—Dr. Edward Thompson's communication on Puffball and Dr. Lockhart Gibson's on Salicylic Silk for Wound Dressing, in your current number, suggest a few observations on the principles underlying the treatment. Those materials have the common character of being dry and absorbent, and, in the case of the salicylic silk, it is especially noticed that the dressing was renewed infrequently, sometimes not until the twelfth or fifteenth day.

The discussion on wound treatment has brought more and more into prominence the value of infrequent dressing, on which the majority of surgeons are now agreed. Dry dressing is also gaining largely in favour. The value of rest is universally conceded, and of position rarely questioned. Pressure is also, though more slowly, winning the place it merits in surgical therapeutics; and I venture to think the time is not far distant, when general assent will be given to the proposition which I have repeatedly had the privilege of sustaining in these columns: "The majority of wounds heal rapidly and painlessly under dry and infrequent dressing, uniform gentle pressure, and absolute rest."

I am, Sir, yours faithfully,  
Birmingham, July 31st, 1882. SAMPSON GANGE, M.D.

## "SANITARY STATE OF MARYPORT."

To the Editor of THE LANCET.

SIR,—Amongst your annotations in THE LANCET of July 22nd, I find one on "The Sanitary State of Maryport," casting certain reflections upon me as the sanitary medical officer, to which, in justice to myself, I feel called upon to make some observations; for I must tell you that the article is one series of misrepresentation from the beginning to the end. First, there was no typhus in April, 1881. In the next place, I never talked such nonsense as you have put between inverted commas. Neither was there one or two hundred cases of typhus; for though suffering from the effects of an accident, and unable to attend myself, I am satisfied that nearly all the typhus cases were attended by Dr. Little, and therefore known to me. Again, the sanitary authority has a right to send fever patients to the infirmary, which is not above a rag-store, but is above an old unused maling-room, the floor of which is made of concrete, therefore it is impossible for the effluvia from any store to enter the wards; neither can the sewage from the infirmary percolate into any stores. Such are the misstatements of which I think you will agree with me that I have a right to complain. I am not here about to enter upon the sanitary question of the town; for I have neither the time nor inclination at the present to do so; but I can say that it will compare in that respect with any town in Cumberland. That there is still a great deal to be done I know well; but in my opinion such sensational writing as is contained in your article has a very great tendency to do a very great deal more harm than good, and would not, therefore, have been noticed by me if it had not appeared in the pages of THE LANCET. To show you that I am no tyro in the profession I must tell you that for about thirty-six years I have been the medical officer of the Maryport District of the Cocker-mouth Union, with a population of some 16,000. During all that time I have advised not only the guardians, but the trustees also, as to the carrying out of the various Orders in Council long before there was any sanitary authority. Consequently, I have had to take a leading part in the care and

treatment of the sick through all the various epidemics which have invaded us during all those years. I need not tell you, then, that I claim some consideration for my opinion on the various subjects connected with sanitary matters, though they may be antagonistic to the opinions of others, as to the reckless systems of sewerage, &c., advocated by many at the present day.

In conclusion, I hope, Sir, you will give this letter the same publicity you have thought fit to give to the article in your annotations. As a public officer I know that my actions are open to criticism, and I have no wish to shirk the responsibility; but I have a right to expect that that criticism will be truthful.

I remain, Sir, yours truly,  
Maryport, July 24th, 1882. JOSEPH PEARSON, M.D.

\* \* In addition to the above letter from Dr. Pearson, we have received a local paper in which there is a letter from Dr. Pearson on Mr. Spear's report in May last, and we have also received the subjoined letter from Mr. Mathias. Taken together they are, in our opinion, confirmatory of the main points in Mr. Spear's official report, on which we commented. Mr. Mathias's letter speaks for itself, and Dr. Pearson's letter of May, in so far as it deals with matters referred to in our annotation, admits that the hospital is "insufficient" and "out of order," that "it is impossible to ascertain" the number of cases of fever, that it would be well if the Sanitary Authority could "rebuild the town," that it would be well if the cellar dwellings "could be closed as such," that "no one can deny that there is room for improvement in the scavenging," and that as regards sewerage he "would have some of it" until what amounts to perfection from an engineering point of view can be attained. The portions of our annotation in inverted commas, and to which Dr. Pearson objects, were quoted from the official report of the Local Government Board.—ED. L.

To the Editor of THE LANCET.

SIR,—In your annotation on the above subject in THE LANCET of July 22nd, after animadverting upon the wretched condition of many of the dwellings in the town, and especially as to overcrowding, you express the hope that the case quoted by Mr. Spear, the Local Government Board Inspector, in connexion with that subject "may be an exceptional one even in Maryport, whose sanitary condition seems almost incredible." But I assure you, Sir, it is not the exception, but I might almost say the rule; there are scores of wretched tenements in Maryport entirely devoid of every requirement considered absolute necessities by any civilised community, where overcrowding exists to a shameful extent, and where common decency in regard to the separation of the sexes, in many cases, is not even observed. A correspondent in the *Maryport Advertiser* very recently, in calling attention to the general insanitary condition of the town, thus describes a case in point:—"In a former communication I alluded to the dangers of overcrowding now that such a large number of extra labourers employed at the new dock are residents in the town. I was forcibly struck a few days ago with the necessity that exists for the constant supervision and attention of the inspectors in that respect. In a house in Furnace-road, consisting of a kitchen and a bedroom, where the latter was not more than 10 ft. or 12 ft. square, a man and his wife and seven children, and a lodger, a labourer at the quarries, were sleeping! The poor woman herself and one of her children were lying ill in one of the wretched beds, suffering, I have no doubt, judging from the symptoms, from typhoid fever, one of the other children having died a few days previously from the same complaint. Is not this a very sad and terrible condition of affairs, and can nothing be done to remedy or prevent its recurrence? One would think that a man and his wife and seven children were enough, in all conscience, to sleep in a room of such dimensions, without taking lodgers! And yet I have no doubt that there are numberless other cases equally sad and shocking if they were only made known."

The same correspondent, in a subsequent communication,

dated June 9th, in alluding to a fatal case of typhus fever that had occurred in a house up one of the narrow passages leading out of King-street, remarks that "these premises are utterly unfit for the habitation of a family of seven or eight persons as at present occupy it; indeed, I might say of a family at all. It consists of two small rooms, one above the other, built against the back wall of the house behind, with no means of ventilation, save by a small pane of glass in the window opening on hinges. There is no privy accommodation whatever. Fancy a boy ten years old lying ill of typhus fever in the one little room upstairs, with no means of ventilation save the little pane of glass on hinges, inhaling all day the air made poisonous by his own excretions! And what must have been the condition of the room when the rest of the family at night betook themselves to it for repose?"

From my own experience, Sir, I could give you many other cases equally bad and incredible, but perhaps these are sufficient for the present. But what are we to say or think of an authority that permits such a state of affairs to exist in its midst without taking one single step to abate or remedy it? They cannot plead ignorance, because the report of Mr. Spear brings conviction home to the mind of every intelligent being that, in this and all other respects, the sanitary condition of the town is a disgrace to any community claiming the least affinity to civilisation; and yet I am quite convinced that, unless compelled by the Local Government Board, nothing will ever be done by the local authority to carry out the recommendations of Mr. Spear.

Your obedient servant,

Maryport, July 27th, 1882.

W. B. MATTHIAS.

P.S.—As an instance of the manner in which disinfection was carried out by the sanitary authority, I may relate what took place in a miserable back dwelling in one of the passages between Catherine-street and Queen-street, whence a case of typhus fever had been removed to the infirmary, and which terminated fatally a few days after. I asked the woman if the house and furniture had been disinfected, and she replied, "Oh, yes." "What was done to it?" "Well, the inspector gave me some lime and lent me a brush and told me to whitewash the walls, and I did." "Did anyone help you?" "No." "Were the bedclothes washed and disinfected?" "No, how could they when we were using them" (it was scarcely necessary to have asked that question, as their appearance sufficiently attested the fact of their non-acquaintance with soap and water since they left the shop); "but I put the mattress out in the air for a good bit, and made it as sweet as a nut." Thus it will be seen that those things in the house, such as the furniture, and above all, the bed and bedding where the infection is sure to be the most tenacious, were absolutely left in the same condition as when the fever case was removed from them.

### SALICYLIC SILK.

To the Editor of THE LANCET.

SIR,—Mr. Lockhart Gibson, in your issue of to-day, gives the results of cases treated in Mr. Chiene's wards by means of salicylic silk. He states that the method of treatment adopted "differed from that used in Leeds in this essential—viz., in the use of no mackintosh." In this he is mistaken. Since I first brought this dressing before the notice of the profession, some eighteen months ago, I have used no other dressing in antiseptic cases, and have always used it without the mackintosh. I have reason to know that the practice of the surgeons of the Leeds Infirmary has been the same. Indeed, the chief advantage of salicylic over carbolic acid dressings lies in the fact that they can be used without the mackintosh; the wound is thus kept comparatively dry, putrefaction is less likely to occur, and early healing is induced. The only difference between the Edinburgh and Leeds practice seems to be that in Edinburgh the dressing is completed by covering the silk with a large pad of gauze; while in Leeds we dispense with the gauze pad, and substitute for it one of silk enclosed within two layers of gauze. This is a matter of little moment, but our plan has the advantage of economy, and a larger experience has shown it to be equally efficacious.

I am, Sir, your obedient servant,

Leeds, July 20th, 1882.

A. F. MCGILL.

### GLASGOW.

(From our own Correspondent.)

THE usual graduation ceremony at the University took place on Thursday, July 27th. Of the 169 aspirants to academical degrees in medicine only seventy-six were successful. Professor Charteris' valedictory address to those who had just been "capped" was full of interest and instruction; it took the form mainly of plain and practical advice regarding the various careers open to those just licensed to practise medicine, and was evidently listened to with enjoyment and profit. He pointed out the advantages likely to be derived from a residence at one of the foreign schools of medicine, though he was inclined to think that these were not so great as is generally supposed, maintaining that in the application of the theories and facts of science to the treatment and prevention of disease the English are vastly ahead of the continental nations. He then very properly warned the graduates against continuing long in the mercantile marine service should they have occasion to go to sea as ship surgeons; and concluded by indicating the qualifications necessary for success in the various branches of modern practice.

It is generally understood that our Royal Infirmary is about to lose the services of Dr. M. Thomas as superintendent. Dr. Thomas has fulfilled the duties of this very trying position for many years now with general satisfaction.

### SCOTTISH NOTES.

(From our Correspondent.)

PROFESSOR STRUTHERS was in his war-paint last week. The fighting attitude is not an unusual one with him, as some of his colleagues very well know. His hits are hard, for the most part well considered, and with an almost certain delivery. He had a congenial subject on which to address his students at the end of the summer session, and had no difficulty in proving to their satisfaction how fortunate they were to come so far north for their instruction. He showed that while in regard to the Arts course the Scottish Universities were perhaps behind those of England and Germany, such could not be said of the medical. Those connected with medical education in England believed that whatever exists there is by far the best, whereas in his opinion there was no country in Europe so far behind as England—their system of medical education was positively the worst. The medical teaching in Scotland was excellent, and if Cambridge did but a tenth part of what is done in Aberdeen in this connexion, the world would hear of it. Hard work is the characteristic of the Aberdeen Medical School. Certainly, when Dr. Struthers looks around at his splendid facilities for teaching, and feels how much these are undoubtedly due to his own exertions, when he considers his own devotion and constant assiduity as a teacher, he may well feel proud and complacent. In each of the Scottish Universities the teachers of the purely scientific branches are men whose energies and lives are devoted solely to one subject, and they may be excused for their occasional hint at the opposite conditions which obtain further south. Again, our Gairdners, Pirries, MacLagans, &c., devote their best efforts to teaching, and only lay aside their gowns when, from old age, they feel that they are no longer fit to do justice to their students. Throughout life their highest honours come from teaching, and success in practice is not allowed to detain them from their classes or their wards. All this is highly favourable to good teaching; but Professor Struthers is perhaps wrong in assuming that the English do not admit the excellence, as for many years an entirely disproportionate number of students come from that and other English-speaking countries—the best proof of the real opinion held on the question. The prize-lists of the Aberdeen University show another element of strength which the teachers fully acknowledge: I notice that in one class the first four men have their M.A. degrees. This is material easily wrought.

During the past few weeks several prosecutions—the first in Scotland—have occurred under the Factories Act. Medical men have long known that young women frequently made complaint of the lengthened hours during which they were called to work on but slight necessity.



Certifying surgeons would assist these poor people, as well as the interests of justice, were notes of the complaints made in the consulting rooms, both with regard to overtime and vitiated atmosphere, kept for the use of the inspectors in every case where the same employers were frequently shown to be at fault, and especially where private remonstrance is ineffectual. The prosecutions in Edinburgh, Dundee, and Aberdeen were merely meant as reminders; but in future greater severity will be used.

While satisfaction is generally expressed with regard to the appointment of Mr. Chiene, there was, apparently, surprise felt by many who deemed themselves the possessors of special knowledge. So much is this the case that one proposed candidate at least, and a most creditable one, felt it advisable not to put forward his claims, as he was assured that another than Mr. Chiene was certain of the appointment. To the majority of the curators—gentlemen nominated by the town council—the choice must have been most irksome, and, though they have for once been judicious in their selection, the profession would most gladly see their patronage transferred to other hands.

### IRELAND.

(From our own Correspondent.)

THE Belfast Hospital for Skin Diseases is a very valuable institution, as evidenced by the increased numbers who avail themselves of the advice and care which by it are placed within their reach. Many of these cases are among the most painful and trying, and others are of so contagious a nature that it is of importance to the community that every precaution should be taken against their spreading. The number of patients treated last year was 1167 (79 intern and 1088 extern), those admitted to the wards being very much in excess of the previous year. The expenditure was in excess of the income, but a bequest of £1000 will shortly be obtained from the executors of the late Mr. George Bann.

A vacancy has arisen in the City of Dublin Hospital for a visiting physician, in consequence of the appointment of Dr. J. Magee Finny to the King's Professorship of the Practice of Medicine in the School of Physic of the University of Dublin, which carries with it the post of physician to Sir Patrick Dun's Hospital. It is generally believed that Dr. Duffey, at present attached to Mercer's Hospital, will be selected to succeed Dr. Finny, which would cause a vacancy for a physician to Mercer's Hospital. The latter institution is one which requires purchase money for its medical and surgical appointments, the price averaging from £1000 to £1500.

Dr. Henry MacCormac, of Belfast, has recently published a pamphlet on the Etiology of Tubercle. Dr. MacCormac believing, as he does, that the cause of phthisis is due to the inhalation of rebreathed air, and that perfect ventilation is the antidote, is antagonistic to Koch's theory as to the cause of the disease—viz., that tuberculosis is a parasitic disease, the parasite being a bacillus about as long as a blood corpuscle; and that the affection is communicable by infection, or conveyed into the system by dust. The author does not contend that bacilli are not found in tuberculous subjects, but his chief argument appears to be that before there can be tuberculous bacilli the man or brute must be tuberculous.

The emigrant lodging-houses in Queenstown appear to be very much overcrowded, and the attention of the Board of Trade has been directed to the subject, which is at the present time of importance, as fever prevails in the town. It has been publicly stated that as many as 170 persons of a night have been kept in one or two of these lodging-houses; a condition of things which could not exist if the Town Commissioners would insist on the regulations required by law being strictly enforced.

Two men were suffocated on board the vessel *Woodlawn* last March, and the owners were last week fined £30 for their negligence in not having the fore-castle properly ventilated.

The death is reported at Coppenagh of a widow, Margaret Melady, at the mature age of 105.

An election for a medical officer to Portaferry Dispensary District, in the room of the late Dr. Filson, will be held

next week. The salary attached to the post is £115 per annum, and fees.

Mr. Thomas Higgins, L.R.C.S.I., medical officer of Clonsilla Dispensary District, has been elected a coroner for the Queen's County.

### PARIS.

(From our Special Correspondent.)

YESTERDAY afternoon the Academy of Medicine held its annual meeting, and a list of the prizemen and medalists was read by the Secretary. In one instance there was no award, because no memoir had been sent in for the prize, and in others the competing essays were not considered to be of sufficient merit. The Civrieux prize of £60 went to Dr. Ballet; the Capuron prize (£80) to Dr. Belugou. The Desportes prize was divided between Dr. E. Vidal, for his work on the Treatment of Prolapsus of the Rectum by Hypodermic Injections of Ergotine, and Dr. Campardon. MM. Lucas-Championnière and H. Toussaint were awarded £48 and £32 respectively, the total forming the Prix Amussat. An important prize of 10,000 francs (£400), but which is only awarded once in six years, was divided between Drs. Bigelow (of Boston) and Th. Auger, the former taking £240 and the latter £160. M. Toussaint, of Toulouse, receives an encouragement to continue his researches concerning the cholera of fowls and acute experimental septicæmia in the shape of the Barbier prize, the value of which is £240. The enumeration of all the awards would be tedious, but it may interest your readers to know what are the prizes and what the subjects for 1883. Perhaps some industrious workers in England may be stimulated to enter the list. The Prix de l'Académie is 1000 francs; the subject, to determine the Clinical Value of Antiseptic Methods in Surgical Practice. Prix Portal, 1000 francs, Is Tubercle of Parasitic Nature? Prix Civrieux, 2000 francs, Hysterical Paralysis and Contractures. Prix Capuron, 2000 francs, on the Influence of Sea-bathing in the Scrofula of Children. Prix Godard, 2000 francs, for the best work on External Pathology (Surgical Disease). Prix Barbier, for the Discovery of a Cure for any Disease reputed to be Incurable, such as Epilepsy, Hydrophobia, Cancer, Cholera; part of it may be awarded for advancement in this direction. Prix Desportes, 1500 francs, for the best work on Medical Therapeutics. Prix Daudet, 1500 francs, Lymphadenoma. A prize of 2000 francs, under the name of the Prix de l'Hygiène de l'Enfance; subject, to determine by precise Observation the Role of First Dentition in Infantile Pathology. Prix Amussat, 2000 francs, for a work based upon Anatomy and Experiment leading to progress in Surgical Therapeutics. Prix Saint-Lager, 1500 francs, for the Discovery of a Cure for Goitre. Prix Saint Paul, 25,000 francs, for the Discovery of a Cure for Diphtheria; the interest of the capital may be awarded as an encouragement for work in this direction.

The account given in the last letter of M. Laborde's lecture, and the disturbance created by a lady anti-vivisectionist, does not appear to be quite correct. The meeting, instead of breaking up in confusion, was only interrupted for a few minutes, during which time the fair zoophile let off her virtuous indignation, and declared that the intended demonstrations should only take place after her blood had been mingled with that of the frogs. Force being out of the question, and the lady having determined to occupy the position she had achieved, M. Laborde invited her to share the professorial chair, and act, as it were, as censor, promising to pay attention to any objections she might make. Thanks to his tact, the lecturer was able to carry out his programme; and when he had finished he congratulated his unexpected colleague on the opportunity she had given him of vindicating science. This correction is worth making, the more so as a great deal of unnecessary fuss and misrepresentation have crept into the papers about the incident.

At the present moment there is a case of nervous disease in the Beaujon Hospital which seems to interest all Paris. The daily papers publish bulletins concerning the *dormeuse*, as the patient is termed; and as her identity is unknown, everyone is looking forward with curiosity to the time when the sleeper shall awaken and unravel the mystery. Briefly the facts are as follows: Between two and three months ago, on May 12th, the police

found a woman in a state of intoxication. They took her to the station, and at that time she was able to articulate a few words. hiccupping, "Oh, what a lot of beer I have drunk." In the course of the evening she sank into a state of torpor, and was taken to the hospital, where she has remained ever since. For seventy-four days she remained in a state of lethargy, kept alive by liquids only, and not uttering a sound. When she was found to be *enceinte*, it was thought that the expulsion of the fœtus would be sure to lead to some change; but about a fortnight since a five-month miscarriage occurred, the patient remaining to all appearance absolutely unconscious. It was then determined to try cold douches, and the second was so far successful that the patient is now able to swallow solid food. She remains, however, to a certain extent aphasic, and unable to give any information concerning herself. The fact of her wearing a number of religious medals has the more excited public curiosity, and she is popularly supposed to have been abducted from a convent.

Paris, Aug. 2nd, 1882.

### ROYAL COLLEGE OF SURGEONS.

At an ordinary meeting of the Council, held on Thursday last, the consideration of the resolution, "That in future all candidates for the Primary or Anatomical and Physiological Examination, whether for the diploma of Member or of Fellow of the College, be only required to attend one winter course of lectures on Anatomy instead of two courses of such lectures," was, upon amendment, deferred until the meeting of the Council in March, 1883. The recommendation of the Joint Committee, "That the periods at which the Examination in Elementary Anatomy and Physiology shall be held, be determined by the teachers at the several medical schools, provided that an interval of not less than six months shall elapse between the date at which the candidates shall have passed the Examination and the date of their presenting themselves for the Primary Examination at the College," was, after some discussion, approved and adopted.

Mr. T. M. Stone was granted a retiring pension of £300 per annum in consideration of his long and valuable services.

A letter was read from Mr. Birkett resigning his seat as a Member of the Court of Examiners, the vacancy to be filled up at the quarterly meeting of the Council in October next.

### MEDICAL NOTES IN PARLIAMENT.

In the House of Commons on Thursday, July 27th, a petition was presented from Batley in favour of the Infectious Diseases Notification Bill. A copy was presented of the report of the Commission on Small-pox and Fever Hospitals in the Metropolis.

On Friday, Mr. Trevelyan stated, in answer to Mr. Biggar, that the Local Government Board had received contradictory reports from Belfast as to the alleged refusal of the master of the workhouse to admit aged and infirm persons who had urgent orders for admission, and that a fuller inquiry had been instituted.

#### *The Army Hospital Corps.*

General Fielden asked the Secretary of State for War whether he had any objection to state the result of the inquiry by the Committee presided over by Sir E. Wood into the charges of inefficiency and misconduct brought against the men of the Army Hospital Corps who served in South Africa; and whether he intended to take any action in the matter.—Mr. Childers said the general result of the inquiry was that the more serious allegations against the Army Hospital Corps had not been substantiated. He had, however, with the concurrence of the Duke of Cambridge, appointed a committee of inquiry into the whole organisation of the corps, and he hoped to be able to consider its report before he prepared the estimates for next year.

#### *Adulterated Butter.*

In a discussion on the Board of Trade vote in Committee of Supply, Mr. Biggar complained of the injustice of holding the retail dealer liable to a penalty for selling adulterated butter, whilst the importer of the same material carried on

his business with impunity.—Mr. Chamberlain replied, that the Adulteration Acts rendered a person liable to a penalty of £20 who sold oleomargarine as butter, without declaring to the purchaser the nature of the material.

On Monday, a petition was presented from Barry against the Lunacy Districts (Scotland) Bill. This Bill stands for the Committee stage on Friday.

On Tuesday, four petitions were presented from London and one from Norwich in favour of the registration of midwives. A petition for redress of the grievances of militia surgeons was presented from the South Wales Branch of the British Medical Association.

#### *Coffee Mixtures.*

In Committee on the Customs and Inland Revenue Bill there was considerable debate on the Government proposal for the taxation of imitations of coffee and of coffee mixtures. An amendment by Mr. Maguac, providing that each packet should be labeled with a prominent statement of the substances of which the mixture is composed, was agreed to. Mr. Cavendish Bentinck moved another proviso, that the percentage of coffee contained in the mixture should also be stated, but this was resisted by the Government on the ground that it would be impracticable to state the percentages. In the course of the discussion Mr. Macfarlane warmly complained that the poor were being cheated and poisoned by adulteration. Mr. Courtney expressed his opinion that the proposal, if adopted, would be a piece of "great-grandmotherly" legislation. Eventually the amendment was rejected by 114 to 73. On Wednesday, an additional amendment was inserted permitting the sale of coffee mixtures in quarter-pound packets; previously the limit was half a pound.

#### *The Carriage Duty.*

Clause 9 of the Customs and Inland Revenue Bill, which related to the proposed increase of the carriage duty, was struck out.

During the evening a supplementary estimate was laid on the table for the purpose of augmenting the grant in aid of medical relief in Scotland from £10,000 to £20,000.

#### *Navy Hospitals.*

On Tuesday, Mr. Gorst asked whether, in the event of a hospital-ship being sent out to Alexandria or a naval brigade being landed in Egypt, the services of any of the Sick Berth Staff of the Royal Navy now employed in the Royal Navy Hospitals would be utilised.—Mr. Campbell-Bannerman: Yes. The services of any of the Sick Berth Staff, whether at present employed in the navy hospitals or in the flagships, will be utilised in Egypt as required.

On Wednesday, the order for the second reading of the Bill for repealing the compulsory clauses of the Vaccination Acts was discharged, and the Bill was withdrawn. A copy was presented of the 37th report of the Scotch Board of Supervision of Poor Relief and Public Health.

#### *Analyses of Butter and Milk.*

Lord E. Cecil asked the President of the Board of Trade whether his attention had been drawn to the report of Mr. Blyth, analyst under the Adulteration of Food Act to the Devonshire Court of Quarter Sessions, dated June 13th, 1882, in which, speaking of the adulteration of butter and milk, he compared the difference of limit between the public analysts of 1874 and that of the Somerset House certificate at the present time; and whether he proposed to take steps in the interest of the public to raise the standard of purity in both these articles.—Mr. Dodson confirmed the citation from Mr. Blyth's report, and said there was no doubt as to the difference of opinion of those two bodies. The Somerset House analysts, however, were not alone in their opinion. The Local Government Board were now in communication with them on the subject; but at present he was not prepared to say whether it was practicable to fix any such standard of purity with regard to these natural products as would effectually protect the public from adulteration whilst securing the honest dealer from persecution. Mr. Dodson said further that the Local Government Board were in communication with the chief analyst at Somerset House, to ascertain whether, in his opinion, anything could be done to improve the present condition of things.

#### *Alkali Works.*

Mr. Dodson, in reply to questions by Mr. A. Arnold and Mr. Gore Langton, said an efficient system of inspection

was being built up under the new Act, but some experience would be necessary to fix the number of inspectors required. The list of works under inspection would be printed.

*The Norwich Vaccination Inquiry.*

Mr. Dodson replied to Mr. P. A. Taylor that the inquiry by the medical inspector at Norwich was not yet completed. He had heard that since the first group of cases a death very similar had occurred of a recently vaccinated child, but he had at present no information to show that it was due to vaccination.—Mr. Taylor said he would repeat his question on Tuesday.

*Classification of Butter Substitutes.*

Viscount Folkestone asked the President of the Board of Trade when the Statistical Inquiry Committee that was examining into the subject of the better classification of butter, oleomargarine, and other butter substitutes, was likely to issue their report, and whether he would communicate the result of that inquiry to the House.—Mr. Chamberlain said the report would probably be ready in a few days. It was for the Treasury to decide whether it should be laid on the table. It would deal with many other subjects besides those to which the noble lord referred.

*Emigrant Ships.*

Mr. Moore asked the President of the Board of Trade whether there were a number of emigrant ships which, on their homeward voyages, came to this country laden with cattle, returning to America with large numbers of steerage passengers; and if he could state what, if any, special precautions were enforced for the disinfecting and cleansing of those ships after each voyage with cattle.—Mr. Chamberlain said the vessels were thoroughly disinfected and cleansed after each voyage. They were subsequently inspected by a Board of Trade emigration and sanitary officer. Emigrants would not be allowed to travel by these vessels if they were in a condition dangerous to health.

*Vivisection.*

In the House of Lords the Earl of Shaftesbury had the following notice on the paper: To ask the Under-Secretary of State for the Home Department whether Dr. Charles S. Roy, having received a licence for vivisection in 1881, received also a certificate for the same year permitting experiments on living dogs and cats; also whether he received any such certificate for the year 1882. The noble earl, however, was not in his place, and the question was postponed.

## Obituary.

HENRY DODGSON, M.D., L.R.C.S.E., &c.

DR. HENRY DODGSON, who died on the 10th ult. at his residence, Derwent House, Cockermouth, in the full vigour of manhood, after a few days' illness, of typhoid accompanied by pneumonia, was born in that neighbourhood forty-nine years ago of a good old Cumberland family. He studied at the Universities of Edinburgh and Paris, graduating M.D. at Edinburgh in 1856. Since then he had practised in Cockermouth and the neighbourhood for many miles round. Those who had the privilege of knowing him cherish the memory of his bright and manly expression, united with great modesty. Dr. Dodgson was beloved by all who knew him, and was buried with every mark of respect and honour, both military and Masonic, he being a major of volunteers and one of the best officers in the county, and Past Grand Senior Deacon of his Province. His contributions to medical, astronomical, meteorological, and other sciences made him well known to the scientific world.

**PRESENTATION.**—Dr. William Sinclair, house-surgeon at the Aberdeen Royal Infirmary, has been presented with a handsome amputating case by the students of his surgical class, in recognition of the care and efficiency with which he conducted the meetings.

The Brighton and Sussex Eye Infirmary is being enlarged, or rather reconstructed, at a cost of £5000. The building will, it is expected, be ready for occupation by the end of the present year.

## Medical News.

**ROYAL COLLEGE OF PHYSICIANS OF LONDON.**—The following gentlemen were admitted Fellows of the College on July 27th:—

Blanc, Henry, M.D. Montpelier, Bombay.  
Grant, James Alexander, M.D. Montreal, Ottawa.

The following gentlemen were on the same day admitted Members of the College:—

Grabham, George Wallington, M.D. Lond., Earlswood.  
Herringham, Wilmot Parker, M.B. Oxon., St. Bartholomew's Hospital.  
Jessop, Charles Moore, Whitehall-place.  
Jones, Arthur Henry, M.D. Lond., Northampton.  
MacLagan, Thomas John, M.D. Edin., Cadogan-place.  
Mitra, Jogendra Nath, Keppel-street.  
Richardson, Gilbert, M.D. Dub., Roland Gardens.  
Routh, Amand Jules McConnell, M.B. Lond., Upper Montagu-street.  
Shaw, John, M.D. Lond., Willoughby-road.

The following gentlemen were also admitted Licentiates of the College:—

Alpin, William George Patrick, Commercial-street.  
Bamford, Charles Robert, Uttoreter.  
Banatvala, Hormasjee Edaljee, Endsleigh Gardens.  
Bass, Frederick, Union-road.  
Bertram, Benjamin, Montagu-street.  
Blatherwick, Henry, Rochester.  
Buckell, William Robert, Romsey.  
Cameron, John, Bilston.  
Challinor, Oedric, Reedworth-street.  
Chown, Henry Havelock, M.D. Kingston, Great Ockham-street.  
Collins, Robert John, Middle Mall.  
Cooper, Walter, South Hill, Park-road, Croydon.  
Cox, Roland Frederic, Ryder-terrace, Twickenham.  
Day, John Roberson, Camden-road.  
Dendy, Walter Chester, Guy's Hospital.  
Downing, Charles, Falmouth.  
Durant, Robert James Anderson, St. Thomas's Hospital.  
Evans, Thomas Jones, Edward-street.  
Frost, George, Bedford-square.  
Greaves, Thomas, M.D. New York, Regent-square.  
Hoskyn, Donald Templeton, Isleworth.  
McMillan, John Furse, Middlesex Hospital.  
Marston, Francis Ernest, Ludlow.  
Pocock, Alfred George Clarke, Brixton-road.  
Pritchard, Samuel Evan, Tower Hamlets Dispensary, Stepney.  
Reynolds, James Jones, Stoke-by-Clare.  
Robinson, Wilford Vidal, Saffron Walden.  
Strachan, William Henry Williams, Guy's Hospital.  
Tait, Henry Brewer, Highbury Park.  
Thornton, Hastwell William, M.D. McGill, Nicholas-street.  
Todd, Charles Edward, Sussex Gardens.  
Toller, Chas. Wm. Edward, St. Bartholomew's Hospital.  
Viney, Josiah Ernest, M.B. Camb., Fernwood, Highgate.  
Wightwick, Fallon Percy, Folkestone.  
Williams, Evan, St. Paul's Crescent.  
Zimmermann, Benjamin Frazier, Ealing.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—

Dr. William Joseph Lunn, the senior surgeon to the Hull Infirmary, was elected a Fellow of the College at a meeting of the Council on the 3rd inst., his diploma of Membership bearing date May 14th, 1883.

The following gentlemen, having passed the required examination for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 27th ult.:—

Dawson, George Herbert, Moor Allerton.  
Dixon, Henry Charles, Putney.  
Downman, Charles Frederick, Castle Hill.  
Dutton, William Henry, M.B. Edin., Edinburgh.  
Faunce, Charles Edmund, L.S.A., Guernsey.  
Holcroft, Henry, Sevenoaks.  
Lynam, Robert Garner, L.S.A., Stoke-on-Trent.  
Northcott, Arthur, L.S.A., Fulham.  
Perez, George Victor, L.S.A., Tenosiffa.  
Williams, John Alexander, M.B. Aberd., Enfield.  
Wise, Charles Henry, L.S.A., Llanconston.

The following gentlemen were admitted Members of the College on the 28th ult.:—

Baattie, Robert, M.D. Queen's Univ. Irel., Ballymena.  
Berry, John Bourne, L.S.A., Barna, Galway.  
Bostock, John, L.S.A., Osgathorpe, Leicester.  
Harris, Walter Thomas, L.S.A., Lloppien, Devon.  
Hoyland, Stanley Stenton, L.S.A., Botherham.  
Leadbeater, Thomas Edward, L.S.A., Bromley-by-Bow.  
Morse, Thomas Rickett, L.S.A., Cheltenham.  
Pollard, George Samuel, South Walsham.  
Rogers, Thomas Edward, L.S.A., Bickerton, Devon.  
Salmon, Arthur Guy, L.S.A., Truro, Cornwall.

The following gentlemen were admitted Members of the College on the 31st ult.:—

Bott, Joseph, L.S.A., Dunmow, Essex.  
Bevor, Hugh Reeve, L.S.A., Hingham, Norfolk.  
Cox, Roland Frederic, L.R.C.P. Lond., Twickenham.  
Durant, Robert James Anderson, L.R.C.P. Lond., Bengal.  
Howard, R. J. Bliss, M.D. McGill Coll., Montreal.

Hudson, Ernest, L.S.A., Harleston, Norfolk.  
 Lovegrove, Thos. Ernest, L.S.A., Wollaton, near Nottingham.  
 Roe, Arthur Dumville, B.A. Cantab., Ekeles.  
 Tate, Alan Emondson, L.S.A., Trent, Somerset.  
 Voss, Francis Henry Vivian, L.S.A., Clanton-square.  
 Williams, Evan, L.R.C.P. Lond., Bala, North Wales.

The following gentlemen were admitted Members of the College on the 1st inst.:-

Finch, Thomas, B.A. Cantab., Torquay.  
 Jones, Owen Clayton, L.S.A., Philipot-street.  
 Thomas, John Henry, L.S.A., Tenby.

Of the 284 candidates examined during the past fortnight 124 passed to the satisfaction of the Court and obtained their diplomas; 48 passed in Surgery, and when qualified in Medicine and Midwifery will be admitted Members; the remaining 112 failed to reach the required standard, and were referred for six months' further professional study. Ten candidates who had passed in Surgery at previous examinations, having subsequently obtained a Medical qualification recognised by the College, were also admitted Members. This is the last examination for the Membership of the College until November. The Museum of the College, which is now undergoing painting and decoration, will be closed from this date until further notice.

UNIVERSITY OF LONDON. — The following is the list of candidates who passed the recent Preliminary Scientific (M.B.) Examination:—

#### FIRST DIVISION.

Adams, Charles Edward, University College.  
 Althorp, Charles Frederick Manning, private study.  
 Balgarnie, Wilfred, Yorkshire College.  
 \*Basu, Jagadish Chunder, B.A. Calcutta, Christ's Coll., Camb.  
 †Bidwell, Leonard Arthur, St. Thomas's Hospital.  
 Blackler, Henry John, Guy's Hospital.  
 Blackston, Charles Reginald, King's College.  
 †Brennan, Joseph Richard, Owens College.  
 Brock, Ernest Henry, Guy's Hospital.  
 Brook, Wm. Henry Breffit, St. Bartholomew's Hospital.  
 \*Brown, Arthur Edward, private tuition and Univ. College.  
 Cameron, Robert Watson, B.A., Owens College.  
 †Canney, Henry Edward Leigh, University College.  
 \*Carnegie, Douglas John, Epsom College.  
 Clarke, James Jackson, St. Bartholomew's Hospital.  
 Clarke, William Frederick, Guy's Hospital.  
 Cook, Samuel Bird, St. Thomas's Hospital.  
 \*Cox, Alfred Edward, St. Thomas's Hospital.  
 Crook, Herbert Evelyn, Guy's Hospital.  
 Davies, Ernest Reuter, Guy's Hospital.  
 Dewhurst, John Henry, Owens College.  
 \*Edge, Frederick, Owens College.  
 Elliot, William Henry Wilson, Guy's Hospital.  
 Evans, Isabel Clare, Mason College, Birmingham.  
 Gilchrist, Thomas Caspar, Owens College.  
 Harper, William Norton, Huddersdon School.  
 Helsham, Hugh Paul, St. Thomas's Hospital.  
 Jucks, Cyril William, University College.  
 †Joly, Antoine Maurice, University College.  
 Lains, Alfred William, King's College.  
 †Legg, Walter Littlewood, Yorkshire and Clifton Colleges.  
 Macdonald, Isabella Macdonald, Univ. Coll. and private tuition.  
 \*Macevoy, Henry John, St. Joseph's College, Clapham.  
 May, William Page, University College.  
 Pagden, Trayton Charles, St. Bartholomew's Hospital.  
 Pernewan, William, University College.  
 Rodfern, John Joseph, Queen's College, Belfast.  
 Roper, Harold Kennaway, Guy's Hospital.  
 Sansom, Harry Arthur, Univ. Coll. and St. Thomas's Hosp.  
 \*Seville, Charles Frederick, Owens College.  
 Shirliff, Edward Dickinson, St. Thomas's Hospital.  
 Simpson, Charles Shackleton, Guy's Hospital.  
 Smith, Alex. Rochfort, St. Barthol. Hosp. and private study.  
 Smith, Hugh, Guy's Hospital.  
 Solly, Ernest, St. Thomas's Hospital.  
 †Stacy, John Herbert, Univ. of Edin. and Univ. Coll. Lond.  
 †Stephens, Richard John, King's College.  
 Thompson, James Edwin, Owens College.  
 Tomlinson, William Henry, Owens College.  
 Toogood, Fredk. Sherman, Hartley Institution and Univ. Coll.  
 Tunstall, John Ogle, University College.  
 Wheaton, Samuel Walton, St. Thomas's Hospital.  
 Wheeler, James Atkin, University College.  
 †Wilkinson, Percy John, Owens College.  
 \*Wray, Richd., Spalding, Yorkshire and Elmfield Colleges.

#### SECOND DIVISION.

Anstie, William Charles, University College.  
 †Aveline, Henry Talbot Sidney, University College, Bristol, and private study.  
 \*Barker, George Henry, University College, Bristol.  
 Biddlecombe, Edward Henry, St. Bartholomew's Hospital.  
 Bidwell, Lawrence, Guy's Hospital.  
 Brown, Arthur Thomas, Guy's Hospital.  
 Burghard, Frédéric François, Guy's Hospital.  
 Baras, James, Owens College.  
 Barrell, Arthur William, London Hospital.  
 Carter, Weldon Cragg, Owens College.  
 Conolly, Charles Hamilton, St. Bartholomew's Hospital.  
 Coryn, Herbert Alfred William, Charing-cross Hospital.  
 Craig, Henry Edward, Guy's Hospital.  
 Crouch, Charles Percival, St. Bartholomew's Hospital.  
 Davidson, Harold, St. Bartholomew's Hospital.

Davis, Arthur Hildsworth, St. Bartholomew's Hospital.  
 \*Dean, Henry Percy, University College.  
 Dobson, Leonard Charles Talbot, St. Bartholomew's Hospital.  
 \*Duncan, Charles Herbert, Epsom College.  
 Featherstone, William Barltrop, Queen's and Mason's Colleges, Birmingham.  
 Fisher, Theodore, Guy's Hospital.  
 Freeman, Ernest Carrick, St. Thomas's Hospital.  
 Furnivall, Bryan, St. Bartholomew's Hospital.  
 Godfrey, Albert Edward, St. Thomas's Hospital.  
 Halliwell, Thomas, St. Peter's Sch., York, and Yorkshire College.  
 \*Hammersley, Percy Herbert Vickers, St. Barthol. Hosp.  
 \*Haring, Nathan Charles, Owens College.  
 Harris, Frances, University College and London School of Medicine for Women.  
 Hensley, Arthur Egerton, King's College.  
 †Holloway, Samuel Frederick, Guy's Hospital.  
 Joseph, Arthur Hill, University College, Bristol.  
 Kanthack, Alfredo Antunes, University College, Liverpool.  
 \*Kell, Edmund Delacourt, London International College.  
 Kelson, William Henry, London Hospital.  
 Kingsford, Edward Claude, Guy's Hospital.  
 Lang, Arthur Joseph, Epsom College.  
 †Legg, Cyrus, Guy's Hospital.  
 Lindow, Albert, King's College.  
 Lys, Henry Grabham, private tuition.  
 Marshall, Charles Frederick, Owens College.  
 Moore, Robert Lee, Queen's College, Belfast.  
 O'Reilly, George Hartley, private study.  
 \*Pallthorpe, Mary Elizabeth, London Sch. of Med. for Women.  
 Pickering, Rowland Neville, Umfreville, private tuition.  
 Prall, Samuel Esmond, Guy's Hospital.  
 Pugh, John Williamson, University College of Wales and London Hospital.  
 Randall, Ernest Bldgood, University College.  
 Risdon, William Newt, Guy's Hospital.  
 †Roberts, David Foulkes, Owens College.  
 Scott, Arnold, Guy's Hospital.  
 Shadwell, Bertrand, St. Bartholomew's Hospital.  
 \*Smith, Edmond Fauriel, St. Bartholomew's Hospital.  
 Smith, Henry Ernest Hill, King's College.  
 Smith, John Anderson, St. Bartholomew's Hospital.  
 \*Smith, Robert Gillies, Univ. of Aberdeen and St. Bartholomew's Hospital.  
 †Sprent, Frank Arthur, St. Bartholomew's Hospital.  
 Stedman, Frederick Osmond, Charing-cross Hospital.  
 Stocks, William Percy, Owens College.  
 \*Stokes, Frederick William, Mason College, Birmingham.  
 Swayne, Walter Carlos, Bristol Medical School.  
 Wallis, William Kay, Owens College.  
 Wethered, Frank Joseph, Bristol Medical School.  
 Whitcombe, William Sandford, Epsom College.  
 Williams, Frederic Newton, St. Thomas's Hospital.  
 Wynter, Andrew Ellis, St. Bartholomew's Hospital.  
 \* Passed in the Mathematics of the Intermediate Examination in Science, and are thus admissible to the B.Sc. Examination.  
 † Examination in Botany postponed.  
 ‡ Examination in Physics postponed.  
 § Examination in Zoology postponed.

ARMY MEDICAL SERVICE. — The following is the list of Surgeons on probation in this Service who were successful at both the recent London and Netley examinations. The marks gained at Netley are not shown in this table, as the final positions of these gentlemen are not affected by them:—

	Marks.		Marks.
* S. Westcott ..	2295	H. S. McGill ..	2065
† H. R. Whitehead ..	2230	A. A. Pechell ..	2000
B. M. Skinner ..	2200	C. R. Tyrrell ..	2050
C. R. Bartlett ..	2195	J. Hickman ..	1980
J. D. T. Reckitt ..	2175	W. B. Thomson ..	1975
T. A. P. Marsh ..	2150	H. E. Deane ..	1945
R. Kirkpatrick ..	2140	S. O. Stuart ..	1940
A. C. A. Alexander ..	2095		

\* Gained the Martin Memorial Gold Medal.

† Gained the Montefiore Medal and Prize of 20 guineas.

INDIAN MEDICAL SERVICE. — The following is the list of Surgeons on probation in this Service who were successful at both the recent London and Netley examinations. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows:—

	Marks.		Marks.
* H. H. R. Charles ..	5455	J. P. Barry ..	4922
† G. Duncan ..	5025	A. V. Anderson ..	4690
W. A. Sykes ..	4875	E. W. Reilly ..	4445
R. W. S. Lyons ..	4560	J. Scott ..	4150

\* Gained the Herbert Prize, the Parkes Memorial Bronze Medal, and the Montefiore Second Prize.

† Gained the Prize in Pathology.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on July 27th:—

Grigg, William Henry, Torrington, Devon.  
 Hulseberg, John Wild, Gipsy Hill, Upper Norwood.  
 Power, Charles Frederic, Bexhill, Hastings.  
 Roberts, Thomas Pritchard, Twyford, near Winchester.

Watson, Robert Walker, Highbury New Park.  
Watson, William, High-street, Rochester.

The following gentlemen also on the same day passed the Primary Professional Examination:—

William Henry Carrington, Guy's Hospital; Charles John Maddison, And t Essex Hospital; William Kirman Pauli, Coaring-cross Hospital.

**OBSTETRICAL SOCIETY.**—The Library of this Society will be closed from August 14th to September 14th.

**MR. AXFORD, M.R.C.S.**, for thirty years Medical Officer of No. 3 District and the workhouse of the Bridgwater Union, has received a superannuation allowance of £25 a year.

A **BAZAAR** has been opened at Lydney for the purpose of raising funds for providing a hospital dispensary and experienced nurses for the poor of the district.

**EASTBOURNE HOSPITAL FUND.**—The result of the bazaar just closed is that £500 was realised towards the funds of the new Memorial Hospital, leaving about £1000 to be collected by the time the building is ready for opening.

The formal opening of the new wing of the West of England Sanatorium at Weston-super-Mare took place on the 26th ult. The institution began in 1868, as a cottage hospital with four beds, and is now capable of accommodating 100 patients.

**METROPOLITAN ASYLUM, CATERHAM.**—Mr. George S. Secombe, the Senior Assistant Medical Officer of this Asylum, having been appointed by the Secretary of State for the Colonies to fill the post of Medical Superintendent to the Trinidad Royal Asylum, has resigned his office at Caterham, and was recently presented with a handsome repeating chime clock by the staff of the Asylum as a token of their regard and esteem. The presentation was made by Dr. Stanley Elliot, the Medical Superintendent, who referred to Mr. Secombe's long service, and also the interest he had taken in promoting the happiness of the patients during his residence at Caterham.

**NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.**—At the congress of this Association, to be held at Nottingham from Sept. 20th to the 27th, the following questions will be discussed in the Health Department, the presidency of which has been accepted by Sir Rutherford Alcock, K.C.B.:—1. How does the employment of mothers in mills and manufactures influence infant mortality; and ought any, and if so what, restrictions to be placed on such employment? 2. What reforms are desirable in the administration of hospitals? 3. What are the advantages of a system of notification of infectious diseases, and what are the best means of carrying the same into execution?

An interesting event, proving that the public are not always indifferent to the risks and anxieties involved in medical practice, especially the work of union surgeons, has just taken place in Buntingford. The labours of Dr. Smith, medical officer of the West District and the workhouse of the union, had recently, it appears, been unusually heavy and perilous in consequence of the existence of a large amount of infective disease in the infirmary. The infection, carried home by the doctor, seized upon his children, necessitating their isolation. A few friends and patients of Dr. Smith have accordingly presented a handsome tea and coffee service to Mrs. Smith as a token of sympathy with her in her trying experience in being isolated from friends in nursing her children.

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

**BARNES, ROBERT, M.D., F.R.C.P.** has been elected one of the Honorary Consulting Physicians to the Chelsea Hospital for Women.

**BOUCHER, ARTHUR HENRY, M.D. Edin.**, has been appointed House-Surgeon to the East Suffolk Hospital, Ipswich.

**CAMPBELL, PATRICK EDWARD, M.B., C.M.**, has been appointed Senior Assistant Medical Officer to the Metropolitan District Asylum, Caterham, Surrey, vice G. S. Secombe, resigned.

**CRALLAN, GEO. EDW. J., B.A. Cantab., M.R.C.S., L.S.A. Lond.**, has been appointed Assistant Medical Officer to the County Lunatic Asylum, Cambridge, vice Clun, resigned.

**CUNNINGHAM, —, M.R.C.S.**, has been appointed Medical Officer for the First District of the Romford Union, vice McClure, resigned.

**ERWIN, SAMUEL JAMES, L.R.C.P. Ed., L.R.C.S. Ed.**, has been appointed Medical Officer and Public Vaccinator for the Openshaw District of the Chorlton Union, vice Brebner, resigned.

**HATTON, G. STOKES, M.D., M.S. Dur., M.R.C.S., L.S.A. Lond.**, has been appointed House-Surgeon (Senior Medical Officer) to the North Staffordshire Infirmary.

**MOULLIN, C. W. MANSELL, M.D. Oxon., F.R.C.S. Eng.**, has been appointed Junior Assistant-Surgeon to the London Hospital, vice Tay.

**NEWCOMBE, FRANK, M.R.C.S., L.S.A. Lond.**, has been appointed Medical Officer for the Newton-on-Trent District of the Gainsborough Union.

**SMALLMAN, BENJ. F., M.R.C.S., L.S.A. Lond.**, has been appointed Medical Officer for the Sutterton District of the Boston Union.

**SPACKMAN, HENRY ROBERT, L.R.C.P. Lond., M.R.C.S., L.S.A. Lond.**, has been appointed House-Physician to the Wolverhampton and Staffordshire General Hospital, vice Mortimer, resigned.

**TINDALE, WENTWORTH RAYNES, M.B., C.M. Aber., L.R.C.P. Lond., M.R.C.S.**, has been appointed Medical Officer for the New Hampton District of the Kingston Union.

**WIGO, ALFRED E., M.D., L.R.C.P., M.R.C.S., L.S.A. Lond.**, has been appointed Honorary Medical Officer to the Children's Hospital, Adelaide, South Australia.

## Births, Marriages, and Deaths.

### BIRTHS.

**BADCOCK.**—On the 25th ult., at Buckingham-place, Brighton, the wife of Lewis Carter Badcock, M.D., of a son.

**EUSTACE.**—On the 30th ult., at Lowestoft, the wife of Surgeon-Major Edward Eustace, Army Medical Department, of a daughter.

**GOODHART.**—On the 21st ult., at Hervey-road, Blackheath, S.E., the wife of James F. Goodhart, M.D., F.R.C.P., of Weymouth-street, W., of a son.

**INGLEDEW.**—On the 30th ult., at 17, New-road, Woolwich, the wife of Geo. Ingledeu, Surgeon, of a son.

**LAST SMITH.**—On the 27th ult., at Mayfield, Torquay, the wife of Edward Last-Smith, L.R.C.P.E., L.R.C.S.E., of a daughter.

**LEWIS.**—On the 27th ult., at Radnor Cottage, Houston, Renfrewshire, the wife of William Lewis, M.D. Glas., L.R.C.P. Ed., L.R.C.S. Ed., &c., of a daughter.

**NICHOLLS.**—On the 9th ult., at Dominica, West Indies, the wife of H. A. Alfred Nicholls, M.D., of a son.

**VAN GEYZEL.**—On the 29th June, at Bangalore, India, the wife of Surgeon J. L. Van Geysel, Indian Medical Department, of a daughter.

**WORLEY.**—On the 23rd ult., at Brook Lodge, De Beauvoir-road, N., the wife of William Charles Worley, L.R.C.P. Lond., of a daughter.

### MARRIAGES.

**BECKINGSALE—SMITH.**—On the 28th ult., at Christ Church, Lancaster-gate, Daniel Loftus Beckingsale, M.D., of Sydney House, Bedford-park, Chiswick, second son of J. E. Beckingsale, F.R.C.S., J.P., to Amy Florence, adopted daughter of the late George Smith, Esq., of Melmoth House, Ryde.

**COLEMAN—MCKIE.**—On the 27th ult., at St. Augustine's, Highbury New-park, Charles Alfred Coleman, M.D., of Hill-view, Streatham-common, to Jessie Mitchell, youngest daughter of the late Thomas McKie, of Halifax, Nova Scotia.

**GREEN—BLAKISTON.**—On the 29th ult., at the Parish Church of St. Andrew's, Rugby, George Richard Green, M.R.C.S. & L.R.C.P.E., of Inkberrow, near Redditch, to Maude Douglas, eldest daughter of J. B. Blakiston, M.A., Her Majesty's Inspector of Schools.

**SANKET—HALLER.**—On the 27th ult., at Baschurch, near Shrewsbury, by the Rev. Douglas P. Ware, Herbert R. Octavius Sanket, M.B. Lond., to Marie A. Haller, eldest daughter of the late Dr. Moritz Haller, Landesgerichtsarzt, of Vienna.

**WALKER—GARDE.**—On the 24th ult., at St. Jude's, Southsea, Surgeon-Major John Walker, B.A., M.B. T.C.D., Army Medical Department, only surviving son of Samuel Walker, Esq., Portsea, county Londonderry, to Mirrie, eldest daughter of Henry Prendergast Gard, Esq., Barrister-at-Law.

### DEATHS.

**BRUSH.**—On the 8th ult., at Norwalk, Conn., Francis V. Brush, M.D. New York, aged 38.

**ELKINS.**—On the 21st ult., suddenly, at Wylde-green, Erdington, near Birmingham, Charles Elkins, M.R.C.S., of Denmark Villa, Weston-super-Mare, aged 78.

**HOPKINS.**—On the 1st inst., at Highbury New-park, N., Alfred Boyd Hopkins, M.R.C.S., aged 48.

**HURST.**—On the 29th ult., at St. Mary's-square, Kennington, William Hurst, M.R.C.S., aged 68.

**MALE.**—On the 29th ult., at Penn House, Yeovil (the residence of his brother-in-law), Henry D. Male, M.D. Brus., L.R.C.P. Lond., M.R.C.S., of Victoria-park-square, London.

**PEPLOW.**—On the 27th ult., at Lower Tooting, Surrey, Joseph Peplow, M.D., L.R.C.P., late of Great Russell-street, W.C., aged 76.

**SAYER.**—On the 30th ult., at Kenninghall, Norfolk, Thomas John Sayer, Surgeon, aged 58.

**SMITH.**—On the 31st ult., at the Paddington Provident Dispensary, Star-street, Edgware-road, William Smith, M.R.C.S., for 42 years House-Surgeon to the above institution, aged 71.

**WOODWARD.**—On the 25th ult., at King's Lynn, Edwin Woodward, L.R.C.P., in his 48th year. No cards.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*



## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### THE MEDICAL PROFESSION AND FRIENDLY SOCIETIES.

We are sorry to see "The Prince of Wales" Lodge, Devonport, advertising in the *Devonport Independent* for a medical officer, in place of the late Dr. W. C. Wilson, deceased, at the rate of 2s. 6d. per member per annum. This is a very antiquated and inadequate sum for such a lodge. For years past good friendly societies have been aiming at giving their medical men at least 4s. a year, and in many cases 6s. We are aware of certain attempts to form huge associations for attending societies en masse and their families at petty rates of 2s. a year. This is thoroughly unworthy of the working classes as well as impolitic. When the wages of the working classes are increasing they should see that the remuneration of medical men for attending them and their families increases too.

### "IN EVERY DEEP A LOWER DEEP."

The modest terms on which the promoters of some dispensaries have been content to attend sick people, or rather to allow their unqualified assistants to attend them, have been exceeded by Mr. Timothy, physician and surgeon, 193, Regent-road, Salford. His fees are stated in a handbill, as follows:—"To meet the working expenses, the charge for each patient will be *siyence*. A visit to any dispensary patient within the radius of one mile will be one shilling."

*Dum Spiro Spero* should refer to the article on Books in our Students' number, Sept. 10th, 1881. Information, brought up to date, will also be found in our forthcoming educational number to be issued on the 9th prox.

*Messrs. Cusson and Co.*—No doubt antiseptics will be employed, though that is a matter which will be left to the discretion of the medical officers. Application should be made to the Director-General of the Army Medical Department.

*L. R. P.*—We are not aware of the existence of an institution of the kind where patients are received at so low a fee.

### "THE CAUSE OR CAUSES OF ACUTE TONSILLITIS."

*To the Editor of THE LANCET.*

SIR,—I had hoped that Dr. Atkinson's letter would have elicited some important information regarding the pathology and treatment of quinsy, an affection which many members of our profession suffer from, owing, I suppose, to the continued mental strain which they have often to endure. Speaking from my own personal experience, I have no hesitation in saying that anxiety is the chief factor in the causation of it. Next to it I would place over-exertion, then chills, irregularity in meals, defective ventilation, &c.

Having had seven attacks, and having consulted some eminent medical gentlemen, the treatment I have been led to adopt is, to say the least of it, very unsatisfactory.—I am, Sir, yours, &c.,  
July 29th, 1882.

TYRO.

*Sig. Loescher.*—The number forwarded will be noticed in due course, but we cannot exchange.

*Dr. Henry Davy.*—The paper will be published very shortly.

### "OBSCURE SKIN DISEASE."

*To the Editor of THE LANCET.*

SIR,—I will not venture to give a diagnostic opinion regarding the above. If "Enquirens" has not prescribed an ointment of chrysophanic acid, he should do so. I have successfully treated both obscure and obstinate cases of skin diseases with it.

I am, Sir, yours truly,

W. S. STYER, L.K. & Q.C.P., and L.R.C.S.I.

Chatterfield, July 29th, 1882.

### "A PIONEER MEDICAL COLLEGE."

THERE is, it appears, in the United States a certain establishment, with a medical title, which issues to the world a printed list of physicians addresses. "The following letter," says the *Philadelphia Medical Times*, "was recently received by this firm, and we give it in full as chronicling a new birth, and as an example of what material is required in this land of freedom for the construction of an institution which gives the right to practise medicine:—

'COLLEGE OF PHYSICIANS AND SURGEONS,

'JOPLIN, MO., 5, 23, 1882.

'GENTS,—Please send price list of Doctors, and Druggist Names, by states as I want to mail several thousand Annual Catalogues to the Profession, all over the U.S.A. and Canada. I am starting an embryonic Pioneer-Medical College and I must, of necessity, noose it around to the world to make it pay me. An early reply will greatly oblige your Respectfully, &c. J. C. PETIT, M.D., Dean."

### DISEASE STATISTICS IN CANADA.

At the recent setting of the Medical Council of the College of Physicians and Surgeons of Ontario, a plan was approved whereby statistics of disease in the Dominion might be collected. The scheme proposed the appointment by the Federal Council of 144 medical practitioners whose duty it should be to report every week upon the diseases most prevalent, their severity, &c., in their respective districts. For this service each reporter is to be paid twenty-five dollars yearly.

### TONGA.

DR. D. L. WALLACE, of Newark, N.J., contributes to the *New York Medical Record* his experiences in the use of tonga. He states that the results of the employment of the drug have in his hands been remarkably good, and he thinks it deserves a place among successful new remedies.

*L.R.O.P. Edit.*—The title mentioned cannot be used in connection with this qualification.

*Mr. Brookhouse.*—Next week.

*Dr. S. C. Smith (Halifax).*—The paper will be inserted in an early number.

### "RECOVERY FROM RABIES."

*To the Editor of THE LANCET.*

SIR,—I have read with special interest your note on Recovery from Rabies. I quite agree with you that to fix the date at which, in cases of recovery, the animal's saliva ceases to be infectious would be a great step in advance. I would suggest, however, that a still more pressing question is the date at which the saliva becomes infectious. A few months since a lay journal stated that if a dog did not show symptoms of rabies within ten days or so after he had bitten a person, the patient was absolutely safe from hydrophobia, for the reason that if the poison was in the dog's system it was either not sufficiently concentrated or not sufficiently active to do harm. I immediately challenged the editor of the paper to produce proofs of his statement, but, though he reiterated it, the required evidence was not forthcoming.

It certainly seems to me a reasonable supposition that canine rabies should have a definite period of incubation, and that the animal should not have the power of imparting the disease till towards the close of that period; but no medical practitioner in this town, as far as I have been able to consult them, can give me any information on the subject whatever, and our leading veterinary surgeon absolutely rejects the statement as untrue.

If you or any of your readers could bring forward any evidence on the point, it would help us to quiet the fears of many a dog-bitten patient.

I am, Sir, your obedient servant,

July 29th, 1882.

A PROVINCIAL HOUSE-SURGEON.

*Hammill* will probably find the information he desires in Dr. Hardwicke's book "On Medical Education and Practice in all parts of the World."

*R. & B.*—No card enclosed.

*Mr. W. A. E. Wilson.*—Six weeks from the time of attack you probably intended, which can hardly be regarded as too wide a limit.

### "THE NEW DECISION UNDER THE REGISTRATION OF DEATHS ACT."

*To the Editor of THE LANCET.*

SIR,—If the decision of Mr. Chance at the Lambeth Police-court is to become law, the coroner's work will be largely increased. I saw a case this week, a very common one in practice among poor people. My diagnosis I think was correct, and my prognosis I know was, as I told the friends there was no hope, although I gave them a bottle of medicine. The following day they came for a certificate of death. According to Mr. Chance's law I am liable to a fine of £2 and £2 2s. costs. I do not intend to run any risks, and the next case I have I shall decline to certify, and bring the matter before the coroner and quote the new law. I am not so sure that he will agree with it.

I think that an immense number of your readers will consider themselves quite justified in giving the usual certificate of death after "one solitary attendance," which Mr. Chance holds does not amount to that degree of investigation and attendance of the patient's case which would warrant such an act.—I am, Sir, your obedient servant,  
August 2nd, 1882.

SPES.

**ERRATA.**—In Dr. Hill's letter on "Stamping out Small-pox," inserted last week, two or three printer's errors escaped correction. In the twenty-eighth line, for "inmate," read *inmates*; in the fortieth line, for "attack," read *attacked*; in the forty-fifth, for "quarantine," read *quarantined*; and in the eightieth, for "circumstance," read *circumstances*.

**COMMUNICATIONS, LETTERS, &c.**, have been received from—Professor Yeo, London; Professor M'Kendrick, Glasgow; Mr. J. H. Hill; Dr. Ladendorf, St. Andreasberg; Dr. Taafé, Brighton; Dr. Pearson, Maryport; Mr. Douglas, Newbury; Dr. Thompson, Tyrone; Dr. Lewis, Philadelphia; Mr. Makuna, London; Fleet-Surgeon E. T. Mortimer; Dr. Hamilton, Hawick; Mr. J. S. Wood, London; Mr. W. Rivington, London; Dr. A. Hubert, Brussels; Messrs. Bell and Co., Lancaster; Mr. Gangee, Birmingham; Mr. Moir, Glasgow; Miss De St. Croix, Jersey; Mr. Jones, Cardiff; Mr. Bolton, Dover; Mr. Percy, Market Drayton; Dr. Althaus, London; Mr. Crondace; Messrs. Smith and Son, Birmingham; Mr. Norman, Cheltenham; Messrs. Pettit and Co., London; Mr. Ampton, Ilchester; Dr. Neate, Margate; Mr. Torrance, Kirkcaldy; Mr. Wheeler, Ilfracombe; Mr. Frampton, Weston-super-Mare; Dr. Tibbits, London; Dr. Sweeting, London; Mr. Curshaw, London; Mr. T. Cook, London; Mr. Shefferson, Swaton; Mr. Moore, Scarborough; Messrs. Theakson and Co., Scarborough; Mr. Kitchen, Pickering; Mr. Benham; Dr. Vallance; Mr. Fergusson, Peebles; Mr. Jordan Lloyd, Birmingham; Mr. Mallins, Watton; Dr. Murphy, Sunderland; Mr. Symes, Chesterfield; Mr. Jenkinson, Southwell; Mr. Austin, London; Mr. Fraser, Salford; Mr. Gordon, Aberdeen; Mr. M'Gill, Leeds; Dr. J. Ashburton Thompson; Dr. C. A. Jones; Dr. Pocock, London; Mr. Walker, Longtown; Dr. Bedford Fenwick, London; Dr. Blanc, Bombay; Mr. Breary, Blackheath; Dr. Cleaver, Sheffield; Messrs. Evans and Sons, Liverpool; Dr. Allan Jamieson, Edinburgh; Dr. Owens, Long Stratton; Spes; Tyro; F. Whitby; W. B. M.; A Provincial House-Surgeon; F. C. Tunbridge; L.R.C.S., Peel; G. Wigan; &c., &c.

**LETTERS, each with enclosure**, are also acknowledged from—Mr. Male, London; Mr. Wilson, Fulham; Dr. Woakes, London; Mr. Cairns, Wakefield; Dr. Macdonald, Liverpool; Mr. Sayer, Kenninghall; Mr. Sloane, Bradford; Mr. Bryan, Hornsey; Mr. Birch, Leek; Mr. Jones, Dowlais; Mr. Godfrey, Northampton; Dr. Jones, Towyn; Mr. James, Chelsea; Dr. Wadsworth, Clapton; Dr. Miller, Reading; Mr. Heely, Kensington; Mr. Hodgkins, Oxford; Mr. Farley, Ontario; Mr. Farmer, Bridgwater; Messrs. Atkinson and Co., Manchester; Mr. Finch, Colchester; Mr. Filleter, Wareham; Mr. King, Leeds; Mr. Lloyd, Sittingbourne; Mr. Wheeler, Manchester; Mr. Beaman, Newton-le-Willows; Mr. Morgan, Cullumpton; Mr. Kerr, Glasgow; Mr. Macdonald, Manchester; Mr. Needham, Gloucester; Miss Ogston, Peterhead; Messrs. Southall and Co., Birmingham; Messrs. Cuxson and Co.; Mr. Everard, Manchester; Mr. George, Worcester; Mr. Cave, Bradford; Dr. Duncan, Oldham; Dr. Kirwan, Cambridge Heath; Mr. Thompson, Liverpool; Mr. J. Walker, London; Mr. Shadgett, Gloucester; Dr. Fraser, Salford; Mr. Johnson, Reigate; Messrs. Ross and Co., London; Mr. Howard, Buckenham; Messrs. Thew and Son, Lynn; Mr. Ingledew, Woolwich; Mrs. Pigott, Preston; Mr. Bartlett, Worcester; Mrs. Grall, Hampstead; Medicus, London; Agricultural; Sanatorium, Bournemouth; Amicus; Medicus, Sheffield; Medicus, Newcastle-on-Tyne; M. D., Bexley; H. G., Leeds; Beta, Dundee; G. E. W.; T. F., Oldham; Scalpel, Uttroster; M.R.C.S.; M., Cork; Medicus, Salford; Medicus, Darlington; X. Y. Z., Bolton; A. L.; H. D., Hampstead; Medicus; J. S., Lowestoft; &c., &c.

*Daily Intelligencer, Maryport Advertiser, Animal World, Glasgow Herald, Pietermaritzburg Commercial Advertiser, Port Elizabeth Telegraph, Hampshire Advertiser, &c.*, have been received.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, August 3rd, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
July 28	30.35	S.W.	60	58	79	66	55	.04	Cloudy
" 29	30.29	S.E.	63	60	111	77	54	..	Hazy
" 30	30.11	W.	68	62	117	80	54	..	Fine
" 31	30.29	N.W.	61	56	113	74	50	..	Fine
Aug. 1	30.22	W.	65	62	100	76	57	..	Fine
" 2	30.13	W.	69	65	123	80	58	..	Overcast
" 3	30.17	N.W.	60	54	96	67	51	..	Overcast

## Medical Diary for the ensuing Week.

### Monday, August 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.  
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.  
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.  
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

### Tuesday, August 8.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.  
WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
WEST LONDON HOSPITAL.—Operations, 3 P.M.

### Wednesday, August 9.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.  
MIDDLESEX HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.  
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.  
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.  
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

### Thursday, August 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.  
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.  
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.  
HOSPITAL FOR WOMEN, 80HO-SQUARE.—Operations, 2 P.M.  
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

### Friday, August 11.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.  
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.  
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

### Saturday, August 12.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

# Clinical Lectures

ON

## PAIN AT THE HEART AND PALPITATION.

Delivered in King's College Hospital,

By I. BURNEY YEO, M.D., F.R.C.P.,

PHYSICIAN TO THE HOSPITAL.

### LECTURE I.

GENTLEMEN,—There are few symptoms that we are more frequently called upon to relieve than pain at the heart and palpitation. In nine cases out of ten, perhaps, these symptoms are referable to dyspeptic conditions or to hysterical states, and a knowledge of this fact has probably at times induced us to pay less attention to them than they have merited. It has occurred to me, therefore, that it would be advantageous to make use of the opportunities we here so largely possess to examine and analyse in detail, more fully, it may be, than has hitherto been done, the precise nature and signification of these symptoms. I shall also take this opportunity of introducing to you a method of exploring the sensibility of the præcordial and præ-aortic regions, which has been suggested and largely applied by Professor Michel Péter of Paris, and which you have seen me adopt in the investigation of several cases in this hospital. My observations, although they confirm in all essential particulars the conclusions advanced by this eminent clinician, do not entirely coincide in all points with his.

I propose, then, in this lecture to direct your attention chiefly to the consideration of cardiac pain, or of pain referred to the cardiac region as its seat. "Pain at the heart," as complained of by patients themselves, is often a very vague term. Pain anywhere in the left side of the chest, and often pain in the epigastric region, are commonly spoken of by the sufferer as "pain at the heart." Usually the complaint of "pain at the heart" means the existence of pain about the anterior part of the chest, on the left side, near the base. Now, it is scarcely necessary I should say that pain in this region may have nothing whatever to do with the heart, yet I have been somewhat surprised, while carrying out the method of exploration I am about to describe to you, to find in how many of the cases where "pain at the heart" has been complained of there has been quite unmistakable tenderness, on pressure with the tip of the finger, over the seat of the apex beat.

Of the different causes of thoracic pain which may incorrectly be referred to the heart as its seat, you must take account of the following:—

1. *Intercostal Rheumatism*: rheumatism of the intercostal muscles.—The pain of intercostal rheumatism is rarely limited to one or two spots: it usually occupies a certain tract of muscular tissue. It occurs with or is aggravated by movements of the chest; it is often relieved by diffused pressure or any support which diminishes thoracic movements. It is often accompanied by muscular pain elsewhere, and the pain is sometimes described as shifting its seat. The patient will generally tell you that he feels it when he stoops or when he straightens himself after stooping, or when he rises from the lying or sitting posture.

2. *Intercostal Neuralgia*.—This is a common affection in women, and is not unfrequently spoken of by them as "pain at the heart," especially when it occurs, as it often does, in the subjects of hysteria, with chronic uterine affections. It usually affects the sixth, seventh, and eighth intercostal nerves. It may generally be recognised by its sharp lancinating character, shooting along the course of the intercostal nerve, and by the discovery of Valleix's points—three painful points along the course of the affected nerve; one of these, the "vertebral" point, situated quite external to the spinous process and opposite the point of emergence of the nerve from the intervertebral foramen; the second, a "lateral" point, situated about the middle of the intercostal space, corresponds with the division of the nerve; and the third, "sternal" or "epigastric," point is found near the sternum, on the upper and about the middle line in the epigastrum, when the lower nerves are affected. It sometimes follows or accompanies an attack of *shingles* (herpes zoster).

3. *Costal Periostitis*, of syphilitic origin.—In such cases there is tenderness on pressure over the ribs and their cartilages, where the periosteum is felt to be thickened, and these pains are aggravated at night, when hot in bed.

4. *Pleuritis*.—The pain of acute dry pleurisy is felt as a peculiar "stitch" or catching pain on inspiration. It is usually attended with some fever, and a friction-sound may be heard on careful auscultation. In cases of chronic progressive phthisis, pains of pleuritic origin are not infrequently spoken of by patients as "pains at the heart." Old *pleuritic adhesions* may also give rise to pain in the side. This may come on after severe exertion of the respiratory organs, as after coughing, or from anything causing unusual traction on these adhesions.

5. The pain and discomfort attending *flatulent distension of the stomach*, associated with acidity and known as "heart-burn," are often, very often, mistaken by patients for cardiac pain, and in this case the action of the heart, too, is often excited, and there is also complaint of palpitation. Under this head I would mention one of the effects of the abuse of tea, coffee, and tobacco. Either of these, but especially tea, will frequently give rise to a form of dyspepsia associated with vague pains in the chest, not always limited to the region of the stomach, but often referred to a spot higher up on the left side of the chest, and commonly accompanied with disturbed cardiac action and a nervous apprehension of the existence of heart disease. I think there can be no doubt that overdoses of tea and coffee do disturb cardiac innervation to a considerable extent, and possibly cause occasionally a certain amount of cardiac neuralgia.

6. Finally, there is a pain usually spoken of as "sub-mammary pain," but constantly referred by the patients themselves to the heart, which you will often hear complained of by young women who are also the subjects of anæmia, or who are suffering from some derangement of the menstrual functions; and you will, moreover, frequently find this submammary pain associated with tenderness over the ovaries, and especially over the left ovary. If you examine these cases attentively you will find that the pain complained of is often limited to a spot situated exactly over the cardiac apex, just over the seat of the apex beat, and it is much aggravated by pressure of the tip of the finger on this spot. I have satisfied myself of this again and again, and I have repeatedly taken occasion to demonstrate this fact. You may press with moderate firmness, with the tip of the finger, on various parts of the surface of the chest without provoking any complaint of pain, but the instant the tip of the finger presses over the seat of the apex beat, the patient starts back with a very decided expression of suffering. What, then, is this submammary pain? Is it, after all, a pain of the heart itself? Is it an anæmic or other hyperæsthetic morbid state of the cardiac muscle or nerves dependent on the general anæmia? or is it a form of cardiac neuralgia sympathetic with a morbid condition of the sexual organs, especially of the left ovary? When it is associated with well-marked anæmia it will certainly disappear completely as the anæmia disappears. But when it is associated with ovarian irritation without anæmia, as you will sometimes find it to be in robust young single women with florid complexions, it is often a most troublesome symptom to relieve. Repeated small flying blisters over the left ovary and over the cardiac apex have appeared to me to be one of the most effective modes of treatment in this latter class of cases.<sup>1</sup>

I have enumerated these several varieties of thoracic pain, any of which may be spoken of by patients themselves as "pain at the heart," to clear the ground, so to speak, for the more exclusive consideration of pain having its origin in some undoubted morbid condition of the heart itself, or of its covering or of the great vessels at its base. And before I proceed to treat of this subject in detail it will be necessary for me to describe to you the method of exploring the cardiac

<sup>1</sup> I notice that Dr. Balfour, in the second edition of his excellent lectures on Diseases of the Heart, which I have only just had an opportunity of seeing, modifies the statement which appeared in the first edition as to the nature of this submammary pain, and adopts a view almost identical with the one I have stated in my lecture. In the first edition he speaks of this pain as "wholly external," but in the second edition he modifies this as follows:—"In some cases the infra-mammary pain is wholly external. In most, however, the pain is truly cardiac in character." And further on he says, "The infra-mammary pain of chlorotic girls is almost invariably associated with pain in the heart itself, neurotic in character, and depending on mal-nutrition."

sensibility, for the introduction of which we are indebted to Professor Péter of Paris. Dr. Péter considers this method of examination of equal importance with that of auscultation or percussion. You must bear in mind that the cardiac muscle in the healthy state is insensible. Even in wounds of the heart pain is a very rare symptom, and it has been observed that when the heart has been touched by foreign objects passed through a wound in the chest pain has rarely been felt. Harvey had the opportunity of making some observations on the Duke of Montgomery, whose heart was partially exposed, after the healing of a severe wound of the chest, and he convinced himself that the heart in a healthy state was entirely wanting in sensibility.

But it is not only the sensibility of the cardiac muscle and its ganglion which we profess to expose by this method, but also that of the nerves of the cardiac plexus, and of portions of the pneumogastric and phrenic nerves. The method I am speaking of consists in simply pressing with the tip of the index finger, and with moderate force, along the intercostal spaces corresponding with the præcordial and præ-aortic regions, and generally on the several points in the thoracic and cervical regions which are in relation with the organs whose sensibility we wish to explore. Patients who suffer from chronic myocarditis often complain of a dull, heavy, almost constant deep-seated pain in the region of the heart, aggravated at times under the influence of emotion or any considerable effort, and shooting then into the back. In such cases pressure with the tip of the finger along the intercostal spaces in the præcordial region, close to the sternum and over the ventricle, will constantly afford distinct evidence of the existence of a morbid sensibility of the cardiac muscle. The patient will often complain of severe pain when pressure is made over certain definite spots. In these cases the pain is especially felt in the fourth and fifth left interspaces when the surface of the ventricle is in contact with the wall of the chest, and also over the cardiac apex. And pressure over the apex will remain painful even after the pain has disappeared, under suitable treatment, from the other points.

Dr. Péter has noticed that in middle-aged men who suffer from the excessive abuse of tobacco, pressure over a very limited point on the third left intercostal space, near the sternum, will give rise to acute pain; and he thinks this point corresponds with the auriculo-ventricular groove, and that this strictly localised pain is probably due to a morbid condition of the ganglion of Remak consequent on tobacco impregnation. Such patients often suffer from cardiac intermissions, of which they are conscious, and also from deep-seated pain, which they refer to the same spot, which is found to be painful on pressure. In morbid affections of the aorta and its valves he finds pain on pressure over the second left intercostal space close to the sternum and over the sternum itself on the same level; and this pain he maintains is due not to the lesion of the aorta itself, but to a neuritis propagated from the diseased aortic tunics to the nerves in close relation with that vessel.

Pressure over the præ-aortic region is also of special importance in exploring the sensibility of the cardiac plexus and its tributary nerves; but it is necessary to be careful not to press too strongly over this region, as an attack of angina has been induced by neglecting this precaution. If there exist neuritis or neuralgia of this plexus, then pain on pressure with the tip of the finger will be found either in the third, second, or first left intercostal space near the sternum, or over the sternum at the level of the second interspace. The second intercostal space, a few lines from the left border of the sternum, has been found by Dr. Péter to be particularly painful on pressure in these cases as well as over the sternum in this level; and he mentions that pain in this situation is very significant of lesion of the aorta affecting the whole thickness of its walls, since the nerves adherent to them are involved; and he asserts that he has often been able by this method of exploration to diagnose the existence of aortic disease which had not been before suspected.

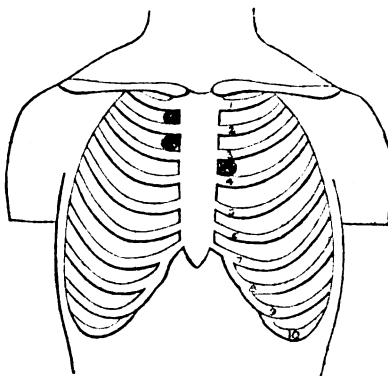
In such cases Dr. Péter has found, and, I believe, been able in several cases to corroborate his statement to a certain extent, that there is tenderness on pressure over the pneumogastric at the root of the neck, especially on the left side, and in other parts of its course. I have several times found a painful spot on pressure with the tip of the finger over the situation of the vagus (just at the root of the neck, inside the anterior border of the sterno-mastoid); but I have not been able to corroborate Professor Péter's observation as to the existence of painful spots in these cases over the spines of

the upper cervical vertebrae. Nor have I been able to satisfy myself that it is easy (as Dr. Péter seems to think) to explore in this manner the condition of the phrenic nerves.

I will now ask you to allow me to bring before you the particulars of a certain number of cases where the patients have complained of "pain at the heart," and where exploration of the sensibility of the cardiac muscles and nerves, in the manner I have just described, has given definite results. In many of these cases there was evident organic valvular lesion, readily detected by the ordinary methods of examination; but in some other cases there was no organic valvular disease to be discovered. And first let me call your attention to those cases of organic cardiac lesion in which the complaint of cardiac pain has been a marked feature. I am not at this moment thinking of those alarming paroxysmal attacks of pain often observed in persons where no definite cardiac lesion has been detected, and called usually by the name of "angina pectoris." We shall certainly have to consider briefly these cases in connexion with our present subject, because I cannot doubt that causally they are often closely allied with the non-paroxysmal form of cardiac pain. But I wish, in the first place, to speak of that less severe and less distinctly paroxysmal form of cardiac pain found associated with many cases of heart disease.

Now, there is one clinical fact you may accept undoubtedly, and that is that complaint of cardiac pain is much less common in mitral than in aortic disease; and the reason probably is that in many of these cases of disease of the aortic valves, there is associated with it a diseased condition of the coats of the aorta, a chronic aortitis, which extends to

FIG. 1.



and invades the contiguous nerves of the cardiac plexus. I am speaking, of course, of cardiac pain of some intensity, not of mere cardiac discomfort, which is common enough in mitral cases. I will now read to you from my case-book the notes of one of the first cases in which I applied this method of cardiac exploration, and in which the complaint of "pain at the heart" was well founded, was associated with well-marked lesion of the aortic valves, and moreover was greatly benefited by appropriate treatment.

J. A—, aged thirty-nine, a labourer, applied at the Brompton Hospital last spring, complaining of pain at the heart, shooting through the left breast to the back, and also of sudden pains across the chest, which made him stop when walking. He also complained of "fluttering at the heart." He had been troubled with this pain, together with some dyspnoea, cough, and streaky expectorations for seven or eight weeks. He had also lost flesh; had had rheumatic fever four times. There was notable pallor of the face and lips. Examination of the heart revealed the existence of a prolonged systolic murmur at the base, loudest over the second right cartilage, but conducted all over the cardiac region. There was some hypertrophy of the ventricle and some dulness over the base in the upper sternal region, as if from dilatation of the aorta. Pulse 104, rather small. On pressure with the tip of the finger over various parts of the chest three distinctly painful spots were discoverable—one at the sternal end of the first, one at the sternal end of the second right interspace, and the third at the sternal end of the third left interspace. He was ordered four minims of tincture of digitalis in one ounce of the iron and calumba mixture of the Brompton Pharmacopoeia three times a day, and to apply small flying blisters the size of a florin over the

upper sternal and adjacent præ-aortic region. A fortnight afterwards he reported himself as much better; he had less pain and less dyspnoea. Pulse had fallen to 88. Under this treatment the pain continued to get less and his dyspnoea was greatly relieved, and the pulse became stronger and less frequent. The annexed diagram shows the situation of the painful points in this case. (Fig. 1.)

In this case the affection of the aorta was no doubt of rheumatic origin, and the chronic inflammatory condition of the coats of this vessel had probably extended to some of the nerves of the cardiac plexus in relation with it. There appeared to be some want of tone about the cardiac muscle and imperfect filling of the vessels, though no regurgitant murmur could be detected. Great benefit followed counter-irritation over the aortic region, associated with small doses of digitalis and citrate of iron.

The next case to which I wish to call your attention also illustrates the value of local and general treatment in relieving the cardiac pain and other symptoms dependent on aortic disease.

This patient, a widow, thirty-two years of age, engaged in teaching, I first saw in November, 1876. She was not, at that time, complaining especially of cardiac pain, but of dyspnoea on exertion, of cough, of frequent epistaxis (six years before she had had a small hæmoptysis), and of loss of appetite and constipation. She then had a diastolic murmur, heard loudest in the mid-sternal region at the left border of that bone. There was no history of acute rheumatism. I saw her once or twice during the next two years. But in the spring of 1880 she came to see me complaining for the first time of "pain at the heart." She was said to be suffering from the shock of the death of a sister, and complained of much nervous distress and of sleeplessness. She had a cough, and the expectoration was often tinged with blood. But her chief complaint was of pain in the cardiac region, shooting down both arms to the elbows, aggravated on the least exertion. She came to see me again in May, 1881, with much the same symptoms, pain at the heart and palpitation, pain shooting down left arm from shoulder to elbow, some swelling of the ankles, which she said "turned black" at times; dizziness, ringing in ears, loss of appetite, and constipation. As before, there was a distinct "brush-like" diastolic murmur in the mid-sternal region; the apex beat was somewhat diffused, but in its normal situation. Pulse 120, collapsing. On exploring the cardiac sensibility with the tip of the finger, one, and only one, painful spot was found at the sternal end of the second left interspace. There was marked tenderness over this spot, and pressure there with the tip of the finger provoked an immediate complaint of pain. She was ordered a mixture containing five-minim doses of tincture of digitalis with five grains of citrate of iron, some ammonia and chloric ether. A small flying blister was to be repeatedly applied to the præ-aortic region. Three weeks after the commencement of this treatment she was very much better; the pain in the cardiac region and in the left arm was much less; the palpitation was less troublesome, and the pulse was reduced from 120 to 80; moreover, the painful spot in the second left interspace had disappeared.

(To be concluded.)

## ON THE ABORTIVE TREATMENT OF GONORRHOEA.

By W. WATSON CHEYNE, M.B., F.R.C.S.,

ASSISTANT-SURGEON TO KING'S COLLEGE HOSPITAL, AND DEMONSTRATOR  
OF SURGERY IN KING'S COLLEGE.

(Concluded from p. 177.)

I WILL now proceed to give my experience in hospital practice since October, 1880, and then I will sum up the facts, and describe what I believe to be the best mode of procedure. The method which I originally tried was the introduction of one of the bougies previously described, followed by the use of an injection of boracic lotion, and the administration of alkalies and aperients. After some time, I tried an emulsion of eucalyptus oil as an injection (one part of the oil in forty parts of the emulsion), and certainly got more rapid cures. The results obtained in about forty cases by these means are detailed in my former paper. At the commencement of the period at which this statement of results begins, I con-

tinued to treat patients in the acute stage by the insertion of an iodoform and eucalyptus bougie, the frequent use of an injection of eucalyptus emulsion, and the administration of alkalies and aperients. I treated nine cases in this way during the winter of 1880. Of these, six were seen within five days of the commencement of the discharge, and in all the inflammation was cut short at once, and the average duration of treatment till complete cessation of all discharge was nine days and two-thirds. Two were not seen till fourteen days after the commencement of the disease, when the acute symptoms had almost subsided and the duration of treatment in these was twelve and twenty-eight days respectively, so that here the treatment cannot be said to have had any influence in arresting the disease; this is in accordance with my general experience. The other case was a patient suffering from gleet, who contracted a gonorrhoea eight days before he was seen. The inflammatory symptoms subsided under treatment, and in three or four days he was in the same condition as formerly—i.e., he had a little gleet discharge, noticed the first thing in the morning. I soon found that copaiba might also be given with great advantage from the very first, and two cases were treated with an iodoform and eucalyptus rod, and copaiba and eucalyptus injection, the one being well in four days, and the other in fourteen days. In the latter there was only a little discharge in the morning after the fifth day, but it did not entirely disappear till the fourteenth day. In two cases the use of an injection of eucalyptus emulsion, and the administration of an alkali, without the previous introduction of an iodoform and eucalyptus rod, did not appear to shorten the progress of the disease.

Several patients having complained of the irritating nature of the eucalyptus injection, and the pain caused by it, I began to try other injections, and, finally, the following case led me to abandon the eucalyptus emulsion altogether. A patient treated with the bougie and the emulsion got almost well in four or five days. He complained, however, of the pain caused by the injection, and after about four days the discharge increased, and an abscess formed in the cellular tissue of his penis. Of course abscess is not an unfrequent complication of acute gonorrhoea, but here the acute inflammatory stage had apparently been checked, and I cannot but attribute the abscess to the irritating nature of the eucalyptus injection. Among other substances which I tried, I used the injection of tannin—two grains to the ounce of water. In four patients in whom this was employed the average duration of treatment was nine days and a half, but one of these cases was eighteen days in getting quite well, though after five days there was only a little discharge in the morning, and thus the average time required for complete cure is considerably increased. These patients, however, also complained of the pain caused by the injection, and one case had symptoms of irritability of the bladder for some days. I finally tried, and now always use, an injection of sulpho-carbolate of zinc (two grains to the ounce of water), begun after the introduction of one or two of the iodoform and eucalyptus rods, copaiba being at the same time administered internally. The following is the mode in which I proceed:—The patient is told to pass his water; he then lies down, and an iodoform and eucalyptus rod is dipped in eucalyptus oil, and passed into the urethra; a small pad of boracic lint is applied over the orifice, outside this a large piece of gatta-percha tiasna, the whole being fastened on by strapping. He is told to allow this to remain on as long as he can, generally about five or six hours. He then takes it off, passes water, injects one or two syringefuls of the sulpho-carbolate solution, and if the case is very acute another rod is introduced. Afterwards he uses the sulpho-carbolate of zinc injection as often as he can (six or seven times a day generally), always passing water before its use in case any infective material remains in the urethra, which might be driven back before the injection. I always recommend that a piece of boracic lint be kept over the orifice of the penis to absorb the discharge; this can be retained in position by drawing the prepice down over it. A purge is administered at the first, and the bowels are afterwards kept freely open by salines. Copaiba is also given in half-drachm doses thrice daily from the beginning. The patient is further cautioned against the use of beer or spirituous liquors, &c. After three or four days, when the acute symptoms have subsided, an injection of sulphate of zinc, tannin, acetate of zinc, or, indeed, any of the astringent injections in common use, is substituted for the sulpho-carbolate, which, in my experience, though the best injection



at the beginning, does not, as a rule, arrest the discharge in the chronic stage nearly so rapidly as some of the other injections. After the discharge has ceased the injection, and possibly, also, the copaiba, at any rate the restrictions as to drink, ought to be continued for four or five days, so as to avoid a recurrence of the discharge.

Fifty-one hospital cases were treated more or less in the way described with the following results. In forty-one the average time from the commencement of the treatment till complete cessation of the discharge was 9.9 days. Of these four cases lasted longer than fourteen days, being eighteen, twenty-six, twenty-eight, and thirty days respectively under treatment; in all the acute symptoms had completely subsided in two or three days, but a little discharge remained, especially seen in the morning, which did not quite disappear till the times mentioned. In two of the four cases the sulpho-carbolate injection was unintentionally continued throughout; and I think this may have had something to do with the result, though it is undoubted that in some people, for some reason which is not very apparent, the discharge does not cease so quickly as in others. In two cases the discharge returned slightly after heavy drinking, but soon got well again; and in two cases it returned for a day or two after leaving off the injection, but disappeared again under treatment. The average time which had elapsed between the onset of the symptoms and the commencement of the treatment was 3.2 days. It may be interesting to state the time more exactly; thus in seven the symptoms had lasted for one day, in twelve for two days, in eight for three days, in five for four days, in three for five days, in one for six days, in four for seven days, and in one for eight days. The incubation period of the disease also varied considerably, having an average of 4.5 days in thirty-nine of the cases (in two the incubation period was not ascertained). More exactly, three had an incubation period of one day, three of two days, ten of three days, four of four days, seven of five days, five of six days, three of seven days, two of eight days, and two of ten days. As far as possible only cases of virulent gonorrhoea are included in this list, though in the cases in which the symptoms had only lasted for one day it was not always easy to be certain that a virulent attack was coming on. However, even in these rapid increase in the amount of discharge, increase in the scalding pain on passing water, and in some marked redness of the orifice of the urethra and of the glans penis indicated pretty certainly a severe attack. The majority of these were first gonorrhoeas. The other ten cases require special notice. In one the sulpho-carbolate of zinc injection was used throughout, and not at all regularly. Here the acute symptoms subsided as usual, but the discharge did not cease absolutely till the twenty-second day. In two instances the patients did not come back for a fortnight, not having had medicine or injection for a week. These got well in twenty and twenty-two days respectively. In one case where the symptoms were acute they subsided on the commencement of treatment, but a slight gleet discharge continued for three months. Six weeks after the commencement of the discharge a secondary syphilitic eruption appeared. The patient was positive that he had never had anything the matter with him before. No chancre, no gonorrhoea, no syphilitic symptoms. Was this a case of chancre in the urethra as well as of gonorrhoea, and was the gonorrhoea cured, and did the chancre remain? I could not make out any swelling in the urethra, and I regret that I have omitted to note the incubation period, but I think it was only a few days. In two cases though acute symptoms subsided rapidly, as usual a gleet discharge remained for about two months, and one of these had symptoms of irritability of the bladder, and the other had had chordee, though the inflammatory stage had passed off. (It is a curious fact which I cannot explain that in one or two cases where the discharge had almost or entirely ceased erections of the penis, sometimes painful, were troublesome about the eighth or tenth day.) In one case the acute symptoms subsided and the discharge steadily diminished till the fifth day, when being ill from some other cause the patient ceased the treatment and the discharge increased; slight scalding returned. He had symptoms of irritability of the bladder. He was, however, quite well fourteen days later, the treatment thus lasting nineteen days. One case was that of a married man who had apparently not been infected with gonorrhoeal pus. The symptoms were acute, and were checked as usual, but the discharge only ceased after a month's treatment. In one no benefit was derived from the treatment, the acute

symptoms were apparently unaffected, and the case followed the usual course, two months elapsing before the cure was complete. In one case the injection and copaiba were never used, only the bougie being employed, and there was only slight improvement as the result. This case lasted five weeks. This last case brings me to one or two experiments which I made with the view of testing what part each of these three things—the iodoform and eucalyptus rod, the injection of sulpho-carbolate of zinc, and the copaiba—took in the treatment, and whether their conjunction was really necessary.

In another case I have used one bougie alone, without any other treatment, and though the acute symptoms were checked to some extent they did not subside so rapidly as usual. In three cases, two of them not very acute, the sulpho-carbolate of zinc injection and copaiba were used alone, the treatment being begun four, six, and seven days after the commencement of the disease, and an average of twenty days was required for complete cure. The use of a bougie and the sulpho-carbolate injection cut short the acute symptoms much as usual in two cases, but they were not quite well for sixteen days. The essentials for cutting short the acute stage seem to be the introduction of one or two iodoform and eucalyptus rods and the use of an injection of sulpho-carbolate of zinc, while the copaiba and the substitution later on of some other astringent for the sulpho-carbolate shorten the treatment very considerably.

Alongside of these cases I have treated a number with alkalies, diuretics, purges, &c., without any local treatment in the first instance. The contrast in the results was very striking; for while those treated locally came back in four days or a week, saying that the acute symptoms had passed off in two or three days, and that the discharge had either ceased or was very slight, those treated in the ordinary way generally said that the acute symptoms were but slightly better, indeed sometimes worse, and that the discharge was more profuse, while complications occurred not unfrequently. The absence of complications in the cases treated by the method which I have been describing is very gratifying, while one does not have those bugbears of an out-patient room—cases which come week after week complaining of a little discharge in the morning.

When Dr. Koch was in London at the meeting of the Congress in 1881, I spoke to him on the subject, and told him about my attempts to arrest gonorrhoea. He suggested that I might get still better results if I used bichloride of mercury, which was the most powerful antiseptic with which he was acquainted. I accordingly introduced into each iodoform and eucalyptus bougie one-sixteenth of a grain of bichloride of mercury, and have used these bougies in eleven cases, the rest of the treatment being carried out in the same way as before described. The result, however, did not show any improvement on my former plan; indeed, I think rather the reverse. The average duration of treatment in ten of these cases was ten days and a half; but this average is increased by two cases, which lasted for eighteen days. In one case the treatment failed, and the patient was only well after six weeks. All the patients complained of considerable pain for a short time after the introduction of the bougie; in some, indeed, the pain was severe. There were no complications in these cases, but as I found no advantage from the bichloride of mercury, and as there was greater pain caused, I have given up its use. In three cases I tried weak injections of bichloride of mercury, one grain to ten or twelve ounces of water. Only one of these cases was a typical acute gonorrhoea, and this did not improve materially as a result of the treatment, and was not well till eight weeks had elapsed. In the other two cases there were no acute symptoms, and these got well in about twelve days. I do not think that the use of injections of bichloride of mercury is a promising method of treatment.

Since I began these experiments I have become acquainted with another method of arresting gonorrhoea. Mr. Furneaux Jordan of Birmingham, in speaking of the good effects of counter-irritation in the cure of acute inflammations ("Surgical Inquiries") mentions two or three cases in which very rapid cure of gonorrhoea has resulted from the application of blisters in the groin. He tells me that the results of this method vary in different individuals, but that in first gonorrhoeas it is generally satisfactory. In later attacks of gonorrhoea, and more especially where there is a tendency to stricture, however slight, the treatment is ineffectual. Now, it may be objected that if this inflammation can be

arrested by counter-irritation in the groin it cannot be caused by the growth of organisms in the urethra. In answer to that I would remind the reader that from the very first I have looked on two factors as necessary—namely, organisms and a weakened condition of the mucous membrane. The organisms weaken and inflame the mucous membrane in their vicinity, and then grow in it and affect the neighbouring parts similarly. If, however, that mucous membrane be brought into a condition in which it cannot inflame, as we may roughly suppose to be the effect of efficient counter-irritation, then the organisms cannot spread, and if this condition of the mucous membrane be kept up they must ultimately die out. Hence I would conclude that it is quite possible that counter-irritation might check, and even cure, the inflammation, but then it must be kept up for some time after the discharge has ceased, otherwise the organisms will again grow. I wrote to Mr. Jordan to ascertain if this were the fact, and he tells me that it is, and that if the counter-irritation be stopped too soon the gonorrhœa returns. Now, seeing the effect of counter-irritation, if we add it to the treatment I have proposed, and thus destroy the organisms, we ought to have a more rapid and perfect result. It is but seldom that one can get a patient who is able to lie in bed for some days, and I have only once in a first gonorrhœa tried counter-irritation on Jordan's plan, but without any good result. I should however, if opportunity presented, try the combination of the two methods as just mentioned.

I may sum up the results of this investigation shortly as follows:—The treatment recommended here—the use of one or two iodoform and eucalyptus rods, an injection of sulpho-carbolate of zinc, and the internal administration of copaiba—has the effect, in the great majority of cases of acute gonorrhœa, of checking the acute symptoms in a day or two, and bringing the disease rapidly to the chronic stage, thus avoiding all the risks dependent on the violence of the inflammation. The discharge at this time is very amenable to treatment, and gets rapidly well under the use of suitable remedies. All that I claim for the method, however, is that it cuts short the acute stage, in the great majority of cases, and thus the patient escapes the dangers and pain incident to that stage. The essential parts of the method are the use of the bougie and the injection; but the rapidity of cure is much aided by commencing the use of copaiba or sandal oil at once. The method may be employed at any stage of the disease, but is, in my experience, only of use before or during the acute stage, up to (say) the eighth day. The result is the more marked the more acute the inflammation, the rapid subsidence of the inflammatory symptoms being very striking. Even in the very few cases in which it has failed to produce this effect, it has not, so far as I can judge, done any harm. The addition of bichloride of mercury, though a powerful antiseptic, to the rod, or its use in the form of injection, does not seem to be of advantage. It is possible that the combination of counter-irritation with this method may yield even more rapid and satisfactory results.

[ERRATUM.—In the last paragraph but one of last week's issue for "granting, however, that these views are incorrect," read "granting, however, that these views are correct."]

Old Cavendish-street, W.

## A CASE OF HYDROPHOBIA TREATED SUCCESSFULLY WITH ACONITE.

By D. H. CULLIMORE, F.R.C.S.I., &c.,

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THE rapid approach of the dog days, and the recent report from Paris of a successful case of hydrophobia treated with pilocarpine, induce me to publish the notes of the following case, where aconite—a drug possessing properties in some respects analogous to jaborandi—was the chief remedy employed.

A boy, aged ten years, presented himself at the out-patient department of the North-West London Hospital, complaining of pain over the diaphragm and abdomen, with gasping and spasmodic breathing. Some three weeks before

he was bitten on the finger by a supposed rabid dog; but as the wound after cauterisation healed well, and as he continued in his usual health, no notice was taken of him till two days before he was taken to the hospital. At this time, however, owing to the wound becoming painful and angry-looking, and symptoms such as restlessness, anxiety, fidgetiness, and sleeplessness having commenced to trouble him, relief was sought. The boy was admitted an in-patient on November 13th, 1881, as, in addition to the symptoms just detailed, there was a peculiar and suspicious wildness of expression, with choreic-like twitches of the face, and a temperature of 101° F. These symptoms, taken in their entirety, led me to so strongly suspect the existence of the melancholic stage of hydrophobia that I fully expected the immediate onset of the fully developed symptoms of this dreaded disease. The tongue was furred and cracked in the centre, but red at the tip and edges, and the pulse presented nothing abnormal.

The treatment, after placing the patient in a quiet and secluded corner, consisted of a dietary of milk thickened with arrowroot and beef, with the following mixture:—One minim of the tincture of aconite, six grains of bromide of potassium, six minims of the tincture of cinchona, to half an ounce of water, to be taken every half hour for twelve doses, and then three times a day.

Jan. 16th: Passed a restless night, attended with occasional delirium till towards morning, when very free perspiration was followed by sleep. The sister in charge states positively that he refused to take fluids during the night, and, on testing him myself, he took water with reluctance, swallowing it, however, with about the same difficulty one might expect in a sharp attack of tonsillitis. So much was I struck with this symptom that I at once expected some severe throat inflammation; but on examination no swelling whatever was found, nothing, in fact, beyond a slight redness of the parts about the root of the tongue. It is necessary to say that there was not the same difficulty with the beef-tea and arrowroot, to which thickened fluids his drink was restricted, as I did not think it advisable again to try him with water, lest it might aggravate his complaint. —17th: Continues to complain of the epigastric pain and depression, to which is added severe frontal headache, and is much in the same state as yesterday. He takes beef-tea, and has no convulsive paroxysm beyond an occasional twitch. —19th: The patient has lost his wildness of expression, but appears sleepy and drowsy, owing probably to the effect of the medicine. The wound does not heal well. —25th: He made good progress since last observation; all symptoms clearing up, with the exception of the abdominal sinking, and the state of the wound, which shows little inclination to cicatrise. The aconite to be omitted, and two grains of quinine to be taken three times a day. —27th: The temperature, which for some time was normal, rose to 101° F.; but from this date till December 6th, 1882, it gradually declined. Bowels rather constipated throughout. He was then discharged; temperature normal; wound not well cicatrised.

Remarks.—This case presents two problems for solution:—First, was it a case of hydrophobia, looking at this affection as the result of a specific poison, and not, as some few still consider it, a complex neurosis acting on susceptible organisations? Second, looking at it as an example of the incipient stage of specific disease, did the remedies employed prevent its further and fatal development? The history of the bite and its seat, the period of incubation, and the age of the patient (nine out of thirty-six persons attacked, according to Mr. Dolan, being about this age), together with the renewed pain and soreness in the wound, would render a diagnosis of rabies probable. Added to which, the convulsive twitches, the look of alarm, the fidgetiness, the spasmodic breathing, and the reluctance, difficulty, and refusal to take water, though not insurmountable on the day after admission, and of short duration, appear to me to afford evidence sufficient to render certain what the prodromata rendered probable. Moreover, the absence of other causes, though carefully looked for, corroborates this view of the case. It might be alleged that the difficulty with fluids was of too transient a character to be compatible with rabies, and I grant I was very agreeably and extremely surprised by its speedy subsidence. Yet, on the other hand, many fatal cases are recorded where there was no hydrophobia (using the word etymologically) and no difficulty of swallowing fluids, while it should also be borne in mind that fluid dysphagia is a symptom of other affections, and that

there is at least one case on record where a patient suffering from laryngitis was violently and fatally treated for rabies. Again, if not rabies, what was the disease? Tetanus it certainly was not, for I have seen so many cases of this disease in India that I can positively say the symptoms are very different. Besides, the onset of traumatic tetanus is rarely delayed beyond the tenth day, and never for three weeks. Against the symptoms being caused by serious apprehension and dread of impending evil are the age of the patient and the increase of temperature of the body. The second question to be answered has reference to the value of the medicine. Now, rabies has two stages, exclusive of the period of incubation. One corresponds to the circulation of the poison in the blood, and is reflected by the malaise, fidgetiness, nervous breathing, changes in the wound, and, in this case at all events, by the pyrexia. The other is due to a later pathological action of the poisoned blood setting up irritation of the medulla and the nuclei of the bulbar nerves, and manifests itself by the fatal spasmodic convulsions of the pharynx and air passages. Therefore the remedy should be selected with a double object: first, to eliminate the poison from the blood, and, second, to counteract, control, or relieve the congestion of the nerve centres before referred to. Aconite, as I will now endeavour to show, recommends itself to our consideration as fulfilling both requirements in a manner unequalled by any other drug in our possession, or by any that has hitherto been tried as a remedy for hydrophobia. Thus, by the profuse perspiration which it causes, it eliminates, in common with jaborandi, the morbid poison from the blood. It is true, it does not act as a sialogogue, but no superior benefits can be claimed for jaborandi on this account; as in the olden days mercury to salivation was frequently tried, not only with no good result, but often with an unnecessarily disagreeable one. Thus, it is the sweating action of aconite, as it is of jaborandi, that is beneficial in the first stage. We know that many bitten on exposed parts by dogs undeniably mad never catch the disease, and we know also that the poison may remain permanently latent, or latent till called into activity by some exciting cause, generally of a moral nature. Therefore it is easy to go a step further and conceive how in certain mild cases, but when the latent poison has yet become sensible, it may be removed by such remedial agents as the Turkish bath, aconite, and jaborandi. But the rôle of aconite does not end here, while that of jaborandi and the vapour bath may be said to do so. For this drug, as a vascular depressant, slows the circulation, and thus reduces the interchange between the morbid blood and those tissues on whose irritation depends the fatal manifestations of the disease, "bleeding"—as Dr. Fothergill expresses it, I think, "the blood in its own vessels." And even when this irritation has occurred aconite promptly given is not only the best drug to control it, but, by its great power of subduing peripheral hyperæsthesia, it will reduce to a minimum the effect of those secondary external causes which often bring about the paroxysms and give them their fatal virulence. To substantiate what I have just said, I cannot do better than quote a few examples from Dr. Ringer's text-book. He says that one drop of tincture of aconite given at bedtime quiets the distressing fidgets of men and women, and causes calm and refreshing sleep. The import of this is obvious when we remember that fidgetiness is one of the commonest and earliest symptoms of rabies. The same author says it soothes the nervous system, and favours sleep by producing free perspiration, which perspiration may continue for days, and that it cuts short the inflammation, not by removing its products, but, by controlling the inflammation, it will prevent their formation. In its action on the nervous system Leigois and Hotot state that it paralyses first the perceptive centres, afterwards their terminations, and, lastly, the trunks of the sensory nerves. Thus I am justified in saying that if jaborandi is useful in the first stage of hydrophobia, and wourali, by its soporific and paralyzing effect in the second, aconite, combining in itself the properties of those agents so highly spoken of, is beneficial in both. It might, of course, be combined with one or other, and should also be given as a prophylactic, as indicated by its sedative action, to all who may unfortunately be bitten by animals about whose condition there is the slightest suspicion. Belladonna has been tried and recommended in rabies, which I allude to simply to condemn, for in doses one would be inclined to employ in a disease like rabies, it would probably arrest the action of the skin and cause dryness of the throat and set up convulsions, conditions which it should be our principal aim to prevent.

ON A CASE OF  
OBSTRUCTION OF BOWEL CAUSED BY A  
LARGE INTESTINAL CONCRETION;  
ENTEROTOMY; DEATH.

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THE following is a case of such rarity that I venture to hope a place may be found for it in the pages of THE LANCET.

I was sent for on Tuesday, March 14th, to see Mrs. C—, aged fifty-six, the wife of a nurseryman, residing a few miles from Nottingham, from whom I obtained the following history:—On the previous Saturday night she went to bed as usual about ten o'clock, having felt during the afternoon and evening griping, twinging pains in her belly. At three o'clock on Sunday morning she awoke and was violently sick, the abdominal griping and sickness continuing the whole of Sunday, Monday, and Tuesday; when I saw her about 4 P.M. I found her in bed with an anxious expression; cool, dewy skin; small pulse, 88; tongue moist and red, with a yellowish fur in the centre. There had been no action of the bowels since the previous Friday morning. The sickness and retching were incessant. The vomit shown to me was a greenish fluid without odour, and was obviously bile largely diluted with soda-water, of which she drank freely and eagerly. No food had been taken since Saturday evening. The abdomen was not distended (the abdominal wall was very fat and ponderous); there was tenderness on pressure, as well as a distinct tumour to be felt in the right inguinal region (upper border). I at once gave her a large enema—about half a gallon of warm water—which had the effect of removing a considerable quantity of rather light-coloured faeces. I then prescribed two calomel and colocynth pills, to be followed by a draught containing two drachms of the sulphate of magnesia, and two ounces of the compound decoction of aloes, but before leaving the house I gave a quarter of a grain of morphia hypodermically, and further ordered half a grain of opium in pill every four hours. On the 15th at 10.30 A.M. I saw her again; the vomiting continued, the medicines and everything else being instantly rejected; no action of the bowels. I gave another large enema of soap-and-water, but without result. I repeated the hypodermic injection of morphia, and ordered the opium pills to be continued.

The same evening I saw her again and found her condition practically unaltered. I gave an enema of nearly a gallon of thin gruel with an ounce of castor oil and turpentine, and it was returned in a few minutes without a trace of feculent matter. The sickness being so incessant and distressing, and the patient thinking the opium pill added to her trouble, it was agreed to discontinue it until the morning at least, but I gave her another quarter of a grain of morphia by the skin. The vomit presented the same character as before. The size of the abdominal tumour appeared to me to be less, and the local tenderness was, if anything, diminished; on the other hand, her general aspect and constitutional condition were not so good. This was a curious and unusual feature, and I shall refer to it again later.

On the 16th no improvement whatever was observable; one sample of the vomit was brown and had a slightly fecal odour. A large warm-water enema was now given through a stomach-pump tube passed eight or nine inches, but the water returned unaltered. The morphia injection was repeated, and she was urged to take the opium pill every four or six hours. At this morning's visit I first noticed an intermission in the pulse, but the rate was unchanged. The woman was evidently weaker. On the 17th the condition of the patient was unchanged, except that it was clear the exhaustion was increasing and she was becoming apathetic. I mentioned at this visit that I thought medicine would be unavailing, and that next day if unrelieved I should advise an operation. I saw the patient at 10 A.M. on the 18th. She was distinctly more feeble; the pulse smaller and weaker, intermitting every fifteen or twenty beats; facial aspect very unfavourable; eyes sunken; nose pinched; cheeks purple flush. The skin was cool and clammy, the hands and every part of the body rapidly losing

heat on exposure. The sickness was as urgent as ever, and I was shown a vomit ejected during the night markedly stercoraceous in character. I now advised the expediency of operation, and obtained the consent of the patient and her friends. In the afternoon I asked my friend and surgical colleague, Mr. Littlewood, to see the patient with me with the view to an abdominal section. Mr. Anderson, our able house-surgeon at the infirmary, accompanying us to give the anæsthetic. The operation was performed by Mr. Littlewood at 4.30 P.M. by an incision in the median line about four inches in length between umbilicus and pubes. The subcutaneous fat was nearly three inches thick. On opening the peritoneum and introducing the hand in the direction of the right iliac region a hard body was felt within a portion of the small intestine; this on being brought outside the wound was found completely filling, indeed distending, the gut, so that the wall was sufficiently thin to see the nearly black colour of the foreign body, and which was thought to be a gall-stone. An incision was made upon it, when it readily slipped out; the bowel was empty both above and below. The wound was closed with an uninterrupted silk thread and returned into the abdomen. The abdominal wound was united with silk ligatures—treated, indeed, as in the operation for the removal of ovarian disease. The woman was put back into bed and a quarter of a grain of morphia given by the skin. The temperature immediately before the operation was 96° F.; the pulse 88 and intermittent. Ordered not to have anything except soda-water and milk, the quantity of the latter not to exceed a teacupful before the morning. Ice to suck *ad lib*.

The foreign body removed was in shape and size very similar to a small hen's egg, its weight, two hours after removal, was eight drachms less fourteen grains, its circumference at its upper or broad end was three inches and seven-eighths, at the narrow end barely three inches and a half, whilst its length was two inches and a half; it had a roughish, granular appearance, with whitish spots (cholesterine?), standing out on a very dark brown-red ground.

Next morning Mr. Littlewood and I saw the patient together. She had passed a rather restless night, moaning a good deal. Her facial expression was, I thought, unfavourable, but she was partially under the influence of opium. There had been no sickness. Pain in the belly was complained of, and there was more distension than I had before observed. The pulse was about 100, occasionally intermittent; temperature 98° F. To continue milk and soda-water.

March 20th.—Although her facial aspect is not encouraging, there is no increase of abdominal pain or distension. Pulse 112; temperature 98.4°. To be allowed half a pint of milk to-day, and the same quantity for the night.—21st: Appears generally better; is more observant and disposed to talk; has passed flatulencies during the night. Temperature 99°; pulse 120. To have fully a pint of milk during the next twenty-four hours; the opium pill (half a grain) only night and morning.—22nd: Seen by Mr. Littlewood. Not so well. The abdominal wound is gaping and sloughy at the lower end, and the line of incision throughout is dull red; there is considerable fetid discharge, dark and grumous. Temperature 99.4°; pulse 112, weak. Aspect unfavourable.—23rd: Worse; has passed a restless night. The bowels were open for the first time last evening at 7, when a consistent motion was passed, but during the night has had several relaxed stools. She has a dull, apathetic look, dorsal decubitus, and sinks down in the bed. Temperature 100.4°; pulse 130, and running. The wound is offensive, but nearly dry.—24th: Died at 3 A.M. No post-mortem allowed.

*Remarks.*—The precise cause in cases of intestinal obstruction is often doubtful and not unfrequently, during life, indeterminate. It was so in the present instance; the nearest approach to a diagnosis that I could arrive at was that the obstruction was purely mechanical, as distinguished from mechanical and vital. I concluded this chiefly from the fact, already stated, that whilst the local conditions were not active and gravescent, the constitutional state became progressively more and more serious and urgent. With a clinical history such as we had here there was no reason to suspect the presence of a gall-stone or intestinal concretion, and I take it to be an unusual feature that a concretion of such size should have travelled the small intestines to within six or eight inches of the cæcum without having given rise to symptoms more or less prominent; beyond, however, occasional attacks of "biliousness," to which the patient had

been subject for years, there was no history of liver or bowel troubles. With regard to the composition of the concretion itself, it is largely composed of cholesterine mixed with various organic substances, the scales of the former being well shown under the microscope with the aid of polarised light. The fatal issue, in my opinion, was, mainly, if not entirely, due to the sloughing of the abdominal wound and to the condition of blood-poisoning consequent thereon. The unusually fat abdominal wall was remarked upon as an untoward element in the future of the case at the time of operation, and doubtless upon the low vitality of this fat tissue was the sloughing of the wound dependent. At no time did the intra-abdominal local (inflammatory) conditions occasion serious apprehension; but even after the operation and consequent relief to the intestinal obstruction the patient made no corresponding improvement in her general condition, whilst after a brief and partial rally she sank into a state of adynamia and exhaustion to which she finally succumbed.

## RELIEF THROUGH SPONTANEOUS BLEEDING IN PNEUMONIA.

By JOHN MEREDITH, M.D. EDIN.

THE following case of illness, if it were not for one or two circumstances associated with it, would not, I expect, possess any points of interest deserving of special notice. In consequence of these circumstances, the nature of which I shall presently describe, I began making notes from the commencement of my attendance. The story of it is briefly as follows:—On October 23th, 1881, I was requested to see a Mrs. M—, aged twenty-four, wife of a pensioner, residing a little way out of Wellington. I saw her about four o'clock in the afternoon, and found her suffering from an attack of pneumonia, complaining of a severe pain in the left side; skin dry; very frequent short respirations; quick pulse, and temperature 106°, fully. I found the pneumonic space was at the base of the left lung. The patient informed me that she experienced "a shivering fit" two days previous, and that she had been getting worse and worse ever since, and, further, that she was a little over three months gone in the family way. I directed that warm poultices should be applied at once to the pneumonic side, and that she should take a mixture composed of tincture of aconite and solution of acetate of ammonia in small doses at short intervals. At ten o'clock the same evening a message came, saying that Mrs. M— had some bleeding from the nose. I did not then attach much importance to this. At the same time I sent a few doses of ergot extract with hamamelis tincture for the patient to take if it persisted, and added instructions for applying cold cloths to the face and nape of the neck. At three o'clock in the morning of the 29th inst.—i.e., about five hours afterwards—an urgent message came for me to go and see her, and off accordingly I went. I found the patient now in a particularly exhausted condition, appearing all but bloodless; pulse hardly perceptible at the wrist, the breathing laboured and rapid, and there was very little power to speak, and that only in a feeble whisper. The skin was still dry, but comparatively cool; temperature 101°. Her bedclothes were saturated with blood, and there was much also in a basin beside the bed. The blood had escaped in spurts from the nose, and to some extent from the mouth; no cough with it, nor any effort at vomiting. It issued most likely from the Schneiderian membrane, and from it some escaped through the mouth. There was no pain anywhere complained of. The means resorted to, to arrest the hæmorrhage, for it was still going on when I reached the bedside, were injection of hazeline and water into the nostrils, continuation of the medicine sent at ten o'clock, dashing water on the face, or cloths wet with water, and holding up the arms of the patient. Before long the discharge became less and appeared to cease altogether in about an hour's time, and I felt at liberty to go away again. I called next at nine o'clock, and learnt that there had been a little bleeding since my early visit. At half-past twelve, when I saw the patient for the third time that day, some signs of improvement were perceptible. The hæmorrhage had ceased; the temperature was now 100.3°, pulse at the wrist a mere thread; no complaint of pain, but there was some cough, for which an ordi-

nary cough mixture with antimonial wine and chlorate of potash was ordered. She was able to partake of liquid food, which was freely supplied to her. After this there was nothing special to note for a few days, except that the area of dulness was extending in the left lung.

On November 3rd the temperature was 99°; pulse 110. The temperature had been about 100–101° since the morning of October 29th. The patient seemed to me at this stage to have passed the most dangerous point in her illness, and was able to speak, consequently I began making all the inquiries I could regarding this, to me, unprecedented form of systemic relief. Since then I have often thought of the case, and chiefly in connexion with what we term now the old practice of bloodletting in acute diseases. The remarkable change which followed the hæmorrhage from the nose on the night of the 28th was, as I have said, unprecedented as far as my experience is concerned. The body temperature fell about 5° in a very short time, and there was complete relief from pain.

I should mention, with regard to this patient, that she is one of those who never perspire—"at all events nothing to speak of," to use her own words, even in summer weather. The relief occurring in the way it did seemed to me but a pronounced illustration of the physical law, which is to the effect that a body expelling some of its component matter loses heat thereby and becomes cold, and that, no doubt, in proportion to the rapidity of the expulsion and the quantity of the loss. In this case there must have been a condition of extreme tension of the bloodvessels, and the portion of the contents which performed the part of expelling the other portions lost heat thereby and became cooled, but the expelling power pervaded the whole system; that being so, general cooling of the whole system followed. I do not know how the practice of systematic bloodletting arose in medicine, and if I did this would not be the place to attempt any historic account of it. There can, however, be no doubt, on the principle of there being nothing new under the sun, that cases like the one I am describing happen in all countries, and fall under the observations of medical practitioners; consequently it occurs to me, thinking over the question of general bloodletting with the light shed upon it by this case, that our predecessors, noticing the relief following spontaneous bleeding—but noticing also the exhaustion produced by excess, as in this instance—argued that, if moderate bleeding were resorted to, and that at a spot where it could be controlled, the evil effects of spontaneous bleeding would be avoided and the good only secured. At the beginning a few selected cases ending favourably would be a sufficient inducement for the adoption of the practice generally without reference to special selection. Thus it may fairly be presumed that a practice, originating from a good and judicious act, subsequently degenerated into a scandal and an injury to mankind, falling into such a depth of degradation as richly to deserve the scathing satires of Le Sage, as exhibited in his character of Dr. Sangrado, besides that of many other observers; from the consideration of which it may of a truth be asserted that degeneration is ever more fertile than evolution in the formation of varieties.

The spontaneous bleeding was the first point of interest in the case to which I wish to draw attention, and I would observe that it occurred on the third day of the illness. Usually in this district relief in such cases comes later, about the fifth day, and in the form of diaphoresis. As an example of this, I shall refer to another case of inflammation of the lungs which I had to attend about the same time, that of a Mrs. T—, aged about twenty-six years, suffering from over-lactation. On the evening of December 1st the temperature of her body was over 105°, with the usual symptoms of acute pneumonia. On the morning of the 2nd, being the fifth day of the illness, epistaxis began, and she saturated three pocket-handkerchiefs very soon, then diarrhoea with copious watery stools followed. The breasts, which had been distended, discharged about a quart of milk, according to her attendant's account. Her skin had not been particularly dry, but there was not much perspiration. The temperature fell very soon to 100°. Next day it was at normal. In this case the heated vascular tension found relief through more than one outlet, and in consequence there was no special prostration.

But to return to Mrs. M—'s case and show how it fared with the implicated lung and the uterine contents. In the course of a few days the pulmonary dulness indicating hepatization extended over the whole of the left side with

blowing-sound respiration and no crepitus audible. I was not able to detect any until about a fortnight after the commencement of the illness, when resorption was taking place. The laboured character of the breathing lasted for several days after the epistaxis crisis, and then became normal. The next point of interest was the effect of the illness upon the uterus and what it contained. On November 5th the patient complained of some discomfort rather than pain in the lower part of the abdomen, and there was tenderness on pressure, leading one to infer that there would be miscarriage before long. The pulse continued quick, always over 100, at times as high as 120. The temperature remained between 99.4° and 101°. It never went down to normal. These conditions left no doubt on my mind that the foetus in utero was dead. Still the pain and tenderness about the womb were at times very little complained of, but more so at others, and opiates were given for their relief. In spite of all, the patient was visibly improving, taking food fairly well and feeling tolerably cheerful. On November 29th some liquor amnii escaped, and it smelt offensively the attendant told me. I examined per vaginam and found the os uteri dilated to about the size of a fourpenny piece filled by a clot or something feeling like it. Next day regular uterine pains set in and the contents of the womb were expelled about three o'clock in the afternoon. The expelled substance consisted of twin boys, about the fourth month of uterine existence, attached to one placenta. All had a macerated appearance, but did not smell badly, not so bad, by all accounts, as the water which had escaped the day before. The foetuses had been dead for a long time, it was evident, I believe from the time of the epistaxis, thirty-three days before. These dead bodies had remained in the uterus all that time, and caused not one alarming symptom or anything calling for interference, bearing out an observation I often heard Mr. Lister make more than twenty years ago—namely, that living tissue possesses antiseptic power capable of delaying putrefaction for a long time. At the same time, there is no doubt, these bodies and their appendages kept up a certain amount of blood poisoning as indicated by the pulse and increased temperature. The patient suffered for a while from metritis, but in a few weeks this passed away and the lung affected completely recovered, but it was some months before she regained her usual state of health.

The histories of these two cases of acute pneumonia possess still another feature of interest, in that they both tend to confirm the view that the disease is of zymotic nature, belonging to the preventable order. For example, Mrs. M—'s house, although internally in good sanitary condition, was situated in close proximity to a bad-smelling privy, the smell from which pervaded her house both before the accession of the illness and at the commencement of it.

Mrs. T—, like many country labouring people, had potatoes stored in her bedroom, and the decay smell from these struck one at once on entering the room. The sanitary condition of her house in other respects was fairly good, both inside and out.

Wellington, Somerset.

## STATISTICS OF TETANUS IN THE MEDICAL COLLEGE HOSPITAL, CALCUTTA.<sup>1</sup>

By JAMES R. WALLACE, L.R.C.S., L.R.C.P. EDIN.,  
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THE frequency of tetanus in Bengal, as evidenced by the records of the Medical College Hospital—which represent fairly a very large section of the prevailing diseases which come under observation throughout this Presidency,—and its participation in augmenting the mortality in surgical operations, as further demonstrated by reference to the practice of surgeons connected with this largest of Indian hospitals, make a brief summary of their experiences worthy of our notice, not only as being interesting, but instructive. The notes on tetanus in the Medical College Hospital, which I am about to record, consist of an analysis of a tabulated statement of cases kindly placed at my disposal by Dr. McLeod and some jottings from other medical and surgical records of this hospital. During the ten years from

<sup>1</sup> Read before the Calcutta Medical Society.



1869 to 1879 there were 280 cases of tetanus admitted into the Medical College Hospital, in all of which the well-marked symptoms of the disease were more or less fully developed at the time of their admission into the wards. Of these 212 died. Irrespective of these 280 cases, 23 others occurred in the surgical wards, following operative interference of various kinds, and all of these terminated fatally. Of the former series of cases, 159 were of the idiopathic variety, the subjects being 93 males and 66 females, of whom 53 of the former and 58 of the latter died. Of the traumatic form there were 121 cases, 67 males with 64 deaths, and 54 females with 37 deaths.

With regard to age and race: in infants up to fourteen days old there were 34 cases, of which 13 were natives and 21 Europeans, with 29 deaths in all. From one to five years, 5 cases, 4 natives and 1 European, with 3 deaths; from five to fifteen years, 23 cases, 20 natives and 3 Europeans, with 11 deaths; from fifteen to forty-five years, 195 cases, 175 natives and 20 Europeans, with 154 deaths; from forty-five years and upwards, 23 cases, 21 natives and 2 Europeans, with 15 deaths.

With regard to season: during the winter months—namely, November, December, January, and February, this series shows 96 cases admitted, 38 from traumatic and 58 from idiopathic tetanus, with 80 deaths. The early summer months—March, April, and May—give a total of 71 cases admitted, 28 traumatic and 43 idiopathic, with 44 deaths. The months of the monsoon, or rainy season—namely, June to October inclusive—show 113 cases, 53 traumatic and 60 idiopathic, with 88 deaths. The minimum of admissions was in July and the maximum in December.

With regard to the etiology of this series of 280 cases, I have been able to trace the history of 117 of the idiopathic, and in 94 of the traumatic to note the nature of the injuries giving rise to the disease. The various causes, with the number of casualties from each, are as follows:

1. Exposure to cold and wet	47
2. Menstruation, pregnancy, and abortion	29
3. In infants under fourteen days old	23
4. In persons suffering from fever, dysentery, general debility, and privation, in whom there is no distinct history of exposure	24
5. Injuries	94

#### Nature of Injury.

(a) Wounds of all varieties	35
(b) Machine injuries	23
(c) Contusions	13
(d) Burns and scalds	6
(e) Compound fractures	17

The duration of the disease will be ascertained from the following record of 212 fatal cases:—

	Cases fatal.
Within two days	88
From two to five days	41
From five to ten days	26
From ten to twenty-two days	23
Above twenty-two days	34

With regard to treatment, the records give evidence of trial of every known remedy, but the plan notably in use in all the medical and obstetric wards has been by free purgation and the administration of such anodynes and antispasmodics as chloral, morphia, and atropia, given by the mouth and subcutaneously, opium in combination with ammonia, Indian hemp, belladonna, potassium bromide, and Calabar bean. Opium-smoking has been largely tried in the obstetric wards. Quinine and other preparations of cinchona found place in the chronic cases. In the surgical wards, the removal of irritant particles, stretching of nerves, and amputation have been resorted to for the relief of the traumatic form, in addition to the already named medicinal means.

**Results.**—There were 68 cures in 280 cases, or 14·16 per cent. Of these 53 were among the idiopathic and 15 among the traumatic. In subjects under fourteen days old, the recoveries were in the proportion of 1 to every 6 cases; from one to five years, 1 in every 2·5 cases; from five to fifteen years, 1 in every 2 cases; from fifteen to thirty-five years, 1 in every 5 cases; from thirty-five to forty-five years, 1 in every 6 cases; from forty-five years upwards, 1 in every 3·23 cases. After revising the notes in forty-six of the cases in which recovery took place, I do not find one in which

success can be attributed to any single remedy, or any individual plan of treatment, though in most of them chloral and cannabis indica were more largely used than other drugs. The practice in which surgical operations were performed for the relief of the sufferer has been attended with most unfavourable results. In two cases the sciatic nerve was stretched for tetanus arising from wounds of the foot, in one instance the median was subjected to the same operation for disease originating in a comminuted fracture of the thumb, and in neither of these cases did abatement of the spasms or other improvement in the patient's condition attend the procedure. Amputation of the hand in two cases, of the forearm in three, and of the leg in two, was resorted to without effect.

The second series of 23 fatal cases comprises those arising after surgical operations in the wards during the years from 1869 to 1879. There were altogether during this period 2148 major operations performed in the Medical College Hospital, with 402 fatal results from all causes, among which 23, or 5·7 per cent., are attributable to tetanus, and occurred in the following instances:—

	Cases.
Excision of scrotal tumours	8
Amputation of foot and leg	7
Amputation of hand and arm	6
Excision of simple tumours	2

These statistics serve to illustrate certain facts in connexion with the general characteristics of tetanus in Bengal: how it affects the varied population, how the disorder is altered in its virulence, and the frequency of its occurrence with special reference to age, sex, and season, how it influences the results of surgery, and in what direction the efforts towards alleviation have tended. Thus we find that trismus nascentium occurs more frequently among the children of Europeans than among those of natives, for out of 34 cases 21 were Europeans, and this observation is all the more striking when we consider the comparatively small proportion the European element is among the vast native population of Bengal. Referring still to infantile tetanus, we find that it is indefinitely written about as being of the idiopathic variety; if, however, it is held that the source of irritation lies in any abnormal changes in the ligatured and divided umbilicus, then it is truly traumatic. In Mahomedan and Jewish infants in this country, however, there is no doubt in many instances as to the disease being traumatic, even though the umbilicus be free from complication. With these religious persuasions the custom is to circumcise an infant on the eighth day, and in many instances tetanic symptoms supervene upon this procedure. Thus I find in nine of the infants affected the penis was the focus of irritation to the nervous system, and in two cases the application of anodyne poultices to this part resulted in allaying the acuteness of the symptoms and in finally curing the little patients.

In adults tetanus seems equally dispersed among Europeans and natives; males were more affected than females, and in infants and adults the disease was more frequent than in children and persons over forty-five years. In women idiopathic tetanus is very frequently associated with the puerperal period and with menstruation, for in 52 females affected, 29 were either menstruating or they had just been confined at full term, or they had aborted. The majority of cases occur in the winter months, and though no season enjoys a perfect immunity, least of the cases are noted in midsummer, the maximum being in December, and the minimum in July.

The general death-rate in tetanus, as shown by the statistics of the years from 1869 to 1879, is 75·7 per cent.; in the idiopathic it was 69·7, and in the traumatic so high as 83·4 per cent. The disease is certainly most fatal in the early stage, almost one-third of the cases dying within the first two days of the attack, whereas recovery may almost as surely be prognosticated after the disease has passed the fifteenth day.

Of injuries resulting in tetanus, those by machinery, compound fractures, and punctured wounds have yielded the largest proportion of cases.

The appearance of tetanus in operation cases has been attended with the most deplorable results, as in 23 cases which occurred not one recovered. It appears that operations upon the scrotum, involving much interference with the testis or cord, are peculiarly prone to the supervention of tetanus. Thus in five out of eight cases, in which elephantoid

growths were removed from the scrotal region, castration seemed necessary and was accomplished, and in all these tetanic symptoms were manifested. Another case in point was in the radical cure of hernia by Wood's operation; here the patient died of tetanus, and it was found on post-mortem examination that the spermatic cord was strangulated in the wire suture used in approximating the pillars of the abdominal ring and obliterating the canal.

Our treatment, though aiming principally at removal of the cause and the subsequent tranquillising of the nervous system, seems to border much on the domain of empiricism; for when one analyses the treatment one is compelled to confess ignorance as to the part which any single remedy may have exerted upon a fortunate occurrence, and to say that the cure seemed accidental. However this may be, the success in the treatment of tetanus in the Medical College Hospital during the years from 1869 to 1879 is even more favourable than books on the subject would lead us to surmise; and if any drugs are to be relied on favour is decidedly on the side of chloral, opium in the form of morphia, and opium-smoking. Unfortunately, nerve-stretching has not been attended with the same success in tetanus as in the case published by M. Paul Vogt, nor even with the partial relief reported as occurring in two cases which came under the treatment of Dr. Ebenezer Watson of Glasgow. Amputation has not afforded any satisfactory results, nor has division of nerve-trunks been attempted as a *dernier ressort*.

## ON THE INCREASE OF CARBONIC ACID IN THE ATMOSPHERE.

AN ATTEMPT TO DETERMINE THE PERIOD WHEN THE AIR WILL BE IRRESPIRABLE.

By T. HATFIELD WALKER, L.R.C.P., F.C.S., F.M.S.,  
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THE question of how long our coal-fields will last has been frequently discussed, and astronomers have endeavoured to determine the life of the sun, but the important question of how long the atmosphere will continue to be respirable has not, I believe, ever been considered. We are taught that plants, by absorbing the carbonic acid formed in breathing and combustion, &c., prevent the atmosphere becoming overcharged with this gas. Doubtless, in bygone ages, when the earth was almost covered with trees, and combustion was confined to the burning of wood, this was correct, but little consideration is required to show that this is now no longer true. We have every evidence that in primeval ages the atmosphere abounded in carbonic acid; this abundance of carbonic acid, together with the high temperature, caused very luxuriant vegetation, which rapidly fixed the carbon of the carbonic acid, giving out the oxygen. As ages rolled on this carbon, abstracted from the atmosphere, was gradually stored up in the bowels of the earth as coal, and thus the excess of carbonic acid in the atmosphere became decreased until the latter became capable of supporting the lower forms of animal life. With the development of the higher forms of life commenced the accumulation again of carbonic acid in the air, but until the birth of man this would have very little effect. With the birth of man a very great influence is brought to bear. Man is the only animal capable of making a fire; but even his influence, so long as he continued to burn only wood, would not be very great in poisoning the air, but when he commenced to give back to the atmosphere the millions of tons of carbonic acid slowly abstracted from the air, and stored up through countless ages, he rapidly tends to bring back the atmosphere to its original condition. It appeared to me that it would be very interesting to endeavour to make some guess as to the influence on the atmosphere of the enormous quantities of carbonic acid which are thus yearly added to it. Not only is this a question very interesting from a speculative point of view, but if the consumption of coal continues to increase as it has done during the last twenty years, it will soon become a question of practical importance.

To make the subject as clear as possible I will first consider the sources of carbonic acid, and balance against them the influences which tend to decrease the amount in the air.

The sources of carbonic acid are—(1) Animal respiration; (2) decay of wood plants, &c.; (3) manufactures, as burning of limestone, fermentation, &c.; (4) craters of volcanoes and caverns; (5) combustion. The first of these—viz, respiration, can have little permanent influence, for the animal only gives back to the atmosphere what has previously been absorbed by the plants on which the animal feeds. Decay also only gives back what has been previously abstracted. In the burning of limestone, also, we only return what the animals, from the shells of which the limestone is built up, have previously absorbed. The amount given out by volcanoes, &c., is too small to require notice. We have therefore only left to consider the carbonic acid evolved by combustion. The influences which tend to decrease the carbonic acid are—(1) Absorption by vegetation; (2) solution in water from which it is absorbed by shell animals in building up their shells, but we have balanced this in the burning of limestone, so we have only the influence of vegetation to consider. All cereals, grass as food, can have no permanent influence, as the carbonic acid is given back to the atmosphere by respiration. All animals also give back in their decay what they have previously stored up. The same applies to shrubs and trees, for more wood is being destroyed by burning and decay than is being formed by growth, so we see that vegetation, instead of storing up carbonic acid, is now actually increasing the amount in the atmosphere, and thus the whole of the carbonic acid given off by the combustion of coal and coal products, as petroleum, &c., is permanently added to the atmosphere.

In answer to a question Sir Henry Bessemer very courteously informs me that the amount of coal annually consumed throughout the world cannot be short of 400 million tons; this gives 336 million tons of carbon, which equals 1232 million tons of carbonic acid annually to the atmosphere, and thus a billion tons will be added in from 700 to 800 years, which will increase the amount of carbonic acid in the air from three billions, which it at present contains (the total weight of the atmosphere being 5210 billion tons) to four billions. But as the amount of coal annually consumed is rapidly increasing, probably in a single century a difference will be made which cannot fail to have a great influence on vegetation, and probably on the health of man; and there can be no doubt the air will be quite irrespirable long before the total known coal contained in the world is consumed. Professor Rogers estimates the amount of coal in America and Europe, in round figures, at ten billion tons; adding to this that of China and the rest of the world we get between twenty billion and thirty billion tons, which is equal to between sixty billion tons and ninety billion tons of carbonic acid. Even the lesser of these figures gives an increase of carbonic acid in the air equal to twenty times the amount it at present contains—i.e., it will increase it from '04, as at present, to '8 per cent. Dr. Angus Smith found that feebleness of the circulation was induced by breathing an atmosphere containing 0.15 per cent. when only breathed for a short time, and a much lesser quantity than this lessens the elimination of the carbonic acid from the blood, and thus produces headache, and from its retarding nutrition induces debility and other diseases. Taking these figures as correct, we see that the air will be incapable of supporting life, even when only one-sixth part of the coal known at present is consumed, and as the amount of coal is probably double this, there can be little doubt that the air will be irrespirable before one-tenth part of the available coal is consumed.

Carlisle.

## ON A CASE OF SARCOMA; PETECHIAL ERUPTION; DEATH.

By L. W. MARSHALL, M.D. ABERD.,  
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I AM led to publish the following case in consequence of its peculiar termination, and because I am told by my friend Dr. Goodhart that one or two similar cases have been observed at Guy's, the cause of the rash being, as yet, not very clear.

Ada R—, aged twelve years and nine months, was admitted under my care April 13th of this year. She then complained of pain in her right thigh and back and was believed to be suffering from hip disease. On examination

I came to the conclusion that she had a collection of matter (chronic abscess) in her psoas muscle of that side. Her limb was semi-flexed and there was distinct fulness over the right sacro-iliac joint. When standing her limb was advanced and she rested on her toes. Pain was most marked, yet not severe, at the top of the thigh on the inner side. The history of the case dated from the previous summer, but she relinquished her work as recently as three weeks prior to admission. A normal temperature was recorded. The treatment was confined to absolute rest and cod-liver oil.

On April 20th in the afternoon, being in the hospital, I was called hastily to her and found her lying with the surface cold, face pallid, pulse small, clonic contraction of the muscles, first on the left, then on the right side, the hands and arms only being affected. Her legs were drawn upwards towards her abdomen, no facial distortion; she moaned, but appeared to be conscious, although she did not answer questions put to her. Urine was passed freely during the attack. Bowels not having acted for a few days an enema was ordered, which returned. Ten-grain doses of bromide of potassium were given every third hour.

Nov. 22nd: No urine had been passed and a catheter was therefore used. Eyeballs twitching. A raised rash was formed not very unlike a scarlet fever eruption, but more dusky and mottled. Its distribution on the chest was in the line of the intercostal nerves, the ribs being mapped out, and a distinctly intervening surface free from rash was noticeable at mid-sternum. This appearance was most striking on raising the patient's dress. On the abdomen the rash had extended to the umbilicus, the same middle division, but did not appear on the front of the lower part of the abdomen, excepting in the line of the ilio-inguinal nerve on either side. There was also a similar patch on the inside of the left thigh. Pupils very large, but still acting feebly to light. Left leg rigid. At 8 P.M. the head was thrown back; both legs were moved. Temperature 102.4°. Quite unconscious.

April 23rd: Pupils dilated and fixed; left believed to act very slightly. Rash now occupies the same lines of distribution previously described, but is distinctly petechial. Trunk inclined towards the left side; left angle of mouth depressed; eyes partially closed (left eye injected, and covered with a film). Catheter was again used. In the evening of this day she died.—24th: Post-mortem revealed a large growth springing from the transverse process of the last three lumbar vertebrae, burying itself in the substance of the right psoas muscle, which was tense and expanded, anteriorly, over it. The right ureter was displaced towards the middle line and rendered "varicose." The genito-crural nerve was flattened out, and the external cutaneous and anterior crural also. Kidney on that side was unaffected; mesenteric glands enlarged; both lungs adherent over greater surface to the chest wall; no effusion; no deposits in the lung or any other organ. Brain was examined, and nothing unusual was found.

I append to this a microscopical examination which Mr. Handford, of the General Hospital, has kindly made for me: "A microscopic examination of the tumour showed it to be one of the mixed sarcomata. Portions of every section consisted of masses of large, irregularly rounded cells, about the size of a white blood-corpuscle, and containing one or more nuclei. The remaining portions presented more the appearance of a 'small-celled infiltration,' there being innumerable small round cells, about one-third the size of a red corpuscle, with a few spindle cells, in a fibrillated intercellular substance. There were no signs of degeneration, but everywhere pointed rather to active growth and proliferation." The case was seen by Dr. Seaton with me.

ROYAL COLLEGE OF PHYSICIANS.—The following gentlemen were elected examiners on the 27th ult.:—Chemistry and Chemical Physics: Drs. Thomas Stevenson, W. J. Russell, C. R. A. Wright, and Mr. C. W. Heaton. Materia Medica, Medical Botany, and Pharmacy: Drs. W. H. Stone, Moxon, Buchanan Baxter, and F. T. Roberts. Osteology, Anatomy, and Physiology: Drs. Pye-Smith, Allchin, Curnow, and Mr. William Anderson. Medical Anatomy and Principles and Practice of Medicine: Drs. Fincham, Pollock, Southey, and Sydney Ringer. Midwifery and Diseases peculiar to Women: Drs. Playfair, Galabin, John Williams, and Potter. Surgical Anatomy and Principles and Practice of Surgery: Messrs. Pollock, Sydney Jones, John Couper, and Alfred Willett.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### GUYS HOSPITAL.

CASES TREATED BY HYPODERMIC INJECTION OF PILOCARPINE; REMARKS.

(Under the care of Mr. HIGGENS.)

FOR the following notes we are indebted to Mr. Trapp, dresser in the eye department:—

CASE 1. *Detachment of Retina, with Floating Opacities in Vitreous in both Eyes.*—Catherine H—, aged thirty-nine, was first seen amongst the out-patients March 21st, 1882, and at once admitted. About nine months before, when reading, sight of right eye was suddenly reduced to perception of large objects. Vision remained about the same up to date of admission. Four months after the beginning of the trouble in the right she first noticed a fog before left eye, the sight of which got gradually worse.

On admission the right eye had perception of shadows only. The left could scarcely count fingers. The ophthalmoscope showed a very large detachment of the retina in the right eye, a detachment of the lower and outer part of the retina in the left eye, and floating opacities in the vitreous in both eyes.

March 27th:—Hypodermic injection of one-sixth of a grain of nitrate of pilocarpine. In about four minutes profuse sweating and ptialism set in, which lasted for over an hour. The injection was continued night and morning, the patient being kept in bed. At times she complained of a good deal of thirst and itching in skin of trunk and arms.

April 3rd:—Left eye counts fingers, and can tell one from the other; reads Jaeger No. 20 at two feet doubtfully.—5th: Quantity of pilocarpine increased to one-third of a grain.—6th: Was sick after injection yesterday evening, and has had headache ever since. Pilocarpine increased to half a grain.—9th: Very sick after injection yesterday; its effects lasted nearly two hours.—11th: No further improvement had taken place; the injections were discontinued.—17th: The retinal detachment appeared to be about the same, but the opacity in the vitreous was thought to be rather less. The patient was seen some weeks later, and was then as bad as at time of admission.

CASE 2. *Detachment of Retina in Left Eye; Cataract; no perception of light in Right Eye.*—Elizabeth S—, aged forty-four, admitted April 17th, 1882. She had had two still-born children, three children born alive, all of whom died under two years of age, and two miscarriages; had suffered from ulcerated throat. About eleven years ago—immediately after the last miscarriage—the patient suffered from dropsy. At this time noticed vision becoming dim; had no pain or inflammation in the eyes; the sight failed gradually, and sixteen months before admission the right eye had become quite blind. She attended the out-patient department in February, 1882, the sight of the left eye having grown gradually worse in the last few months; the right eye was quite blind, and the lens opaque; in the left eye there was good perception of shadows; the retina was displaced at its lower part.—April 20th: Hypodermic injection of one-sixth of a grain of nitrate of pilocarpine. Profuse sweating followed shortly after, and lasted some time.—22nd: Sweating lasted two hours; complains of being faint and thirsty; says she can see better.—24th: Can see the colour of the bed-cover, also figures moving about the ward.—25th: Left eye counts fingers. Pilocarpine increased to one-third of a grain.—28th: Sight about the same. Pilocarpine increased to half a grain. The injection was discontinued on the 29th, having been given morning and evening since the 20th. The patient had been in bed the whole time.

On July 3rd condition the same as on admission.

CASE 3. *Opacity in Vitreous of both Eyes, probably Blood.*—Archibald C—, aged seventeen, admitted April

21st, 1882. Three years before some dust was thrown into the left eye; a slight attack of inflammation followed, for which he was treated at the Royal London Ophthalmic Hospital. He did not notice any failure of vision of the left eye till on one occasion the right eye was covered, when it was found that the left had only perception of shadows. The eye entirely recovered, and two years before admission into Guy's his sight was as perfect as ever. About a year before admission he began to notice floating opacities in both eyes; in sunlight the opacities appeared red. (Patient now remembers that about five years ago he suffered in a similar manner, but quite recovered.) The floating opacity in the left eye soon became fixed and obscured vision so much that only perception of shadows remained. The patient attended amongst the out-patients in November, 1881. At that time vision was the same as on admission—i.e., right eye reads Jaeger No. 1 at one foot and 6-6ths, when opacities had floated out of the way. Left eye had perception of shadows only. The ophthalmoscopic appearances were: right eye, dark floating opacities in vitreous, settling into a dark mass at the lower part of fundus; left eye, yellowish reflection from whole of fundus; retina appeared to be detached. The patient's general health was good. He did not suffer from constipation.—22nd: Hypodermic injection of one-sixth of a grain of nitrate of pilocarpine; injection followed by profuse sweating.—25th: The quantity of pilocarpine increased to a quarter of a grain; on the 28th to half a grain; on the 29th the patient complained of headache. As there was no alteration in the condition of the eyes, the injection was discontinued. He was kept in bed during the time that he was treated by the injection.

July 18th:—The patient is still under treatment. For the last month he has been rubbing mercurial ointment into the temple. The right eye varies from time to time as fresh hæmorrhages occur; but when there has been no bleeding for about a fortnight, vision is as good as on admission. The left eye remains quite blind.

*Remarks.*—It appears from these three cases that if pilocarpine does any good it does it within a week, and that it is useless to continue the injections longer. Its effects do not last. Cases 1 and 2 were decidedly improved, but soon relapsed. The patients objected so much to the treatment that they were not pressed to try it again; possibly the same amount of improvement would have taken place had the injections been repeated after some weeks' discontinuance. Case 3 is a good instance of a class of cases which unfortunately are not very uncommon—i.e., repeated bleedings into the vitreous humour occurring in young adult males, against which treatment seems almost powerless, and which end sooner or later in total blindness.

### THE QUEEN'S HOSPITAL, BIRMINGHAM.

SUBPERIOSTEAL RESECTION OF HIP-JOINT FOR CHRONIC HIP DISEASE; FRACTURE OF FEMUR DURING OPERATION; CURE; REMARKS.

(Under the care of Mr. WEST.)

JAMES P—, aged thirteen, was admitted into the Queen's Hospital on Oct. 2nd, 1881, in a feeble anæmic state, suffering from advanced hip disease on the left side. The limb was shortened two inches, adducted, and the knee flexed, very painful when moved; there was evident muscular atrophy. A sinus existed over the great trochanter leading to carious bone, and an abscess was forming over the anterior superior iliac spine. The disease began six months previously (as he states), from carrying heavy baskets of goods for a grocer. He had previously been in hospital for three months, and relieved by rest and extension. The same treatment was employed, good diet, cod-liver oil, and syrup of iodide of iron being also given. No improvement, however, resulted, but the hectic symptoms and exhaustion rather increased. Mr. West on Dec. 3rd resected the joint by a single straight incision, preserving as much as possible the periosteum. In turning the head of the femur through the skin wound considerable force was required to break down the adhesions which had formed between the femur and the dorsum ilii, close to the acetabulum, and while an assistant was using the lower end of the femur as a lever, with a view of turning the head out of its new socket, the femur was broken about the middle. This accident at the time rendered the excision of the head of the femur rather

difficult; but, strange to say, it did not militate against the ultimate success of the case. The operation was performed antiseptically minus the spray, and the limb was put up with an extension apparatus after an interrupted splint had been applied along its outer side.

On Jan. 4th, 1882, the antiseptic dressing was discontinued and the wound dressed with sulphate of copper lotion.

On Feb. 2nd, a starched case was applied to the limb. The fracture seemed to have united, and the line of incision was healed except at one or two points.

On March 6th a Thomas's splint was applied, and the patient was sent to the Convalescent Home for Children at Solihull, where he remained till the beginning of June, steadily improving in health and gaining increased power in the thigh. The limb is now only an inch shorter than the sound limb, although it was two inches less before the operation. There is much deposit of new bone, and the site of the fracture can now scarcely be made out.

*Remarks.*—Professor Sayre, in his excellent practical work on Orthopædic Surgery (p. 290), alludes to the occurrence of fracture of the femur in the operation of resection of the hip, if care and gentleness are not employed in using the femur as a lever. This case is a further proof of the necessity for such care in dealing with bone that is weakened by disease, but it also teaches us that when fracture does unfortunately occur, the result, both as to length and strength of the limb, may be all that could be desired. It confirms the views enunciated in THE LANCET annotation of July 1st, 1882, on "Lengthening of the Femur after Division," *a propos* of the specimen shown by Dr. Moore at the recent meeting of the American Medical Association, in which "an interval between the fragments of more than an inch in length was completely filled with new bone."

### BOOTLE BOROUGH HOSPITAL.

SEVERE INJURY TO RIGHT FOOT; NECROSIS OF METATARSAL BONES; OPERATION; CURE; REMARKS.

(Under the care of Dr. C. SWABY-SMITH.)

FOR the following notes we are indebted to Mr. Chas. A. McLean, M.B., house-surgeon.

J. H—, aged forty-three, seaman, was admitted on Dec. 29th, 1881, suffering from an injury to his right foot, which he sustained while engaged in one of the Cunard boats, repairing the sails on one of the masts, from which he fell. He was attended by the ship's doctor previous to admission.

On examination there was found what appeared to be fracture of the metatarsal bones. Sinuses had formed on the inner and outer aspects of the foot, which altogether presented disorganisation of its constituent joints and bones. Dr. Swaby-Smith made a careful exploration of the parts, and found necrosed bone, more especially in the metatarsal aspect of the great toe. He left the parts alone for two days, when, on re-examination, the probe revealed disintegrated bony structure, which ended in the formation of pus, and its consequent extravasation along the muscles and synovial structures. The patient was anaesthetised (chloroform having been administered), and Dr. Smith made an incision over the metatarsal joint of the great toe, and removed about half of this bone. The subsequent local treatment consisted in the application of carbolic oiled (1 in 10) lint to the part, with pressure on the plantar aspect of the foot, and careful attention to cleanliness, the foot having been bandaged from the toes upwards. The outer aspect of the foot, which presented a sinus, and from which fragments of necrosed bone which had gradually worked their way to the surface had been removed, steadily showed signs of repair. Sinuses had also formed between the great and second toes, and between the fourth and fifth. From these pus came at first in considerable quantity, originating from the plantar aspect of the foot; for when pressure was applied here the matter was obviously finding an exit in the regions already mentioned, and also over the sinuses which existed in the metatarsal bones of the great and small toes on the dorsum of the foot. The dressings of carbolic oiled lint were, a fortnight subsequent to operative procedures, changed, nitric acid lotion (half a drachm in eight ounces of water) having been substituted. His diet on admission was ordinary; but he got milk and beef-tea diet on Jan. 24th, 1882.

The patient made rapid progress, the sinuses healing up, new bone having been thrown out; although now a little pus was to be seen working its way between the great and second toes, which with pressure on the plantar aspect of the foot with a pad of lint, daily dressing, and syringing with carbolic lotion (one in forty) and careful bandaging, was suppressed. When discharged and made an out-patient, on April 25th, 1882, the foot presented a healthy appearance, both sinuses having healed—i.e., those over the dorsum of the foot; and dry lint dressing was substituted for the lotion. His ankle-joint was not involved in any way during his treatment here, every movement of the same being effected with moderate fairness. Latterly a mixture containing iron and arsenic was ordered him.

*Remarks.*—This case illustrates the good results produced by time, in conjunction with pressure, careful attention to cleanliness, dressing, and the removal of all sources of irritation from the part. At first, on patient's admission, the foot presented such a disorganised appearance that it was doubtful whether it could be saved, amputation through the ankle-joint being the question then discussed. Fortunately enough for the poor fellow, whose occupation is a seaman, his foot has been saved; he is now able to walk on it, and presents himself here from time to time, proud of his once useless foot.

### GOCULDAS TEJPAL HOSPITAL, BOMBAY.

#### CASES OF ELEPHANTIASIS OF SCROTUM.

(Under the care of Surgeon-Major T. CODY.)

The following cases continue the report begun in the "Mirror" on July 29th, 1882.

**CASE 2. Elephantiasis of Scrotum and Penis; Removal by Operation; Tetanus; Death.**—A Mussulman priest, aged forty, was admitted with a large elephantoid tumour, enveloping both scrotum and penis. The patient was very stout and flabby, and had led a lazy, indolent life. He stated the tumour was of some eighteen years' growth, and that latterly he had been subject to periodic attacks of fever, accompanied by a tense painful feeling in the growth. He was detained in hospital for a week before the operation was performed. On being brought under chloroform it was found the penis was imbedded in the tumour, and could not be drawn forward. The index-finger of the left hand was passed down the opening till the glans was felt. A strong scalpel was passed along the finger, and an incision made upwards which exposed the glans. It was then seen that the prepuce was healthy, and it was carefully separated by a circular incision from the adjacent unhealthy surface. The penis was then seized; dissected out and reflected upwards. An incision was now carried downwards and outwards on the right side, and the fingers were used to search for and free the right cord and testicle. A large hydrocele was discovered in the right sac, which was evacuated by a free incision. The right testicle being found to be completely atrophied, it was excised and the cord secured. An incision was then carried from the commencement of the former and from the root of the penis, downwards and outwards on the left side to the extent of five or six inches. It was found that on this side and on the back of the tumour there was much more healthy integument than on the right side, and as much of it as possible was preserved to form a flap. There was a hydrocele also on the left side, but somewhat smaller than the right, which was evacuated, and then the testicle, which was found healthy, was reflected upon the abdomen. The incisions were now made to meet at the back of the tumour, and its substance was divided by a Catlin. There was very free hæmorrhage, which was controlled in the manner referred to in the former case, and fine vessels had to be ligatured. In addition, the surface of the wound oozed considerably—a circumstance attributed to the plethoric habit of the man. The testicle was next brought down, and fixed in the centre of the wound by passing through its outer covering three of the wire sutures used to bring the edges together, which came excellently into apposition. About half an inch at the lower end of the wound was left free to admit the ready exit of the discharges, but the remainder was closely brought together up to the root of the penis. The only covering left

on the penis was the healthy prepuce, and this was tied back by three sutures to the subcutaneous tissue, so as to act as a point from which granulations and a healing process might start. The whole surface was enveloped in carbolic dressing, and the man removed to bed. The dried mass of the tumour, after it had oozed away for some time, weighed exactly 13 lb., and it was calculated that the escaped fluid weighed as much more. For the first twenty-four hours there was some oozing, which stained the dressings, but this passed off, and everything progressed most favourably till the eleventh day after the operation, by which time all the sutures and ligatures had been removed, and the discharges, which were all through healthy, were very slight. At the morning visit on this day the patient complained of stiffness of the jaws. Full doses of chloral, with stimulants, were prescribed, but without the effect of staving off the spasms, which came on next day. Nothing could be noticed in the wound to account for this setting in of tetanus; and it may be remarked that all through its course till the patient's death the wound continued to heal day by day, so much so that at the end the penis, which had been completely denuded, was more than three-parts covered with new integument. All the known remedies were tried, but nothing was found to give so much relief or to stave off the spasm so effectually as large doses of chloral and brandy.

Thirteen days after he first complained of stiffness of the jaws, and twenty-four after the operation, he died in strong spasm, which seemed to arrest the respiration.

**CASE 3. Elephantiasis of Scrotum; Removal by Operation; Recovery.**—A Hindoo, native of Madras, aged thirty-seven, had been labouring under the disease for five years. The patient was a very thin, unhealthy, cachectic-looking man, and on admission was found to have a tumour enveloping the lower part of the scrotum only. It was very angry and inflamed, showing patches of sloughing on the surface, and was accompanied by hectic. Although the patient was in a very low state, operation was decided on, as it was thought that his low hectic condition could be best treated by the removal of what was too evidently its cause. The tumour, which weighed only three pounds and a half, was removed with the right testicle, which was found extensively diseased. There was sufficient flap left to cover the left testicle and to allow of the edges being brought into apposition over it. The healing in this instance was very slow, and a large abscess formed along the course of the right cord, after its ligature came away, and had to be laid open. This discharged freely for about a fortnight under poultices, and eventually closed up, after which the wound took on a more healthy action.

About seven weeks after the operation the wound had perfectly healed, and the man left the hospital much improved in every way.

## Reviews and Notices of Books.

*Manuel d'Hygiène Industrielle.* Par Dr. HENRI NAPIAS. Avec Figures. Paris: G. Masson, éditeur.—The formidable volume before us will become a useful book of reference not merely for French readers, but for all who can read French. The work is truly cosmopolitan in its character, and in this will be found at once its principal utility and originality. Dr. Napias divides his subject into three sections: First, General legislation affecting all industries, such as Factory Acts; secondly, the workshop and manufactory, and the classification of industries according to the risks involved to public health; thirdly, the materials employed, the great industrial poisons, lead, phosphorus, &c. In each of these sections we have put before us not merely the French law, but extracts showing any particular feature of the laws of the various European Powers. Thus in the first section we find that while the French law displays great solicitude on behalf of the proprietors of houses situated in the neighbourhood of unwholesome manufactures, nothing is said on behalf of the workmen employed in these trades. The Belgian law of the 29th January, 1863, seeks to mitigate all mischief affecting "either the workmen employed or the neighbours of the factory." In the Swiss law, which is given



in full, the condition of the workmen is taken into consideration in almost every schedule. The Prussian law gives the authorities both instructions and the power to protect the lives of workmen, and insists on the efficient ventilation of factories. In this analysis of the various laws of Europe, the English Factory Act holds a prominent and unique position as the only law that insists on the necessity of good drainage, and gives some details as to what measures should be adopted to secure this end. On the other hand, the French law is the most perfect in Europe in so far as the classification of unwholesome industries is concerned, and their division in three categories. In this respect the French law has served as a model to many other countries, and has been imitated notably by Portugal and Belgium, though Dr. Napias gives a list of industries classified in Belgium and not in France, and *vice versa*. Under the same section we have an analysis of all the laws regulating the work in factories of women and children in France, England, the various States of Germany, Austria, Denmark, Spain, Holland, Switzerland, &c. This compilation will be of the utmost use to the sanitary reformer, the legislator, and the medical officer. The experience thus gathered, spreading over many hundred pages, is too complex to render a summary possible within our limited space. But we may note, in passing, one important feature of the Austrian Sanitary Act of 1876, which commends itself to imitation by all nations. According to Article 82 of this enactment, all Austrian employers are compelled at once to report any case of contagious disease that may occur among their workpeople. Those who are aware how often the manufacture of clothes is the means of spreading disease will appreciate the value of this enactment. The Swiss law has also a peculiar feature, by which, when rules affecting the management of a factory are about to receive official approbation, the workmen are to be called upon to express their opinion and move amendments. In the second section of Dr. Napias' book we have many useful details as to the contamination of watercourses by the residue from factories, and the various measures that have been adopted in different countries for the mitigation of the evil. Then follow details as to the ventilation of factories, the dangers of mining, and the measures to prevent accidents from the use of machinery. The third section treats in a similar manner all that relates to the poisonous substances employed in various industries, and we have not only the laws of all countries affecting the same, but some account of the inventions destined to modify the dangers, and a summary of the opinions expressed by some of the best authorities. There are also a few illustrations that are of considerable assistance to the reader. Lastly, we have in the latter part of the volume a sort of dictionary of substances used in manufacture, or trade, their classification, the legislation affecting the same, and general suggestions as to what dangers may arise and how they can best be avoided. This dictionary, which takes up nearly two hundred pages, is most useful for facilitating prompt reference. Indeed, Dr. Napias may be congratulated on the thoroughly practical and complete character of his work. It is also written with scientific disregard of that patriotic vanity which is a weak side in the French character. There is no attempt to extol France or to conceal the superiority of the legislation of other countries. Dr. Napias, whom we know personally to be one of the most patriotic of Frenchmen, has understood that the production of a strictly correct and impartial work is the highest of all tributes, and the best means of winning for French scientific literature a prominent position in Europe. Finally, we might mention that, as Government inspector of factories and unwholesome dwellings, Dr. Napias is especially qualified for the task he has undertaken. Dr. Napias is also the Secretary-General

to the French Society of Public Medicine and Professional Hygiene, Corresponding Member of the Belgian, Italian, and Russian Sanitary Societies, Knight of the Legion of Honour, and Officer of the French Academy.

*Lock Hospitals and Lock Wards in General Hospitals.* By FREDERICK W. LOWNDES, M.R.C.S., Surgeon, Liverpool Lock Hospital. London: J. and A. Churchill. 1882.—The purport of this pamphlet is to give information as to the history and work of the existing lock hospitals and wards, and in that way to show how very deficient this special form of hospital accommodation is in London, and nearly all other large towns. Mr. Lowndes has not attempted a complete justification of these institutions, but he points out that all of them relieve the suffering of innocent as well as of vicious people. In Liverpool the Lock Hospital was originally a part of the infirmary, and is now under the management of the committee of that institution, and Mr. Lowndes is so well satisfied with the working of this plan, that he strongly advocates its adoption in other towns. He believes that a separate hospital is far better than special wards in a general hospital for these particular patients, but, owing to the great difficulty everywhere experienced in supporting them as independent institutions, he strongly urges that they should be provided and managed by general hospitals. Unfortunately many general hospitals are already so pressed for funds that they will not feel encouraged to undertake fresh responsibilities.

*A Handbook on Diseases of the Skin, with especial reference to Diagnosis and Treatment.* By ROBERT LIVEING, A.M., M.D. Cantab., F.R.C.P. Lond., Physician to the Department for Diseases of the Skin at the Middlesex Hospital, &c. Third Edition, revised. London: Longmans, Green, and Co. 1882.—In the first edition of this popular and well-written handbook, published in 1878, Dr. Liveing made it the feature of the work to draw attention specially to the differential diagnosis of the various diseases. The usual detailed descriptions of the symptoms—e.g., of eczema, were avoided as far as possible, when not bearing particularly on the diagnosis. The excellence of the book was at once recognised, but it was felt that its value would be still further enhanced if the author extended its scope and included the subject of treatment. This Dr. Liveing carried out in the second edition, indicating the special treatment best adapted for each particular disease, and adding a very useful chapter on the therapeutics of skin diseases generally. This necessitated some further remarks on etiology, and the addition of about one-third to the bulk of the book. The third edition has been carefully revised, and we can cordially recommend it as a thoroughly sound, clearly written handbook, with the distinctive features we have pointed out.

*Archives Italiennes de Biologie.* Vol. I, Parts 1 and 2. Turin: Hermann Loescher.—We desire to bring under the notice of our readers a new journal with the above title, which has just appeared under the direction of Professors C. Emery and A. Mosso, and which is intended to place before the world the results of Italian research. It is thought by the editors that many of the memoirs published in Italian are practically overlooked in consequence of the language in which they are written being familiar to but few of the workers in biology. They have therefore, we think wisely, adopted the French language, which is more widely read and understood. It is intended that the new journal should appear every two months at the rate of thirty francs per annum. The first two parts have already appeared, and contain some excellent papers. Some relate to anatomy, others to physiology, and others again to the application of biological research to the diagnosis and treatment of disease. The numbers before us are well printed, and will, we do not doubt, prove of great service in bringing Italian researches into more general notice.

*The Botanical Atlas.* A Guide to the Practical Study of Plants. By D. M'ALPINE, F.C.S. Parts I. to III. London and Edinburgh: W. and A. K. Johnston.—The object of this handsome work is to assist beginners in botany by showing them pictorially every part of the structure of the leading forms of plants. It cannot fail to be of great use to the student who, with the plant before him, employs the Atlas as a guide to show him what to observe; whilst in such subjects as those illustrated in the second part—viz., the bacteriæ and desmidiæ—he will have to rely mainly upon the illustrations for his instruction. Properly employed the pictorial method is a valuable means of education, and worth many pages of text-book description. The author of this Atlas has already published a "Biological Atlas" and a "Zoological Atlas," each of which has been much appreciated. From the careful manner in which this Botanical Atlas has been planned and the admirable execution of the plates, it will doubtless be held in as high estimation as the former works. Without entering into details we may content ourselves at present with indicating our approval of a work which should do something to enhance the attraction that botany naturally has for lovers of nature and science. Each part contains four large plates, and the work is produced at a very moderate cost.

*L'Année Médicale, 1881.* Paris: E. Plon and Co. 1882.—This is the fourth year of this useful publication, which is produced under the editorship of Dr. Bourneville, assisted by the younger school of writers, some of whose names are already well known in literature. The great difficulty in all such summaries is to limit the extent over which analysis should extend, and, so far as one can judge, the work has been done here with a fair amount of discrimination. It will be observed that many of the papers abstracted in the volume were communicated to the International Congress—evidence of the important position which the proceedings of that Congress took in last year's scientific work. An innovation in the plan of the volume appears this year in an appendix containing brief memoirs of some of those who died during the year, together with a summary of the chief reforms in medical education and hospital management in Paris, in several of which the energetic editor has himself taken a prominent part.

## THE NUREMBERG MEDICAL CONGRESS.

THE above Congress was to have assembled this year at the Berlin Hygienic Exhibition; but the recent destruction of that building, together with the opportune invitation of the local association of Nuremberg, decided the presidential body to select the latter city for the meeting. An additional reason for doing so was the fact that the Bavarian Exhibition contained many objects of medical and sanitary interest, so that the members of the profession who attended the Congress would derive some practical benefit from their visit to South Germany.

In his opening address Dr. Graf of Elberfeld referred to the advantages derived from controversy on disputed points of theory or practice, which associations like the present encouraged. He called attention at some length to the relations of the State to the medical profession, which are at present, it would seem, in a somewhat unsatisfactory position. Legislation has been proposed in reference to various professions and callings, and medicine seems, according to the Government scheme, to receive but scant courtesy, doctors being in some provisions of the statute bracketed with theatrical managers and tavern-keepers. The main object of the recent Congress was to elaborate a scheme which could be put forward as an amendment to the Government proposals, and as representing the general opinion of the profession as to questions of medical organisation, the value of which principle is admitted.

The discussion which took place on the various proposals

laid before the Congress was carried on with warmth; and some of the motions put forward were to a certain extent modified before being accepted by a majority of those present. While paying regard to the rights and privileges of the profession, considerable attention was given to the discussion of the duties to the public which are incumbent upon its members in connexion with social as well as sanitary questions.

It was decided to send delegates to this year's Natural Philosophy Congress at Eisenach; and prospective arrangements were made for the discussion at next year's Medical Congress, as a principal subject, of the best means of applying Imperial legislation to counteract the spread of epidemic disease. On that occasion it is also contemplated to discuss the prolongation of the existing time of probation for intending practitioners.

The resolutions adopted referred to five main topics, with reference to which numerous detailed suggestions were agreed to.

*Admission as a Practitioner.*—It was decided that any measure bearing on this point ought to be submitted by the Government to the medical profession through its representative body; also that the use of non-German titles of Doctor of Medicine should not be allowed without the permission of the respective Governments.

*Duties and Rights of the Profession.*—Under this head the independence of medical men as to the right to regulate their charges was asserted; as also the exclusive right of duly qualified medical men to official appointments, whether under Government or of a municipal character. The Congress approved of the compulsory registration by medical men of the occurrence of infectious diseases within the scope of their practice, and of gratuitous certificates of cause of death being obligatory. The principle was also accepted that the State has a right to claim in sanitary matters the active co-operation of medical men, a suitable allowance being made for the loss of time and personal trouble thus incurred.

*Representation of the Profession.*—The detailed controversy which took place under this head does not seem to have led to a settlement of the vexed question, whether universal suffrage amongst medical men, or the voting of those belonging to recognised associations, should be the principle adopted in the election of the national and provincial medical boards, which would officially represent the profession in questions affecting its relations with the various Governments. The resolution adopted inclines towards a certain amount of local option being allowed in each country or province under this head.

*Tribunals of Honour.*—It was resolved that the right of exclusion from the various associations should be vested in a tribunal elected from amongst the members, with the right of appeal on the part of anyone brought before that body to a higher tribunal, also composed of medical men. The latter authority, likewise, would have jurisdiction as to matters affecting medical men who might not be members of any association. The object of these provisions is probably to render groundless the claims which the State has put forward as to the right of suspending in certain cases medical men from the exercise of their professional functions.

*Medical Certificates for Insurance Companies.*—The extension of the various forms of life and accident insurance which is now being encouraged by the Imperial Government has, it would seem, imposed duties upon the medical profession which, being exercised for the protection of insurance companies from fraudulent claims, should be the object of special remuneration by them. It was resolved that the attention of the medical associations of Germany be called to this matter, to which it is proposed to devote more attention at the Congress of 1883.

The Berlin *National Zeitung*, in referring to the addresses of Dr. Graf, Dr. Merkel (of Nuremberg), and other speakers, alludes in a friendly spirit to the appreciation which exists in Germany of the value and necessity of medical co-operation in the work of sanitary reform, and expresses the hope that the claims of the profession to due liberty in their action and in their internal organisation will be fully recognised in any legislation proposed by the Imperial Government.

ON the 1st inst. a meeting was held in Queen-square, Bristol, to promote a movement for the erection of an international hospital at Washington in memory of the late President Garfield.

# THE LANCET.

LONDON: SATURDAY, AUGUST 12, 1882.

THE degree to which the various phenomena of the cardiac contractions depend upon nervous mechanisms, or upon peculiarities in the function of the muscular tissue itself, is a subject on which opinion has been widely divided among physiologists, and is not yet altogether settled. Spontaneous rhythmical action seems to depend on the nervous ganglia, since only those parts of the frog's heart which possess such structures go on beating if isolated. But the apex of the heart, in which no ganglia can be demonstrated, can be excited to rhythmical contraction by stimuli, as the constant current and the influence of an alkaline solution—a fact which seems to demonstrate that rhythmical action cannot, after all, be entirely due to visible nervous structures. There is, however, one part of the heart, the bulbus arteriosus, in which, when isolated, contractions may occur, although no ganglia have been found in it. A mechanical stimulus excites in it a series of contractions. MUNCK has therefore assumed that ganglia must exist in the bulb although they have not been discovered. LÖWITT has recently searched afresh for any ganglionic structures which might explain these contractions. In the greater part of the aortic bulb he could find none; only at one spot in the superior segment of the bulb he found a mass of nerve-cells which may be called the bulbar ganglion. It is invisible to the naked eye, but is situated at the point at which the two arteries emerge. This structure receives nervous filaments from the external coat of the bulbus arteriosus, and they present ganglionic cells in their course. It is probably by these fibres that the bulbar ganglion is connected with those of the auricle and ventricle. LÖWITT, indeed, believes that fibres from this ganglion pass directly to the muscular fibres of the ventricle, without passing through BIDDER'S ganglion, and that stimulation thus passes from the bulbus arteriosus to the ventricle, and thence to the auricle and the sinus. This is the order in which the effect is manifested, and is invariable, as long as the ventricle is intact. A connexion between the bulbus arteriosus and the auricle can only be by nerves: there is no continuity of muscular tissue from one to the other, since they are entirely separated by connective tissue. The nervous connexion between the two is, however, demonstrated by the passage of a stimulation from one to the other after the whole of the ventricle has been removed.

If BIDDER'S ganglion is removed, the heart, as ECKHARDT has shown, stops, but soon recommences its pulsations. Stimulation of the pneumogastric then causes an arrest of the heart in diastole. There must therefore be another communication between the vagus and the muscular tissue of the heart besides the chief path through the sinus, the interauricular septum, and the ganglion of BIDDER. AUBERT assumed that the pneumogastric fibres were directly connected with the ventricular muscles, but this theory is rendered unnecessary by the discovery of the bulbar ganglion.

Of the various collections of nerve tissue in the heart the most considerable is the auricular ganglion; that of the sinus venosus is next in size, then come BIDDER'S ganglia, and, lastly, the bulbar ganglion. According to LÖWITT the cells of this are unipolar, like those of the spinal ganglia.

An opportunity of observing the effect of stimuli applied to the human heart, such as was afforded by the celebrated case submitted to royal experiment two hundred years ago, is necessarily extremely infrequent. A somewhat similar case has, however, lately occurred in Germany, and has been examined by ZIEMSEN. A woman, forty-five years of age, suffered from an enchondroma, which occupied the greater part of the anterior wall of the thorax. The removal of the tumour left an opening into the left half of the chest, eleven centimetres long and nine wide, at the bottom of which were seen the two ventricles of the heart, and part of the left half of the diaphragm. If the heart was touched with the finger, each normal contraction of the ventricles was followed by a second of shorter duration, involving both ventricles, even when one only was touched with the finger. Compression of both femorals, and of both subclavians, had no other effect than to lessen the frequency of the cardiac contractions. Direct stimulation with the faradaic current did not modify the frequency or the rhythm of the contractions, and caused no sensation. Stimulation with the voltaic current caused, however, a distinct contraction of both ventricles. Moreover, when the positive pole was applied to the heart, and the circuit was closed, there was a considerable acceleration in the frequency of the contractions, from 80 to 100. A strong current caused a peculiar sensation not distinctly localised, but no actual pain.

The power of rhythmic contraction of the isolated apex of the heart is manifested under the influence of an alkaline solution, and is therefore supposed to be excited normally by the stimulus of the alkaline blood. The mode of action of such a stimulus has been experimentally studied by LÖWITT, by tying the ventricle on a manometric cannula, after having removed BIDDER'S ganglion. If an alkaline solution is passed through the heart, it responds to a stimulus by a series of contractions, but without the solution only a single contraction is produced. The composition of the solution, and the pressure under which it is injected, both influence the result. The cessation of the rhythmical contractions appears to be due, not to the loss of the ability to contract rhythmically, but to the cessation of the stimulus, for the contractions recur when the stimulation is renewed. The longer the alkaline solution has remained in contact with the heart, the slighter is the intra-cardiac pressure which suffices to renew the contractions, and the longer is their duration. The mode in which the alkaline solutions act has also been investigated very carefully by MARTIUS, who comes to the conclusion that their influence is merely to enable the heart to utilise the residue of blood and serum which may remain in its substance and inner surface. When all nutritive substances of this kind have disappeared, the alkaline solution of chloride of sodium has no more influence than an acid solution. Solutions of peptone, caseine, egg-albumen, syntonin, myosin, mucin, glycogen, and milk, are also without effect, while blood, serum, lymph from the thoracic duct, and sero-albuminous liquids may re-establish the cardiac irritability.

Underlying the effect of the stimuli which evoke contractions is the remarkable fact that they are rhythmical, and this seems ultimately to depend on a peculiarity of the muscular tissue. According to MAREY there is a periodical variation in the excitability by a stimulus. He has shown that in the course of a revolution of the heart of a frog or tortoise, the organ passes successively through two conditions. During the contraction it is insensitive to stimuli, which a little later, during the period of relaxation, cause a new contraction intercalated in the series of rhythmical beats. The excitability is very slight during contraction, while it is far greater and gradually increases during the period of relaxation. DASTRE has lately shown that this is true, not only, as MAREY affirmed, of the whole heart, but also of the isolated muscular tissue of the apex. Not only does the excitability progressively increase during the diastolic period, but it lessens during the course of the systole. This character seems to explain the mysterious fact that discontinuous movements may result from continuous excitation experimentally produced, although in the case of the organ under normal conditions the most potent stimulus, intracardiac pressure, varies in its degree so as to constitute an intermitting stimulus. It is interesting to note that the period at which the stimulus is most intense during the systole, in which it is no longer needed, is that at which the sensibility to it is least. The effect of the varying intracardiac pressure in producing the rhythm is beautifully shown by an experiment of DASTRE, in which he connected together two separated hearts, one of the tortoise, the other of the frog. The pressure was raised in one by the contraction of the other. The point of the ventricle of the frog's heart contracted with the rhythm of that of the tortoise, while the base, with the auricles, maintained its own rhythm. Pressure is effective only when applied to the interior of the heart. External pressure has no influence. It thus appears to be the mechanical distension which is the active agent, and it may be that the excitability increases during the diastolic period, partly at least in consequence of the progressive increase in the degree of distension.

Another interesting fact observed by MAREY is that if the normal rhythm of the frog's heart is disturbed by provoking, artificially, a new contraction, after each systole thus provoked there is a compensating pause of such a length as to restore the normal rhythm. DASTRE has investigated the question whether this is to be ascribed to the nervous mechanism of the heart or to the muscular tissue. He finds that while true of the whole heart, it is not true of the apex, and he therefore concludes that the compensating rest is due entirely to the intracardiac nervous structures.

THE growth of wealth must lead to the steady growth of consultation as a feature of medical practice, and the growth of medical science and art must render the questions to be determined in consultation increasingly grave and delicate. The specialisation of work in medical practice is to some extent an inevitable necessity, and it gives rise to questions of treatment in which the ordinary parties to a consultation are necessarily very unequal. Were an ophthalmic or a gynaecological authority of fifty years ago to take part in a consultation now as to the expediency of iridectomy or sclerotomy in glaucoma, or of ovariectomy, or of oöphorec-

tomy, or for the removal of the pylorus in cancer, he would be much perplexed. In regard to some of these procedures, he would be too much puzzled with the morality of them to take an unbiased view of their advantage. Respecting questions arising over ordinary and every-day cases of disease, it must be admitted that the general practitioner holds his own pretty well. If he be a thoughtful man and a careful observer of what he sees, he enjoys an enormous advantage. The continuous observation of cases—not only of cases, but of families in which cases arise, of the habits of the adults, of the diatheses of children, of personal idiosyncrasies, and of general social circumstances—gives him a fund of knowledge which cannot but be most valuable for purposes of advice and therapeutics. Such a practitioner will never be ignored by a good consultee. Both parties are the complement of each other. They will be only thankful for each other's special knowledge, and anxious to throw it into a common consultation for the elucidation and cure of the patient's disease. Differences of opinion respecting either treatment or diagnosis are not likely to occur, and if they do arise are capable of easy adjustment. It is in regard to new procedures and lines of treatment that ethical questions of some difficulty are likely to arise. The occasional triumphs of bold surgery are so astounding that sanguine practitioners or physicians are in danger of requiring the surgeon to go too fast or too far in the use of surgical means. The surgeon in such a case has himself to blame. He is no longer the mere mechanic that he was considered to be when the Colleges of Physicians would not admit to their Fellowship one who insisted on retaining the qualification of a College of Surgeons. In these days eminent surgeons vie with eminent physicians in their knowledge of collateral science, and they lay it under contribution to the perfecting of surgical proceedings. The surgeon has no excuse if he has not power to form an independent opinion even in a medical case, or if in such a case he allows himself to be the mere instrument in an operation of which he does not fully approve. He cannot relieve himself of responsibility for opening an abdomen, or removing a kidney, or for puncturing a pericardium with no fluid in it, simply by representing that he acts at the request of another practitioner. We shall yield to none in admiration of the triumphs of careful antiseptic surgery. But the very brilliance of these triumphs makes it more necessary to revert to the ethical principles which should regulate the surgeon in attempting them, and in attempting to reduce the fatality with which they are too often qualified. These ethical principles become more important than ever for the guidance of the surgeon on the one hand, and for his protection on the other. What are these principles? The first is that he himself should be fully satisfied of the justifiableness of the course he is about to take, and of the probability that it will conduce to the good of the patient and to the credit of the healing art. The second is that if there seems much doubt about the matter he should explicitly say so and represent the prospect of a cure as a possibility, and not a probability, to the patient and his friends, and to the general practitioner. Where the procedure is very risky or unusual, or mutilative, it is clearly desirable that not only the consent of the friends, but that of some authority equal to the operator should be required. We do not say that this is

indispensable. Some of the best surgery now practised had to be begun under the frowns and denunciations of the authorities of the day. But it is extremely desirable, and for want of it one great reputation in surgery collapsed terribly and properly. The times are liberal. There is no disposition to adopt finality notions of what surgery or medicine can do or should do. On this account it is only reasonable that where surgery places life in danger which is not already endangered, and contemplates a permanent and serious mutilation, it should act with caution, with conviction, and with a consensus of opinion.

It is with great satisfaction that we already begin to see the fruit of our endeavour to press the truth about sewer-gas on public attention cropping up both at home and abroad. Brighton is, ill-temperedly it is true, and we fear awkwardly and expensively, but nevertheless after a fashion—stirring itself. Let us hope that when the folly of an irascible and misguided moment has been recognised and abandoned, the authorities of London-super-Mare may be reasonable and accept the counsel, instead of resenting the remonstrance, we have addressed to them. We claim to have been their true though candid friend in this matter; and the time must come, sooner or later, when they will themselves perceive this fact and recognise that our sole object has been the purification of a “health-resort” in which, on public grounds alone, we have a lively interest. Meanwhile there are abundant evidences that what we have written on the subject of sewer-gas and sewer ventilation, *à propos* the special needs of Brighton, has produced results far more extensive and salutary than even we had contemplated. Despite the ridiculous attempts made by some of our lay contemporaries to appease public anxiety, by representing the gaseous emanation from sewers as innocuous if not absolutely healthful, it is beginning to be recognised that the great practical disadvantages of the “main-drainage” and “intercepting-sewer” system, whenever and wherever adopted—namely, the accumulation and return of sewer-gas—must be overcome before the requirements of public health can be held to have been absolutely satisfied.

The necessity of the crisis in sewerage reform is to devise and adopt some efficient mode of ventilation, by which the vapours and gaseous products of decomposition given off by the sewage in its passage through the common sewers may be destroyed, or, if that be impossible, carried harmlessly away. Closed pipes must and will retain, and, under certain conditions, return their vaporous and gaseous contents, unless these are removed by a special system of ventilation. Open gratings in the streets of a populous district are not simply nuisances, but traps for the unwary. So far from the assertion that a “whiff” of sewer-gas is not poisonous being true, it is a painfully well-known fact—indeed it is a matter of common observation—that a purely casual inhalation may produce a peculiarly marked effect. In regard to this, as to other poisons, it often happens that the victim of the evil influence is the person who has been for the shortest time and to the least extent exposed to it. It is so even with an odour. The dwellers in foul air become so habituated to it that they do not perceive the stench that nauseates a chance visitor. That this rule of tolerance

applies to poisons is so notorious that we can only marvel that it is not generally admitted. It is, however, a matter of little moment what may be said or written in apology for or defence of the *status quo* as regards sewer ventilation.

It is an incontrovertible fact that sewer-gas is poisonous; and the only question should be, By what method or means are we to get rid of it? We have no special leaning to—and certainly no sort of interest in—any particular “system.” It is obviously necessary to discharge the gas as far as possible *out of* the respired atmosphere, and consequently it cannot be right to ventilate the sewers directly into the streets. This is a simple common-sense conclusion. No question of the dilution of the poison by admixture with the air can possibly come into consideration where the open grating system is adopted, because the pedestrian, or, if the grating be near an open window, the house occupier, inhales the mingled gas and vapour as it rises from the grating. It may not be perpetually given off, but it makes its way out—probably in gusts—as the varying distribution of heat in the system of sewers and the relative temperature of the external atmosphere may determine. The only rational plan of procedure, as it seems to us, is to ventilate the sewers by pipes rising above the level of the adjacent houses, so that it may mingle freely with the higher strata of the atmosphere, and become oxidised. No one who has had any practical experience in ventilation ought to be ignorant of the fact that the atmosphere is stratified by the zones of heat and consequent currents that traverse and intersect it. Even in a room some twenty feet square and thirteen feet high, there may be three or four practically distinct strata of the contained atmosphere, and a vapour or gas introduced at one level will not *quickly* rise or fall to another. The law of the diffusion and admixture of gases is easily suspended by conditions of local temperature and the play of jets of cold air. Just as mists and fogs may roll on the ground, become entangled by trees, be interrupted by the reverse current of air over a river, or hang suspended over tracts of land which are not yet affected by their presence; so sewer-gas may be disseminated through certain strata of the atmosphere, and neither be diluted by, nor affect, other strata, for an appreciable period of time, quite long enough to bring other conditions into operation, and render its ultimate disposal—the unexpected. The only sensible plan of dealing with a noxious gas or vapour is to destroy it locally where it is generated, or, failing that, to disperse it at a higher level. This is the course of procedure we have recommended in dealing with sewer-gas, and to that recommendation we adhere. The objection that such a discharge is difficult, because, when the sewers happen to be of a different temperature from that of the higher strata of the atmosphere—which is generally the case—a down-current may be set up in the ventilating pipes, is not worth discussing, because in practice the difficulty can be easily got over by employing pipes of different heights, the lowest always reaching above the roofs of the houses, the highest opening at a much greater altitude. When several pipes so arranged are connected with the same system of sewers, it will scarcely ever happen that even for a moment the outpour is interrupted. The discharging orifices lie in different strata, and with the protection of cowls the currents of the atmosphere act in a



way that is found to be compensatory. This is, however, a matter of detail. We only allude to it in passing to note the recognition of a difficulty which has been pointed out, and at the same time to indicate that there is a remedy close at hand.

Our immediate object is, we hope, in a fair way of being attained, and we are glad to know that much collateral good has been done by the discussion in which we have been involved. Everywhere and among all classes of the resident population attention has been aroused, and many extensive and costly measures have been taken to remedy evils which were previously overlooked. There are two points we would again, and more strongly than heretofore, press on the notice of the public: First, the system of ventilating by street gratings *must* be finally abandoned. In some parts of the metropolis the condition of matters in this respect is most unsatisfactory. Second, it is useless to trust to the ordinary traps for disconnecting house-drains from the sewers. This last-mentioned matter is within the control of every householder. Properly constructed disconnecting chambers should be fitted to every house. The present season, when families are leaving town, is, so far as London is concerned, a timely one to have this limited and not very costly measure of safety carried into effect. We venture to hope our suggestion will not be unheeded.

AMONG the many improvements of modern times in connexion with military operations, the provision of hospital-ships for the reception and removal of the sick and wounded of troops on active service deserves special notice and commendation. On the outbreak of the war with China in 1859, two large steam-ships, the *Mauritius* and *Melbourne*, were fitted out as hospital-ships, with every requisite for the efficient treatment and accommodation of the sick and wounded. The plan of the special fittings and the general arrangements necessary for the service on which they were to be employed were prepared and carried out under the supervision of the late Deputy Inspector-General HENRY MAPLETON. The results were so satisfactory, and the advantages arising from this provision for the sick and wounded so manifest, that when the Ashanti campaign was undertaken at the end of 1873, H.M.S. *Victor Emanuel*, a wooden screw steamer of upwards of 5000 tons burden, was selected for a hospital-ship, and was fitted up, under the supervision of Dr. MARSTON, at that time assistant in the Sanitary Branch of the Army Medical Department, for the reception of six sick officers and 250 men. Among the improvements made upon the arrangements of the previous ships was the introduction of a laundry with a patent steam washing-machine, drying-room, and store-room for soiled linen, and an ice-machine capable of making 4 cwt. of ice daily. The *Victor Emanuel* was deemed by the medical officers to be a complete success, and was of great value to the numerous sick and to the wounded in the campaign. As we lately stated, two hospital-ships are to be sent to Alexandria. One of these has been fitted up for the purpose in the Albert Dock, under the supervision, so far as the hospital arrangements are concerned, of Surgeon-Major MOORE. The vessel is the *Carthage*, one of the largest of the Peninsular and Oriental Company's screw steamers, and of 5100 tons burden. She will afford accommodation for

twenty-four sick and convalescent officers and for 220 men, besides the medical staff and duty men of the Army Hospital Corps and the ship's crew. Of the men, 80 will be provided for on the main and 140 on the lower deck. The Staff will consist of six medical officers and one quartermaster, three sergeants, one corporal, and twenty-four privates of the Army Hospital Corps. Accommodation has also been provided for four lady nurses. Surgeon-Major FERGUSON has been appointed senior medical officer in charge. The arrangements of the hospital portion of the ship seem to have been very carefully considered, and to promise favourably for the comfort and welfare of the sick and wounded. Abundant means of ventilation have been provided by windsails, punkahs, and Edmonds' system of ventilating tubes, in addition to the inlets afforded by the portholes when weather permits. The baths have all been fitted with pipes to supply fresh water when deemed necessary instead of salt, and have the usual steam-pipes for heating the water. There is an ice-making machine on board capable of producing 2 cwt. daily, and we understand there are also two similar machines to be landed for use on shore. The *Carthage* takes out an abundant supply of hospital comforts. She has not been fitted with a laundry like that of the *Victor Emanuel*, which we think is to be regretted; it is believed, however, that there will be no difficulty experienced in getting the washing done on shore, and, except on the passage out and home, the vessel is never likely to be more than a few days out of harbour. A tank has been fitted up on board in which any clothing requiring disinfection can be placed and thoroughly treated either with boiling water or with disinfectants, of which there is an abundant supply on board in the form of Condy's fluid, carbolic acid, and chloride of lime. Five and a half tons of ice have been taken on board for use, if required, until the ice-making apparatus has been set in operation, and to preserve the meat and other provisions for the outward voyage. We understand that the utmost harmony has prevailed among all the parties engaged in fitting out this vessel, and that the Admiralty have shown a most praiseworthy desire to carry out the wishes of the Medical Department to the utmost extent of their powers. We sincerely trust that the results may prove as satisfactory as those obtained on the two previous occasions.

## Annotations.

"No quid nimis."

### HEALTH OF ENGLISH HOLIDAY RESORTS.

AT this holiday season the Registrar-General's annual table of mortality statistics in the principal watering-places and health resorts has considerable interest, not only for holiday makers, but also for the authorities of watering-places competing for the favour of the public. The Registrar-General's Quarterly Return just issued contains the mortality statistics for the three months ending June last, relating to 46 seaside and inland watering-places. These statistics afford trustworthy indications of the recent health and sanitary condition of these holiday resorts. It has not unfrequently been objected that these statistics do not always relate to the precise boundaries of the different watering-places. This is so far true that the area of the registration district or sub-district taken to represent the watering-places is in most cases larger than the watering-

place itself. The Registrar-General points out that as the population of the health resort is more urban in character than that of the surrounding district, the inclusion of the latter should in most instances favourably affect the mortality statistics. It has been asserted, however, that the opposite result is thus sometimes produced. There can be no question, however, that the holiday visitor of a watering-place is distinctly interested in the sanitary condition of a larger area than the arbitrary limits of the urban sanitary district, especially as regards zymotic fatality. The mortality statistics of the forty-six English watering-places during the last quarter were exceptionally favourable. The mean annual death-rate of the population of these watering-places, estimated at about a million, did not exceed 16·8 per 1000, the zymotic rate being only 1·72. Compared with the rates prevailing in the whole of England and Wales, and also in the rural districts, the mean watering-place rates indicate satisfactory general health, and freedom from zymotic fatality.

#### THE EGYPTIAN EXPEDITION.

THE past week has witnessed the despatch of the Hospital Ship *Carthage*, of eight field hospitals, and the 1st Bearer Company of the Army Hospital Corps, to Egypt. H.R.H. the Duke of Cambridge, accompanied by the Director General of the Army Medical Department, made an inspection of the *Carthage* on Tuesday last, and expressed himself greatly pleased with the arrangements for the sick and wounded. On the main deck, which is lofty, well lighted and ventilated, the sick are berthed in large iron swinging cots, each provided with a small head table and a punkah. The ports are large, and, except in unusually rough weather, will be open. The lower deck, which is also lofty, is intended for convalescents; here the ordinary ship canvas swinging cots are slung, the men's mess tables being fixed to the deck underneath. Excellent cabins for sick officers, a cheerful day-room for them, in addition to the ordinary saloon, numerous baths, lavatories and closets, have been arranged with much forethought. The dispensary has been specially fitted up by Messrs. Savory and Moore. The medical staff consists of Brigade Surgeon H. Fergusson, Surgeon-Major C. Maunsell, Surgeon Western, Captain of Orderlies Joseph, 27 non-commissioned officers and men of the Army Hospital Corps, and four Sisters from the Netley Nursing Establishment. The medical officers and men of five Field Hospitals embarked on board the *Carthage* on Thursday for conveyance to Egypt. Brigade Surgeon Veale and Surgeon-Majors Macdowell, Warren, Tanner and O'Leary in charge of each, with six medical officers and a quartermaster of the Army Hospital Corps attached for duty.

Brigade Surgeon W. Jackson, C.B., having been appointed to the personal staff of Sir Garnet Wolseley, left for Brindisi, on August 4th, to join the Commander-in-Chief of the expedition. Dr. Jackson was attached to Sir Garnet's staff during the Ashantee and Zulu campaigns. Surgeon-Major F. Howard has left for Egypt in medical charge of the troops in the *Viking*. Brigade Surgeon A. M. Tippetts, and Captain of Orderlies Andrews, Army Hospital Corps, have been ordered to Gozo to form the base hospital on the island.

The 2nd Field Hospital left Portsmouth in the *Pelican* on August 5th, Brigade Surgeon Oliver Barnett, C.I.E., in charge, with Surgeon-Major A. Robinson, Surgeon I. W. Beatty, Surgeon Lyons, Lieutenant of Orderlies Howell, and thirty-seven non-commissioned officers and men of the Army Hospital Corps.

The *Marathon* embarked at Portsmouth on August 5th the 1st Bearer Company, under Surgeon-Major S. K. Ray. The Company went out complete as to men and equipment; the officers attached were Surgeon-Majors R. C. Hickson,

J. Shaw, Surgeons Lucas, Addison, Captain of Orderlies L. Gorman, and Lieutenant of Orderlies Marshall; one Warrant officer and 143 non-commissioned officers and men of the Army Hospital Corps. No. 3 Field Hospital also sailed in the *Marathon*, the *personnel* being Surgeon-Majors Beath, Troup, Surgeons Anthonisz, Mitter, and Lieutenant of Orderlies Enright, with thirty-seven non-commissioned officers and men of the Army Hospital Corps.

Captain of Orderlies Osborne, Army Hospital Corps, left Liverpool in the *Capella* on August 5th for Egypt.

We understand that the dress of the medical officers in Egypt will be as follows:—Frock and trousers, blue serge; helmet white, with dun-coloured puggaree, with black line twisted through it, and blue veil; forage cap, Glengarry, with departmental badge.

#### THE UNION OF NERVES.

M. GLUCK, not long ago, suggested the use of Neuber's "ossein" drainage-tubes (composed of decalcified bone) as a means of promoting the union of divided nerves. His attempts were, however, not successful. M. Vanlair has lately repeated the experiment, avoiding as far as possible any conditions which might have interfered with the results in Gluck's cases, and he has been more successful than the Berlin surgeon. At the first attempt he obtained, in four months, the regeneration of a nerve filament no less than five millimetres in length. From other experiments he has arrived at the conclusion that it will be possible to reproduce nerve segments of almost any length. The details of the operative procedures are not described in M. Vanlair's paper, which was communicated to the Académie des Sciences, and is chiefly occupied by some facts which, proceeding in this manner, he has ascertained regarding the process of regeneration of nerves. These facts corroborate the conclusions of Eichhorst, Ranvier, and Helin, that the regeneration is by a process of peripheral budding. He has also ascertained that a partial restoration of muscular activity, correlative to an anatomical regeneration of the nerve fibres, may occur a long time before the return of cutaneous sensibility. The new growth always commences in the marginal zone of the fasciculi, and only reaches very slowly the axial bundle. Hence the conclusion is drawn that the efficient cause of the proliferation is not the direct irritation due to the division, but the inflammation which spreads from the sheath in consequence of the injury. The maturation of the newly formed fibres proceeds from the periphery towards the centre; the inferior half of the intercalated segment resembles the normal type of structure much more closely than the superior half. The relations which Vanlair has traced between the new segment and the peripheral portion of the nerve are as follows. A distinct fasciculus in the inferior part of the segment may pass through the junction, and then emerge as an altogether independent nerve, to ramify in an adjacent muscular mass. Other bundles pass along the dissociated fasciculi of the peripheral portion without penetrating into their interior, so that a section presents two distinct circumscribed portions, one constituted by young, living, almost microscopic fasciculi, directly continuous with those of the intermediate segment; the other composed of larger fasciculi with degenerate fibres, belonging to the old peripheral segment. Another part of the fibres of the intermediate portion separate and are lost in the connective tissue which forms a swelling at the junction of the old and new portions. Lastly, a small number of new fibres enter the fasciculi of the degenerated fibres, and pass either into the empty Schwann's sheaths or into the interstices between them, and can be traced for a certain distance from the point of section. Thus the peripheral end seems to be the channel for only a limited number of the new nerve fibres, and to constitute rather an

obstacle to the regular progress of the new elements. These observations, if accurate, seem to show that it is a mistake to endeavour to bring closely together the extremities of divided nerves. What is necessary is that the regenerating nerve should be enclosed in some limiting structure such as a Neuber's tube.

#### LIVES CAST AWAY ON THE MOUNTAINS.

It is time to speak out plainly and enter an earnest protest against the miserable waste of human life which seems to be involved in mountaineering. No possible good can be done by climbing the Alps for mere pastime. When a scientific object is in view the risk of life may be justifiable, but nothing can excuse the reckless venture which has no better purpose than the gratification of a caprice or the indulgence of a small ambition. It is not a very great or grand thing to be able to scale the slippery sides of high mountains. The pains incurred, the strength expended, and the skill displayed in surmounting the difficulties of a feat of this description, might be bestowed on many a more useful enterprise. We are not animated by any home-sick or craven sentiment in making this assertion. We know how to appreciate deeds of daring, and can sympathise with those who take pride in manly exploits, but we fail to see the point or purpose of "mountaineering." It is not even as nearly related to *possible* usefulness as ballooning, because it is just conceivable that some day the aeronauts may discover a way of turning their art to practical advantage; but *climbing*, in the Alpine sense, is at best a piece of pure pastime, and often involves a sacrifice of life, as in the recent miserable accidents, which we all deeply regret. A young man engaged in the study of medicine is the last victim to this futile form of desperate enterprise. We will not trust ourselves to speak farther of the matter. It is too terrible to write or think about. A valuable life cast away on the mountains; a career which might have been one of usefulness to humanity blighted! The subject is one of humiliating interest, the "accident" a matter of profound regret.

#### OCCLUSION OF THE EXTERNAL AUDITORY MEATUS.

DR. ORR has recently recorded three cases of occlusion of the external auditory meatus which have occurred in the practice of Dr. S. Sexton of New York. In the first case, a man, aged thirty-nine, who had previously suffered from occasional otorrhoea and tinnitus aurium on taking cold, fell from a truck and cut his left temple and ear. This caused great swelling of the whole side of the head, and an abscess formed in front of the pinna, which was opened. Six weeks after the accident, when he came under Dr. Sexton's care, he complained of deafness in the left ear, vertigo, especially on rising quickly, very distressing tinnitus, and a sense of fulness in the ear. The orifice of the auditory meatus was found to be occluded by a dense integumentary membrane, except for a minute aperture at the upper and back corner, which just admitted a small probe. Through this aperture a small blunt-pointed tenotome was passed, and a ring of the skin a quarter of an inch in diameter was removed. Blood and inspissated pus were evacuated, and two days later "a firm wad of cotton-wool, thoroughly saturated in the secretions in which it was found," was removed, and "normal hearing was at once restored." The patient knew nothing of the introduction of any wool into his ear since he was thirteen years old, but the plug was evidently of more recent date than this. The meatus was dilated at first by a speculum and then by plugs of cotton-wool, and all aural symptoms subsided. The second case was similar in that it occurred through injury. A man, aged sixty-two, gave the history that when a boy he was trodden on by a horse, and

his left ear severed from the skull. It was cleansed and replaced, and ultimately firmly adhered. But it was not quite accurately adjusted, being placed too far forwards: the opening of the meatus was quite closed by tegument, the lower portion of the auricle seeming to cover it. A tiny sinus opened in front of the tragus, and through this some thin matter and wax could be occasionally squeezed. By firmly pressing on the skin over the meatus the man experienced a bitter taste in the mouth, and there was slight tenderness over the mastoid process. The third case presented itself in a young girl aged thirteen, who had suffered for many weeks with discharge from the right ear. To prevent the child scratching the auricle, she was kept in bed lying on the inflamed ear. "This caused an adhesion of the raw parts about the margin of the concha." When seen, the external auditory canal was completely closed by a diaphragm of the common tegument, situated about the junction of the cartilaginous and osseous portions of the canal, slightly concave and very smooth. Should any signs of middle ear mischief arise, Dr. Sexton intends to open the canal without delay.

#### PRACTICAL CLASSES IN SCOTLAND.

WHILE much is said and written (in the south) with regard to medical education and examination, it appears that a complete change in the curriculum of the Scotch universities is being quietly, and almost without comment, effected. By means of practical classes the student's work has been much increased, and the requisite expense has been almost doubled, and this without more than a passing word in the University Court, as each teacher asks that his course of practical instruction should be recognised or rendered obligatory on the part of the student. The full force of this change will be more evident if an examination of the subjects now taught practically be attempted. These are not all as yet compulsory, but the student somehow understands that even when not so his chance of success at his examination is materially assisted by the information obtained at the class, while others fear that offence may be given to the professor if they abstain from such attendance. The practical classes now organised in some or all of the Scotch universities are these:—Anatomy, Physiology, Chemistry, Botany, Natural History, Materia Medica, Toxicology, Midwifery, Surgery, and Pathology, in connexion with the regular classes, while the name is legion of those less regular, and conducted by lecturers on special subjects. These last, too, become more necessary every year, as the ordinary subjects get overgrown and unfit to be coped with in the time allotted to them. Nor can we look for any decrease in the practical department of teaching. To meet these extra facilities the examinations for the M.B. degree have recently been divided, so that they may be taken at four, instead of three, periods, as heretofore it was found that all the extra teaching did nothing to reduce the number of those who were unsuccessful in their examinations. In consequence of the amount of work, it is now customary among the best students to take five or six years to complete the curriculum, while many of those who attempt to finish in the usual period of four years get so frequently remitted, as well as disorganised in their succession of classes, that they ultimately find themselves behind their less hopeful brethren. It appears hard that poor students should be overweighted, as they must now be, by extra classes, extra fees, and other expenses; but the supply of candidates continues so great that it does not seem likely to unfavourably affect the public interest were the curriculum extended to six, or at least five, years, while it is certain that this would not be more than enough for the ordinary student to obtain a fair acquaintance with the extensive field he requires to culti-

vata. While increased value is very properly given to practical work, attention might profitably be directed to the question of curtailing the number of lectures compulsory in some of the more easily demonstrated subjects. In some way the amount of classwork must be lessened, or the period of study must be lengthened. There are other matters which may with advantage be considered in this connexion.

#### ORIGIN OF THE OLFACTORY TRACT AND STRUCTURE OF THE OLFACTORY LOBES.

SIGNOR GOLGI, in the last part of the "*Archives Italiennes de Biologie*," states that he has made a series of sections through the olfactory lobes, with a view of determining the connexion of the cells and strands of the olfactory lobes. He finds that there is in man and mammals a superficial layer, continuous with the tractus olfactorius, which gradually becomes thinner posteriorly and stretches towards the gyrus hippocampi; a thicker layer of grey matter, rich in ganglion cells; and a layer of nerve fibres, not very clearly defined from the deeper layer of ganglion cells with which they are connected. He maintains that two kinds of nerve cells exist in the grey substance of the lobi olfactorii—one set the processes of which divide into extremely fine fibrils, and are lost in the delicate plexus of the neuroglia, and a second set the fibres of which, though they divide and subdivide, yet preserve their individuality. The fibres of the tractus olfactorius sometimes curve away from their longitudinal course and enter the superjacent grey matter obliquely. The deeper fasciculi of the lobus olfactorius may be traced to the corona radiata, and some, perhaps, into the anterior commissure. Some of the nerve fibres of the olfactory tract originate in the plexus of fine nerve processes of the lobi olfactorii, but are not directly continuous with the ganglion cells of this region. Other fibres, again, are directly continuous with the processes of the ganglion cells.

#### WHAT HINDERS NOTIFICATION OF INFECTIOUS DISEASE.

We direct attention to a letter in another column, entitled "*Notification of Infectious Disease*." It bears not on the main question of the expediency of requiring notification of cases of infectious disease to be made to the sanitary authority either by the medical man or by the householder, but on some of the consequences of letting into the secrets of practice the representatives of the sanitary authority. We are not familiar with the local Act under which the nuisance inspector acted in this case, but if he were acting within its powers it must be a remarkable piece of legislative work, and confer on the inspector gifts as well as powers enough to make the plodding practitioners of medicine envious. The case is this: The town concerned is one in which the Notification of Infectious Disease Act is in force. Under it our correspondent, a medical man, had certified on June 6th to the medical officer of health that F. W.— was suffering from scarlet fever; thereupon, on June 6th, the nuisance inspector visited the house and forbade the patient's father, a cabdriver, plying for hire, but offered him work in the town's service, which he was unable to perform. On June 18th, twelve days from the certification of scarlet fever, and only about six days from the commencement of the infectious process of desquamation, the nuisance inspector gave leave to the father—who was all the time living and sleeping in the infected house—to resume driving his cab! When the medical man called on the 20th June he found his work very much taken out of his hands. The sanitary inspector had supplied a prescription for a disinfecting oil with which the patient was to be rubbed. The medical practitioner naturally felt indignant at such interference, and wrote accord-

ingly to the Sanitary Committee without receiving any answer from it. The inspector, indeed, called and explained that the prescription was the work of the officer of health, and that it was left under the impression that the doctor had ceased his attendance. We are strongly of opinion that the time has come to acknowledge the right of the sanitary authorities of a community to know the existence and general circumstances of any cases of infectious disease that may occur in the midst of it, and to take steps for the protection of the healthy. This is the inevitable tendency of all recent sanitary legislation, and the merest prudence on the part of a civilised community. Clearly this cannot be done without the aid, direct or indirect, of medical men in attendance on the patient. How this should be secured it is not our present purpose to inquire. But we direct attention to the above case as a typical example of the way in which it is not to be secured, and of the harm that will be done if sanitary inspectors are to be allowed to act with medical despotism, to take away liberty and to restore it, to prescribe, and to ignore the experience of the profession in regard to the duration of the periods of risk in infectious disease. Such a system is not more intolerable to the profession than it will prove delusive to the public.

#### PNEUMATIC DRAINAGE.

A NEW system for the protection of houses from the infiltration of sewer gas, and the disposal of town sewage, has been introduced at Paris and Lyons by M. J. B. Berliez, civil engineer, and former director of the Compagnie des Vidanges, of Lyons. An illustration of this new system can now be seen in working order at the barracks of the Pépinière, Boulevard Malesherbes, where a thousand soldiers are quartered, and with the permission of M. Berliez we were able to examine every detail of the process. Underneath the closets the old cesspool has been emptied, thoroughly cleaned, and converted into a cellar. Here we found M. Berliez's apparatus. From each closet above a pipe communicates with an iron cylinder or drum. Within this first receptacle there is an iron basket which will retain a hard substance, such as a brush, or even an infant if thrown down the drain. The detection of crime is thus facilitated, and the obstruction of pipes rendered impossible. A portable handle, affixed from the outside, is used about once a week to impart a strong rotary motion to this basket; the presence of any hard substance is then detected by the sound, and any accumulation of softer substances macerated and driven out. From this first receptacle, and by natural gravitation, the liquefied sewage flows into a second iron receptacle placed close at hand, within a yard or so. A large ovoid floater occupies the greater part of the space within, the pointed end fitting hermetically an opening at the bottom, where the pneumatic suction keeps the floater in its place. It is not till the receptacle is almost full of water that the floater is able to disengage itself from this suction, and, rising, enables the sewage to escape by passing under the floater into the pipes, where the pneumatic suction carries it away. This suction is produced by a steam-engine situated in the suburb of Levallois-Perret, and the iron pipes, placed within the main sewers, communicate not only with the Pépinière barracks, but with several private houses, and with a dépôt at the Place de la Concorde, where the contents of many cesspools are brought and emptied. The total distance is 4600 metres. It is, therefore, on an extensive scale that the experiment has been tried and so far has worked well, giving rise to no sort of nuisance, and instead of allowing sewer gas to ascend house drains, drawing it, on the contrary, away. It is proposed to place these apparatus under all the houses of Paris instead of cesspools; to draw by pneumatic action all the sewage to dépôts situated in the open country outside

Paris, and there pump it forward distances varying from ten to fifty miles, where it may be used either to irrigate farms or be precipitated and converted into solid manure. It is calculated that the sale of this manure and an annual tax of £2 8s. for every house where the system is applied will cover working expenses and yield a large profit. This tax would be an economy on the present cost of emptying cesspools, and the sanitary advantages secured would be an inestimable benefit. The principal objection to the system, so far as its application to towns such as Paris is concerned, rests in the fact that the iron used for the pipes must corrode under the action of sewage matter, and the slightest leakage would cause a total collapse of the whole system. Careful, constant supervision and prompt repairs would be indispensable. Then, the avoidance of nuisance depends on the frequent usage of the closets, as fermentation would set in if the receptacles were left half full for a few days. Families leaving home would have to carefully flush their closets the last thing before their departure; for though each house would be thoroughly protected from sewer gas, it would not be protected from any noxious gas arising within the receptacles. Fortunately these receptacles are very small, and must, in ordinary households, be frequently and automatically emptied during the course of the day; so that, generally speaking, there would be no time for mischief to arise.

#### THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THIS Association held its thirty-seventh annual meeting on August 2nd, at Glasgow. The retiring president, Dr. Hack Tuke, vacated the chair in favour of Professor Gairdner, the president for the year. The attendance of members was satisfactory; and several visitors, including Dr. Scott Orr, President of the Faculty of Physicians and Surgeons, were present. Dr. Orange, of Broadmoor Criminal Lunatic Asylum, was nominated as president-elect; and it was agreed that the next meeting should be held in London. Drs. Ingalls of Ghent and Blanch of Paris were made honorary members. Members were cordially invited to neighbouring Scotch asylums, and several days were in this way spent most pleasantly by many of them. Professor Gairdner delivered an able address on the increasing connexion between the so-called specialism of the asylum physician and scientific medicine. The hearty thanks of the meeting would show that a responsive chord had been struck in the minds of members, while Professor Gairdner's election to the chair was deemed another proof of the sincerity and width of their views. Further, thanks were voted to the Faculty for the reception the Association had met with at their hands that day, as well as for liberty to the West of Scotland Branch to meet quarterly under their roof. Afterwards a delightful trip by special steamer to Tarbert was enjoyed, the members dining together on board.

#### A BLOOD DIET FOR THE HERBIVORA.

THE fact that all animals, even the herbivora, are at first nourished on a diet of milk, which must be considered as purely animal, led M. Regnard to suggest that an animal diet might be employed with advantage at a subsequent epoch in their history. The idea is not new, but attempts to verify it by, for instance, feeding horses on meat, raw or cooked, invariably failed in consequence of the disgust which this diet occasioned. It occurred, however, to M. Regnard that an animal substance might be utilised—certainly highly nutritious, of which tons are wasted weekly—viz., blood. The problem was how to present it to the animal in such a form as not to occasion disgust. The blood was heated to 100°C., and the coagulum thus obtained was pressed and rapidly dried in a stove, and then powdered in a coffee mill. It was found to keep well, and to be destitute of odour and of taste, and was given mixed with other food in

doses varying from ten to eighty grammes daily. The experiments were made on lambs which had been abandoned by their mothers. Three lambs were kept on the ordinary diet of beetroot, hay, &c., and to three others the powdered blood was given. The first steadily lost flesh, while the latter increased to three times the original weight, and connoisseurs declared that they had never seen such fine lambs of the same age. The animals surpassed their fellows which had been suckled by their dams both in weight and size, and their coat of wool became doubled in thickness. Experiments of the same kind are now in progress with calves, and promise to be as successful as the others. It will certainly be a matter of high importance if the vast amount of nutriment now almost entirely wasted can be thus utilised. The saving of milk in rearing calves, for instance, would alone be a most valuable item. It appears that this system of alimentation is applicable also to man. In the case of a rickety child of eighteen months the results are said to have been most encouraging.

#### DEATHS UNDER CHLOROFORM AND ETHER.

TWO inquests have recently been held in the central district of Middlesex upon persons dying when under the influence of an anæsthetic. The first case was that of a male patient, aged forty years, who was about to be operated upon by Mr. Coulson in St. Peter's Hospital, Berners-street, for stricture of the urethra. After two drachms of chloroform had been administered by the house-surgeon, the patient suddenly ceased to breathe and died in a few minutes. A post-mortem examination was made by Dr. A. J. Pepper, who stated that the heart was undergoing fatty degeneration, but that all the other organs were healthy. The deceased had not led a very regular life, and was at times addicted to intemperance. The second case was that of a woman, aged fifty-three years, who was admitted into the Middlesex Hospital suffering from cancer of the uterus, which caused obstruction to the bowels. Stercoraceous vomiting occurred three days after her admission. Mr. Henry Morris decided to perform colotomy, and a mixture of chloroform and ether was administered by one of the resident medical officers. After the patient had been inhaling for two or three minutes, she began to vomit, and then suddenly appeared to be choking and ceased to breathe. In both cases the usual efforts for restoration were continued for some time, but without avail. Verdicts of death from misadventure were returned by the jury.

#### PLASTIC SPLINTS IN SURGERY.

DR. SAMUEL N. NELSON, of Boston, U.S., has published in the *Brooklyn Annals of Anatomy and Surgery* a careful paper on the use of Plastic Splints in Surgery. He describes the various kinds of plastic splints in use, with the exception of the varieties of felt, and the mode of application and special features of each. The chief object of the paper is to commend the plaster-of-Paris splint as the best of all—the cheapest, safest, and most reliable. The material recommended for the bandages is “the cheap bleached cotton cloth used for printed calico, before it has received the dressing. It is then free from the vegetable oil with which each fibre was covered, and has not received the filling of earthy and starchy compounds necessary to give the firmness required in finishing, and is equivalent to the surgeon's absorbent cotton.” Dr. Nelson is a decided advocate of the treatment of recent fractures—simple or compound—by the plaster-of-Paris splint, and he gives abstracts from the reports of several American surgeons showing the great success of this plan when applied to cases of fracture of the femur. He considers this treatment not only suitable for all fractures of the bones of limbs, but also for fractures of the spine, ribs, and clavicle.



### EXCISION OF THE KNEE-JOINT.

MR. P. J. HAYES has published in the *Dublin Journal of Medical Science* a table of his cases of Excision of the Knee, and in connexion with this table has described his mode of operating and treatment. He makes the usual incision across the front of the joint, divides the lateral ligaments at once, and is careful not to cut the structures uniting the bones behind. To avoid this he divides the crucial ligaments by cutting downwards on to the tibia, and in removing the ends of the bones he saws from before back and not quite through the bones, breaking through the posterior part, and then peeling the soft tissues off the fragments to be removed. The splint he employs is a metal bracketed back splint, the leg piece being an inch anterior to the thigh piece. In addition he has a short splint over the front of the thigh, and this he fastens on very firmly, so as to press the femur backwards and maintain it in exact apposition with the tibia. The leg piece he affixes by plaster-of-Paris, which is continued over the ankle, and so a metal foot-piece is not required. The knee-joint is fully exposed, and can be dressed antiseptically, or in any way preferred by the surgeon. Mr. Hayes's cases numbered fourteen; of these eleven recovered with good useful limbs; in the other three amputation was performed, in one case because the bones could not be kept in apposition; in one case on account of want of repair and phthisis, and in the third from what appears to have been septic diarrhoea; the last two cases died. With this experience Mr. Hayes is fully justified in speaking favourably of excision.

### SPOONS IN THE INTESTINE.

MR. SAMUEL KOHN in the *Medical Record*, New York, July 22nd, relates a remarkable case in which a patient suffering from melancholia, with intercurrent attacks of mania, was removed from the asylum with symptoms of peritonitis; vomiting; pulse 120; temperature 102.5° F.; a pale, anxious countenance, &c., with general abdominal pain, but special tenderness over the right iliac region. Such attacks recurred and subsided alternately over a period of five weeks, partial obstruction occurring four times. The patient said she was "rotten inside," and could not possibly live. One day the mother of the patient came to the doctor's office and said that, that morning, in the fæces of the patient, which she had regularly examined, she had found a long, hard, spindle-shaped mass of fæces, encased in glairy mucus. Examination revealed the edges of several spoons protruding from the mass. Softening and breaking it up she found it to contain three teaspoons, which the doctor found to have every appearance of having lain lengthways in the intestine for a long time, the concavity of one fitting into the convexity of another. All abdominal symptoms disappeared. The patient declared that she swallowed them all in one day with the intention of thus ending her existence.

### INFLUENCE OF LIGHT ON VISION.

M. CHARPENTIER has been engaged in a series of researches to determine the quantity of light requisite to enable the eye to distinguish between two luminous points. He finds that with equal illumination and for the same distance the visibility of luminous points is directly proportional to their surface or to the square of their diameter. That with equal illumination and when of equal size the visibility of luminous points is inversely proportional to the square of their distance from the eye; and, thirdly, that when the luminous points are of equal dimensions, and at the same distance from the eye, their visibility is directly proportional to their illumination. The eyes were in all the experiments exactly accommodated to the distance of the objects, and were free from astigmatism.

DR. DUTRIEUX, the Belgian explorer, who was residing at Alexandria at the time of the bombardment, and during that trying period, when half the city was in flames, calmly pursued his work in the Egyptian Government Hospital, has been rewarded by the Khedive with the title of Bey, and the appointment of Physician-in-Chief to the Hospital. Dr. Dutrieux, in a letter dated July 20th, says: "I have escaped the massacres perpetrated by the criminals and Bedouins let loose by Arabi Pasha against a defenceless population. My house has been burnt and pillaged. As medical officer of the Government Hospital and of the European Hospital, my professional duties detained me in Alexandria, which I have not quitted for a single minute."

WE regret to learn that an accident of a painful and serious, though happily not of an alarming, nature has befallen Dr. F. J. Mouat, who a few days ago sustained a transverse fracture of the right tibia and fibula an inch above the joint, with a dislocation. The latter was easily reduced by Dr. Mouat himself, and there has been no subsequent displacement. The treatment of the injury has, we understand, so far proceeded most satisfactorily, and there is every reason to hope that recovery from its effects will speedily ensue.

THE village of Great Smeaton, Yorkshire, is in mourning on account of the death of Mr. J. W. O. Mogg, the trusted medical adviser of the place. Mr. Mogg was pursuing his round of visits in his dog-cart on the 27th ult., when his horse stumbled, the deceased was thrown out, and, falling on his head, received injuries which resulted in death the following morning.

DR. M'EWEN of Chester has, we regret to learn, succumbed to the attack of paralysis with which he was seized last week. Dr. M'Ewen was for many years prison surgeon to Chester Castle, at which institution, we believe, he succeeded in effecting many important sanitary improvements. He had recently been appointed President of the local branch of the British Medical Association.

RETIRED Deputy Inspector-General of Hospitals, Charles D. Steel, has had conferred on him the Greenwich Hospital pension of £50 per annum, vacant by the death of Retired Deputy Inspector-General of Hospitals, James Taylor.

AT the jubilee held at the Wurzburg University on the 3rd inst., amongst the celebrities who received honorary degrees were Sir James Paget and Professor Huxley.

THE Professorship of Surgery in Berlin, recently vacated by the resignation of Von Langenbeck, has been filled by the appointment of Professor von Bergmann.

THE Royal Commission on Metropolitan Sewage Discharge met on the 4th inst. There were present—Sir John Cooke (in the chair), Dr. De Chaumont, F.R.S., Prof. A. W. Williamson, F.R.S., Dr. Thomas Stevenson, Mr. J. Abernethy, F.R.S.E., and Dr. W. Pole, F.R.S., secretary. The examination of witnesses for the complainants was proceeded with. The Commission will take no further evidence until Tuesday, October 24th; but, in accordance with the terms of the Commission, the Commissioners proceeded down the Thames on the 8th inst. for the purpose of viewing the outfall of the sewage at Barking Creek.

THE recent bazaar in aid of the funds of the Cottage Hospital at Egham has produced the sum of £90 for the benefit of the institution.

THE  
BRITISH MEDICAL ASSOCIATION.  
FIFTIETH ANNUAL MEETING,  
*Held at Worcester, August, 1882.*

THE proceedings of the Association commenced on Tuesday last, the 8th inst., a large number of members arriving in the town on that day. There was every promise of fine weather, and the visitors to the ancient city had opportunities of viewing its famous works, the Art Exhibition, the Cathedral, &c., in addition to engaging in the more serious business with which the programme was filled. After an informal reception by the Mayor and Corporation, the members marched in a body from the Guildhall to the Cathedral, where service was held, followed by a brief sermon by the Dean of Worcester. At 6 o'clock the Mayor and Corporation entertained the President and officers of the Association at dinner.

At 8 P.M. the first general meeting was held, when Mr. Barrow of Ryde, the outgoing President, yielded the chair to Dr. W. Strange. A cordial vote of thanks was passed to Mr. Barrow on the motion of Mr. Wheelhouse, seconded by Dr. Joseph Rogers, and the President delivered his inaugural address, which, although lengthy, was admirably adapted to the occasion. Space will not permit us to give more than the briefest abstract of this address. It commenced by a reference to the fact that the Association on this its fiftieth anniversary was revisiting its birthplace, and therefore the occasion was a most suitable one, both for retrospect and for looking forward to the future. Instead, then, of dwelling upon the history of the Association, he proposed to deal with the "revival" and "survival" of medicine in these kingdoms, and to trace the evolution of the medical mind during the past half century, and then to make a forecast of what the future is likely to be. He described the period 1830-40 as one pregnant with mighty changes, political, social, and scientific. The political collapse was accompanied by a corresponding mental stagnation, and science gained no hearers. Then came the reaction, and the era of scientific discovery set in, whilst political enfranchisement accompanied the increase in commercial and social intercourse. The idea of combining and forming associations for the diffusion of knowledge led to the initiation of the British Association, followed a year later by the foundation of the Provincial Medical and Surgical Association in the city of Worcester by Charles Hastings and his small but devoted band of coadjutors. Looking back to the condition of medicine at that time he pointed out that "that decade was distinguished by a galaxy of names, the like of which, at one period of time, the world has rarely if ever seen." The characteristics of those men whose names had since become as household words were patient research and observation of facts and thorough conscientiousness in the use of them; and, secondly, unswerving courage and truthfulness in announcing those facts to the world. Authority was being questioned on all sides, and he instanced the sensation created by Lawrence's celebrated lectures on the natural history of man. Dr. Strange praised highly the literary works and style of the men of those days, and advised modern medical authors to carefully peruse the works of those masters before putting pen to paper. "Evidence of the increased activity in medical research was afforded by the publication of the 'Cyclopædia of Practical Medicine,' edited by Forbes, Simon, and Conolly, two of whom later founded the *British and Foreign Medical Review*. The theory as well as the practice of medicine was being overthrown, and the action taken by Hastings in founding the Association was to place the provincial practitioner in almost as good a position as his metropolitan brother. And what was the condition of the provincial practitioner at this time? With the exception of a few local physicians of the older stamp, solemn, scholarly, and formal, and here and there an apothecary of more than ordinary acuteness of observation, there existed one dead level of mediocrity; men without the ambition to compete with their metropolitan brethren because the means of doing so were denied them. No sparks of genius emanated from their brains, because there was no mental friction to produce them. No doubt it was the inferior education of the general practitioner that made

literature distasteful to him, and scientific attainments rare; whilst the desire for improvement, which might casually arise, found no field for action. So he settled down into the mere copier of other men's prescriptions, and the collector of current nostrums for certain symptoms. Bundles of prescriptions were handed down from one practitioner to another along with the practice. Having no other idea but that disease was an entity, he set to work to drive it out of the system by the popular means of bleeding, purging, and sweating. If this were the intellectual status of the provincial practitioner half a century ago, were his morals and social status of a higher grade? I am not one of those *detractores temporis acti* who delight in recalling the caricatures—for they were caricatures, even then—of Fielding and Smollett, and, afterwards, of Dickens. Whilst the squire and the parson of the parish did not disdain to take their recreation in the parlour of the village ale-house, what wonder that the village doctor made that same ale-house his club also? But this, and his over-addiction to field sports, sometimes in company with his betters, but more often with his inferiors, drove away all desire for study, even if the means had been at hand, which, generally, they were not. So the top boots and the red coat did duty for the stethoscope and the test-tube; whilst the lancet was thrust into the arm of the too-willing patient as recklessly and ruthlessly as the spur and the whip had been applied to the sides of the animal which brought doctor and patient together. These were the palmy days of the provincial physician. Many times has he been figured, as, with solemn step and well-poised cane, he descended from his lumbering postchaise at the door of some opulent patient. The arrival of this great man in some country town was quite an event, and the signal for all the blind and halt and lame to turn out literally for a touch of the great man's hand. Those who could pay pulled out their guineas; those who could not might, perhaps, count upon getting a glance and a word from the 'Great Doctor,' as he was called, as he passed through the admiring crowd to his carriage in the courtyard in the inn. His grand and pompous manner denoted that he felt himself a head and shoulders taller than the poor apothecary who stood by, meekly trying to catch at the inconvertible dicta as they fell from the mouth of the medical oracle. Well, both species are now extinct, or extant only as fossils in some remote locality." Turning now to the working of the Association, he remarked that the provincial profession in 1832 was scarcely ready for it, but the time was soon to arrive in which several factors operated. "But another event, almost coeval with the founding of our Association, came to the rescue, and helped to make the decade 1830-40 for ever memorable in the annals of British medical literature. This event was the establishment of THE LANCET as the leading medical journal. THE LANCET, indeed, dates back some eight years before this time, but it was a puny thing in the first years of its life. It might have been compared at that time to a wasp buzzing about the ears of the drones of the medical hive; but when remodeled and enlarged in 1831, it began a fresh era. We may now liken it to a weasel, or to a still more unsavoury animal, the polecat, biting, scratching, driving out of their holes, with venomous scurrility the 'Bats,' as it called the hospital surgeons and councillors of the Royal College, and hanging them up, like vermin on a barn-door, to general obloquy. This was the function of THE LANCET, varied only by the publication of a few lectures and hospital cases, obtained amidst all kinds of difficulty and opposition, for several years after its commencement. But the services which this remarkable journal, after it had conquered its own independence, rendered to free medicine in the earlier days of its existence, amidst all its faults, failings, and even vices, were simply incalculable. Monopolies destroyed; hole-and-corner meetings and doings of the corporations, for the benefit of the few to the detriment and exclusion of the many, exposed; pompous ignorance and overbearing imbecility held up to scorn; the oppressed and obscure, but honest and industrious seeker after truth, brought to the front. After a time, feeling its growing strength, this brave journal attacked the Legislature itself. And it was time. Its apathy towards all that concerned the interests of our profession, displayed in its tolerance of the most abominable abuses and monopolies in high places; its utter neglect of the public health; the farce of the coroners' courts; its winking at the atrocious adulterations of the people's food; its inhuman neglect of the sick poor; and its disregard of all decency in respect of the burial of the dead—these abuses were one by one attacked,

and their authors and abettors lashed with a pitiless and unsparring hand, until redress and reform were grudgingly conceded. The man who, whatever his faults, spent the best part of his life in compelling the Legislature to listen to his exposure and his complaints of these gigantic evils, and to redress them, was at length listened to, and admitted into the Legislature itself. None the less does the memory of Thomas Wakley deserve this testimony from us who now possess an organ of our own quite capable of maintaining those rights and privileges for which, in the early days of our Association, we had no weapon wherewith to do battle. The celebrated *Review* was of a different character; it did not deal with satire, or use 'the withering mockery of THE LANCET,' but to analyse and collect all that was of value in medical literature, and it is to be deplored that in this faster, but possibly shallower, age of the present day, this valued journal died of inanition after forty years' existence."

From this survey of the past with a brief reference to medical politics, Dr. Strange passed to the second part of his address, the "Survival of Medicine." He cited the theme or motto of the Association, the advancement and perfecting of medical science and practice, and the increase of helpful fellowship between all its members. The first and chiefest characteristic of the profession was its liberty to think, speak, write, and teach. It judged of the real progress made in the art of medicine, and its verdict of approval was the best reward the faithful worker could have. But liberty might degenerate into licence, and he deprecated the haste and hurry of the age, in which not only all authority was set at naught, but old teachings were paraded as new. Such licence, applied to practice, led to self-assertion, self-laudation, and self-sufficiency, and the evil spirit of quackery within the profession. A second characteristic was philanthropy, in which the profession, ignoring its own material advantage, aimed only at the prevention and relief of human pain and misery. The public was beginning to feel that the profession was not a trade; but we should be on our guard against unreasonable exactions. Added to these was truth; and here he dwelt in eloquent terms upon this great cause of intellectual morality, deprecating mischievous haste in the publication of unformed theories and ill-observed facts. He alluded to collective investigation as a corrective for this, and concluded with some strong and pungent remarks upon the quackery that exists so widely in the practice of the profession. These and other defects could only be combated by hearty co-operation, and he urged them to see whether their Council could not be empowered to act as a High Court of Equity and Ethics, before which all important questions affecting professional honour and conduct might be brought up for judgment.

The report of the Council was then read by Mr. Fowke, the general secretary. It referred to the work accomplished and influence attained by the Association during its fifty years' existence, to the labours of its committees, and to its financial position. It stated that there were now 9563 members on the roll, enumerated the losses by death during the past year, and stated that the following new regulations with regard to the election of members had been adopted by the Committee of Council.

"1. There shall be a standing notice in the *Journal* every week of the meetings of the Committee of Council throughout the year; and stating that gentlemen wishing to be elected Members of the Association must send in their names *twenty-one days* before the meeting of the Committees of Council at which they wish to be elected.

"2. That a list of applicants be in the hands of the Committee of Council *fourteen days* before such meeting of the Committee of Council, and that the branch secretaries be supplied with *several* copies of the list.

"3. That no member be elected by a branch unless his name has been inserted in the circular summoning the meeting at which he seeks election.

"The question of Homœopathy, recently discussed in some branches of the Association, and unfortunately mooted in the addresses in Medicine and in Surgery at the annual meeting at Ryde, has occupied much time and thought on the part of the Committee of Council. Immediately on the delivery of those addresses the idea arose in many minds that the views enunciated by the readers of the addresses had, in some way, been put forward (through them) by the Committee of Council itself; and it was not until the President of the Council, Dr. Bristowe, and Mr. Hutchinson, had severally, and in the most public manner, shown that this was not so, that the feeling was allayed. Following upon

this a memorial was presented to the Committee of Council from one branch demanding the *expulsion* from the Association of a member on the ground of his public profession of homœopathy. To this extreme measure the Committee of Council could not accede. As far as is possible, they have rigidly closed the door of *entrance*, and have made it impossible for a professing homœopath to enter the Association through election by the Committee of Council; and they have called upon the branches to aid them by demanding that every name proposed for election shall be inserted in the circular summoning the meeting at which election is sought. They conceive that, by these means, such effectual supervision will be exercised by the Branch Councils that no homœopath will be able to gain admission, either through the Committee of Council or through the Branches, and that thus both doors of entrance are effectually closed. Against perversion to homœopathy *after admission* they are at present powerless, except by the expulsion of the offender; and this, under present circumstances, they consider *unadvisable*: first, because they hold that such a course would be beneath the dignity of the members of a great and avowedly liberal profession, and, secondly, because it would confer an amount of notoriety which is very undesirable upon those who were expelled. At the same time, the Committee of Council courts a full expression of opinion on the part of the whole Association as to whether it will tolerate homœopathy in its ranks or not; and if it should determine that the profession of homœopathy shall *ipso facto* disqualify from membership, then they conceive that the course will be clear, since the unwitting election of a homœopath would thereby be rendered null, and perversion after election would imply the voluntary cessation of membership. The admirable speech in reference to vivisection, delivered by Professor Humphry at Ryde last year, having met with your strong approval, was ordered to be reprinted for the use of the members of the Association; it was decided to send four copies to each member of the Association, and 40,000 were therefore printed and, with the exception of about 1000, distributed. A member having been summoned to the Bow-street Police-court by the Society formed for the Suppression of Vivisection, on a charge of cruelty to animals, founded upon statements made by him at the meeting of the International Medical Congress last year, your President of Council and Professor Humphry, taking counsel with your Editor, decided to defend the case on behalf of the Association. The charge was dismissed. The expense of defending the action was £75. Your Council trust that the action taken will meet with your warm approval.

"The following resolution has been received from the Physiological Society:—'That the Physiological Society feels deeply grateful to the British Medical Association for the generous manner in which their Council came forward to support the cause of physiological science on the occasion of the prosecution of one of the members of the Society under the Act 39 & 40 Vict. cap. 77; and that the secretary be directed to convey the warmest thanks from this Society to the Council of the British Medical Association for their very valuable assistance on that occasion.'

Reference was also made in the Report to the terms of the motions of which Dr. Milner Fothergill and Dr. Ward Cousins had given notice, and stated that the Stewart Prize would be awarded to Dr. Vandyke Carter, for his "Researches in Spirillum Fever," and the Middlemas Prize in Ophthalmology to Mr. W. Adams Frost, F.R.C.S.

Some animated debating ensued upon the Report; for Mr. Nelson Hardy, who moved its adoption, appended a rider to his motion, to the effect that it be an instruction to the Committee of Council that any member of the Association who professed homœopathy, or any other designation implying a special method of treatment, shall *ipso facto* be deprived of his membership. The motion was seconded by Dr. Moore, and met with the indignant opposition of Mr. Husband, who declared that he had never before heard of such an advantage being taken by the mover of the motion to adopt the Report. He urged that if a crusade were entered into against the homœopaths in the ranks of the Association it would only serve to increase their notoriety, and hinted that there was no legal power to expel them. Dr. Joseph Rogers took the same line, and the President ruled Mr. Hardy out of order, who accordingly converted his "rider" into an "amendment" to the motion to adopt the Report, moved by Mr. Husband, seconded by Dr. Rogers. Dr. Fitzpatrick seconded the amendment in an energetic speech, urging the Committee of Council to put

their foot down on homœopathy, and demanding the expulsion of homœopaths according to the laws of the Association, fearless of any consequences. Dr. Seaton remarked that no man could be admitted a member who was not a qualified practitioner, and that the onus therefore lay with the licensing bodies—a remark that was strongly dissented from by the majority. Mr. Dix of Hull, having with difficulty obtained a hearing from the excited meeting, put a different complexion on the matter by pointing out that there were at the present time no laws which empowered the Committee of Council to refuse the membership to homœopaths, the laws passed to that effect in 1832 not having been re-enacted when the Association was incorporated a few years ago. The proper course would be to re-enact these by-laws. Dr. Robert Barnes thought the Council had the right to exclude any candidate, as in other societies or clubs; and, in reply to a question Dr. Wade stated that the Council had the power of expelling members on a majority of two-thirds, subject to confirmation by the next annual meeting. The amendment was then put, and was lost by a large majority, only fifteen voting for it. The report was then unanimously adopted.

The next business on the programme was the motion by Dr. Fothergill to alter the By-law 12, referring to the election of editor of the *Journal*. Although notice of this motion had been advertised for many months, yet Dr. Fothergill evidently thought it more prudent that it should not be put to the vote, for it was stated by Mr. Wheelhouse that a letter had been received from him asking that another time should be fixed for it. Dr. Ward Cousins then moved the resolution of which he had given notice to a greatly diminished audience. His speech, which was an amusing definition of the actual working "centre" of the Association, contained some forcible arguments in favour of the changes he advocated—viz., that the President of the Association be an *ex officio* member of the *Journal* and Finance Committee, and that four of the elected members should retire annually, and be eligible for re-election for two years; Dr. Grigg seconded the motion. Mr. Wheelhouse, the Chairman of the *Journal* and Finance Committee, deprecated the continual change in its composition which this would effect, and pointed to the financial prosperity of the Association as evidence of the good work done. Dr. Fitzpatrick strongly urged the adoption of the motion, which would infuse new blood into the Committee. Mr. Husband proposed that the question be referred to the Committee of Council for consideration, and Mr. Barrow seconded the proposal, adding, however, his surprise that the President of the Association was not *ex officio* a member of any committee. The President in putting the question agreed with his predecessor's remarks, and Mr. Husband's resolution was carried by 38 votes against 11. The meeting, which had been very animated, adjourned at a late hour.

At the Council meeting held on Wednesday morning, an invitation to hold the meeting of 1883 at Liverpool was unanimously accepted, with Dr. Waters, of that city, as president elect. An invitation to Belfast for 1884 was also presented.

The Address in Medicine was subsequently delivered by Dr. W. F. Wade of Birmingham. He began by stating that the circumstances of the law suggested retrospection, and proposed to recall some of the actual facts of medicine as it existed when the Association was founded and some others which have occurred since. He referred to the fact that only a few years before the weekly medical press had been established and experiences were being recorded, which are all the more to be prized since they were written in a spirit of truth, bloodletting pervaded all branches of practice, and formed the chief therapeutical resource. Not many years before 1832 a weekly medical journal, which still maintains its high character, was instituted under the then appropriate name of THE LANCET. In a few years after this date, the title of this periodical had well-nigh become an anachronism; for a revolution of opinion had taken place; the time had come for a reconsideration of ancient dogmas, and that reconsideration in many instances led to their effacement. A truer insight into the *vis medicatrix nature* led to the abandonment in many regions of practice of the stern measures for "assisting nature," and the use of "expectant medicine." Amongst other influences which led to this was the historical fact of the Hahnemannian therapeutics, the underlying doctrines of which were incapable of being received by the scientific mind. They demonstrated, how-

ever, the recuperative powers of nature, for, "rightly or wrongly, cures apparently wrought by such mediation were, and are judged to be, instances of spontaneous recovery." But systems are only swept away because of their fallacies or the faults of those who administer them, such as ignorance of the teachings of science or inattention in their application to special cases. A second source of error is a too rigid adherence to the dictates of science. "Disguise or dislike it as you may, it is not the less certain that in the treatment of disease we have no firmer basis than the doctrine of probabilities." But in all departments it is the same; and there is no reasonable cause for discouragement or despair in the fact, though it is a reasonable cause for reflection, care, and thoughtfulness. Especially needful is it to guard against meddlingness in medicine, in desperate cases. In the onslaught against the abuse of bloodletting Marshall Hall led the way, and by prolonged and careful experimentation he advanced powerful arguments against the practice, being, like Harvey, compelled to reiterate his views and the experiments on which they were based before he could carry conviction to men's minds. As a result of this, "Men came to look at bleeding from an exactly opposite point of view to that which they had previously occupied, and began to see that it was not absolutely necessary at the onset of disease; was of doubtful safety as a routine treatment during its height; and at a grand crisis might even be fatal. Can we wonder that in a few short years the practice had ceased to exist?" Another explanation of this change of practice was that so well put forward by Sir T. Watson of "change of type" in disease—a view which compels us to watch constantly the effects of our own operations and of the workings of nature. Every year adds to our knowledge of the structure and functions of the body, of its derangements, and their effects upon organs, and the extent to which these can be controlled by treatment. New instruments, new methods of research, new drugs, and new facts and theories respecting old ones are from time to time presented to us. We may yet have to go much farther in these directions and be less bound by custom than at present. Dr. Wade then adverted to the other side, citing the trial and subsequent abandonment of the treatment of delirium tremens by large doses of tincture of digitalis, and Todd's error of hasty generalisation in advocating the treatment of acute diseases by unlimited quantities of alcohol. Other errors to which medical men are prone are the love of specifics and the confounding of debility and disease. Dr. Wade concluded by exhorting all to aid in the work of making medicine more rational, more truly scientific, and more free from error, than it has been in the past.

At 1.30 the members were entertained at luncheon in the Shire Hall by the Worcester and Hereford Branch, and a bust of Sir Charles Hastings was presented to the City of Worcester. The interest of the meeting was enhanced by the delivery of a speech on the leading incidents of his father's life, by Mr. G. Hastings, M.P.

## THE SECTIONS.

The Sections all met for the first time on Wednesday, at 3, and in each the President delivered a short introductory address. In the Section of Medicine, Dr. T. Clifford Allbutt spoke of the great change that had come over the whole field of medicine during the past fifty years, and traced it to the "power of unity" and the "gift of freedom." "With the earth his servant and his civil rights secured, the final and crowning work remained, to win the freedom of his mind." The first lesson learnt by emancipated mind was "that force and matter are but one subject under two names." Dr. Allbutt then went on to point out that the old therapeutics was passing away, and that in its place a growing desire to prevent the earliest changes and manifestations of disease had sprung up.

## SURGERY.

In the Section of Surgery, Mr. AUGUSTINE PRITCHARD occupied the chair, and spoke of some of the changes he had witnessed during his professional life. When he began work "there were no anæsthetics, no antiseptics, no clinical thermometer, no ophthalmoscope, none of the marvellous and invaluable revelations of the microscope, even the stethoscope itself was young." Body-snatching had just been put an end to by the passing of the Anatomy Act; bleeding, cupping, tooth extraction, and the making of setons

and tissues were all part of the daily work of the surgeon, and *en passant*, Mr. Pritchard advocated a return to a more liberal use of the issue and the seton for counter-irritation. He considered rapidity in operating was almost as essential now as in the days before anaesthetics. Pleading for the more general use of the median operation of lithotomy, he related a case in which he had by this means removed from the bladder a lump of sealing wax which had been passed down the urethra. Just noticing the wonderful progress of surgery in abdominal surgery, osteotomy, and antiseptic surgery, he concluded by referring to Mr. James Luke, Mr. J. F. South, Mr. Spence, M. Pirogoff, Mr. Busch, Mr. Gore, and Dr. Greenhow, all of whom, more or less widely known, had passed away during the year.

After the President's address Mr. J. GREIG SMITH read a paper on Early Operative Treatment of Joint Disease, in which he repeated the opinions he has already published, and expressed the conviction that many cases of excision and amputation should be saved by timely surgical treatment of less severity. Dividing cases of chronic joint disease into three, commencing in synovitis and in inflammation of the red medulla of articular ends of bone, he sketched his treatment as follows:—In cases of synovial disease: (1) simple remedial measures, including counter-irritation of this part; (2) a free incision into the joint, and the removal, by finger, knife, or scissors of all purpy tissue, followed by drainage for about two weeks; this failing (3) excision. In cases of medullo-arthritis: (1) rest as obtained by encasing the limb in plaster-of-Paris; if this fail, (2) cut down on the bone and gouge out all the diseased bone; and this failing, (3) excision. Mr. Smith advocated the practice of aseptic surgery in these operations.

Mr. MORRIS followed with a paper on six cases of Abscess in Bone, illustrating the value of their surgical treatment. Mr. WM. THOMPSON then read a paper on a remarkable case of Rupture of the Knee-joint and Compound Fracture of Patella after suture of that bone, treated by incision, and followed by recovery. Then followed a discussion upon the various topics thus raised. Mr. TEALE expressed his sense of the value of subcutaneous puncture of joints where there is tension and pain; but the chief subject discussed was the treatment of fracture of the patella. Mr. JESSOP and Mr. WHEELHOUSE (Leeds) each related a case of compound fracture of the patella, which was most successfully treated by antiseptic suture of the fragments. Mr. Jessop had employed the same plan in a case of simple fracture, in which he waited three weeks to let the effusion into the joint be absorbed. Mr. WHEELHOUSE and Mr. TEALE each referred to a case of badly united fracture of the patella, by which the limb was seriously impaired, in which they had freely laid open the joint, removed all the uniting material, and wired the fragments; each case was done aseptically and with perfect success.

Mr. REGINALD HARRISON showed the fragments of a phosphatic Urinary Calculus, weighing over 2 oz., which he removed at one sitting by Bigelow's operation. The man, who was under thirty years of age, recovered. Mr. Harrison expressed his preference for the flat-bladed lithotrite, wherever practicable, and also for Bigelow's original evacuator, which he always uses.

Mr. PEARCE GOULD showed the photograph of a Calculus weighing over 3 oz., successfully removed at one sitting by Dr. Bigelow. He also mentioned the case of a stone weighing over 2½ oz., of which he had removed by lithotomy, after failing to crush it by Dr. Bigelow's most powerful instrument.

Dr. WARD COUSINS showed a long-beaked staff, which he had found very useful in lithotomy, especially in children. Several speakers, however, thought it would be a rather dangerous instrument if not used with great care. Mr. Browne referred to forty-two successive cases of lithotomy at the West Bromwich Hospital without a death, in one of which the stone weighed 7¼ oz.

At the general meeting on Thursday morning the address in Surgery was delivered by Dr. Stokes of Dublin. He took for his subject the three great advances in Surgery during the past fifty years—namely, the introduction of anaesthetics, antiseptic surgery, and resections of joints. The address was notable for its vigorous defence of Listerism, and for the eloquent indication of experimental research in medicine with which it terminated. A cordial vote of thanks was passed, on the motion of Mr. Teale, seconded by Sir W. Mac Cormac. After the address the Stewart prize was presented to Dr. Vandyke Carter, for his researches in relapsing

fever. The prize was received on Dr. Carter's behalf by Surgeon-Major Walker.

#### ANATOMY AND PHYSIOLOGY.

Professor G. M. HUMPHRY, F.R.S., opened the Section of Anatomy and Physiology by an address in which he referred to the divergence of these two sciences. In reference to anatomy, he said, upon the good, clear, ready knowledge of it, more than upon that of any other branch of his science, depends the power of the medical man, more particularly of the surgeon, to do definite positive good; to form, that is, distinct diagnoses, and to adopt decided treatment; and the want of interest which anatomy suffers from not being a progressive science is more than compensated for by its practical importance. "Here I would remark that I think its paramount and unassailable *locus standi* has of late been somewhat lost sight of in its teaching. The books on anatomy, whether manuals or more formal treatises, commonly contain little or no allusion to the practical import of the several structures and their disposition, and the methods of description have usually no relation to this point. Moreover, the anatomist does not seem sufficiently alive to the value of that kind of physiological knowledge—the knowledge of mechanical adaptation, or morphological relation, and of developmental phenomena—which is the proper associate of anatomy, which appertains to it in the same way and in the same right as the study of process appertains to the study of minute structure. Too often the bare naked facts are marshaled in solemn fulness one after another, not to be digested, but to be gulped again, much as they went down under the examination squeeze." While highly valuing the study of anatomy, pure and simple, as cultivating the qualities of attention, accuracy, and painstaking to a greater extent than other studies, he said he valued more its capabilities to excite interest, to nurture inquiry, and to strengthen the mental faculties by virtue of the practical and physiological expositions which are its legitimate accompaniments, some of which he referred to. He expressed a hope that examinations, which largely influence the mode of teaching, may shortly be improved by a considerable extension of the time devoted to them. In conclusion, after reference to the rapid and progressive advance of physiology, he paid an eloquent tribute to the memory of the much-lamented Mr. F. M. Balfour.

#### PUBLIC MEDICINE.

Dr. ALFRED CARPENTER presided over the section of Public Medicine, and in his opening address reviewed the work done in Hygiene and Public Health by the Association in its early years.

#### PATHOLOGY.

Dr. HUGHLINGS JACKSON opened the proceedings by an address on the nature of post-mortem examinations, and urged upon the general practitioners the advisability of forming a kind of club, and combining to perform all post-mortem examinations ordered by the coroner in conjunction with each other.

A discussion on the Pathology of Diabetes followed, in which Dr. S. Mackenzie, Dr. Pavy, and Dr. Saundby took part. Specimens illustrating other diseases of the nervous system were afterwards exhibited and discussed.

### HEALTH OF THE ARMY.

#### NO. I.

THE Statistical and Sanitary portion of the Army Medical Department Report for 1880 has just been presented to Parliament. Although a little earlier than last year, it is at least three months later of appearing than usual; we trust the new Director-General will take measures to prevent in future any unnecessary delay. The medical portion and the various papers by medical officers and contributions from Netley will, it is to be presumed, be soon put in circulation, in accordance with the arrangements which we brought to notice last year.

The strength of the white troops serving at home and abroad during the year 1880 averaged 159,622, being about 5000 under the numbers in the preceding year. The admissions into hospital per 1000 of the strength amounted to 1157



the deaths to 13·34, the number sent home as invalids to 31·32, and discharged the service as invalids to 21·92, and the proportion constantly non-effective from sickness was 56·89. Compared with the results for the preceding year these ratios show a slight reduction in the admissions and a very marked one in the deaths, the numbers sent home as invalids, and discharged the service, while there has been a very slight increase in the proportion constantly non-effective from sickness. The great reduction in the mortality has taken place in the force at the Cape, Mauritius, and Cyprus, while that in the number of invalids sent home has been at Cyprus and the other Mediterranean stations, and at the Cape, China, and India; all the other commands showing an increase. There has been an increase in the mean daily sick in Bermuda and the West Indies, and in Mauritius and China; at the other foreign stations there has been either a decrease or scarcely any variation from the preceding year. Although the results are on the whole favourable when compared with those of 1879, they are all above the average of the last ten years, except the numbers sent home and discharged as invalids, the difference being especially marked in the constantly non-effective from sickness, which has been above the average both at home and in all the foreign stations except Cyprus and China.

In the United Kingdom the average strength of the troops during the year was 83,895. The ratio of admissions into hospital was 896, of deaths from all causes 6·83, of invalids discharged the service 22·52, and of constantly sick 46·09 per 1000 of strength. Compared with 1879 there has been an increase in the cases of 74 per 1000, of which sixty-two were due to syphilis and gonorrhœa. The deaths were somewhat lower than in the preceding year, chiefly those from tubercular diseases; there was also a reduction in the proportion invalided, but an increase in the mean daily sick, the latter caused by syphilis and gonorrhœa. There does not appear to have been any unusual amount of sickness or mortality in any of the military divisions. There were 94 cases and 18 deaths of enteric fever during the year; of these 18 cases and 3 deaths occurred at Buttevant, 5 cases and 4 deaths at Tipperary, 12 cases and 2 deaths in Dublin, and 10 cases with 2 deaths in the Household Brigade in the home district. There were 96 admissions and one death by delirium tremens, and 73 admissions with one death by alcoholic poisoning, Cork and the Channel Islands furnishing the highest proportion of cases, and the Chatham district the lowest. The usual tables are given of the prevalence of syphilis and gonorrhœa. From these it appears that the admissions into hospital for primary venereal sores were 74 per 1000 of the strength at the fourteen stations under the Contagious Diseases Act, and 167 at the fourteen not under the Act, the admissions for gonorrhœa being 100 and 128 in the two groups. From the table in the report showing the sickness and mortality in the different arms of the service, it appears that the admissions into hospital were highest, and considerably above the average, in the cavalry, the deaths in the Royal Artillery, if the Brigade Depôts be omitted on account of their death-rate being considerably affected by the number of men sent home from the battalions on foreign service, the proportion discharged as invalids in the Foot Guards, and the average constantly sick in the cavalry. No information is given as to the diseases to which the high ratios of cases and of constantly sick in the cavalry have been due, but the subject is one deserving of careful inquiry.

At Gibraltar the average strength of the troops was 4483 men, from whom the admissions into hospital were in the proportion of 738, the deaths of 4·24, the invaliding of 34·80, and the mean daily sick of 43·91 per 1000. These are all much lower than in 1879; but it must be remembered that in that year the sickness and mortality were greatly increased by the unhealthiness of the regiments which had arrived in the garrison from Cyprus. Compared with the ten years preceding 1879, the admissions, invaliding, and mean sick have all been above, but the deaths 2·30 per 1000 under the average. The excess of the admissions was to a great extent caused by syphilis and gonorrhœa. The highest ratio of admissions occurred in the 41st Regiment, which landed on the 11th August. We cannot congratulate the military authorities on their wisdom in thus sending a corps composed of young soldiers to commence their tour of foreign service on the Rock at the very hottest season of the year; a heavy sick-list might have been anticipated. Only 5 cases of enteric fever occurred during the year; but of these 2 proved fatal, both of them soldiers who had recently arrived.

In a strength of 4885 men at Malta, the admissions were 857, the deaths 10·02, the invaliding 18·01, and the mean sick 46·56 per 1000. These ratios do not differ greatly from those of the preceding year, except the deaths, which show an increase of 1·67 per 1000; but they are all, except the invaliding, above the average of the last ten years. The excess in the mortality was chiefly due to enteric fever, of which there were 53 cases and 17 deaths. They occurred chiefly in the latter half of the year; but no information is given in the report as to the barracks from which they were admitted or the corps by which they were furnished, nor is anything said as to their probable cause. The same injudicious arrangement of sending out regiments from England at the hottest period of the year was carried out here as at Gibraltar, and with the same result, the 26th and 38th, which arrived in the middle of August, having furnished a much higher ratio of admissions than any of the other corps. The admissions and deaths among the men of the Royal Malta Fencible Artillery amounted only to 556 and 5·76 per 1000 respectively. No cases of enteric fever occurred, and there were only two deaths in the corps, one by phthisis and the other by accidental drowning.

The health of the troops serving in Cyprus was on the whole very satisfactory; the admissions amounted to 1002, the deaths to 2·26, the invaliding to 18·07, and the mean sick to 53·27 per 1000. The somewhat high ratio of sickness, as shown by the admissions and mean sick, was partly due to the recurrence of intermittent fever among the men of the Royal Engineers and 35th Regiment, who had previously suffered from that disease, but also to the prevalence of syphilis and gonorrhœa; of syphilis the senior medical officer observes: "The disease is still rife in Limassol, and no adequate measures have hitherto been adopted for either its suppression or control." From the end of May till the beginning of October the troops were encamped on Mount Troodos, except a few left at Depôt Limassol and in charge of the camp at Polymedia. To this judicious measure is probably in a great measure due the satisfactory reduction in the amount of sickness and mortality in the island.

In the Dominion of Canada a force of 1670 men furnished 859 admissions, 6·59 deaths, 35·93 invalids, and 46·68 constantly sick per 1000 of strength; the admissions were lower, but the others slightly higher than in 1879; but, except the deaths, all were considerably above the average of the ten preceding years. The reduction in the admissions was a result of the improved health of the 101st Regiment, which in 1879 had a very high sick rate, from its previous service in Cyprus. Five cases of enteric fever were reported, but of these four occurred among men who had just arrived by the *Crocodile* from Bermuda, where, apparently, the disease had been contracted. The number of cases of alcoholic poisoning indicates a very unsatisfactory state as regards temperance at Halifax, the admissions into hospital having been as high as 24·5 per 1000.

At Bermuda, in a force of 1974 men, there were 696 admissions, 9·62 deaths, 29·89 invalided, and 40·15 constantly sick per 1000 of strength. These ratios are higher than those for 1879, and are also above the average of the last ten years. The increase in the cases was most apparent in diseases of the digestive system and in accidents. The excess of the deaths above the average was not more than might be fairly attributed to ordinary fluctuation in limited numbers. There were 27 cases of enteric fever with 6 deaths; of these, 12 cases and 5 deaths occurred in the 99th Regiment. No information is given as to the barracks occupied by the regiment, or those from which the cases were admitted. There is only the somewhat vague remark of the principal medical officer, that "enteric fever has established a footing in every part of these islands, but especially in the two chief military stations, St. George's and Prospect." He also states that it is by no means common among the residents, and that "a fatal case has not been recorded for nearly two years." If this be not a result of defective registration of the causes of death, it points to the necessity for a thorough and careful investigation into the conditions which give rise to the prevalence of the disease among the military. The high ratio of admissions by diseases of the digestive system is largely due to dyspepsia and diarrhœa; it may be a question to what extent the former of these is a result of intemperance, the admissions under the head of alcoholic poisoning and delirium tremens having been 14·7 per 1000 of the strength. "The cheapness and facility in the supply of liquor continue to be the causes of much intemperance."

The health of the troops in the West Indies during the

year was satisfactory, the admissions having been 918, the deaths 8.63, the invaliding 42.43, and the mean sick 42.88 per 1000; these ratios, except the deaths and invaliding, though higher than in 1879, correspond closely with the average of the last ten years; the deaths were  $2\frac{1}{2}$  per 1000 below, and the invaliding considerably above, the average. Fevers were more prevalent than in 1879, and two deaths by them occurred at Up Park Camp, Jamaica, in one of which "the antecedent illness presented a suspicious resemblance to yellow fever." It is, we think, to be regretted that no statement is given showing the relative sickness and mortality among the troops quartered in Jamaica and Barbadoes respectively. A very marked difference formerly existed, and it would be interesting to see in what respects the two stations now differ. We trust this will not be lost sight of in the next volume, when the results will be greatly affected by the epidemic of yellow fever at Barbadoes. The health of the black troops differed little from the average of the last ten years, except that there was an increase in the invaliding and mean sick. The proportion per 1000 of strength was: admissions 1091; deaths 19.23, invaliding 36.63, and mean sick 64.36. Paroxysmal fevers were the most prevalent, and, as is always the case, tubercular the most fatal diseases. Of 21 deaths in the force 10 were by phthisis.

Among the black troops in West Africa the admissions, deaths, and mean sick closely corresponded with the average, being 1546, 22.47, and 62.33 respectively. There were no men invalided during the year. The most prevalent diseases were paroxysmal fevers, which caused more than two-fifths of the admissions into hospital; and next to them diseases of the digestive system. As with the black troops in the West Indies, phthisis was the most prominent fatal disease; it caused one-half of the deaths.

At the Cape of Good Hope the average strength of the troops was 5552, including a small detachment at St. Helena. The admissions into hospital were in the ratio of 797, the deaths 32.24, the invaliding 47.19, and the mean sick 53.74 per 1000. These were all much lower than in 1879; but in both years the mortality was largely due to losses in action. In 1879 the death-rate, exclusive of killed in action, was 35.10, and in 1880 it was 19.99 per 1000, so that in the latter year there was a marked reduction in the losses by disease, though they were double the average of the ten years preceding the outbreak of the Zulu war. Of the deaths in 1880 rather more than half were from enteric fever, and of the 55 from it 46 occurred in the first quarter of the year. It prevailed throughout the Transvaal and Natal. The principal medical officer states "that medical officers have been pretty well agreed in assigning the cause of it to polluted water-supply at the various camping grounds on the line of march, and consider that it was not due to causes in the various stations at which it occurred. . . . Cases of enteric fever and diseases of the digestive system occurred often largely after a corps arrived at its destination, and were confined almost exclusively to fresh arrivals, ceasing after they had been a little while on the station." Of the deaths from wounds in action 59 occurred out of, and 9 in, hospital.

At Mauritius, although the admissions were still very high, there was a reduction of nearly one-third as compared with 1879, and the mortality fell from 25.85 to 5.67. The proportion of admissions per 1000 of strength was 2204, deaths 5.67, invaliding 79.32, and mean sick 98.53. Nearly half of the admissions were from paroxysmal fevers, none of which, however, terminated fatally. The condition of the troops, however, is one that demands serious consideration, seeing that during the last two years very nearly one-tenth of the force has been constantly on the sick list. The senior medical officer urges strongly "the removal of the greater portion of the garrison from St. Louis to the sanitarium at Curepipe, which is situated 1900 feet above the sea level; he observes that there appears to be no military reason against such a step, and he regards it as the only radical change that is likely to affect the health of the troops. Large huts at the sanitarium have been completed, but at present there is no hospital there." Looking to the deterioration of health, which must result from this perpetual prevalence of fever, it would appear to be a most desirable measure alike of economy and humanity to remove the troops from their present unhealthy stations on the low grounds.

At Ceylon the admissions, deaths, and mean daily sick were considerably higher than in 1879, and much in excess of the average of the last ten years. They were in the pro-

portion of 1238 admissions, 25.0 deaths, 58.0 invalided, and 64.24 mean sick per 1000. There was a marked exemption from the febrile group of diseases. The class which gave rise to the largest proportion of cases, and to two-thirds of all the deaths, was that of diseases of the digestive system, dysentery being the cause of eleven deaths. It was most prevalent in June and July at Colombo; "many of the cases were of the hæmorrhagic form, very severe, and rapidly fatal." The principal medical officer observes that "it was remarkable that when this disease was prevalent among the troops at Colombo the civil population there was almost free from bowel affections." He does not, however, afford any information as to the probable causes of its prevalence and fatal character among the military.

The health of the troops in China and the Straits Settlements appears to have been satisfactory during the year; for though the admissions and deaths were a little higher than in 1879 they, as well as the invaliding and mean sick, were much under the average of the preceding ten years. The admissions were 979, the deaths 8.42, the invaliding 19.65, and the mean sick 45.95. These results cannot but be considered satisfactory by those who remember the unhealthy character of Hong Kong when first occupied by our troops. The admissions and deaths were slightly lower in the Straits Settlements than in Hong Kong. There is but little to call for remark with regard to any of the classes of diseases, except the occurrence of three cases of diphtheria at Hong Kong, of which two proved fatal, and the source of which it was found impossible to trace. The ship *Meane* is used as the station hospital for the troops at Hong Kong. The principal medical officer draws attention to the inconveniences and disadvantages arising from this, and strongly recommends the erection of a good hospital on shore, and also points out the urgent need of one for the wives and children of the soldiers serving in the colony.

## THE FESTIVAL AT WÜRZBURG.

WE have been favoured by Dr. Russell Reynolds with his "impressions" of the festival at Würzburg. They will doubtless be perused with pleasure by our readers.

The festival in commemoration of the three hundredth anniversary of the founding of the Julius-Maximilian University has been for some time past fixed to take place from the 1st to the 4th of August of this year; and its occurrence has been one of the greatest interest, not only to Würzburg itself, but to all the Universities of Bavaria, and of Germany, and of many neighbouring States.

Arriving in Würzburg on the 31st of July, the whole city was found arrayed in festal attire. Every street, every public building, and every private house was decorated in the most tasteful manner. Long festoons of flowers and ferns were placed on either side of the main streets, and flags of brilliant colour and device were hung from the roofs and the windows of the houses both small and great. The whole town was full of joyous welcome; and it was most interesting to see the crowds of visitors arriving from all quarters and by every train receiving the hearty congratulations of their friends, who were resident in the city the university of which they had come to honour. The jovial greetings of old students and new, of middle-aged professors with their former colleagues or alumni, were profuse on every hand, and of such kind as to make it obvious that there was much beyond a fellowship in plain scientific work, a real fellowship of heart and life in doing all that could be done to prove the attachment which all felt to their Alma Julia.

Having been delegated by the University of London to be their representative on this festive occasion, it was my honour to be invited to the private residence of the rector, Professor Wislicenus, in the evening of the day before the ceremonies began, in order to meet the delegates and invited guests, and to take part in the selection of those upon whom should fall the duty of speaking for their universities, or colleges, or schools, on the following day. Professor Wislicenus showed, in his own house, the power, and tact, and kindness which, having met together in his person, have made him the revered and able "Rector Maximus" of the university.

On Tuesday, August 1st, at 9 A.M., religious services were held in the Catholic cathedral, the Protestant church,

the Jewish synagogue. Sermons appropriate to the occasion were preached in the first by Professor Dr. Hettinger, in the second by Dean Wiessinger, and in the last by the Rabbi Bamberger. Musical performances of high character accompanied these services. At eleven o'clock the guests and deputies were received in the garden hall of the royal residence, and ushered to the White Hall of the palace by the band playing the old "fanfare" of the University of Prague. The procession was one of most striking character as it passed by the splendid gallery that leads from the garden entrance to the hall. The costumes of the officials of the town, of the university, of the schools, and of the army, were gorgeous in the extreme. The dresses of many were such as, except on like occasions, are rarely seen; and many of those present looked as if they had stepped out of the picture frames of those represented by the artists of three and four hundred years ago.

The main business of the morning was that of receiving, from quite numberless universities and schools, addresses of congratulation. The Rector called upon selected speakers to address the University of Würzburg in the names of their various colleagues, and then he delivered a powerful address upon the advantages that the university had conferred, and thanked the assembled deputies in a most warm-hearted manner.

It was very curious to one who has seen much of English universities at their festive occasions to observe the stately decorum with which the whole of this proceeding was gone through. There was no applause either by voice or hand or foot; and there was profound, even solemn, attention directed to every word that was uttered. Even when Virchow and many other distinguished speakers left the rostrum there was no applause, but there was a slight vocal cheer when Canon Stubbs, of Oxford, finished his well-phrased speech, and when the representative from Amsterdam concluded his. Still further, it was very interesting to observe the entire absence of anything that elicited either a laugh or even a smile; there was throughout a pleasurable, not grim, sense of seriousness in the whole proceeding, such, as it seems to me, befits a great university act; and this was the more striking when contrasted with the overflowing hilarity at private entertainments, and in all the social gatherings of friends.

In the afternoon it was arranged that there should be a garden party in the palace gardens at five o'clock, and dancing was to commence at ten; but, alas for many, the rain came down in torrents, and that part of the festival was unfortunately not carried out, as it was hoped that it might be. Yet, in spite of "weather," which science, even if it can predict to some extent its changes, has no power at present to control, crowds passed under umbrellas to the grounds, and, I have been credibly informed, some dancing was accomplished.

On Wednesday, the 2nd, the "Great Festival Day," the proceedings commenced at tea in the morning in the University Church, by the performance of Beethoven's overture, Op. 124. Then followed the address, the "Festrede des Rectors," Professor Wislicenus. This most eloquent discourse commenced with an account of the history of the university, and especially of that portion of it which has been presented since the 200th anniversary took place. The Rector showed how it had struggled to be free from all theological thralldom, and in what manner, and to what degree, it had succeeded. On the previous day he had spoken warmly of its thorough catholicity, but to-day he rose to a high degree of fervour, speaking of its earnest struggle as worthy of the spirit of the martyrs. "If," said he, "the very being of science is to seek and find the knowledge of the truth, and this for the good of all, then it lies in its very essence that it can endure no fetters, and the only limits to its advance must be those fixed in the nature of man. No man can point out the way to him who is the pioneer into the region of the unknown; the awakening of his scientific insight is the result of the teaching of the higher schools." Professor Wislicenus has no doubt with regard to the future, but is convinced that it may be confidently left to the "unconquerable pressure onwards of humanity in the search for truth—Das walte Gott." At the conclusion of his address, which was received with loud and long-continued applause, the Deans of the several Faculties recommended the conferring of honorary degrees upon many learned professors of many universities, and the proceedings terminated with music.

At three o'clock on the same day there was a festal dinner,

at which between three and four hundred delegates and guests were present. This was so unlike anything that occurs in England, that some description of it may be interesting to your readers. The dinner began at three and lasted until seven. Everyone appeared in full evening costume, with white cravats and gloves, and bedizened with medals and orders, such as Hood said might have "delighted the eyes of a miner." The menu was exhaustive, and the viands and wine of the best; but what was very curious was the arrangement of the toasts. Before the soup was half finished a signal was given, and everyone rose to hear Prince Theodor Carl (the cousin of the King) propose the health of his Majesty. This was received with appropriate honours, the Prince alluding to his own personal relationship to the medical profession, he having passed through a course of medical instruction, and to the present time occasionally seeing patients in consultation.

Then followed a long pause between fish and soup, during which the talk of the guests and the tones of the band rendered it very difficult to do more than catch a few words from the nearest neighbours. Then, just as some of the visitors had swallowed a few mouthfuls of fish, silence was again called, the Rector rose, the waiters stopped, the guests stood up wiping their mouths, and the health of Kaiser Wilhelm was given and received with all honours, while the band played the familiar air of "God save the King."

Toast after toast followed, and pause after pause ensued, until seven o'clock was reached, when the guests departed, many to see their friends, many to the theatres.

In the evening there was a great gathering of the students and their friends, and of all who had come to the festival, in the great Ludwigshalle. If the official performances were singularly silent, this cannot be said of the "Bankett der Studentschaft," the hilarious mirth of which was audible far beyond the limits of the hall. But good humour prevailed throughout, and the festivities were not prolonged until an unduly late hour.

This leads me to make a remark, and the only one that is tinged with sorrow, about this festival, and that is with regard to the painful spectacle of the gashed and disfigured cheeks, brows, and noses of dozens of students who were going about Würzburg and Heidelberg. Many had scars, of three to five inches long, on either cheek, some had slit noses, and were adorned with plaster as their only "decoration"; while some grown-up men were to be seen, who must have left their colleges for ten or fifteen years, still bearing these ghastly signs of early folly.

The man who has received his wounds in honest fight for his country or his home may be proud of what he has done, but he is not vain of his wounds. But these young men, of seventeen to twenty years of age, stamp about the street, or, curiously enough, ride in carriages behind a pair of horses, with their disfigured, and often injured heads, tossed high in the air as if they thought it a fine thing to make day as well as "night hideous" in remembrance of something which has not been an honourable quarrel, but a form of strife for which few can entertain any feeling of respect.

The University of Würzburg may reasonably take pride in its catholicity; but the University of London has far surpassed it in the practical results of its thorough freedom from all tests of membership, instruction, or honours, for in my class alone in University College there have been Jews, Turks, Hindoos, Japanese, West Indians, and men of every persuasion of Christian faith. But the University of Würzburg is doing a grand work, and with it, in its endeavour, and successful endeavour, to making teaching as efficient as it can be made, and as wide in its range of influence to "all sorts and conditions of men," we hail it with all honour as an elder worker in the broad field of general education.

Nothing could exceed the careful thought with which every arrangement for the assistance of delegates and visitors was made, unless, indeed, it be the kindness and hearty hospitality with which such visitors were greeted.

MR. J. J. MILNES, a Huddersfield solicitor, has obtained a verdict against the Corporation of that town, at the Leeds Assize, for £2000, as compensation for personal injuries caused by drinking impure water supplied by the Corporation. The water in its passage through the service pipes had become so impregnated as to produce in the plaintiff's case every symptom of acute lead-poisoning. A point as to the liability of the Corporation was reserved.

### PROSECUTION UNDER THE BIRTHS AND DEATHS REGISTRATION ACT, 1874.

At the Clerkenwell Police-court, on Wednesday, the 2nd inst., before Mr. Barstow, John Henry Friend, of Dean's-court, Goswell-road, was summoned by the Medical Defence Association for having forged a certificate or declaration for the purposes of the Births and Deaths Registration Act, 1874, concerning the body of the deceased child of Alma Smith. A second summons charged him with having made, given, and used a false statement or representation concerning the body of the deceased child; and a third with having unlawfully procured the burial of the said child under the representation that it was still-born.

Mr. Pridham, Solicitor to the Association, conducted the prosecution.

The prisoner pleaded guilty to the first two summonses, and not guilty to the third. The third summons was afterwards withdrawn.

Mr. Pridham said the deceased was the illegitimate offspring of Alma Smith, the defendant being the father. No medical man was called in to attend the mother, but she was attended in her confinement by the defendant's mother, who stated that the child was still-born, and called in an undertaker, named Bright, to bury it. The undertaker stated that he could not do so without a certificate, and two days after the child's death, Bright was sent for by the defendant, who handed him a document, of which the following is a copy:—

"July 3rd, 1882.

Dr. Clift, 81, Central Street, St. Luke's.

I hereby certify that I delivered Mrs. Smith of a female child (still-born) on the 1st of July, at No. 4, Thomas-place, Goswell-road.

Given under my hand,

Dr. CLIFT,

81, Central Street, St. Luke's."

The original certificate was shown to Mr. Barstow, who, remarking on its illiterate appearance, stated that the undertaker must have known this was not a proper certificate, and Mr. Pridham concurred in his opinion. Mr. Pridham, continuing, said the child was buried at Manor Park Cemetery, Forest-gate; but the superintendent of the cemetery noticed the informal character of the certificate, and forwarded it to the district registrar, who sent it to the coroner for Central Middlesex, and the result was that the body was exhumed and an inquest held. Dr. Clift never saw or attended Alma Smith or gave a certificate, and the document produced was, as the defendant now admitted, a forgery.

Mr. Barstow remarked that this was a very serious offence, and one for which a few years ago the prisoner might have been hanged. He inflicted a penalty of £5 and costs on each summons, or two months' imprisonment.

Defendant was unable to pay the fines and costs, and was therefore removed to the cells to undergo the imprisonment.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Brighton (Urban).*—Dr. Taaffe's annual report on the health and sanitary condition of this popular watering-place and health-resort, during 1881, acquires additional interest from the unfavourable mortality statistics recorded there during the first half of this year, which attracted so much public attention. The estimated population of Brighton in the middle of last year, based upon the results of the Census in April, was 107,934, and the town is one of the twenty-eight largest English towns embraced by the Registrar-General's Weekly Return. The constitution of the population of this large watering-place is exceptional, as may be inferred from the fact that both the birth-rate and the death-rate in Brighton are almost invariably lower than those recorded in any of the other large towns in the Registrar-General's Weekly Return list. During last year the birth-rate in the borough was but 30·6, and the death-rate 19·0

per 1000; these rates were respectively 5·0 and 2·7 below the mean corresponding rates in the aggregate of the twenty large towns. It would be interesting to know how much the mortality statistics is affected by the exceptional age-constitution of the population, but Dr. Taaffe does not give the means for estimating this disturbing element. The normal birth-rate is usually higher in populations having low death-rates than in those having high death-rates. On the other hand, death-rates are almost invariably low in the suburbs of all large towns, where domestic servants form so large a proportion of the population, and yet scarcely contribute to the local rate of mortality. It is certain that on these accounts it would be most misleading to base any conclusions as to the sanitary condition of Brighton on the comparison of its gross death-rate with that of the other large English towns dealt with in the weekly return, consisting, as they mainly do, of London, and manufacturing towns of the midland and northern counties. At the same time it must be admitted that in the death-rate competition with other watering-places and health-resorts, Brighton is heavily handicapped with its population of over a hundred thousand, the bulk of which is thoroughly urban in character and density. Dr. Taaffe's report shows that in St. Peter's sub-district, with its central population of over 60,000, the birth-rate last year was 35·9 and the death-rate 22·3; whereas in the other sub-districts, including the outer ring of Brighton, with a population of about 45,000, the birth-rate was only 23, and the death-rate less than 15 per 1000, sufficient proof of the abnormal constitution of the population. There is another fact which should not be lost sight of when basing conclusions upon the gross death-rate of most watering-places, which is that visitors, while almost constantly forming a large proportion of the population, contribute very slightly to the rate of mortality. Dr. Taaffe notes that only 159 of the 2039 deaths during last year were of non-residents, but he does not state his definition of a non-resident. The zymotic death-rate is always, and especially so in the case of health resorts, one of the most important tests of the temporary sanitary condition of such towns. No one would be wise to select as a health-resort one in which the death-rate from zymotic disease was at the time excessive. The deaths referred to the principal zymotic diseases in Brighton last year were 241, equal to a rate of 2·2 per 1000 of the population, and 11·7 per cent. of the deaths from all causes. These zymotic deaths included 73 from scarlet fever, 52 from diarrhoea (mainly infantile), 45 from "fever" (mainly enteric), 22 from whooping-cough, 23 from measles, 9 from small-pox, and 7 from diphtheria. The zymotic death-rate as well as the gross death-rate showed a considerable excess in St. Peter's sub-district. Scarlet fever was more fatal in Brighton in 1880 and 1881 than in any year since 1871. The new sanatorium, if turned to good account, should be the means of reducing the mortality from scarlet fever. The deaths from enteric fever were more numerous last year than in any of the eleven preceding years. The outbreak last autumn is attributed by Dr. Taaffe to milk dissemination. It is reported that 25 per cent. of the deaths from all causes resulted from diseases of the respiratory organs and phthisis; the death-rate from these causes, however, was lower than in any recent preceding year. Infant mortality was also satisfactorily low. From a statistical point of view, the value of Dr. Taaffe's report would be much enhanced by a summary table, for comparative purposes, showing uniform figures for a series of years. The quotation of strings of figures in the report itself undeniably encumbers the text; the necessity for this would be obviated by the addition of a comparative table. The statistics of the past twelve years show a considerable decline in the death-rate, which averaged 21·5 per 1000 in the first, and fell to 19·6 per 1000 in the second half of this period. This at any rate is a satisfactory feature in the recent sanitary statistics of the borough. The Brighton death-rate in recent years has undoubtedly compared favourably with those of the Registrar-General's other large towns; but before this can be too implicitly relied upon in proof of satisfactory sanitary condition, it would be well to ascertain what the death-rate ought to be. At the same time, as a watering-place, the reputation of the town must invariably suffer, at any rate, temporarily, whenever excessive zymotic fatality prevails. In the interest of public health it is most desirable that this should be the case, and it is therefore of the first importance to the welfare of a watering-place that no effort should be spared to secure the early report of all cases of infectious disease, as well as the hospital isolation of all

cases in which efficient house isolation is impossible. Dr. Taaffe reports that 454 inhabited houses, &c., were connected with the main drainage during last year, but that nearly 6000 connexions still remain to be made.

*Ware Rural Sanitary District.*—In his report on this district Mr. Turner refers to several matters of interest. He points out the inefficiency of the disinfecting stove in use in the district, a stove, which he alleges, cannot properly disinfect except at the risk of burning. We fear there are many hot-air stoves in use, in various sanitary districts, as to which the same may be said. They are often so constructed and so heated that uniformity of temperature in all parts of the stove is impossible, whereas this condition is one which should always be insisted on. It is a matter of common experience to find stoves registering a temperature of some 150° to 200° F. only, whilst articles within, and which cannot burn under some 270° to 280° F., are being destroyed. Such stoves should invariably be avoided, and none should be procured in which a fairly uniform temperature of about 250° F. cannot be ensured in all parts of the stove, and in the interior of such articles as pillows. Mr. Turner next expresses an opinion strongly condemnatory of country fairs as facilitating the spread of infectious diseases. These fairs are now rarely occasions where any real business is done, many have been abolished, and those that remain serve little or no useful purpose. Speaking next as to the serious need for a proper water-supply for the hamlet of Hoddesden, and for Broxbourne and other places, Mr. Turner refers to the working of the Public Health Water Act. He reminds the sanitary authority that the provisions of this Act can only be brought into operation provided each house can be supplied at a cost not exceeding £8 13s. 4d.; but as this is rarely possible in a country district, the cost of making the provision has to fall, not on the owner of the property having no water, but on the whole body of ratepayers. Many complaints have been made as to this, an arrangement which, as Mr. Turner observes, offers an inducement to unscrupulous owners of property to delay making a proper provision, as regards water, until the neglect becomes a local scandal, and then the burden is thrown upon all parishioners alike.

*Ventnor (Urban).*—Dr. Woodford, the medical officer of health for the urban sanitary district of Ventnor, has recently issued his report on its health and sanitary condition during last year. The mortality statistics of the year indicate that the health of the town last year was eminently satisfactory. Not only was the general death-rate low, but the rates of zymotic fatality and infant mortality were considerably below the average. The population of this sanitary district increased from 4841 in 1871 to 5684 at the census last year. The unusually low birth-rate of 20·7 was recorded, showing that the constitution of the population as regards age and civil condition must be very different from that which prevails in most urban districts. The 104 deaths during the year were equal to a rate of 18·3 per 1000 of the estimated population. Dr. Woodford naturally, however, points out that this death-rate cannot be accepted as fairly representing the rate of mortality of the resident population, as 16 of the 104 deaths were recorded in St. Catherine's Home for advanced consumption, and 33 of the other deaths are stated to have been not of inhabitants, "but of strangers who are known to have come into the district with their fatal illnesses upon them." Making this deduction, Dr. Woodford arrives at the conclusion that 9·6 per 1000 was the more correct death-rate in Ventnor during 1881. There can be no question that the deaths of consumptive visitors recorded in Ventnor, whether in hospital or in private houses, may fairly be excluded from the estimation of the true death-rate of the residents of Ventnor. It would, however, be desirable to know what is Dr. Woodford's precise definition of a resident and of a stranger. The population of Ventnor is too small to yield mortality statistics for a single year which may safely be used for comparative purposes, but the corrected death-rate of 9·6 strongly suggests over-correction, although this exceptional rate may be due to the frequent wide variation of results calculated from small numbers. In point of fact Dr. Woodford makes the corrected death-rate of the preceding year 18·2 per 1000. There can be no mistake, however, about the satisfactory conclusions to be drawn from the comparative freedom from fatal zymotic disease enjoyed by Ventnor last year. Two deaths, each from typhoid fever, and two from puerperal fever, were the only fatal cases of the principal zymotic diseases; no death being referred either to measles,

scarlet fever, small-pox, diphtheria, or whooping-cough. Notwithstanding this favourable bill of health it is unsatisfactory to hear that "no success has attended the board's efforts to establish a hospital for infectious diseases." The public has a right to expect health resorts to provide themselves with such hospital accommodation in the interest of their visitors. It is undoubtedly a step in the right direction, that the sanitary authority is prepared to give sanitary certificates to houses which fully comply with the requirements of the authority. Only sixteen of such certificates have yet been granted in Ventnor, and it really rests with public opinion to bring pressure to bear upon lodging-house keepers, in order that they may learn to recognise the desirability of obtaining these certificates.

*Belfast.*—For the four weeks ending July 22nd, the births registered amounted to 494, and the deaths to 336, including 47 deaths from zymotic diseases and 117 from diseases of the respiratory organs. One death from small-pox was recorded during the month. The death-rate was equal to 21 per 1000. There has been a considerable decrease in the number of cases of small-pox and also of typhus fever; and the only zymotic disease that has exhibited an increase is diarrhoea, probably due to the unripe fruit used causing gastric and intestinal affections.

*Cork.*—During the four weeks ending July 15th 143 births occurred, being equal to 23·07, and the deaths to 124, or 20·50 per 1000. Deducting the deaths occurring in the workhouse the urban death-rate was 15·09. Fever of every description, especially typhus, has shown a decided decrease as compared with the previous return.

#### ASHPIT NUISANCES.

The *Local Government Chronicle* records some proceedings which were taken at Chesterfield in order to secure the abatement of a nuisance arising from certain uncovered ashpits. These receptacles were alleged by the medical officer of health and the inspector of nuisances for the borough to contain liquid contents, which soaked through the walls and, hence, to cause an offensive nuisance. A physician, who was apparently one of the defendants, to our astonishment, undertook to defend these structures before the bench, declaring that ashpits ought to be uncovered and that the proposal to cover them in was in disregard of the true laws of health and sanitation. In one sense, perhaps, the defendant was right. If ashpits and similar receptacles for vegetable and other filth are to be left exposed to rainfall and soakage—an arrangement which will certainly facilitate the rapid decomposition of their contents,—it may be doubtful how far it is wise to hide the sloppy stuff under a cover, rather than let it be open to view, for where so exposed the tenant more immediately concerned will get such advantage as may result from the emanations being blown from his own into his neighbours' premises, and the district as a whole will at least be able to see to what the nuisance is really due. But here all advantage ceases. Ashpits should be so constructed, both by being raised somewhat above the surrounding ground and by being covered in, as to prevent that wetness of contents which is due either to soakage into them of subsoil water or to rainfall. Since it is precisely this wetness which does the harm, the need for a place open to such breezes as will carry away foul effluvia will then be practically gone. In short, it is dryness of contents which must, as far as possible, be secured; for the drier the refuse, the less chance is there of that decomposition which leads to nuisance and injury to health. The Chesterfield magistrates acted wisely; they accepted as correct the opinion of their medical officer of health, and ordered that the nuisance resulting from the uncovered ashpit should be abated.

#### VITAL STATISTICS.

##### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5748 births and 3270 deaths were registered during the week ending the 5th inst. The annual death-rate in these towns, which had been equal to 19·0 and 19·6 in the two preceding weeks, further rose last week to 20·1. The lowest rates in these towns last week were 10·6 in Derby, 13·3 in Halifax, 13·8 in Brighton, and 14·9 in Bristol. The rates in the other towns ranged upwards to 25·0 both in Sunderland and Huddersfield, 25·1 in Liverpool, 26·9 in Leicester, and 30·8 in Man-



chester. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 699, showing a further increase of 64 upon recent weekly numbers; 390 resulted from diarrhoea, 86 from scarlet fever, 78 from whooping-cough, 74 from measles, 50 from "fever" (principally enteric), 16 from diphtheria, and 5 from small-pox. The lowest death-rates from these diseases last week occurred in Plymouth and Oldham, and the highest in Hull, Sunderland, and Leicester. Whooping-cough caused the highest death-rates in Birkenhead and Preston; scarlet fever in Derby and Sunderland; measles in Hull and Sunderland; and "fever" in Derby and Hull. The fatal cases of diarrhoea in the twenty-eight towns last week showed a further marked increase upon recent weekly numbers, but were again considerably below the average for the season; the highest death-rates from this disease were recorded in Sunderland and Leicester. Of the 16 deaths from diphtheria in the twenty-eight towns 15 occurred in London, and 1 in Hull. One fatal case of small-pox was recorded in London, 3 in Newcastle-upon-Tyne, and 1 in Hull. The number of small-pox patients in the metropolitan asylum hospitals, which in the fourteen preceding weeks had declined from 350 to 159, further fell to 133 on Saturday last; 16 new cases of small-pox were admitted to these hospitals during last week, against 20 and 10 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 157 and 183 in the two preceding weeks, further rose to 193 last week, and were 22 above the corrected average number in the corresponding week of the last ten years. The causes of 75, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Nottingham, Derby, and Bolton; whereas the proportions of uncertified deaths were largest in Sunderland, Wolverhampton, Salford, and Preston.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 21·7 and 21·3 per 1000 in the two preceding weeks, was again 21·3 in the week ending 5th inst.; this rate exceeded by 1·2 the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 112 last week, and differed but slightly from the number in the two previous weeks; they included 55 from diarrhoea, 17 from measles, 13 from whooping-cough, 10 from "fever," 10 from diphtheria, 7 from scarlet fever, and not one from small-pox. The death-rate from these principal zymotic diseases averaged 4·8 per 1000, and was 0·5 above the mean rate from the same diseases in the large English towns. The 55 deaths attributed to diarrhoea in the eight towns showed a decline of 9 from the number in the previous week, but exceeded by 7 the number in the corresponding week of last year. The fatality of diarrhoea in the Scotch towns continues to show a marked excess upon that recorded in the English towns; the largest proportional excess occurred in Glasgow and Greenock. The 17 fatal cases of measles showed an increase of 10 upon the number in the previous week, and included 7 in Dundee and 6 in Leith; 38 fatal cases of measles have occurred in Dundee since the beginning of July. No fewer than 10 of the 13 deaths from whooping-cough were returned in Glasgow. The 10 deaths referred to "fever" included 3 in Glasgow, 3 in Edinburgh, and 2 in Dundee; while the 10 fatal cases of diphtheria, of which 5 occurred in Glasgow and 2 each in Aberdeen and Greenock, showed an increase upon recent weekly numbers. The 7 deaths from scarlet fever included 3 both in Glasgow and Paisley. The deaths referred to acute diseases of the lungs in the eight towns, which had been 95, 80, and 82 in the three previous weeks, declined to 74 last week, and were fewer by one than those attributed to these diseases in the corresponding week of last year.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 21·9 and 20·8 per 1000 in the two preceding weeks, rose again to 22·9 in the week ending the 5th inst. During the first five weeks of the current quarter the death-rate in the city has averaged 20·6 per 1000, against 18·1 in London and 18·6 in Edinburgh. The 153 deaths in Dublin last week showed an increase of 14 upon the low number returned in the pre-

vious week, and included 7 which were referred to "fever" (typhus and enteric), 6 to diarrhoea, 2 to measles, 1 to diphtheria, and not one either to small-pox, scarlet fever, or whooping-cough. Thus 16 deaths resulted from these principal zymotic diseases, against 8 and 12 in the two preceding weeks; these 16 deaths last week were equal to an annual rate of 2·3 per 1000, against 3·7 in London and 2·9 in Edinburgh. The deaths referred to different forms of "fever," which had been 3 in the previous week, rose last week to 7, and exceeded the number returned in any week since April last. The fatal cases of diarrhoea were 6 last week, against 7 and 5 in the two preceding weeks. The 2 deaths attributed to measles were one less than the number in the previous week. The fatal case of diphtheria was the first recorded in the city since the commencement of the current quarter. The deaths of infants showed a slight further increase upon recent weekly numbers, while those of elderly persons were less numerous. The causes of 20, or 13 per cent., of the deaths in the week were uncertified.

#### THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major Richard Turner, M.D., has retired upon temporary half-pay. Surgeon John Mulrenan, M.D., has retired upon temporary half-pay.

RIFLE VOLUNTEERS.—19th Lancashire (not Lanarkshire, as misprinted last week): James Booth Clarkson, Gent., to be Lieutenant.

ADMIRALTY.—The following appointments have been made:—Staff Surgeon James H. Martin (additional), for medical charge of crews of the transports in Egypt; Staff Surgeon Edward Meade to be Fleet Surgeon; Surgeon John O'Callaghan, B.A. (additional), for charge of crews of the transports in Egypt; Surgeon William Brown and Surgeon John Cassilis Birkmyre Maclean, M.A., M.B., to be Staff Surgeons, the latter reappointed on promotion to the *Alexandra*; Fleet Surgeon William Henry Cruice, to the *President* (additional); Staff Surgeon William Browne, to the *Monarch* (reappointed on promotion); Surgeon John William Davis, to the *Duncan*, vice William F. Spencer.

In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Bradley Gregory has been placed on the Retired List of his rank.

Dr. George Chadwick has been appointed Surgeon and Agent at Lynn and detachments, vice Mr. Woodward.

#### Correspondence.

"Audi alteram partem."

#### EDUCATION IN SCOTLAND.

To the Editor of THE LANCET.

SIR,—Permit me to rectify a slip made by your esteemed correspondent last week, in saying of a recent address by me that I "showed that while in regard to the Arts course the Scottish Universities were perhaps behind those of England and Germany, such could not be said of the medical." I should be sorry, indeed, to make any such statement in regard to our Arts education. What I said of the Arts course was: "The Arts students in Scotland are, on an average, younger than in England and Germany, and that this might be, to some extent, changed with advantage, and also some reasonable amount of option allowed in the studies for the Arts degree, is now pretty well agreed, and it is for such objects mainly that the appointment of a Universities' Commission is expected soon. But as to the Arts studies in the two kingdoms, it is a question which system is the better one. The Scottish system is one intended for the education of the professions, and for those of the commercial world whose parents appreciate the value of a good education. The youth is sent to a Scotch University to work, which also means economy; while to Oxford or Cambridge he goes with a large sum of money in his pocket. This may suit a certain section of the community in England, but that the Scottish system is the better of the two for the life and progress of the nation few will doubt, and it may be said that what England wants for its higher education is a number of universities, in its chief centres, modeled on the Scottish system."

Since the publication of the Report, of 1880, of the Committee of the House of Commons on the Medical Acts Amendment Bill, we have heard little of that criticism of the medical system of the Scottish Universities with which we had been before favoured from London, and we shall have still less of it now that the Report of the Royal Commission on the Medical Acts is published. We are now being lectured from England on our Arts system in the style in which lofty people write of that which they do not understand. The more our English friends look into the system of the Scottish Universities, the more they will perceive that it is a system which English reformers would do better to try to copy than to criticise.

I am, Sir, yours truly,  
 Aberdeen University, August 7th, 1882. JOHN STRUTHERS.

## SURGICAL DRESSINGS.

*To the Editor of THE LANCET.*

SIR,—Dr. Edward Thompson in your issue of the 29th ult. recommends the use of the dry puffball (*Lycoperdon giganteum*) as a hæmostatic and surgical dressing. The part used is the interior, consisting of the dry capillitium and spores. I have seen many cases in which this substance has been used as an hæmostatic, for there is hardly a farmhouse in this district in which a dry puffball is not to be found stored up against an emergency. The great disadvantage in its use is that, although undoubtedly a powerful hæmostatic, so tender is the substance, and so firmly does it cling to the interior of a wound, that it is almost impossible to completely remove it, and I have had many a tedious half-hour when I was house-surgeon attempting to do so. While undoubtedly a powerful agent in arresting non-arterial hæmorrhage, its use is at the same time inimical to union by first intention.

I am, Sir, yours truly,  
 King's Lynn, August 3rd, 1882. CHARLES B. FLOWRIGHT.

## THE COSTLINESS OF MEDICAL BOOKS.

*To the Editor of THE LANCET.*

SIR,—I often wonder how it is our medical literature is published at so high a price. It is so costly that a large portion of it is beyond the possession of a considerable section of the profession. The vast majority of medical men are practically excluded from reading our best standard works on medicine, surgery, and physiology, from their inability or disinclination to pay two, three, or four guineas for a work, no matter what its merits. I know of no other kind of book knowledge that is placed beyond the reach of its aspirants, by virtue of its costliness, so much as medicine and its allied sciences. Take theology as an example. It is published at a price so inexpensive that the million are able to procure it. And all other scientific works are much on a par, and yet they are embellished by diagrams, wood engravings, and illustrations of every kind, which so greatly enhance the cost of production. Sir H. Thompson has set a good example in issuing a cheap edition of his lectures on urinary disorders, and one worthy of imitation. I have no doubt it is proving highly remunerative. If authors would bring out their works in a reasonably cheap form they would soon find their productions give them better pecuniary results, and their publishers would not be hampered by having their shelves burdened with slow-selling or unsold editions, which ought to be lying on the shelves of professional private libraries. There are hundreds of works unread which those of us who do not belong to a Medical Society library never can peruse because we cannot afford to purchase them. I know of no solid reason why this state of things should continue. It would be invidious to single out any work of high merit as an instance of costliness, but if we cast our eye over the advertisement pages of THE LANCET, or glance at such a list as Churchill's, we see numberless cases establishing my proposition. In one list of Churchill's books, advertised in Gowers' "Diseases of the Spinal Cord," I find the value of the books therein announced is over £150, and it is stated to be only a selected list. To form a good medical library one would have to spend a small fortune, and yet it is expected we all should know something of every work sent out. Those of us who wish to be abreast with the current literature are supposed to read the leading books as they appear, and to be well informed this becomes almost an absolute necessity. There is an ever-recurring

change in our views, and new features and opinions are cropping up with a rapidity perfectly marvellous, if not appalling. Let all, then, have a chance of obtaining knowledge by placing within the reach of all the treatises which supply it, and I warrant thousands of books will be bought in place of one now at the exclusive price they are published.

Let me urge you, Sir, as THE LANCET is the acknowledged organ of the profession, to take this question up seriously; and I doubt not you will soon so influence opinion amongst authors and publishers that a new order of things will prevail, and you will thus confer a lasting benefit on the medical world.

I am, Sir, yours truly,  
 Southport, Aug. 3rd, 1882. G. B. BARRON.

## "SALICYLIC SILK."

*To the Editor of THE LANCET.*

SIR,—Dr. McGill finds fault with me for saying that the mackintosh was used at Leeds even with the salicylic silk. I am sorry if I have been incorrect in my statement, but my authority is the paper of Mr. W. H. Brown, which I mentioned. He says: "I place over the wound a piece of gauze soaked in five per cent. solution of carbolic acid; then surround the wound with a double handful of salicylic silk; over this I put the gauze and mackintosh pad, and bandage in the ordinary way."—Yours faithfully,

J. LOCKHART GIBSON, M.B., C.M.  
 Edinburgh, August 7th, 1882.

## NOTIFICATION OF INFECTIOUS DISEASE.

*To the Editor of THE LANCET.*

SIR,—This town being one of those in which the Notification of the Infectious Disease Act is in force, on June 6th I certified to the medical officer of health that F. W. — was suffering from scarlet fever. The nuisance inspector visited the house, forbade the patient's father, a cabdriver, to ply for hire, offered him employment in the town's service (which, unfortunately, he was unable to perform), still living and sleeping at his own house, and gave him leave to ply again on the 18th (desquamation commenced about the 14th, and was not complete on the 28th). He paid another visit on June 17th, in consequence of which, on June 20th, I wrote a letter, of which the following is a copy, to the Sanitary Committee:—

"Gentlemen,—I found this morning that the sanitary inspector had visited a house wherein I have a patient suffering from scarlet fever; that he had given the mother a prescription, and exacted a promise from her that the same would be taken to Mr. —'s (chemist) shop, where the accompanying bottle and contents were received. He had directed that my patient be bathed or sponged, and afterwards rubbed with the contents of the said bottle. Now, I request to be informed by whose authority your servant (whom I believe to be ignorant of any knowledge of the practice of medicine) has thus ordered and prescribed for a patient of mine. If this were done by a medical practitioner, it would merit severe condemnation, as ungentlemanly and unprofessional, but if practised by a nuisance inspector, some of the members of your body know may simply mean murder at no very distant date."

This letter was read at the meeting on June 21st, and, although there was another ordinary meeting on July 19th, I have not received any reply; and yet I think five minutes' examination would enable the Sanitary Committee to say whether they themselves, the medical officer of health, or the nuisance inspector was the authority. On the 20th, after writing the above letter, the inspector called on me, bringing the prescription, in the handwriting of the medical officer, which I quote from memory:—"For the Corporation. R. Ol. communis fl. 3 viii., acid. carbol. 3 ii. To be used &c. For scarlet fever patients." The inspector told me that before directing the mother he had asked her if I had given over attending the case, and that the mother had answered "Yes," which I told him entirely altered my view of the matter; and if he had so done, as he said he was sorry for having interfered, I promised to withdraw my letter. But next day the mother and her sister gave me a written statement, duly signed, that the inspector did not even ask the question, and circumstantial evidence bears her out; for

on the 17th she told a neighbour that I was going to call again, and F. W.—on that day could not walk, if stand. I therefore did not withdraw my letter.

I and my colleagues wish to know if this is the usual manner in which the confidence of medical practitioners is abused who work under the above-named Act, and shall be glad to have your opinion on the matter.

I am, Sir, yours truly,

Blackpool, August 4th, 1882.

R.

## DEATHS FROM ANÆSTHETICS.

To the Editor of THE LANCET.

SIR,—Having observed at various times in the medical journals accounts of deaths from the effects of the administration of anæsthetics (chiefly chloroform), and the measures adopted to rescue the patients' lives, I have been much surprised to find that no mention has been made of the hypodermic injection of the ordinary anæsthetic ether, possibly because, I presume, this has not been adopted. I believe a drachm may be regarded as a moderate quantity, and may be followed by the like dose five or ten minutes afterwards if necessary. I do not claim any originality for the suggestion, but merely wish to more widely circulate the fact, for I have seen this treatment resorted to on several occasions, invariably with marked success, even when others, such as artificial respiration, electricity, &c., have failed—indeed the only death I have seen from the effects of an anæsthetic was in a case where the hypodermic injection was not used.

In conclusion, I may mention that it is advisable to use a larger syringe than those ordinarily used for the injection of morphia, and to have a sliding piston instead of a screw.

I am, Sir, yours truly,

Baron's Court, S.W., July 31st, 1882.

R. FITZROY BENHAM.

## DURHAM UNIVERSITY.

(From a Correspondent.)

THE Jubilee of this University was celebrated at Durham most successfully in the last week of June in various ways. A beautiful heraldic window has been erected in the magnificent hall of University College. The new University Buildings on Palace-green came into use in the early part of this year.

On June 27th, at Convocation a large number of honorary degrees were conferred on noblemen connected with the north of England, and men distinguished in the sciences and arts. Amongst those who received the honorary D.C.L. were George Yeoman Heath, M.D. Dur., President of the College of Medicine, and G. H. Philipson, M.D. Dur., F.R.C.P., the Professor of Medicine. In the evening of the same day a grand concert was given by members of the University in the new buildings.

Thursday, June 29th, was the great day of the Jubilee week. University services were held in the cathedral, and in the evening a dinner in the great hall of University College, when the Warden of the University, the Very Rev. W. C. Lake, D.D., Dean of Durham, announced that the Bishop of Durham and the Visitor of the University would that day place at the disposal of the University £1000 for the purpose of founding a scholarship in memory of his predecessor, the great promoter of literature, Richard de Bury.

The number of students in this the fiftieth year of the University's foundation is as follows: University College, 111; Bishop Hatfield Hall, 110; the College of Medicine, 127; the College of Physical Science, 82; unattached students, 72. The total number of members of the University is 2118.

## GLASGOW.

(From our own Correspondent.)

AT the last meeting of the managers of the Royal Infirmary the vacancies on the Dispensary staff were filled up by the appointment of Drs. J. Wallace Anderson, J. Dougall, D. Campbell Black, Brock, and Shaw to the various posts.

There was a warm contest, and most of the candidates canvassed very freely.

I notice that the Executive Committee of the Southern Hospital, having secured an excellent site, invite architects' plans for a hospital of 120 beds, the cost not to exceed £20,000. A premium of £50 is promised for the best design. It is just possible that the Committee may lose the fine site they had arranged for, as some of the members of the Town Council profess to have discovered that in parting with the ground at a merely nominal sum the Council acted illegally, being formally bound to obtain the ordinary market value for all land sold. If this be so, it will be a serious matter for the proposed hospital, as it will add about £10,000 to the £5000 already agreed upon.

Dr. J. B. Russell, in his health report of a fortnight ago, made some interesting statements regarding the use of "turned" milk for children. He points out that while the death-rate from lung affections had fallen considerably, that from diarrhoeal affections among children had risen as high as during the very warm, dry summer of 1880, and this, notwithstanding the recent moderate temperatures and excessive rainfall. The prevalence of diarrhoea may be fairly ascribed to the changes effected in milk by the electrical disturbances so frequent here of late, the majority of deaths having probably occurred among what we know as "bottle babies." Dr. Russell enjoined the greatest care on the public in the keeping of milk and of feeding bottles.

## SCOTTISH NOTES.

(From our Correspondent.)

INVERNESS is at present suffering from a scarcity of water, which must be most disappointing to those who favoured the gravitation scheme a few years ago. It was carried out at a large cost, and Loch Ashie was believed to be capable of supplying the town abundantly. It is not quite clear from what cause the present scarcity has arisen, and the subject is now under the anxious care of the authorities. Rumour has it that the quality of the present water is most questionable, and it will be expected that a town with such a tourist traffic will raise itself above suspicion in this important matter.

A large number of newspapers, received from Perth and Dundee, show the great interest at present existing in the former town regarding its sanitary state. It would appear that during last winter a course of health lectures was delivered by the local medical men in Perth, and that in one of these, on "Epidemics," Mr. Trotter, L.R.C.P. Ed., passed some very severe strictures on the condition of the town, particularising many matters and places, which he alleged were in a disgraceful state, and wondering that epidemics were ever absent. Much of this had often been said before, but the forcible language of Mr. Trotter roused the indignation of the authorities, and they denounced him in unmeasured terms, denying his statements by their own and the mouth of their medical officer, Mr. Simpson, M.B., *in toto*. An inspector from the Board of Supervision, attracted by the lecture and its discussion, paid Perth a visit, and his report in all essential matters bore out the justice of the outside criticism, both with regard to the insanitary state of the town and the unsatisfactory source of the water-supply, which is taken from the Tay after it receives the whole sewage of the town, and of many other villages on its banks. The authorities, again faithfully backed by their medical officer, next reply in their former manner to the strictures of the inspector, and Mr. Simpson writes a report. I notice that the newspapers commenting on the subject think Mr. Trotter more deserving of thanks than censure, but as the discussion has now come down to personalities, it may be pointed to as a fair example of "how not to do it." Let us hope that both sides may cool in their criticism of each other, and unite to bring about a better condition of matters in the "Fair City."

The presentation to Mr. Sinclair, M.B., Aberdeen, mentioned by you last week, was richly deserved, as he, with great enthusiasm and success, organised a class at the Infirmary for practical work. No fee was charged to the student, and this is nowadays something to be noted.

## PARIS.

(From our Paris Correspondent.)

HERNIA is a much more common infirmity than is generally supposed. A well-known "bandagiste" or truss maker in Paris has drawn up a statistical table comprising a period of fifteen years, from April 1st, 1865, to April 1st, 1880. According to this report, he had during that period 53,489 applications for trusses for both sexes, which he has classified as follows:—

	Men.	Women.
Inguinal hernia (simple) . . .	32,866	928
Inguinal hernia (double) . . .	8637	419
Femoral hernia (simple) . . .	177	1726
Femoral hernia (double) . . .	205	925
Umbilical hernia . . . . .	1935	2782
Ventral hernia . . . . .	88	411
Other herniæ . . . . .	1276	711
Double herniæ . . . . .	343	60
	<u>45,527</u>	<u>7962</u>
	53,489	

From the above table it will be seen that inguinal herniæ, which are more frequent in men, are rarely found in women; femoral herniæ, on the contrary, may be said to be peculiar to women; and it was for this reason that our forefathers gave it the name of "woman's hernia." The great disproportion between the number of herniæ in men, and the number of the same nature in women, is due to the anatomical construction of the pelvis, which is so essentially different in the two sexes. It may be observed, also, that umbilical and ventral herniæ are very frequent in women who have borne a number of children, and particularly when they become pregnant at short intervals.

Since the abolition of the "Tours" or foundling hospitals infanticides have become much more common in this country. During last month two cases were tried at the Court of Assizes for this abominable crime. One was for the murder of a new-born infant by its mother, a young girl who had been seduced. The crime was effected by the child being thrown down the pipe in the privy leading to the cesspool. The mother got off with "extenuating circumstances," as the medical man called in to give evidence gave a certificate to the effect that the child was so small, it having only reached the eighth month of intra-uterine life, that it could easily have slipped through the opening in the pan without the employment of force, and it bore no marks of violence. It was, however, proved that the child was born alive, but that its death might have been caused by congenital weakness.

The next day another case was brought before the Court of Assizes for the same crime. Here also the heartless mother resorted to the same means as the above; but the child, which was at full term, could not get lower down than the circular opening of the pan, where its head was engaged, and some of the lodgers passing by the privy, hearing the cries of an infant, opened the door, and saw the feet of a child, which was evidently struggling for life, with its head downwards. A medical man was immediately sent for, and he soon extricated it from the perilous position alive. Notwithstanding the persistent denial of the accused of her intention of putting an end to the child's life by the means she had recourse to, pretending that the child had escaped from her while she was at stool, there was sufficient evidence to show that she fully determined to put the atrocious act into execution. She was in consequence, in spite of the "extenuating circumstances" that were allowed her, condemned to hard labour for life.

Only on Saturday last, a domestic servant, who had concealed her pregnancy and done her work to the moment she was taken in labour pains, retired to her own room and there went through the process of parturition without her neighbours having the least suspicion of what was taking place. As soon as the child was born (alive) she strangled it and concealed it under her bed. After the horrible crime was accomplished she attempted to resume her work, but was unable to undertake it; and her mistress, finding that she looked so ill, desired her to return to her room, to which she accompanied her, and, discovering the dead child, the servant, of course, made a full confession of what had taken

place. The lady immediately made a report of the circumstance to the police, and an inquiry has been instituted.

A batch of savages has just been brought over from Maroni, in Guiana, and are quartered in the Jardin d'Acclimatation. They are fourteen in number, consisting of an old mother (whose age is unknown), a grown-up girl (who seems somewhat civilised), three boys from eighteen to twenty years of age, two young mothers of fifteen and sixteen each, with a suckling baby and seven other children. Their legs are tattooed, and their upper lip is also tattooed in the form of a moustache, the lower lip being pierced through with a thick pin, which serves as an ornament. The Comte de La Grange, who brought them over, also brought with him some specimens of earthenware, which are very interesting and curious. Their habits are very simple; but they object to eating before strangers. Their only clothing consists of a sort of bathing drawers reduced to its simplest expression. The seven children are very handsome; their features are regular, their complexion slightly copper coloured, and were it not for their tattooing and their complete nudity, they would at first sight be taken for Bohemian gipsies.

Dr. Pidoux died on the 4th inst., at his residence in Paris, from diabetic gangrene. He was more than an octogenarian, took his degree in 1835, and has been a member of the Academy of Medicine since 1864. Dr. Pidoux has written a great deal; but his principal work is his "Traité de Thérapeutique et de Matière Médicale," the first edition of which was published in 1839, in conjunction with the late Dr. Trousseau. He was for a long time principal physician at the Eaux-Bonnes, and was a great authority on matters connected with the therapeutic action of sulphurous waters. He was also Officier of the Legion of Honour.

Paris, Aug. 8th, 1882.

## NEW YORK.

(From our own Correspondent.)

I HAVE the pleasure of stating that all arrangements for the opening of the New York Post-Graduate School of Medicine, on November 1st next, are now complete, and, with the exception of one chair, the Faculty is named. I consider this will be one of the most interesting events in the annals of medicine on this continent, and will mark a new era in regard to medical education. Arrangements had been made for the opening of such a course in connexion with the Medical School of the College of the City of New York, but a programme agreeable to all could not be submitted, and those most interested in the success of the movement resigned their positions and determined on independent action, the result of which is the inauguration of the new school of medicine in Twenty-third-street, New York City.

The Faculty will comprise the following eminent physicians, who are all accomplished specialists, in the department of medicine over which they will preside:—James W. Little, M.D., Professor of Clinical and Operative Surgery; Wm. A. Hammond, M.D., Professor of Diseases of the Mind and Nervous System and Medical Electricity; D. B. St. John Roosa, M.D., Professor of Diseases of the Eye and Ear; Henry G. Piffard, M.D., Professor of Diseases of the Skin; Frederick R. Sturgis, M.D., Professor of Diseases of the Genito-urinary Organs and Venereal Diseases; M. A. Pallen, M.D., Professor of Diseases of Women and of Operative Midwifery; Thomas E. Satterthwaite, M.D., Professor of Histological and Pathological Anatomy; Mary Putnam Jacobi, M.D., Professor of Diseases of Children; E. C. Spitzka, M.D., Professor of Medical Jurisprudence and State Medicine; William J. Merton, M.D., Associate Professor of Diseases of the Mind and Nervous System; Herbert G. Lyttle, M.D., Associate Professor of Genito-urinary Diseases; William H. Porter, M.D., Associate Professor of Histological and Pathological Anatomy; Edward T. Ely, M.D., Associate Professor of Diseases of the Eye and Ear; W. Ward, M.D., Associate Professor of Diseases of the Throat; W. T. Alexander, M.D., Associate Professor of Diseases of the Skin.

No undergraduates will be admitted to this College, it being opened for physicians only, the idea being not to in-

crease the number of doctors, but to raise the standard of medical knowledge among those already in practice. The course of study will be by clinics and demonstrations in contra-distinction to the lectures given at other medical schools.

In looking over the names of the faculty your readers will notice that of a woman, Dr. Mary Putnam Jacobi. I believe this to be the first instance of a lady being elected to a professorship in a medical school. Whatever opinion may be expressed respecting this innovation, there can be but one as to the fitness of this lady for the position in question. Dr. Mary P. Jacobi's skill in treating the diseases of children is acknowledged by the medical profession, and her instruction in this department will be a welcome addition to the excellent course of study which will be provided.

The opening of the New York Post-Graduate School of Medicine is the outgrowth of a movement which has been at work for some years. The medical profession has been aware that the course of instruction provided for graduates of medicine was totally inadequate, and that the majority of those taking their degrees were unfit to practise medicine. All recent efforts to raise the standard of medical education have been abortive, and, with few exceptions, even the extended time for study has been reduced to the old limits. It is four years since I had occasion to look into this subject, when I wrote editorially in the *New York Times*, with the effect of improving the course of study at the medical school of the Johns Hopkins University then about to open. At that time (and I fear the conditions are little changed) I found there were sixty-five medical schools in the United States besides those devoted to homœopathy, eclectic, botanic, and other systems. During the winter of 1866-7 these sixty-five schools had 7141 students, of whom 2313 graduated as Doctors of Medicine in the spring. In only five of these schools was there a graded course of three years, and in only two was a preliminary examination required, and that of a very low grade. Of the remaining schools, I was informed on the best authority, only fifteen could be said to be doing fairly good work, that is to say, as good as there is a demand for. This leaves forty-three medical schools, out of a total of sixty-five, that were doing poor, indifferent work. The course of medical study in the United States is wrong from first to last. In the first instance, the student is supposed to have studied with a private preceptor for one year before he takes his medical course. Surely this is a farce and a waste of time, for when the student should be studying anatomy, chemistry, and physiology, his attention is directed to practical medicine and surgery. I then summed up the defects of the American system as follows: 1st. The absence of a preliminary examination. 2nd. The very short period of the studies required. 3rd. The want of training in the practical branches. 4th. Absence of any grading in the curriculum. 5th. The examination of the candidates for the degree by those having a direct pecuniary interest in their success. The medical schools of New York, Boston, and Philadelphia afford excellent opportunities for making good general practitioners, and only need reforms extending the time of study. Doubtless there are plenty of young men who have sense enough to know that a thorough medical education will pay in the long run in spite of the time and money it costs. To such the new Post-Graduate School in New York City will be a boon, presenting opportunities for completing their knowledge of any particular department of medicine which they consider essential to their future success. From my personal knowledge of many members of the faculty I can testify to their being gentlemen who have offered their services from the best motives, desiring to elevate the profession of which they are distinguished members, and to improve the standard of medical education. I understand the success of the new medical school is assured. It would be a disgrace if it were otherwise.

July 22nd, 1882.

[Our New York correspondent wishes us to request residents in the United States to forward matter suitable for insertion in correspondence to him, addressed THE LANCET, P.O. Box, 3230, New York City.]

THE Birmingham Borough Hospital and offices of the Health Department, three miles away, have had telephonic communication established between them in order to lessen the risk of the spread of infection by friends visiting patients.

## MEDICAL NOTES IN PARLIAMENT.

### *Irish Lunacy Officials.*

IN the House of Commons on Thursday night, the 3rd inst., during the discussion of the Irish votes in Committee of Supply, Mr. Blake complained that two of the inspectors of lunatic asylums in Ireland were too old and decrepit for their duties, and ought to be retired. Mr. Findlater drew attention to the discrepancy between the terms of the retirement of lunacy officials in England and in Ireland, showing that they were much to the disadvantage of the Irish officers. —Mr. Trevelyan, in a general reply, stated that it was his intention during the next four or five months to personally inquire into the constitution and administration of all the public departments in Ireland.

### *Registration of Midwives.*

Petitions in favour of a system of registration of midwives continue to be presented to the House. On Friday three such petitions, and on Tuesday eight, were presented from London, and similar memorials came from Pulborough, Lower Beeding, and Slaughtam.

### *Treatment of Emigrants.*

Mr. Moore drew attention to this subject on Friday, and moved a resolution demanding a revision and reform of the Passenger Acts. He admitted that great improvements had recently been made in accommodation of emigrants on board ship, but contended that much required to be done with regard to their reception and lodgment at the ports. —Mr. Chamberlain said only one of the Atlantic steamship lines had failed to comply with the recent recommendations of the Board of Trade, and that line, he hoped, would not be long recalcitrant. No reform of the law appeared to be required, although a revision of the Passenger Acts might be useful. As to the overcrowding of Scandinavian emigrants at Hull, it was doubtless unsatisfactory; but cases of hardship only occurred during the busiest season. The question of the erection of depôts for their reception was under consideration by some of the companies, but as they could only be used two or three times a year, the general opinion was against the proposal. He thought it better to leave these matters to the voluntary action of the companies, who had expressed their willingness to do anything to promote the health and comfort of the emigrants. —The resolution was negatived.

### *Lunacy Bills.*

On Friday, the Lunacy Districts (Scotland) Bill, which stood for Committee, was withdrawn.

On Saturday, the Lunacy Regulation Bill passed through Committee, and it was read a third time on Tuesday. Some hostility was shown to the measure by Mr. Warton, Sir H. Holland, and Mr. Montagu Scott, on the ground that it proposed to reduce the number of official visits to Chancery lunatics from four to two visits per year, in order to save appointing more visitors. Mr. Hibbert explained that it was only proposed to reduce the visits to lunatics kept in private houses, mostly with friends. There were 400 of these. There were also 800 Chancery lunatics in public or private asylums, and the visits to them were to be increased from one to two per annum. Dr. Farquharson said, those who lived with their friends were harmless lunatics. They did not need frequent inspection, but it was needed in case of lunatics who were only looked after by paid attendants. Mr. Stanley Leighton advocated an increase of the number of visitors, and Mr. Scott denounced the parsimonious system which sought to make money out of the fees levied on account of Chancery lunatics. Eventually the Bill was amended, on the offer of Mr. Hibbert, by making the annual number of visits three instead of two, in regard to private houses.

On Tuesday, Sir W. Harcourt replied to Mr. R. H. Paget that when he had read the report of the Departmental Commission which was appointed in 1881 to consider questions relating to criminal lunatics, and when it had been considered by the Treasury, he would see whether it could be presented to Parliament.

Upon the motion of Mr. Acland, returns were ordered of various details of the cost of the accommodation and maintenance of pauper lunatics.

### *The Norwich Vaccination Inquiry.*

Mr. Taylor, for the third time, put questions to the President of the Local Government Board as to the alleged deaths of



children at Norwich from the effects of vaccination, and Mr. Dodson again replied that he had not yet received the report of the inspector who conducted the inquiry.

#### Sanitary Regulations in Private Bills.

Mr. Selater-Booth moved a new standing order for the guidance of Select Committees on Private Bills. It proposed to lay down several general considerations, one of which was whether a Bill gave to any local authority powers relating to police or sanitary regulations which were in conflict with or in excess of the provisions or powers of the general law. The right hon. gentleman explained that his proposal was the outcome of the recommendation of the Select Committee which sat this year on a group of Private Bills dealing with sanitary and police regulations; but Sir Charles Forster, on behalf of the Government, contended that more time was required for the consideration of the matter, and moved the adjournment of the debate, which was agreed to.

#### Victoria University.

Mr. Mundella stated to Mr. Slagg that the Court of Governors of the Victoria University, Manchester, had determined to petition for power to grant medical degrees. When the petition was received it would be submitted to the Queen in Council. The granting of the prayer of the petition would not be inconsistent with the report of the Royal Commission on the Medical Acts.

On Wednesday, on the motion of Mr. Warton, a return was ordered of the memorials recently forwarded to the Board of Admiralty from inhabitants of Portsmouth and Devonport respecting the working of the Contagious Diseases Acts.

#### Pauper Lunacy Returns.

The order for Mr. Acland's lunacy returns was discharged, and returns in a different form were ordered on the motion of Mr. Hibbert. These returns will show the population and rateable value of the several unions in England and Wales, the number of pauper lunatics chargeable to each union, the cost of the maintenance of such lunatics in asylums and licensed houses, and the amount of the Parliamentary grant in aid of their maintenance; also the extent of the accommodation in each of the several county and borough asylums in England and Wales, with the cost of additions and structural alterations in each asylum.

## Medical News.

UNIVERSITY OF EDINBURGH. — The following is the list of candidates who, having passed the required examinations, received on Aug. 1st the Degrees specified:—

#### DOCTORS OF MEDICINE.

Barrs, Alfred George.	MacLennan, D. Urquhart.
*Bendall, Howard.	*Macphail, S. Rutherford.
Brebnner, George Reith.	Mead, Robert Wm.
†Cameron, R. W. Dickenson.	Oakes, Arthur Wm.
†Chisholm, John Merrit.	Oliphant, Wm. Bruce.
*Croon, John Halliday.	†Renton, Jas. Crawford.
Druitt, Lionel.	†Ross, Joseph Carne.
Purley, Wm. Grant.	Shaw, William.
Guillemard, Bernard J.	†Smith, G. Daniel.
Handford, Henry.	*Stuart, T. Peter Anderson.
†Hope, Edward Wm.	*Taylor, Herbert Coupland.
Hutchinson, E. De Warren.	†Thom, Alexander.
†Leeson, John Rudd.	†Thomson, James.
†Le Fevre, George.	†Tunstall, A. Croudson.
†Mackenzie, James.	Watson, Chas. Scott.
†M'Lean, Chas. Alex.	*Wilson, Albert.

#### BACHELORS OF MEDICINE AND MASTERS IN SURGERY.

Aitchison, R. Swan.	Brewis, Nathaniel T.
Aitchison, Thomas.	Bryant, Sidney Wm.
Archer, Leonard Thomas	Buchan, W. Augustus.
Fitz Samuel.	Burn-Murdoch, Geo.
†Ashdown, Herbert Harding.	Bury, Percy Bellamy.
*Ashwell, Frederick.	Calvert, Wm. Hall.
†Atkinson, G. Armstrong.	†Campbell, Saml. G.
Bailey, Thos. Ridley.	Charlesworth, Francis.
Baillie, Peter.	†Christie, Arch. Kennedy.
†Basil, Minas Manook.	Clayton, J. Simpson.
Basu, Basanta Kumar.	Closs, J. Osborne.
Bell, G. J. Hamilton.	Cousland, P. Brunelleschi.
Bell, Horace Lynden.	Davidson, J. Henry.
Benjafield, W. Barnett.	Davies, John.
Bolton, J. Shepherd.	*Delepine, Auguste Sheridan.
Bond, J. H. Richard.	†Dickson, Geo. Cecil.
Borrowman, P. Grierson.	Dobie, John Robt.
Boswell, H. St. George.	Duckett, John Wilson.
Bourne, C. Harper.	Dumas, Henry Aylmer.
†Bowie, John.	Dunlop, Robt. Smith.
Bowman, Alistair Stuart.	Dutton, Wm. Henry.

Fletcher, Henry Jas.	Mead, Rivas.
Forbes, Alexander.	Meggison, T. Cockburn.
Fraser, Alex. Ross.	Mickle, A. W. T. Flintoff.
Fraser, Elias.	Mill, A. J. Macket King.
†Fraser, Thos. Alex.	Mills, Bernard Langley.
Galletly, Geo. Wilson.	Moore, A. Malcolm.
Gay, William.	Morgenrood, E. H.
Gifford, Lawson.	Mouncey, Chas. Jas.
Gilbert, Herbert Jas.	Murray, R. Ulysses W.
Giles, Wm. Anstey.	Myrtle, Jas. Aitken.
Gillison, Thomas.	Nash, John Brady.
Godfrey, Joseph Edw.	Neale, Alfred James.
Graham, James.	Neve, Ernest Fredk.
Grant, Francis W.	Oliphant, Eben. H. Lawrence.
Grant, Henry Lewis.	Patner, Edmund Stuart.
Grant, John.	†Paterson, G. Kipple.
Grant, Wm. Francis.	*Paton, Diarmid Noel.
Greenlees, T. Duncan.	†Paton, Fredk. Erskine.
Griffin, John.	†Philip, Robt. Wm.
Gunn, Clement Bryce.	Philip, Thomas.
Guthridge, G. Fredk.	Phillips, J. Randal.
Hallows, Harry Pinnington.	*Purvis, G. Carrington.
Hardcastle, Hugo M'Cauley.	Rees, John.
†Hare, Arthur Wm.	Rendell, Herbert.
Haulsain, F. W. Nicol.	Richardson, A. Gordon.
Hawkins, Francis H.	Rowland, Thos. C.
Henderson, R. S. Finlay.	Rozenzweig, Ridley Herschel.
Henderson, Selby Herriot.	Scott, C. Casely.
Herbert, W. Whittington.	Shearer, T. Laidlaw.
Hillier, A. Peter.	Simpson, R. J. Shaw.
Hird, Thos. Alfred.	Sinclair, Francis W.
Holland, Chas. Edw.	Sinclair, F. Archibald.
Humphreys, Richard.	Skinner, Wm.
Hutchison, James.	Sloan, Allen Thomson.
Isaac, G. Washington.	*Smart, David.
Isaacson, J. Henry.	*Someren, G. Arbutnot van.
Jameson, Granville.	Spence, J. Buchan.
Jamie, Robt. Wyatt.	Stacombe, Ernest H.
Johnson, Cecil Willoughby.	†Stapleton, Joseph.
Johnson, T. Christopher.	Stevenson, D. M'Pherson.
Johnston, James.	†Stockman, Ralph.
Johnston, John.	Stookes, Alex.
Johnston, J. William.	Suzor, Jean Renaud.
Jones, Chas. William.	*Taylor, Sidney Johnson.
Jones, Daniel Marinus.	Taylor, Wm.
Keep, Arthur Corrie.	Thompson, W. Fookes.
Kerr, George.	Thyne, Wm.
King, Arthur.	Tiffen, C. J.
Kingscote, Ernest.	Todd, Percy Everard.
Kirby, Ernest Dormer.	Trehanne, David.
Lang, Wm. Henry.	Turner, J. Andrew.
Le Franc, Percival Basil.	Valentine, Alex.
Lesly, Robert.	Vaudrey, Edmund.
Liddell, John.	Verdon, Michael J.
Linklater, S. Towers.	Voigt, Johan Carel.
Logan, Geo. Duncan.	Walker, Walter Oliphant.
M'Arthur, Duncan Romaine.	Wallace-James, J. G.
†Macdonald, W. Burns.	*Watkins, Harold Fuller.
M'Fadyean, John.	Weston, Wm. H.
Mackay, William.	Whitaker, John.
Mackenzie, Alex. Flyter.	Whitham, R. Musgrave.
Mackenzie, J. Eddie.	Whyte, J. Mackie.
Mackinlay, Robert.	Wilcox, Ernest.
M'Lauchlan, T. Geo.	Williams, R. Arthur.
Macniven, Edw. Orr.	Wilson, Hector M'Lean.
Macpherson, W. Grant.	Wilson, H. Garnett.
Macvie, Adam.	Wilson, Wm.
Maddox, Ernest Edmund.	Woods, W. Cleaver.
Manook, George.	Younan, Wm.
Marais, François Paulus.	Young, G. J.

#### MASTER IN SURGERY.—Howard Bendall.

The following Prizes &c. were also awarded:—

ETTLER PRIZE.—George Armstrong Atkinson and Sidney Johnson Taylor.
BEANEY PRIZE.—George Armstrong Atkinson.
SYME SURGICAL FELLOWSHIP.—Howard Bendall.
BUCHANAN SCHOLARSHIP.—David Smart.
* Obtained Prizes for their Dissertations.
† Deemed worthy of competing for the Dissertation Prizes.
‡ Commended for their Dissertations.
\$ Passed the Examinations with First Class Honours.
Passed the Examinations with Second Class Honours.

UNIVERSITY OF GLASGOW. — At a Graduation recently held the following Degrees were conferred:—

#### DOCTORS OF MEDICINE.

*Adams, Thos. B., M.B.	Pollock, Chas. F., M.B.
Guthrie, Thos. Orr, M.B.	*Raukin, Guthrie, M.B.
Halket, Geo., M.B.	Taylor, David, M.B.
Orr, Alex., B.S., M.B.	

#### DOCTOR OF MEDICINE AND MASTER IN SURGERY.

Smith, Frederick A. A., England.

#### BACHELORS OF MEDICINE AND MASTERS IN SURGERY.

†Beith, Robert.	Donald, David.
*Bell, Andrew L.	*Dougall, W. T.
Brown, John.	Dunlop, John.
Buchanan, John.	Dunlop, Thomas.
Campbell, David.	Dunlop, Thomas C. C.
Carroll, Joseph.	Dunn, Thomas S.
Carruthers, John.	Fotheringham, John.
*Carswell, Fergus.	Galbraith, Alexander.
Clerk, Norman Macleod.	Gallie, Charles Pmel.
Crawford, Robert.	Gardner, David.

Gardner, James.  
 §Geddes, Robert J., M.A.  
 Gillies, Hugh C.  
 Gopp, John.  
 Gume, Thomas J.  
 Haddow, George.  
 Haworth, Frederick G.  
 Henderson, John C.  
 Henderson, J. H.  
 Hodgson, Isaac C.  
 Hood, Alexander J.  
 Horn, Robert.  
 Howells, William.  
 Jardine, James.  
 Johnston, James.  
 King, James.  
 Lawrie, W. J.  
 †Love, Duncan.  
 Lowe, Alexander.  
 §Marshall, John N.  
 Martin, Matthew.  
 Melghan, Alexander.  
 Miller, James.  
 Miller, John M.  
 More, Richard.  
 Morton, Alexander Y.  
 Macdonald, J. D.  
 Macdonald, Thomas.

§Macintyre, John.  
 §Mackay, John Yule.  
 McLean, Peter.  
 Maclehorse, Norman M.  
 Macleod, Herbert A.  
 §MacMillan, John.  
 M'Nish, James.  
 M'Phun, John F.  
 §Oastler, James.  
 §Patullo, William.  
 §Ramsay, Andrew M.  
 Rennie, James S.  
 Robinson, William T.  
 Sandel, Anundo L.  
 Semple, Andrew.  
 Simpson, John P.  
 Sinclair, Dugald.  
 Sinclair, John.  
 Smith, Patrick A.  
 Tennent, James T.  
 †Thomson, R. S., B.Sc.  
 Turner, Andrew D.  
 Waddell, William.  
 §Webb, Henry P.  
 Wilson, James L.  
 Wilson, William L.  
 Wylie, John.

\* Commended for Thesis.

† Took his Degree with Honours, and was awarded the Brunton Memorial Prize, as the most distinguished Graduate of the year.

‡ Received High Commendation.

§ Received Commendation.

#### ROYAL COLLEGE OF SURGEONS IN IRELAND.—

At the July examinations the following obtained the Licence in Surgery of the College:—

James Tandy Bolger, R. H. Coall, Austin Nathaniel Cooper, Percy Herbert Delamere, Bernard Joseph Dillon, Myer Akiba Dutch, John Peter Garland, Arthur Joseph Greene, Alfred Adolphus Hayes, John Colclough Hoey, Timothy Howard, James Lane, Joseph Lalor, John Michael M'Donagh, William M'Gee, James M'Guire, Frederick Joseph M'Naught, Edward Duddy Mullan, Percy Newell, Michael Joseph Nolan, Thomas O'Connell, William Edmond O'Connor, Rowland Pollock, John Turner Power, Francis C. Roe, Robert Corles Sanders, Michael Patrick Sweeny, William Christopher Thompson, John Joseph Todd, Edward W. Wynne.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 3rd:—

Blagg, Arthur Frederick, Crowndale-road, Oakley-square.  
 Brown, James William Henry, Kirkdale-road, Leeds.  
 Davis, James Warren, Tu Warren, Milford Haven.  
 Dean, Francis, Overstone-road.  
 Herron, James, Kingsland.  
 Hubbard, Arthur John, Ladbroke-terrace, Notting-hill.  
 Lister, Joseph Herbert, Huntley-street, Bedford-square.  
 Williams, Robert, Amlwch, Anglesea.

The following gentleman also on the same day passed the Primary Professional Examination:—

Guilding, Lansdown M., Middlesex Hospital.

[In the list of gentlemen who obtained the Membership of the Royal College of Surgeons of England on the 27th ult., the third name should have been Downman, not Dowman.]

**THE Royal Hospital for Incurables, Putney,** has received a donation of £30 from the Queen.

**BUTTERINE.**—A Dublin trader was fined £5 last week for selling this compound instead of butter.

**AN anonymous benefactor** has given £500 to the Yeovil District Hospital.

**A MARBLE bust** of the late Mr. Frank Buckland has just been placed at the entrance to the Fish Museum, South Kensington.

**VACCINATION GRANT.**—Mr. Edward East has received the Government grant for efficient vaccination in the Swinefleet district of the Goole Union (second time).

**SALE OF POISONS ACT.**—At the Clerkenwell Police Court last week a druggist was fined £5 and costs for selling laudanum without attaching to the bottle a label bearing the name of the seller.

**ST. JOHN AMBULANCE ASSOCIATION.**—Male and female classes have this week been opened in the Royal Engineers' Institute, Chatham, by Lieut.-Col. F. Duncan, R.A. Surgeon-Major Muir, of the Army Medical Department, has consented to give the lectures. At the opening of the male class, a number of men under orders for Egypt were present, and received some useful hints as to the first treatment of the wounded.

**SANITARY INSTITUTE OF GREAT BRITAIN.**—At the Congress to be held at Newcastle-on-Tyne from September 26th to 30th, Dr. Richardson, F.R.S., has consented to give a lecture to the working classes. The exhibition in connexion with the Congress will remain open until October 21st.

At the first annual meeting of the members of the Mile-end Old Town Victoria Park Hospital Association, it was announced that the efforts put forth during the past year had resulted in the addition of fifty guineas to the funds of the hospital.

**UNIVERSITY OF EDINBURGH.**—Mrs. Thomson of Rosalee, Hawick, has intimated to the Senatus of the University of Edinburgh the foundation by her of a scholarship in midwifery, to be called the James Scott Scholarship, in memory of her father, the late James Scott, of Allanshaws. This is the second scholarship in the same department for students of this university, Mrs. Buchanan, of 49, Moray-place, Edinburgh, having two years ago provided funds for a scholarship in gynecology. In both cases the scholars receive the yearly interest of £1000.

**NORTH OF SCOTLAND MEDICAL ASSOCIATION.**—At the annual meeting of the members of the above Association on the 29th ult., Professor Pirrie delivered an address on the Infectiveness of Tubercle, printed in *extenso* in THE LANCET last week. Dr. Pirrie, Dr. Struthers, Dr. Rodger, Dr. Beveridge, and Dr. Lyon were appointed a committee to co-operate with a committee of the Glasgow Association to endeavour to obtain the removal or relaxation of the present restrictions on the performance of vivisectional experiments. Dr. Manson of Banff was nominated President elect.

**THE TECHNOLOGICAL, INDUSTRIAL, AND SANITARY MUSEUM OF NEW SOUTH WALES.**—The Colonial Government are making rapid progress with the organisation of this museum, which has now been permanently established in the Garden Palace at Sydney, the building in which the International Exhibition of 1879 was held. Arrangements are now being made for the shipment of contributions to the museum from manufacturers in this country, which for the most part consist of sanitary appliances and articles connected with building. These contributions are being forwarded to Sydney free of cost by the Government on the recommendation of the British committee, at the head of which is Sir Saul Samuel, the Agent-General for the Colony. This committee have issued a circular in which they say the Sydney Museum occupies a similar position, and fulfils the same purposes in New South Wales, as the South Kensington Museum and the Parkes Museum of Hygiene do in London. Large numbers of houses are being erected in the City of Sydney and other cities and towns of the Colony, in one suburb alone six hundred houses having been built last year. Moreover, the authorities are paying great attention to sanitary matters, and the principal object of the Government in establishing and maintaining the Museum is to provide a means whereby the Colonists may become acquainted with improved apparatus and appliances for building and domestic purposes. Mr. Mark H. Judge (8, Park-place Villas, Paddington) is the acting member of the British committee for forms, &c.

## Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

ANTHONY, JOHN, L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Medical Officer for the Arncliffe District of the Settle Union.  
 BERNARD, ALFRED G. FARQUHAR, M.R.C.S. & L.S.A.Lond., has been appointed Medical Officer to the Troops at the Seaforth Battery, vice Dr. C. Swaby-Smith, resigned.  
 CANE, FRANCIS EDWARD, L.R.C.S.Ed., L.R.C.P.Ed., has been elected Resident Dispensary Surgeon to the Bradford Infirmary and Dispensary.  
 CRESSWELL, NATHANIEL ENGELHEART, M.D. St. And., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Towcester Rural Sanitary District, vice Thompson, resigned.  
 DAVIES, R. H., F.C.S., has been reappointed Public Analyst for the Fulham District.  
 JONES, RICHARD, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the Flint Urban Sanitary District.  
 LILLEY, G. HERBERT, M.D., M.R.C.P.E. (late Assistant-Surgeon), has been appointed Medical Officer to H.M. Convict Prison, Portland, vice H. F. Askham, Esq., resigned.

MURIEL, CECIL, L.R.C.P.Lond., M.R.C.S., has been appointed Resident Medical Officer to the Guest Hospital, Dudley, vice R. Walford, M.R.C.S., resigned.

ORR, HUGH, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Filey District of the Scarborough Union.

PATTEN, CHARLES ARTHUR, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Princess Helena College, Ealing.

PERCIVAL, GEORGE HENRY, M.B.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Northampton Rural Sanitary District, vice Haviland, resigned.

ROLSTON, JOHN R., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Morice and St. Aubyn District of Stoke Damorel Parish.

SPENCE, WILLIAM JAMES, L.R.C.P., L.R.C.S., has been appointed House-Physician to the Bradford Infirmary, vice Foster, resigned.

STEELE-PERKINS, GEORGE, M.B., C.M.Ed., M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer to the Port of Exeter.

WHITTLE, EDW. GEO., M.B.Lond., F.R.C.S.Eng., has been appointed Medical Officer to the Waterloo Lodge of the Manchester Unity of Odd Fellows, Brighton, vice Passmore, resigned.

WILLIAMS, ROBERT, M.B., C.M.Ed., has been reappointed Medical Officer of Health for the Leominster Urban Sanitary District.

## Births, Marriages, and Deaths.

### BIRTHS.

BROOMHEAD.—On the 1st inst., at Barker-street, Oldham, the wife of Charles Broomhead, M.D., of a son.

CRAWFORD.—On the 30th ult., at 5, St. John's-park, Blackheath, the wife of Dr. Crawford, Director-General, Army Medical Department, of a son.

HALL-MORE.—On the 3rd inst., at Beachlands, Walmer, the wife of Robert Hall-More, M.D., Staff-Surgeon, Royal Navy, H.M.S. *Scyllaure*, of a son.

LEITCH.—On the 6th inst., at Park-terrace, Sillith, the wife of John Leitch, M.B. & C.M.Ed., of a son.

MCCLEURE.—On the 7th inst., at Verandah House, Worle, Somersetshire, the wife of Thomas McCleure, M.D., F.R.C.S.I., of a son.

PURVES.—On the 2nd inst., at Stratford-place, Oxford-street, W., the wife of W. Laidlaw Purves, M.D., of a daughter.

VIVIAN.—On the 25th ult., at Chase Side, Southgate, N., the wife of R. T. Vivian, M.R.C.S., of a son.

WALL.—On the 7th inst., at Bishop's-road, Bayswater, W., the wife of Reginald Bligh Wall, M.R.C.S., of a daughter.

### MARRIAGES.

BAUMLER-REIMER.—On the 3rd inst., at St. Luke's, Berlin, Christian G. H. Baumler, M.D., F.R.C.P.Lond., Professor of Clinical Medicine in the University of Freiburg, in Baden, to Maria Victoria Reimer, daughter of Dietrich Reimer, Esq., of Berlin.

CORTIS-BRUCE.—On the 3rd inst., at St. Mark's, Kennington, Herbert Liddell Cortis, M.R.C.S. (son of Dr. Cortis, of Kennington-park-road), to Mary, daughter of James Bruce, Esq., of Stockwell-road (late of Cape Town).

DOWDING-TURNER.—On the 26th ult., at Rochdale, by special licence, Alexander W. Woodman Dowding, M.D., M.R.C.P., of Durham House, Barking-road, E., to Florence, the only daughter of David Turner, of Castlefield House.

LEIGH-GEERE.—On the 3rd inst., at the Parish Church, Brighton, Thomas Leigh, L.R.C.P.Lond., to Georgina, fourth daughter of the late George Geere, Surgeon, of Brighton.

NOBLE-THOMPSON.—On the 2nd inst., at Barras-bridge Presbyterian Church of England, Newcastle-upon-Tyne, by the Rev. R. Noble (uncle of the bridegroom), assisted by the Rev. Geo. Bell, James Black Noble, M.R.C.S. &c., of Trinity-square, S.E. (second son of the late John Noble, F.E.I.S., of Newcastle), to Jennie, second daughter of the late Joseph Thompson, of Walker, Northumberland.

WALLIS-WATSON.—On the 3rd inst., at St. Anne's Church, Wandsworth, by the Rev. Benjamin Whitelock, M.A., assisted by the Rev. Edward W. D. Chave, Vicar, William Wallis, of Groombridge, elder son of William Wallis, of Hatfield, Sussex, to Marian Bravery, youngest daughter of Thomas Simons Watson, of The Gables, Wandsworth-common.

### DEATHS.

ADAMS.—On the 29th ult., at Queenstown, Ireland, Andrew Leith Adams, M.D., F.R.S., LL.D., Professor of Natural History, Queen's College, Cork, second son of the late Dr. Francis Adams, Banchoy-Ternan.

BOURNE.—On the 16th ult., at his residence in Howard-street, North Shields, William Bourne, M.D., aged 60.

CHADWICK.—On the 28th June, 1882, at Darling, Cape of Good Hope, Ada Mary, the beloved wife of George T. Chadwick, L.R.C.P.

GELL.—On the 2nd inst., suddenly, at his residence, Southam, near Rugby, Alfred Scott Gell, M.R.C.S., aged 48.

MILLER.—On the 7th inst., James Miller, M.D., of Aberdeen House, Great Percy-street, W.C.

MOGG.—On the 28th ult., at Great Smeaton, Joseph Wm. Oliver Mogg, L.R.C.P.Ed., L.R.C.S.Ed.

POULTON.—On the 31st ult., at Elgin-crescent, Notting-hill, Deputy Surgeon-General Charles Walter Poulton, M.D., eldest son of Joseph Chancellor Poulton, of Cricklade, Wilts, aged 59.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

### BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, London.  
A Concise Handbook of the Laws relating to Medical Men. By James Greenwood, of the Inner Temple, Barrister-at-Law. Together with a Preface and a Chapter on the Law relating to Lunacy Practice. By L. S. Forbes Winslow, M.B., D.C.L.Oxon. pp. 214.

BLACK, A. & C., Edinburgh.  
Lectures on Surgery. By James Spence, F.R.S.E. Third Edition. In 2 vols. pp. 1126, with numerous Plates and Woodcuts.

CHAPMAN & HALL, London.  
Health Resorts and their Uses. By I. Burney Yeo, M.D. pp. 316.

CHURCHILL, J. & A., London.  
A Treatise on Human Physiology. By J. C. Dalton, M.D. Seventh Edition. pp. 722, with 252 Illustrations.  
Eastbourne as a Residence for Invalids and Winter Resort. By Geo. Moseley, F.R.C.S. pp. 70.  
Therapeutical Remembrancer. By J. Mayne, M.D. Second Edition, revised. pp. 103.

DAWSON BROTHERS, Montreal.  
A Rational Materialistic Definition of Insanity and Imbecility. By Henry Howard, M.R.C.S.Eng. pp. 145.

JOHNSTON, W. & A. K., Edinburgh.  
The Botanical Atlas. By D. M'Alpine, F.G.S. Part IV. Four coloured Plates.

KEGAN PAUL, TRENCH, & CO., London.  
Chapters on the History of the Insane in the British Isles. By Daniel Hack Tuke, M.D., F.R.C.P. pp. 543, with 4 Illustrations.

LEWIS, H. K., London.  
An Atlas of Illustrations of Pathology. Compiled (chiefly from original sources) for the New Sydenham Society. Fascic. IV.: Diseases of the Liver. Plates XVII. to XXII., with Pathological Summary by Dr. Goodhart.

LOESCHER, HERRMANN, Turin.  
Archives Italiennes de Biologie. Sous la Direction de C. Emery et A. Moeso. Tome I., avec 31 Planches et 35 Figures dans le Texte.

LONGMANS, GREEN, & CO., London.  
Human Parasites. By T. Spencer Cobbold, M.D., F.R.S. pp. 88.

MACLACHLAN & STEWART, Edinburgh.  
Manual of Gynecology. By D. B. Hart, M.D., F.R.C.P.Ed., and A. H. Barbour, B.Sc., M.B. pp. 644, with 9 Lithographs and 400 Woodcuts.

PUTNAM'S SONS, New York.  
The Psychology of the Salem Witchcraft Excitement of 1692. By G. M. Beard, A.M., M.D. pp. 112.

SMITH, ELDER, & CO., London.  
Diseases of Women, including their Pathology, Causation, Symptoms, Diagnosis, and Treatment. By Arthur W. Edis, M.D.Lond., F.R.C.P. Second Edition. pp. 551, with 160 Illustrations.

WYMAN & SONS, London.  
Modern Dress and Clothing in its Relation to Health and Disease. By T. F. Pearce, M.D. pp. 67.

Influence of Selection on the Mortality from Different Classes of Diseases amongst Assured Lives; by W. R. Dovey.—Della Paralisi Regressiva; pel Dr. Guglielmo H. Barlow, M.D.; prima Versione Italiana pel Dr. V. Bompiani.—Virchow's Archiv, Vol. LXXXIX.—Proceedings of the Allahabad Medical Society.—Lock Hospitals and Lock Wards in General Hospitals; by F. W. Lowndes, M.R.C.S.—Remarks on Climate in Relation to Organic Nature; by Surgeon-General C. A. Gordon, M.D., C.B.—Pestilential in Nummis; von Dr. L. Pfeffer und C. Ruland.—On the Sea-bathing and Mineral Waters of Scarborough; by Dr. Alexander.—Plastic Splints in Surgery; by S. N. Nelson, M.D.—On Genital Renovation by Kolpostenotomy and Kolpocetastis in Urinary and Fecal Fistules; by Nathan Bozeman, M.D.—Father Mathew: a Biography; by J. F. Maguire, M.P. (Burns and Oates).—Transactions of the Perthshire Medical Association; edited by A. R. Urquhart, M.D.—Transactions of the Massachusetts Medico-legal Society.—Index Medicus, Vol. IV.—The Liverpool Medico-Chirurgical Journal, July.—The Boy's Own Paper, the Girl's Own Paper, the Leisure Hour, and the Sunday at Home, for August.—Experiments with Permanganate of Potash, showing its Use in the Treatment of Cobra Poisoning; by Vincent Richards, F.R.C.S.Ed.—Birmingham Medical Review, August.—Description d'un Nouvel Appareil Instrumental pour la Cystotomie Périnéale; par le Dr. P. Loret.—The Squire, August.—Der Moderne Kaiserschnitt; von Dr. P. Müller.—Fat Embolism; by Robert Saundby, M.D.—De l'Ovariectomie Antiseptique; par le Dr. J. Thiriar.—Neuf Cas de Guérison de la Rage; par M. E. Decroix.—Practical and Useful Instructions on the Turkish Bath; by W. Young.—Archivio Medico Italiano.—The Medical History of Worcestershire; by A. H. F. Cameron.—Precautions necessary to Prevent the Diffusion of Hydrophobia; by T. M. Dolan, F.R.C.S.Ed.—Etiology of Tubercle; by H. MacCormac, M.D.

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### CHEAP MEDICINE AT SALFORD.

THE following handbill was put into the hands of a practitioner, who forwards it to us. What is to become of the profession when medicine and advice and a speciality are all to be given for a shilling a week!

"Private Dispensary, 91, Oldfield-road (13 doors from Regent-road). Mr. W. Simpson, Surgeon. Where patients can, on the payment of one shilling, receive medicine and advice for the week. Diseases of women and children particularly attended to. Surgery hours: morning, 9.30 to 12; evening, 6 to 9. N.B.—Dispensary patients to bring their own bottles."

### THE SUNFLOWER.

IN the New York *Medical Record* of July 29th attention is directed to the medicinal virtues of the *Helianthus annuus*, the "passion" flower of the modern aesthete. It is an antiperiodic and a counter-irritant, and the stalk of the mature plant, when dried, forms a good natural mola. The anti-malarial properties of the sunflower were pointed out by Masary in 1859.

Mr. Jenkinson.—They are so considered now by most English pathologists, and doubtless membranous croup should be classed with the zymotic diseases.

### "THE CAUSE OR CAUSES OF ACUTE TONSILLITIS."

To the Editor of THE LANCET.

SIR,—Your correspondent, Dr. Atkinson, has mooted a subject of great practical and scientific interest in calling attention to the etiology of acute tonsillitis. That little immediate notice has been taken of his communication is of course explicable on several hypotheses, which it is unnecessary to specify. It may, however, be remarked that, common as the disease is, a positive assertion of all its causes belongs to the future. The gland, or rather cluster of glands, in question is one of that countless series the functions of which cannot be more distinctly stated at present than by affirming that they probably further metabolism and excretion; and this view is supported by the clinical evidence furnished by another correspondent of yours in a previous number, of the benefit derived from the use of salicylate of soda in some cases. At the meeting of the Esculapian Club, held on Feb. 21st, 1882, I read a paper on the Salicylate Treatment of Rheumatism, in which I discussed the related condition of tonsillitis, and ventured on that occasion to employ two terms for conditions not unknown, explanatory of the etiology of the disease in question, which may be rather startling from their want of euphony, but which, nevertheless, express sufficiently for clinical purposes the imperfect state of our present knowledge of the subject. These were ergozymosis (*ἐργον + ζύμωσις*), or the presence in excess of the products of wear and tear generally, and cacometabolism (*κακός = bad*), or the imperfect metamorphosis of such products and their consequent imperfect elimination. Under normal circumstances the physiological processes of waste, elimination, and repair are harmoniously effected, and the tissues active in such operations have just so much work to do as they can perform. Or, even when special tissues are overworked, vicarious elimination and accentuated repair may obviate diseased action. But when such collateral aids are unequal to the task, the overworked metabolic structure or excretory becomes hyperemic, inflamed, swollen, and mechanically and dynamically productive of constitutional disturbance. Exposure to cold, it may be of a very moderate degree, in an ergozymotic condition, is, in my experience, the most common cause of tonsillitis, but any reason for defective elimination or imperfect repair of waste may be its more or less immediate or exciting cause. An ordinary "sore-throat" without marked tonsillitis is in many instances essentially an hyperemic condition of the ductless submucous glands of the pharynx, due in most cases to ergozymosis and cacometabolism; while the conditions of chronic enlargement of the tonsils and pharyngeal adenoma or adenoid disease, so productive of mechanical irritative conditions and functional disturbances in this neighbourhood, are, I believe, mainly irritative hyperplasias from the presence of im-

perfectly eliminated cacometabolic products. The treatment of the acute conditions referred to, which follows from the above remarks, is the furtherance of elimination by the usual methods, and sufficient nourishment; or in the case of a specific disease, such as rheumatism (as I pointed out in the paper referred to), the use in combination with diaphoretics and evacuant, of salicylate of soda, which probably acts both by checking the production of the ergozymotic cause of the disease and by rendering it more easily eliminated when produced.

I hope on a future occasion to call attention to the far-reaching significance of cacometabolism and to the chemico-physical influence of cacometabolic products on the structural changes in diseased tissues, to the modification by them of vital processes, and to their production of germ pabula, the antecedent condition and prior cause of many so-called germ diseases.—I remain, Sir, yours obediently,

ALEXANDER MORISON, M.D.

The Terrace, Green-lanes, N., August 7th, 1882.

### To the Editor of THE LANCET.

SIR,—Is tonsillitis dependent sometimes on non-articular rheumatism and sometimes upon depression of vital power? I answer unhesitatingly and to each half of the interrogation, "Yes!" What medical man, at once observant and experienced, doubts the validity of the double connexion? About twelve months ago a former patient, who now resides at a distance of several miles from my abode, wrote: "For many weeks I have been tormented with severe cough, cold, and sore-throat. A fortnight since rheumatism attacked my legs, and my chest symptoms disappeared as though by magic." In 1852 I was acquainted with a medical apprentice whose lines had fallen in places that proved to be the opposite of pleasant. The outcome of the triple infliction of hard work, close confinement, and unceasing heart-stabs was an attack of quinsy.

And now for a word on that much ventilated subject, the cure of tonsillitis. Years since I attended a carpenter who experienced an attack of the disease under consideration regularly every spring. One March his quinsy failed to put in its accustomed appearance. The result was the superintention of prolonged tonsillitis, laryngitis, tracheitis, and bronchitis. A return of the quinsy, however, relieved him, after months of suffering, from further annoyance. For a lengthened period I have been occasionally consulted by an individual aged about forty-five who suffers somewhat severely from tumefaction of both hard and soft palates, plus oedema of the uvula and lining membrane of the larynx and upper portion of the trachea. In happier times, now long since gone by, he underwent frequent attacks of tonsillitis, several of which terminated in abscess. In 1882 the burden of his threnody is, "Oh, that I could have quinsies over again!" Individually he would as soon attempt to suspend the pains of natural labour as to abort a tonsillitis. In my opinion acute disease is an entity which the practitioner will do well to assist to a natural termination—by no means a something that he should pounce upon—strangle in its birth. What a pity it is that medical men exhibit their present indisposition to report leading cases. Every man can write intelligibly, though to play gymnastics with the Queen's English is a gift that the gods bestow but on the chosen few. I am, Sir, yours, &c.,

Canterbury, August 9th, 1882.

J. BRADNELL GILL, M.D.

Mr. A. Bywater.—The case has a certain amount of interest, but the circumstance mentioned is not unusual in the canidæ.

### HIGH TEMPERATURE IN PUERPERAL FEVER.

To the Editor of THE LANCET.

SIR,—Perhaps the following notes may be interesting to some of your readers:—

Mrs. A.—, a strong and healthy lady, aged twenty-eight, was delivered on April 13th of her second child. She had a comparatively easy labour, of about three hours' duration; a knee presentation. Her condition seemed in every way satisfactory until the 15th, when at 6 o'clock P.M. she had a severe rigor. On the same evening, at 10.30, I found her in a state of high fever, complaining of headache and pain in the right iliac region. The pulse was full, 134; temperature 105.4°. The tongue was coated with a white fur, and the bowels had acted freely during the forenoon, after a dose of castor oil. Lochia normal.—16th, 10.30 A.M.: Patient feels better; has passed a fair night; pain less. Lochia diminished, but offensive to the smell. Pulse 125; temperature 104.9 P.M.: Patient expresses herself better; pain entirely ceased; also the lochia. Pulse 122; temperature 103.5°.—17th, 10.30 A.M.: Has had a good night; complains of nothing except her thirst. Pulse 118; temperature 103.1°. 9.30 P.M.: Much the same; slight attack of diarrhoea. Pulse 130; temperature 105.2°.—18th, 10 A.M.: Has had another fair night; bowels stayed. Pulse 133; temperature 105°. 10 P.M.: No change since morning visit. Pulse 130; temperature 106.1°.—19th, 9.30 A.M.: Patient in same condition. Pulse 130; temperature 105°. 10 P.M.: No change. Pulse 133; temperature 105.4°.—20th, 9.30 A.M.: Has passed a restless night; bowels relaxed again; complains greatly of thirst. Pulse 133; temperature 106.1°. 8.30 P.M.: Patient is delirious for the first time; bowels still relaxed. Pulse 148; temperature 109.8°. Died at 1.20 A.M. on the 21st.

The pain in the right iliac region ceased during the afternoon of the 18th, and there was not any swelling of the abdomen up to the time of her death. The remedies I used in this case consisted of fomentations in the early stage, with injections of Condy's fluid; also acetic, sulpho-carbolic of soda, quinine, and the wet sheet. I may add that this case had its origin in scarlet fever poison, as I found out unfortunately too late.

I am, Sir, yours faithfully,

Keighley, August 7th, 1882.

F. HARRISON TETLEY.

## SUICIDE IN PHILADELPHIA.

In a paper read by Dr. J. G. Lee at the recent session of the American Medical Association the author stated that his experience was opposed to that of European observers in respect of the frequency of suicide amongst the married of both sexes. In 636 cases which were made the subject of judicial inquiry in the city and county of Philadelphia, 444 were of married persons, 138 single, and in 54 cases the question of marriage was not ascertained. Of the 444 married persons, 370 were males, 74 females. Of the 138 unmarried, 109 were males, 29 females. Of the 54 whose condition was unknown, 47 were males and 7 females.

A. B. E.—The work may doubtless be obtained of Sampson Low and Co., Fleet-street.

## "THE ABORTIVE TREATMENT OF GONORRHOEA."

To the Editor of THE LANCET.

SIR,—Mr. Watson Cheyne's interesting paper on the above subject in the current number of THE LANCET has induced me to send you a few practical remarks on the treatment of a malady which, through my former connexion with the Contagious Diseases Act at Woolwich, I have had special opportunities of observing. I arrived at my conviction as to the best mode of treating it on the following data, which I have placed in the order of their importance. Firstly, two diseased surfaces in constant and close apposition with each other are unfavourably placed for recovery, therefore I separate the walls of the inflamed urethra by ordering injections of hot water to be retained for twenty minutes or longer when practicable; but as the fingers would become cramped from holding the extremity of the penis for that purpose, Messrs. Krohne and Seemann have made me a simple spring forceps that conveniently takes their place, and, moreover, thus liberates the hands, which may be employed to hold a book, &c., to while away the tedium. Secondly, the gonorrhoeal discharge being capable of producing the disease when applied to a mucous surface, it is not unreasonable to suppose that its retention within the urethra must very largely perpetuate and exaggerate the inflammatory condition and stage; therefore the injections already recommended, when frequently used, will have a salutary effect in this respect also. Thirdly, it being well known that hot fomentations and poultices are soothing and emollient in all acute inflammations, it follows that hot injections within the urethra and hot baths and the application of fannels wrung out of hot water to the parts externally must be very beneficial. And, lastly, certain drugs that have a styptic effect upon the genito-urinary mucous tract are plainly indicated. But experience proves that they can only be administered with benefit after the more acute symptoms have subsided. I therefore give the liq. copalivæ comp. of Messrs. Hewlett and Sons when that stage has been reached, which is generally the case within a few days under the treatment indicated, and at the same time add three drops of liq. plumbi to each ounce of the injection, which must now be made with distilled water, and used less warm, or altogether cold. In some cases weak injections of nitrate of silver or chloride of zinc may now be of great use. I need scarcely add that the regimen, alimentary and medicinal, must be strictly non-inflammatory in the acute stage. Will you permit me to say, in conclusion, that I think the *modus operandi* of Mr. Cheyne's treatment and mine is very much the same—viz., separation of the walls of the urethra, dilution of the discharge, and lubrication of the inflamed surfaces with the cocoa-butter bougies. His objection to injections that their effects "are only momentary" cannot apply to the manner in which I recommend them.

I am, Sir, yours faithfully,

BERESFORD RYLEY, M.D.,  
Formerly Assistant Visiting Surgeon at Woolwich,  
under the Contagious Diseases Act.

Finsbury-square, E.C., August 5th, 1882.

Mr. Haggart.—The announcement appeared in our issue of last week, page 208.

Dr. Angus Mackintosh.—Thanks.

## A MEDICAL SICK FUND.

To the Editor of THE LANCET.

SIR,—I have long wished to make a suggestion to my professional brethren (and can only do so through the medium of THE LANCET) that there should be for us all a sick fund or club by which a man, when he is totally disabled, shall receive sufficient sick pay to keep him going and to pay a locum tenens. Suppose each medical man were to subscribe £2 2s. a year, and in case of illness from disease or accident he would during his incapacity from attending to his professional duties receive, say, £10 a week. I would leave the management of rules, &c., to a committee appointed for the purpose, and I only wish to place the skeleton of the idea before the profession, and leave it to more experienced heads to put it into working order. I am sure that many a man is working hard out-doors when he ought to be in bed, and thus perhaps sowing the seeds of some disease which, with proper rest, might be avoided. These cases are so numerous that it is obvious some remedy should be sought for them. I have been called up at night, and had to go six miles in the rain and snow, with jaundice, ulcerated throat, and a temperature of 102°, thereby lengthening my convalescence by quite a fortnight. How many have fared worse still? But they cannot afford to pay a locum tenens £3 3s. a week, and so they slave on in misery. Of course if such a club were started each sick member should get a certificate signed by two medical men, if possible, both when he goes "on the box" and when he goes off.—I am, Sir, faithfully yours,  
Bristol, August 8th, 1882.

A. H. BOYS, L.R.C.P. Ed.

## DANGERS OF TOY PISTOLS.

THE *Boston Medical and Surgical Journal* of July 27th reports six cases of tetanus following the infliction of wounds by toy pistols. Five of them occurred in the service of Dr. Ingalls, of the Boston City Hospital, all of them fatal. The sixth is recorded by Dr. Millet, of Rockland, and also terminated fatally. The imperfect construction of the cheap instrument is supposed to determine the perilous nature of a wound inflicted by it.

Mr. C. Winkworth should consult our advertising columns.

Mr. Ellis.—Thanks.

## DISINFECTION.

To the Editor of THE LANCET.

SIR,—Can you refer me to experiments proving at what temperature the vitality of the infective matter of scarlatina and small-pox is destroyed, and what is the best known portable disinfecting apparatus for taking into country districts to disinfect by heat?

I am, Sir, yours faithfully,

Notte, August 5th, 1882.

CHARLES WILLS.

\* \* There are no experiments of sufficient accuracy to decide the exact temperature at which any of the specific poisons are destroyed. Hence it is desirable to submit articles to the highest possible temperature short of damaging them, and the experiments made by Dr. Ransome, F.R.S., of Nottingham, have gone to show that in a stove so constructed as to ensure in all parts of its structure, and also in all parts of the articles contained in it, a uniform temperature of some 245° to 255° Fahr., complete success is in every respect attained. This uniformity of temperature cannot, we believe, be obtained in any portable stove, and since with a properly constructed cart infected articles can be easily conveyed to a stationary stove, we do not regard the absence of a thoroughly efficient portable stove as of any consequence. The best hot-air disinfecting stove is unquestionably that designed by Dr. Ransome, and manufactured by Messrs. Goddard and Massey, of Nottingham. The best steam disinfectant is Messrs. Washington Lyons' apparatus.—Ed. L.

Mr. G. Abbott.—Thanks. The point has not been overlooked.

## SCOTCH MEDICAL SCHOOLS.

To the Editor of THE LANCET.

SIR,—As I received the greater part of my medical education at the University of Glasgow, I take great interest in the letters of your correspondents. There is, however, a statement in "Scottish Notes" in this week's LANCET which should scarcely be allowed to pass without notice. The writer wishes your readers to believe that English students flock to Scotland because of the "good teaching." It may be on this account to a great extent, but not altogether, as no doubt the fees for lectures and hospital practice and the expenses of living induce many to study in Scotland who would otherwise go to London.

In my student days, now more than twenty-five years ago, the fees payable at the University of Glasgow were three guineas for a first course of lectures, and only two guineas at the Andersonian Institution, where most of the English students attended. Hospital practice at the Royal Infirmary to qualify for the College of Surgeons and Apothecaries' Hall could be attended for ten guineas, including clinical lectures.

Contrast these fees with those payable in London, which amounted to £24 at St. Bartholomew's. Also the diploma of the College of Surgeons, Edinburgh, or of the Glasgow Faculty could be obtained for considerably less than that of the London College of Surgeons.

Anyone desiring to know more of Scotch students and Scottish universities should read the very interesting article, "College Life at Glasgow," by Dr. Boyd, a Presbyterian minister at St. Andrews, and Mr. Gladstone's rectorial address, delivered at Glasgow in December, 1879.

August 5th, 1882.

I remain, Sir, yours truly,

ALPHA.

Dr. Ward Cousins.—The notice appeared in our last issue, p. 188.

## ECZEMA AND VACCINATION.

To the Editor of THE LANCET.

SIR,—A sad instance of the evil consequences of postponed vaccination has just come under my notice in the person of a child suffering from eczema. The cutaneous malady commenced about the age of three months, and owing to its persistent character it was agreed by the doctor in charge that the vaccination should "stand over." When two years of age this child was stricken down with confluent small-pox, scarcely escaping with its life, and now presenting an amount of facial scarring terrible to witness. Although many other persons dwelling in the same street were included in the epidemic, it is important to notice that the five other members of the family who remained in the house during his illness, and who had been successfully vaccinated, were unaffected throughout. It has been my frequent experience in hospital practice to see patients suffering skin diseases allowed to "stand over" from the protective influence of early vaccination, and therefore running equal risk.

The brief narration of the above case may perchance prove a timely warning to those of my professional brethren who hesitate to vaccinate so long as eczema is present.

I remain, Sir, yours faithfully,

Finsbury-circus, E.C., Aug. 1882.

J. HERBERT STOWERS, M.D.



## THE GALLWEY FUND.

THE appeal made some months ago on behalf of the widow and children of the late Dr. J. H. Gallwey, who died suddenly on Nov. 27th, 1881, leaving them in destitute circumstances, has, we understand, resulted in the collection of £400. Mrs. Gallwey has also obtained an award of £20 for this year from the British Medical Benevolent Fund.

**CORRIGENDUM.**—In THE LANCET, Dec. 3rd, 1881, page 969, we referred to the use of carbolic acid in the cure of hydrocele as practised by Dr. R. J. "Lewis;" it should have been Dr. R. J. Lewis.

**COMMUNICATIONS, LETTERS, &c.,** have been received from—Sir W. Smart, London; Dr. Plowright, King's Lynn; Mr. Tetley, Keighley; Dr. Long Fox; Mr. Vincent Richards, Gualundo; Dr. W. R. Smith, Cheltenham; Dr. de G. Griffith, London; Dr. Campbell Black, Glasgow; Dr. Ward Cousins; Mr. Sydney, Hounslow; Messrs. Rogers, Rock, and Co., Droitwich; Mr. Morley, Birmingham; Dr. Shuttleworth; M. Decroix, Paris; Mr. W. Berry, Wigan; Dr. H. Stowers, London; Dr. Scriven, London; Mr. P. E. Hill, Crickhowell; Messrs. Nicholls and Co.; Mr. Brennan, Dublin; Dr. Duffield; Mr. Shirley Murphy, London; Mr. R. Ellis, Newcastle; Mr. J. L. Gibson, Edinburgh; Dr. Pearson, Maryport; Dr. Ryley, London; Dr. Morrison, London; Dr. Meredith; Mr. Sutcliffe, Over Darwen; Dr. Lesser, Leipzig; Mr. Carpenter, London; Mr. Cross, Petersfield; Dr. Fulton, Toronto; Mr. Stephens, Winchcomb; Mr. Whitmore, Dursley; Mr. Housley, Leicester; Mr. Barnes, Axminster; Mr. Mortimer, London; Mr. Butterfield, Northampton; Mr. Julian, Penzance; Mr. Kershaw, Normanton; Mr. Griffiths, Penygros; Mr. Brookhouse; Mr. Wills, Mansfield; Dr. Fisher, London; Dr. Thin, London; Mr. Mark Judge, London; Mr. Wyllie, Cloughton; Mr. Skirving, Edinburgh; Mr. Boys, Pill; Dr. Angus Mackintosh; Dr. Marshall, Nottingham; Mr. Cullimore, London; Dr. Fraser, Salford; Dr. Campbell, Newcastle; Mr. Watson Cheyne, London; A. R.; Alpha; Endymion; T. N. O.; Enquiries; L.R.C.P., Stoke Newington; Medicus, Clapham; A. B., Colchester; R.; A. B. B.; &c., &c.

**LETTERS, each with enclosure, are also acknowledged from**—Dr. Dowse, London; Messrs. Stephenson and Travis, Liverpool; Messrs. St. Croix, Jersey; Messrs. Crossley and Co., London; Messrs. Wyleys and Co., Coventry; Mr. Horne, York; Mr. Ernst, London; Mr. Rawson, Thornton; Mr. Cooper, Bolton; Mr. Mechelle, London; Mr. Bryon, Portsea; Dr. Sutton, Southwick; Mr. Ellis, Shipley; Dr. Diplock, Chiswick; Messrs. Theakstone and Co., Scarborough; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. Rutherford, Newcastle-on-Tyne; Dr. Gruid, Blackpool; Mr. Marrett, Islington; Mrs. Gall, Southampton; Dr. Blythman, Swinton; Mr. Larnuth, Salford; Mrs. Alexander, London; Dr. Mitchell, Cockermouth; Mr. Dewar, London; Dr. Searle, Penzance; Mr. Wallas, East Grinstead; Messrs. Puddle and Morley, Brixton; Mr. Pedley, London; Mr. Eastwood, Blackburn; Mr. Price, Wolverhampton; Mr. Linton, Stoke-on-Trent; Mr. Marsh, Stafford; Mr. Orchard, Nottingham; Mr. Stewart, Wigan; Mr. Whitmore, Dursley; Omega, Peterborough; Beta, Dundee; Alpha, Barmouth; Veritas, Kentish-town; Undergraduate, Blyth; M. G., Liverpool; Lerio; H., Euston-road; R. H. M., Ilchester; C. J. G., Preston; Medicus, Bradninch; W. J., Mile-end; H. S. R., Shrewsbury; H. C., Denby; A. D. O., Tipton green; C., Edinburgh; E. L. G., London; M. Z. Y., Barnsbury; Medicus, Hoxne; T. R., London; N., Leeds; E. S.; Durban; Saul, New Brighton; E. G., Birmingham; Medicus, Mile-end; Dens; Medicus, Jersey; Z. A.; W. C. D., Bath; F. T. S.; M. A.; Medicus, Exeter; R. E.; J. G. S.; E. H., Bournemouth; X. Y. Z., Liverpool; Medicus, Burslem; Delta; &c., &c.

*York Herald, Richmond and Ripon Chronicle, Port Elizabeth Telegraph, Croydon Guardian, &c.,* have been received.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, August 10th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Max. Temp. in Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Aug. 4	30.32	N.E.	60	53	114	70	50	..	Bright
" 5	30.29	W.	64	58	102	72	53	..	Hazy
" 6	30.29	W.	62	58	102	82	52	..	Bright
" 7	30.20	W.	65	58	115	72	57	..	Hazy
" 8	30.21	N.E.	61	56	103	71	55	..	Overcast
" 9	30.27	N.E.	58	53	100	73	60	..	Overcast
" 10	30.31	E.	58	55	..	64	53	..	Hazy

## Medical Diary for the ensuing Week.

## Monday, August 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

## Tuesday, August 15.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

## Wednesday, August 16.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

## Thursday, August 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

## Friday, August 18.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—4 P.M. Bradshawe Lecture: Dr. Long Fox, "On Influence of the Sympathetic System on Disease."

## Saturday, August 19.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed. Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom, and all other Advertising Agents.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

# Clinical Lectures

ON

## PAIN AT THE HEART AND PALPITATION.

*Delivered in King's College Hospital,*

By I. BURNEY YEO, M.D., F.R.C.P.,

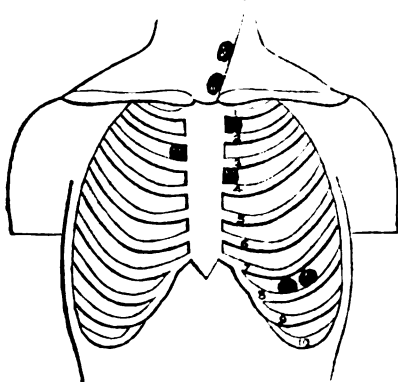
PHYSICIAN TO THE HOSPITAL.

### LECTURE I.—(Concluded.)

IN the next case we had repeated opportunities of exploring the sensibility of the præ-aortic, the præcordial, and the lower cervical regions, as this patient was in the hospital for some weeks, and he was examined several times at suitable intervals, both by Mr. Silk, the house-physician, and myself, and the painful spots were carefully marked. He also derived much benefit from local as well as general treatment.

George K—, aged twenty-two, was admitted into King's College Hospital complaining of pain and weight in the cardiac region, the pain shooting down the left arm. The attacks of pain were very severe at times, and prevented him from sleeping; the pain was also much aggravated by exertion. He suffered also from dyspnoea. Had never had acute rheumatism or other acute disease. His father died

FIG. 2.



of heart disease. Twelve months ago he used to suffer from momentary attacks of loss of consciousness, which were followed by some dyspnoea, and he was unable to work for two or three days after the attacks. His countenance was pale and anxious, and he looked much older than his age. On examination of the chest, the area of cardiac dulness was found to be much increased; the apex-beat was diffused, and felt in the seventh interspace an inch and a half outside the nipple line. A loud double murmur was heard at the base of the heart, most intense in the aortic area, but conducted in all directions over the cardiac region and into the large vessels on both sides of the neck. There was notable pulsation of the carotids and brachials. The radial pulse was collapsing, 84; the arterial coats thickened and uneven. The sphygmograph gave the characteristic tracing of aortic regurgitation.

As "pain at the heart" was a very marked feature in this case, a careful examination was made, with a view of discovering any specially painful spots, and the following points were found extremely tender on pressure with the point of the finger. Two points close together over the cardiac apex, which beat in a diffused manner in the seventh interspace; a point in the third left interspace, close to the sternum; a similar point in the first left interspace; a similar point at the sternal end of the second right interspace, and two points over the course of the vagus in the neck, just in front of the anterior border of the sterno-mastoid, one immediately above the supra-sternal notch, the other about an inch and a half higher up.

The treatment of this patient consisted of rest in bed and a diet composed largely of milk; small doses of digitalis with citrate of iron, sometimes with ether and ammonia; No. 3077.

occasional hypodermic injections of morphia when the cardiac pain was very severe; and small flying blisters over the base of the heart.

He remained in the hospital seven weeks, and left greatly improved in health, the pain and dyspnoea both greatly relieved. The situations of the painful spots are indicated in this diagram. (Fig. 2.) We may believe that in this case there not only existed neuritis of some of the nerves of the cardiac plexus, but also some chronic myocarditis, and more or less degeneration of the cardiac muscle. Hence the pain at the apex, where the degeneration is usually most advanced, while the number of painful spots over the cardiac base and along the course of the vagus pointed to a somewhat diffused neuritis of the cardiac nerves.

Another case somewhat similar to the preceding is in one of my beds in the hospital at the present time. In this case, however, we have had occasional paroxysmal attacks of cardiac pain, bringing it more nearly into the category of cases of angina pectoris, and these paroxysmal attacks have been relieved by the administration of nitrite of amyl. In this case also there has been marked tenderness on pressure over the course of the vagus in the neck. The following is a brief abstract of the case from the notes of my clinical clerk, Mr. C. G. Hodgson.

W. L—, aged twenty-nine, has twice had acute rheumatism, and is subject occasionally to epileptic attacks. Complained on admission of having suffered much from pain in the cardiac region for the past two months. The pain, beginning in the region of the heart, spreads over the whole of the left side of the chest, and is associated with much dyspnoea. The physical signs pointed to considerable cardiac hypertrophy, and to the existence of both obstructive and regurgitant aortic valve disease. Very marked pulsation of vessels both in the neck and arms. This patient was at first much relieved by counter-irritation, in the form of flying blisters over the cardiac base, together with small doses of morphia in ether mixtures. Subsequently he was attacked at night with paroxysms of pain and dyspnoea of an anginal character, and these were completely relieved by inhalation of nitrite of amyl. In this case, as in that of Geo. K—, there were very distinct tender points on pressure over the course of the vagus in the neck, as well as in the first and second left intercostal spaces close to the sternum.

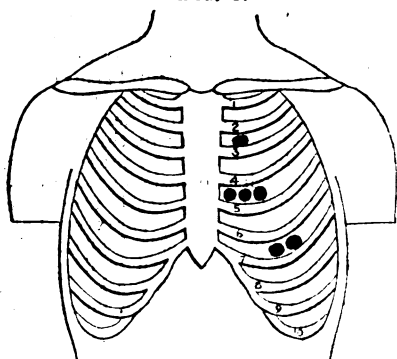
The next case is one of considerable interest, not so much because of the existence of cardiac pain, although it is on that account that I now call your attention to it, but because of the co-existence of chronic inflammation and induration, and contraction of the left lung, with repeated attacks of hæmoptysis as a consequence of chronic mitral valve disease of eleven years' standing, itself the consequence of repeated attacks of acute rheumatism. The interesting aspects of this case from the point of view of pulmonary pathology I shall hope to have another opportunity of presenting to you, but now I introduce it for the purpose of illustrating the subject of cardiac pain, and this time it is associated not with aortic, but with mitral disease.

M. H—, a female, aged thirty-two years, has been under my observation for more than four years both as an out-patient at the Brompton Hospital and as an in-patient in this hospital. For the present I must confine myself to the consideration of her complaint of "pain at the heart," for which she was admitted into the hospital in the spring of last year. At that time she was suffering from severe pain in the cardiac region, extending into the back between the shoulders. The heart, which presents evidences of hypertrophy, is much uncovered by retraction of the left lung. The apex-beat is diffused and heaving, and attended with a palpable thrill. There is also visible and palpable pulsation in the second and third left interspaces; loud murmurs, varying occasionally in rhythm, are heard widely over the cardiac area; sometimes both a presystolic and a systolic murmur can be heard; at other times a loud systolic murmur only can be distinctly recognised, loudest over the apex. On exploring the following painful points, as shown in the diagram (Fig. 3). One in the second left interspace, where pulsation the cardiac sensibility we made out clearly the existence of is strongly marked; three points close together in the fourth interspace, and two points close together over the rounded apex in the sixth interspace. In this case also there exist no doubt tendencies to chronic changes in the cardiac muscle of an inflammatory and degenerative nature, conferring upon it a morbid sensibility, which becomes evident on exploratory pressure over the superjacent parts of the chest wall. By rest in bed, small doses of digitalis and iron,

G

the local use of the belladonna and chloroform liniments combined, but chiefly through the influence of counter-irritation in the form of small flying blisters, the pain was relieved, the cardiac action regulated, and her health generally improved, and she left the hospital, after a stay of six weeks, in very fair health. As you might suppose, she has again come under observation, and her case will

FIG. 3.

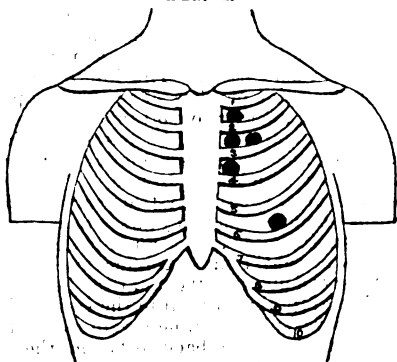


again afford us an opportunity for clinical study, but next time from a different point of view.

The next case is one in which the cardiac disturbance was purely functional, and although this patient had suffered from palpitation and pain at the heart for a long period, after a few weeks of appropriate treatment she was completely relieved.

L. D—, aged twenty-five, a housemaid, accustomed to carry heavy trays upstairs, came under my care at the Brompton Hospital recently complaining of "pains at the heart darting through the chest," and of "palpitation." She could not move without distressing palpitation, from which she had suffered for many years. This had been aggravated during the preceding six months and accompanied with dyspnoea and throbbing in the heart. The pain, referred to the centre of the chest, was worse after taking food, and also on attempting to go upstairs, and she often had to stop and sit down on the stairs. She also suffered from dysmenorrhoea, from flatulence and

FIG. 4.



constipation. She drinks a quantity of tea, often three times a day. Her cheeks were slightly flushed, but her lips and gums were pale and bloodless. On examination of the chest the heart's impulse was seen to be greatly exaggerated, and the large vessels at the root of the neck pulsated strongly. Pulse 120. No abnormal cardiac or vascular murmur could anywhere be detected. On exploring the cardiac sensibility with the tip of the finger the following painful points could be made out distinctly as in the diagram (Fig. 4)—viz., a point at the sternal end of the first, second, and third left interspaces, and another immediately over the apex-beat. She was ordered to abstain altogether from tea, and she was given three minims of tincture of digitalis in an ounce of the calumba and iron mixture of the Brompton Pharmacopoeia three times a day, and a pill of aloes and nux vomica daily after dinner. A week after the commencement of this treatment she reported herself as much freer from pain and palpitation, and as feeling stronger. The pulse was reduced

from 120 to 108. After a second week the pulse was reduced to 84, and she felt better "in every way." The painful spots were less sensitive, and that over the apex had disappeared. At the end of a month she was quite well and the painful points had entirely gone. Now this appeared to be a well-defined and instructive case of disturbed cardiac innervation, and a painful state of the cardiac muscle induced by the abuse of tea, and by the defective blood formation due to the dyspepsia also set up by this agent, while the morbid cardiac condition was no doubt augmented by the severe muscular exertion she was called upon to perform in connexion with her occupation. The rapid and complete relief of the long-standing cardiac pain and palpitation was as instructive as it was gratifying.

The following case is, in some respects, parallel to the one I have just cited, but it has this special interest that the attacks of pain were sudden and paroxysmal, approximating it to true "angina," and bringing into relief the true affinity between these minor attacks of cardiac pain and the graver cases of angina pectoris.

Elizabeth E—, aged twenty-one years, also a housemaid, had suffered from severe pain in the cardiac region, first brought on by carrying heavy trays upstairs. The pain came on suddenly two or three times a day, and extended down the left arm, which went "stone cold," to use her own expression. She also complained of much pain in the left vertebro-scapular region, and there was some tenderness on pressure over the intercostal spaces in this region. She suffered also from dyspnoea, and was losing flesh. There was a flush on the cheeks, and she complained of headache. There was no abnormal cardiac or vascular murmur. Pulse 100, feeble, and of low tension. On testing the cardiac sensibility marked tenderness was found in the third left interspace, close to the sternum, the tenderness extending outwards for about three-quarters of an inch. There could be no doubt about the distinct localisation of extreme tenderness in this spot. There was also a tender point, but much less sensitive, over the apex. She was at first ordered the calumba and iron mixture of the Brompton Pharmacopoeia three times a day, and the local application of the mixed chloroform and belladonna liniments. This treatment, persevered in for four weeks, gave but little relief. The cardiac pain and tenderness remained, and there was a certain amount of general nervous disturbance. She was ordered five grains of bromide of potassium three times a day, with the calumba and iron mixture—a form I have found exceedingly useful when there is a combination of anæmia with neurotic symptoms—and a small flying blister, about the size of a florin, to be applied for two hours at a time over contiguous spots at and near the sternal end of the third intercostal space. After a fortnight of this treatment she was much relieved, and at the end of six weeks she reported herself as better in every respect. She scarcely ever had pain in the chest or arm, and the tender points in the præcordial region had disappeared.

It must be remembered that these cases have been selected, out of a vast number of other patients complaining of a variety of chest affections, because of the special features they presented. In this last case we no doubt had a form of cardiac neuralgia, probably induced by cardiac strain or over-fatigue, and having many points in common with angina pectoris. It is remarkable how in this, and many other like cases, the cardiac tenderness seems to be specially localised about the sternal end of the second or third intercostal space, and how completely the symptoms were relieved by counter-irritation over this spot.

The next case, to which I wish to call your attention, bore a strong analogy to the two preceding ones, and is very instructive as bridging over the not very wide gap, I imagine, which separates these cases from true angina pectoris; and the fatal termination of this case, after only a few months' illness, shows how grave was its character. This patient, a stout, healthy-looking, single woman, twenty-nine years of age, was also in the habit of carrying heavy trays upstairs in her occupation as a waitress. Her family history was good, and, except two or three attacks of bronchial catarrh, her previous health had been good. She first came under my notice in January, 1881, as an out-patient in this hospital, complaining of "pain at the heart." She stated that she was perfectly well eight months ago, but about that time began to suffer from sharp attacks of pain in the cardiac region, shooting down the left arm, coming on suddenly on any exertion, such as carrying heavy trays upstairs, and it was after an exertion of this kind that the pain first came

on. She describes the attacks as of a "stiffing" character, as she cannot "move the chest to breathe," and the pain, which, not very severe at first, has gradually increased in severity, shoots into the left shoulder and down the left arm, and leaves the arm "cold and numb." You will remember that in the preceding case the patient said her left arm went "stone cold."

Before examining the patient's chest I pointed out that her attacks resembled those of angina pectoris, and that we might or might not discover the existence of some organic disease of the heart. After the most careful examination of the heart, in which one of my colleagues joined, no distinct cardiac murmur could be made out, but I called attention to an alteration in the sounds over the aortic area, which I ventured to predict would become altered into murmurs. There was a slight roughening and prolongation of the first sound, and a marked accentuation of the second sound. Moreover, there appeared to me to be a loss of resonance on the right side of the sternum over a very limited area corresponding with the second and third cartilages and second interspace, which made me think of dilatation of the aorta or of the possible development in that situation of an aneurismal sac. A fortnight later the roughened first sound had become a distinct systolic murmur, and the accentuated second sound ended in a diastolic bruit, which was conducted downwards to the left of the mid-sternal region. As the paroxysmal attacks of pain had gradually increased in severity and in frequency, coming on now on the least exertion, and sometimes even when in bed, she was induced to come into the hospital. She had many attacks while in the hospital, but they were by no means of that agonising character sometimes seen. For the first three weeks she improved; the attacks were only momentary, and occurred with a good deal of irregularity; sometimes she would have two in a day; sometimes she would go a week without an attack. In the intervals she felt quite well. The attacks would often occur when she began to get up in the morning or after walking about a little in the ward. We tried iodide of potassium without benefit; flying blisters over the cardiac base relieved her somewhat. In the beginning of March her attacks became more frequent, and we gave her nitrite of amyl, but without any good result; then we tried nitro-glycerine in gradually increasing doses. We began with half a minim of the one per cent. solution, and increased it to three minims three times a day. Under this treatment she mended somewhat, and, feeling better at the end of March, she left the hospital by her own wish to visit some friends, and promised to return in a week, but the very day she was to have returned to the hospital she died suddenly, after bringing up a quantity of blood. Unfortunately we could not get a post-mortem examination. I regret also that I had not then adopted the mode of exploring the cardiac sensibility, which I have applied in all the other cases I have brought before you, as well as in many others, into the particulars of which it would take up too much of our time to enter.

These last three cases, varying so greatly in severity and seriousness, appear to me to have many points in common. Their causal relationship is obvious. All three patients were young women in fairly good health, with no antecedents leading to cardiac disease, save that they were all of them engaged in the same kind of occupation, and they all three complained of the effects of carrying heavy trays upstairs. In the first and slightest of the cases the cardiac disturbance was undoubtedly aggravated by the abuse of tea. In all three, but especially in the last two, the symptoms complained of bore a striking likeness to one another. In neither of them, when first seen, was there any definite cardiac murmur. May we not trace the varying effects of cardiac or vascular strain in each of them? In violent and sustained muscular efforts there is increased action of the cardiac muscle on the one hand, and increased resistance at the periphery from muscular compression of the arterioles and capillaries on the other. If the cardiac muscle is weak and anæmic, as a part of a general anæmia, then the ventricular wall may yield and become dilated, and we may get palpitation and pain associated with fatigue and mal-nutrition of the cardiac muscle, as was no doubt the case with the first of these three, and probably to some extent with the second. But supposing the tone of the cardiac muscle to be good, and its contractions sustained and vigorous, then we should expect the strain to be felt especially in the first part of the aorta, for it has to endure a twofold distending influence: it has to bear the increased impetus of the ventricular outflow, increased both

in force and frequency, and the increased resistance in the peripheral vessels. Under these influences it may become the seat of chronic inflammatory changes (as we know it constantly does), which may extend to and involve the nerves of the cardiac plexus in relation with its walls, or a particular weak portion of its wall may yield and dilate and become the seat of an aneurismal sac, as was most likely the case in the third patient.

The causation, the localisation, the pathological relations, and the treatment of cardiac pain in the various cases which come before us in which this symptom occupies a prominent place, are well deserving of your careful and continued investigation. It is for this reason I have brought the subject under your notice in some detail, and have described to you a method of exploring the sensibility of the cardiac and aortic regions, which promises to be as instructive as it is simple.

## CARCINOMA OF THE LEFT LUNG AND PLEURA.

WITH REMARKS.

By HENRY DAVY, M.B. LOND., M.R.C.P.,

PHYSICIAN TO THE DEVON AND EXETER HOSPITAL  
AND TO THE EXETER DISPENSARY.

I AM indebted to Mr. W. Brewster, then clinical assistant to the hospital, for many of these notes.

Philip S—, aged forty-three; admitted July 21st, 1881. The patient has a good family history. He has worked in a sawpit, and has enjoyed good health up to the date of his present illness. Eight months ago he began to suffer from a troublesome cough, and after a time he became a patient under one of my colleagues in the Exeter Dispensary, by whom he was treated for phthisis. Subsequently he came under my own care, and, finding dulness and bronchial breathing at the left apex, I also considered it a case of phthisis for two or three weeks. Finding that his symptoms were hardly explicable on this view, I examined him more carefully, and persuaded him to enter the hospital under my care.

*On admission.*—The patient is a tall thin man, with an unhealthy-looking and emaciated appearance. His complexion is sallow, and there are venous stigmata about the cheek and nose. Lately he has lost flesh very rapidly, and he now has no appetite for any kind of food. There has been no hæmoptysis, but he has a very severe cough, especially at night, and he expectorates a good deal of phlegm. He complains of great pain in the left side, which, he says, sometimes causes him a "perfect agony." He cannot sleep at night, being kept awake partly by pain and partly by the cough. His bowels are constipated, but his tongue is clean and moist. His pulse is regular, but weak, and his temperature is about normal.

On examination, the heart, liver, and right side of the chest appear quite normal; urine contains no albumen, specific gravity 1020. The left side of the chest hardly moves at all in respiration. It is almost universally dull both back and front, and there is a great feeling of resistance to the percussing fingers. Tactile vibration is entirely lost, but no ægophonic sounds can anywhere be detected. Scarcely any air can be heard entering the lung either behind or in the axillary line, but in front, from the clavicle to the nipple-line, there is bronchial breathing. The intercostal spaces do not bulge—in fact, they appear flatter than on the right side, and by careful measurement it is found that the left side is rather more than an inch smaller than the right. Vocal resonance is everywhere diminished, and there is no bronchophony or pectoriloquy at any part of the chest. The chest was punctured by an aspirator in several places, but no fluid was found. The aspirating needle appeared to enter solid matter even when it was passed into the chest for a couple of inches.

From this date (July 21st) patient steadily got worse. He was very restless at night, and the pain in the left side was very severe, in spite of all the usual treatment for this symptom. He could not sleep at night, and he lost both appetite and weight. His heart began to fail, and on Aug. 11th the liver became enlarged and some ascites was

detected. In deference to expressed opinions that there might be fluid in the chest, an aspirating needle was more than once used, but always with the result that no fluid was found. The ascites steadily increased, the measurement round the umbilicus being about one inch larger every day, while œdema of both legs and scrotum was also developed. His morning and evening temperature were about normal, but his pulse was often very weak and rapid. I dictated the following note:

Aug. 18th.—Patient is very restless, and is obliged to sit propped up in bed. His breathing is very quick and shallow, and he complains much of pain in his left side. There is œdema of the legs, more especially the left, and the scrotum and prepuce are also œdematous. Liver dullness commences at the fifth rib, and extends almost down to the umbilicus. The enlargement is evidently due to congestion, is smooth and uniform, the liver edge being easily felt just above the umbilicus. As he sits up in bed the dullness due to the ascites commences three fingers' breadth below the umbilicus, while there is dullness in both flanks continuous with the liver dullness above. A distinct thrill can be felt from side to side through the fluid. Lungs: Behind on the right side the air does not enter well at the extreme base, and there is a slight amount of râles, probably due to œdema of the lung. The rest of the lung, both back and front, is normally resonant, and the breath sounds are puerile over it. At the extreme base of the left lung the percussion note is altered by intestines or stomach, but everywhere else the percussion note is absolutely dull. Very deep inspiration is accompanied at the extreme base by a coarse gurgling râle, higher up by a good many coarse râles, but over the greater part of this lung no air can be heard entering at all. Heart sounds appear normal, and the apex beat is hardly if at all displaced. From this date the patient became weaker and his breathing more and more shallow, and on Aug. 31st he died. Unfortunately I could not be present at the post-mortem, which was made by Dr. Blomfield, the house-surgeon. The lung was, however, kept for my inspection. I dissected out the root of the lung, and made sections of the tumour, whilst some very beautiful sections were also made for me by Mr. W. Brewster and by Dr. Heneage Gibbes, curator of the Anatomical Museum, King's College.

*Necropsy.*—Chest: On opening the thorax a considerable quantity of straw-coloured fluid escaped from both pleural cavities. On the right side the pleura appeared to be healthy, no thickening being found on any part either of the costal or visceral layer. The lung too was crepitant throughout, and, with the exception of some œdema, appeared quite normal; its weight was 1½ lb. On the left side the lung was bound back in the vertebral groove, and was covered all over by a thick layer of a yellowish-white colour, which fixed it so tightly to the costal surface that it was removed with great difficulty. The whole of the costal pleura from base to apex was very greatly thickened, and was of the same yellowish-white colour as the pleura over the lung. In some parts the thickness of the costal pleura was two inches, and in no place was it less than half an inch. When cut into it had a hard, fibrous feel. The space between this thickened pleura and the lung was filled with straw-coloured serum. On removing the lung and cutting into it, it was found to be covered all over with a thickened pleura, from all parts of which the lung tissue itself was invaded by bands of a similar nature to the thickened pleura. In parts the lung tissue was entirely destroyed, this being especially true at the apex, base, and in the neighbourhood of the root of the lung. In these situations the lung was completely solidified and airless, almost white, and cut with a fibrous feel. The parts contiguous to these were solidified and airless, but the black mottling of lung tissue could be recognised; while in some parts the lung was imperfectly crepitant. On dissecting out the root of the lung it was evident that the new growth was oldest and most advanced in this situation. Around the principal bronchus it was of considerable thickness, a large mass of it almost obliterating the bronchus embedding the bronchial glands, and spreading for some distance around the divisions of the bronchi into the lungs. The bronchial glands were enlarged, but most of them could be recognised in the midst of the growth, by which they were often comparatively little invaded. Some, however, were much invaded by the growth, and one which contained a small mass of calcareous matter had very little glandular structure recognisable. In no part of the lung were any dilated bronchi or cavities to be found. Weight of lung plus mass of new growth removed with it, 3lb. 14oz. Heart and pericardium: The pericardium con-

tained some straw-coloured fluid, but no growth. The heart (left side) was normal; the right side was dilated, and the muscular walls slightly thickened. The abdomen contained a large quantity of inoffensive dirty-yellow-coloured fluid. The intestines were normal. The liver was large, smooth, and congested; no new growth anywhere in it. The kidneys were large, red, and congested, otherwise normal; the spleen was healthy; the abdominal glands were not enlarged. The head was not examined. Parts of the lung and pleura were hardened in Müller's fluid, and the microscopic examination of the sections made proved that the new growth consisted of a large amount of fibrous stroma, with masses of cells in the interstices; and there was no doubt that it was a carcinoma.

*Remarks.*—The rarity of cases similar to the one above related must be very great, for I have not been able to find any other recorded in which the physical signs were at all so well marked. It is true that cases are described in which large patches of dullness over thickened pleura were found; but in this instance the dullness was over the whole left side of the chest, and to a superficial examination resembled that found with a large pleuritic effusion. That it was not an ordinary case of pleurisy was, however, clear from the date of admission, the "diminished size of the chest" and the "flattening of the intercostal spaces" making the diagnosis of fluid improbable even before the use of the aspirator proved that fluid was not present. Nor was the condition of the patient like that of a man who had recovered from an acute pleurisy with a much thickened pleura. The absolute dullness of the whole side of the chest, the almost complete absence of breath sounds, the great pain patient suffered, together with his rapid emaciation and general appearance, proved that the primary cause of his illness was much more grave. In fact these symptoms, together with the others I have described, indicated to my mind that he was probably suffering from malignant disease of the lung and pleura; and during the course of his illness I saw no reason for considering any other diagnosis more compatible with his symptoms. The alternative diagnosis seemed to be that of "cirrhosis" or "fibroid phthisis" of the lung with thickening of the pleura, and there were several reasons for taking this view of the case. His dusty work in a sawpit was just that which might start the cirrhotic change, and this change limited (as it usually is) to one lung, with thickening of the pleura, have produced all the physical signs we have described; while the cause of his illness, with the failure of the heart, congestion of the liver, and ascites, was just that which ordinarily heralds the termination of advanced cases of cirrhosis of the lung. On the other hand, cirrhosis of the lung is very gradual in its onset, and very slow in its progress. The patient had enjoyed good health up to eight months previous to admission, and had performed laborious work up to that time without difficulty. It was very unlike cirrhosis of the lung to have increased so rapidly as in eight months to produce the physical signs I have described, especially as during this time the patient had been removed from all the causes by which the cirrhotic change in the lung would be kept up. These physical signs could only be produced by the most advanced cirrhosis of lung tissue, and that this should have begun almost suddenly and increased so rapidly was extremely unlikely. Nor would this pathological change have accounted for the pain I have described, and which I have said often amounted to great agony. A diagnosis of malignant disease of the left lung and pleura was therefore made and maintained from the first, and this diagnosis was completely verified by the post-mortem examination. The disease evidently commenced at the root of the lung, extending along both the visceral and costal layer of the pleura. Early in the case it apparently surrounded and almost obliterated the principal bronchus, and to this cause is probably due the collapse of the lung, which was found bound down with carcinomatous pleura in the vertebral groove. The extent to which the lung itself had been invaded was very great, so that very little crepitant tissue was left. Considering the probable seat of origin of the carcinoma at the root of the lung, I was surprised at the absolute freedom of the right lung and pleura from any trace of the growth, and it is also to be remarked that no secondary growths were discovered anywhere. As to treatment, sedatives of all kinds, with digitalis and stimulants for the failure of the heart, were freely used, but without any good effect whatever.

YELLOW FEVER has broken out at Brownsville, Texas, and is spreading with alarming rapidity.



## THE TREATMENT OF DYSENTERY.

BY J. B. SCRIVEN,  
LATE CIVIL SURGEON OF LAHORE.

THE following observations suggested themselves to me on perusal of Dr. Stephen Mackenzie's two interesting papers in THE LANCET of April 22nd and 29th, on the Treatment of Chronic Dysentery by Voluminous Injections of Nitrate of Silver. My remarks, however, refer principally, though not wholly, to the acute form of the disorder. I shall first say a few words on the point which forms the main subject of this paper—namely, the use of enemata in dysentery, and afterwards describe briefly the mode of treatment which I have found most successful.

1. *The Use of Enemata.*—The treatment of dysentery by large enemata, proposed by Dr. O'Beirne in 1822, was first extensively carried out by Surgeon-General E. Hare,<sup>1</sup> who at the time of the second Burmese war, 1852–53, was in medical charge of the 1st European Bengal Fusiliers, to which I was an assistant-surgeon. He had used this remedy for several years before he went to Burmah, and he wrote about it in the *Indian Annals of Medical Science* of April, 1854. He considered the large enema applicable both to acute and chronic dysentery; he recommended an injection of "warm water, without limit in quantity, till the patient complained of the distension, and the abdomen was visibly enlarged," and he sometimes medicated the water with sugar of lead, alum, or nitrate of silver. In fact, he maintained that large injections, combined with copious doses of quinine by the mouth, formed the true and rational treatment of a disease produced by malaria and characterised by ulcers of the large intestine. He administered his injections with a long flexible tube having one opening at the end, but none at the sides, and he passed it "above the sigmoid" flexure.

Following Mr. Hare's instructions, I also tried these large injections in some of the very severe cases I met with among the soldiers in Burmah, but I found them by no means so generally applicable as Mr. Hare believed. I, as well as many others, thought it undesirable to distend the abdomen as he recommended, and not always safe to pass the long tube through the sigmoid flexure; but I found, as Mr. Hare himself admitted, that often the enema could be effectually administered with the ordinary tube two or three inches long, or if not, with one of six or eight inches. But I found, on the other hand, that in the acute stage of dysentery the remedy in many instances was impossible, or was productive of so much distress that it could not be repeated. Nevertheless I know that it sometimes cured. An officer once applied to me immediately on the occurrence of the symptoms; I administered one large enema of warm water, I gave him four grains of opium immediately afterwards, and I heard no more of his dysentery. This is a parallel case to the single one recorded by Dr. Wood of Philadelphia,<sup>2</sup> in which acute dysentery was cured by three nitrate of silver enemata, the advantage being so far on the side of simple water.

In cases, however, in which ulceration has supervened upon the acute stage, the large enema is invaluable. In these I have steadily employed it through the whole course of my practice. In many instances I have simply used warm water, in others I have dissolved in it an astringent salt. The astringent I have invariably used of late has been alum, though a long time ago I tried nitrate of silver and acetate of lead. These two I abandoned, not because they failed or that I found them injurious, but because I thought they might some day produce symptoms of poisoning. This has not been lost sight of by Dr. Mackenzie, who mentions the suggestion of Dr. Wood (with instances from his own cases), that in the event of an enema of nitrate of silver being retained for twenty minutes, common salt should be injected as an antidote; but it appears to me that, if retention were to take place when the intestine was already well filled with fluid, it might be impossible to introduce a sufficient quantity of any antidote to neutralise the poison. However, I have found alum answer so well that I have had no reason to try anything else.

What is the best mode of administering the large enema? Mr. Hare proposed first that the patient should be laid on

his right side, with his pelvis a little raised, and his legs slightly flexed. This favours gravitation of the fluid into the transverse and ascending colon, and is, I think, an easier position to the patient than the lithotomy position adopted by Dr. Mackenzie and Dr. Wood. Secondly, Mr. Hare insisted on the fluid being slowly injected, and if there was any gripping the injecting process was to be stopped till this had ceased. Both of these precautions I consider essential to success. I never timed myself in giving the injection, but I think eighty ounces of fluid ought to occupy from ten to fifteen minutes. Nor have I been accustomed to test the temperature of the water with the thermometer, but my object has been to begin with it somewhat warmer than the body, perhaps 102° F., to allow of a little cooling during administration.

As to quantity, the large intestine will hold, in some cases, six imperial pints. As a rule, I order four pints to be prepared, and as much of this to be used as can be introduced without distress to the patient. If all these precautions are not observed, the remedy soon falls into disrepute.

An important, indeed essential, adjuvant to the large enema is the small enema. By the small enema I mean one of not more than three or four fluid drachms, containing thirty or forty minims of tincture of opium and a little mucilage. This, if given warm, is generally retained for some time, and often produces quietude of the bowels and sleep for several hours. The best instrument for it is a glass urethral syringe. If given cold, or if more than half an ounce be used, the small enema also fails in its purpose, and is soon expelled.

2. *The Treatment of Acute Dysentery.*—Dysentery most commonly begins in the night, and private patients very frequently apply to their medical attendant early in the morning. In a great number of cases diarrhoea has preceded the dysentery for a day or two, and the evacuations have often been of a light colour, indicating deficiency of bile. Be this as it may, a patient applying during the preliminary diarrhoea, or early in the morning after the supervention of dysenteric symptoms, is in many instances at once relieved by five grains of calomel, followed in three hours by from three to four drachms of castor oil or thirty grains of Gregory's powder. No opium should be given with any of these things. The effect often is an immediate cessation of the symptoms, there being no evacuation after the calomel, till the castor oil or rhubarb begins to act, this producing two or three liquid bilious motions without gripping or tenesmus. This treatment saves the strength, being less depressing than an immediate resort to ipecacuanha. I always forbid any kind of food or drink between the dose of calomel and the aperient, but allow some warm tea or chicken broth an hour or two after the latter. A day or two of rest with careful diet, and a little bark or quinine, with nitro-muriatic acid, in such a favourable case, will complete the cure. But suppose the calomel to have been given at 7 A.M., the castor oil at 10 A.M., and that, in spite of these, the dysenteric symptoms continue during the afternoon, with frequent purging and tenesmus, I then order eight leeches to the anus. These give so much relief that the patient can generally lie quiet for them to complete their work, and when they come off, a small enema is administered. Evening is now approaching, and about twelve hours after my first visit I order twenty grains of ipecacuanha with one grain of opium, in four pills, to be taken at once. The effect of this and the other remedies combined is commonly to produce a peaceable night, perhaps disturbed by one attack of vomiting, which I always advise the patient to avert, if possible, by lying perfectly quiet. If there is any dysenteric purging, the ipecacuanha and opium pills and the small enema are repeated after a second period of twelve hours, and similar instructions are given for each successive period of the same length. But if during any twelve hours' interval there is no dysenteric purging, the ipecacuanha is omitted, and a dose of castor oil (three or four drachms without opium) is taken, instead of any other medicine. It is well, for obvious reasons, to give this early in the day, so that I sometimes postpone it till the morning, giving an opiate overnight. One or two fecal evacuations are probably the result, and the disease is at an end. Diarrhoea may remain, which I have often been able to check with small doses of quinine, sulphuric acid, and landanum, or by some preparation of the bael<sup>3</sup> fruit. Tea with a small quantity of milk, or chicken

<sup>1</sup> See Dr. Joseph Ewart's paper on Tropical Diseases, *Indian Annals of Medical Science*, vol. viii., p. 369.

<sup>2</sup> *Philadelphia Medical Times*, Oct. 27th, 1877.

<sup>3</sup> See Sir Joseph Fayrer on Tropical Dysentery and Diarrhoea, p. 172.

broth, is the only food allowed during the active treatment, not more than a small teaspoonful every four hours; the nauseating effect of the ipecacuanha generally sufficiently limits the appetite. Such is the course of dysentery, in most cases, that apply for relief within the first three or four days. If the treatment be commenced later there is some danger of the disease running on to ulceration. When this has happened ipecacuanha, unless it be in one or two grain doses, is no longer useful. The time has come for the large enema and the bael fruit. The quinine mixture, with opium, just mentioned, also answers well in this stage, but I seldom give it if bael can be procured. Other drugs might also be named as substitutes for bael, and one of the best is tannic acid. The large enema may at first consist of simple water, but if improvement is not very marked, after two injections, I add to it alum, in the proportion of one grain to the ounce. Once a day is often enough for this remedy, as it is rather a tax upon the patient's strength. The evening is the best time, one or two grains of opium being given by the mouth, and the small enema by the rectum, as soon as the large one comes away. From this, good rest is obtained at night, and if another small enema be given in the early morning, there will perhaps be complete quietude of the bowels till the injection is repeated the following evening. If the evacuations (including the fluid of the large enema when passed away) be carefully examined every day, while they are being slowly poured from one vessel to another, the amount of benefit is readily ascertained, as well as from the appearance of the patient and the diminished frequency of his pulse. After a variable time solid faeces are discovered, and the products of ulceration are no longer found. The enemata may now be discontinued, and the opium by the mouth gradually reduced. The bael should be persevered with for an indefinite time, as it is a useful tonic to the mucous membrane, and a regulator of the alvine evacuations.<sup>4</sup> The return to ordinary diet must in all cases be slow and cautious. I have generally found my patients able to eat a little tender meat before they could venture upon vegetables, of which latter the bael supplies the place, and this remedy is particularly advantageous when there is any scorbutic taint.<sup>5</sup>

The treatment I have just described is that which I have been accustomed to use for adult males. For delicate women or younger persons the doses of ipecacuanha and other things must be proportionally smaller. Fifteen or even ten grains of ipecacuanha I have often found sufficient for women. For children about thirteen months old, three or four grains of ipecacuanha with half a grain of compound kino powder act quite as favourably as the larger doses upon adults. Teething is often a powerful factor in these little patients, and great relief may be afforded by lancing the gums. In my experience the ipecacuanha treatment has not answered well in children much under a year. Up to ten months, at any rate, they do not bear well the nausea and starvation it involves. Children that are nursed, however, are not very liable to severe dysentery; it is the hand-fed children that give trouble. Up to about ten months I have found calomel answer better than ipecacuanha. For mild cases very small doses are sufficient, and an enema containing one or two minims of tincture of opium. In the more severe cases half a grain of calomel may be given, morning and evening, to a child eight or ten months old, and the enema twice in twenty-four hours. I have never found leeches necessary for a child, nor have I ever had to treat children in the stage of ulceration, as they have always recovered or succumbed before this has been reached. In young children I have been accustomed to stop all farinaceous food, and, except in infants at the breast, to limit the milk very much, giving beef-tea or chicken broth instead.

As to the amount of opium to be given in dysentery, this must depend upon the case. Adults will sometimes take an enormous quantity without producing narcotism, perhaps because it rapidly passes out of the body. So also with children; having begun with one or two minims in the injection the quantity may sometimes be increased far beyond what a child would be expected to bear.

In almost all cases of acute dysentery, both adults and children, I have of late years adopted the system above recommended of administering the medicines every twelve hours. The effect of a large dose of ipecacuanha lasts fully

this time, and the long interval favours rest, which is especially desirable in a disease so strongly characterised by its absence. Occasionally I have departed from the system to the extent of giving four small enemata in twenty-four hours; in other cases, when the vomiting from the ipecacuanha has appeared to cause expulsion of the small enema from the rectum, I have given this in the middle of the twelve-hour period instead of at the end.

Thus far I have drawn the favourable side of the picture. Of the unfavourable cases I have little to say. When the stage of ulceration has been reached, the large enema sometimes fails to give relief, especially in persons past the middle period of life; the evacuations do not improve, the pulse becomes quick and feeble, emaciation proceeds rapidly, and the patient soon becomes too weak for anything but palliative treatment. In these the large enema must be discontinued, but the small enema, the bael fruit, mild doses of quinine, mineral acids, and opium should be persevered with, and may lead to eventual recovery. When the strength admits, large blisters over any obviously thickened part of the large intestine are sometimes decidedly beneficial.

The point at which acute dysentery ends and chronic begins is difficult to mark accurately; but of those cases that have continued under my care, I do not remember any resulting in the chronic form since I began to use large doses of ipecacuanha.

From first to last only a few cases of chronic dysentery have come before me, and these were at the General Hospital in Calcutta previous to 1861. I treated most of them, if not all, with the large enema, but the records are not now in my possession. The greater number were invalided soldiers, who remained in Calcutta till ships were ready to convey them to England.

The above observations have been drawn from European cases. The treatment of the natives of India is the same as regards medicines by the mouth; but otherwise it is different, and in the stage of ulceration it is generally unsatisfactory, as they object strongly to enemata of every kind.

Oxford-gardens, North Kensington, W.

## ABSCESS OF THE SPLEEN TERMINATING FATALLY THROUGH PERFORATION OF THE STOMACH.

By WM. H. BULL, F.R.C.S. ED., L.R.C.P. LOND.,  
SURGEON TO THE STONY STRATFORD HOSPITAL AND  
DISPENSARY, ETC.

GEORGE D—, aged forty-two, a groom, married, with five children, presented himself at the Stony Stratford Dispensary on Thursday, Dec. 29th, 1881, with the following history.

His family history was very good. Was very healthy as a boy; had never had any illness. At the age of nineteen he entered the army, and was sent with his regiment the following year (1861) to India. There he remained for nine years, during which time he suffered from inflammation of the liver, and what he called "the fever," and had several attacks of ague. Was discharged from the army for ill-health, and returned to England early in the year 1870. While in India he was of very temperate habits, and when discharged received a certificate of extra good character. Upon his return to England he married in 1871, and became teetotaler for the first twelve months, after which he took to drinking, and has been a heavy drinker, more or less, up to the present time. Since his return from India has often complained of not feeling well, and constantly suffered from pain over the spleen, but has never had a return of ague. In 1875 he suffered from a very bad ulcerated throat, which had to be freely cauterised. In 1877 had another attack of the same kind, and shortly after that he suffered from inflammation of the lacrymal sac; this terminated in an abscess which burst and discharged for many months, and he got into a very low, weak state. He ultimately picked up again, and has enjoyed better health for the last two or three years. There is no history at all of syphilis, and no traces of that disease. For the last month he has been feeling very poorly, without any definite symptoms; has been extremely irritable, and on several occasions most impertinent to his master, his previous behaviour having been most exemplary.

<sup>4</sup> Indian Pharmacopoeia, p. 46.

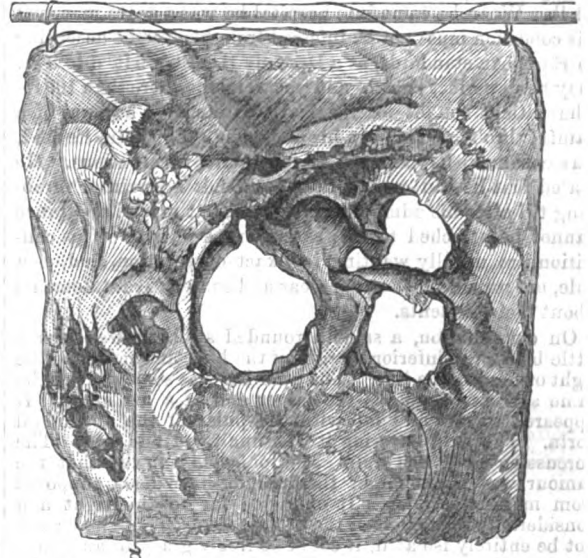
<sup>5</sup> See Dr. T. E. B. Brown's remarks on the Indian Pharmacopoeia, Indian Medical Gazette of Dec. 1st, 1877, p. 309.

**Present illness.**—On Thursday morning, December 29th, 1881, he got up at the usual hour and went to the stables at 6 A.M., feeling very poorly. At 7 A.M., on his way to breakfast, felt very sick, and suddenly vomited (according to his statement) at least half a pint of blood. This seemed to relieve him, and he felt better and more comfortable when he walked to the dispensary at 9 A.M. than he had done for some time. He was pale and anæmic and a good deal emaciated. On examining the abdomen, in the epigastric region immediately below and slightly to the left of the ensiform appendix there was a spot the size of sixpence, tender only on great pressure; the rest of that region was perfectly free from pain. The liver extended to the lower border of the eleventh rib. The spleen was apparently of normal size, and no pain or discomfort was experienced on pressure in that region. The thoracic organs were all perfectly healthy. The pulse was quiet, regular, rather weak, 76 per minute. Bowels constipated, and had been so during the last few days. He was ordered immediately to bed, with nutritious liquid diet (cold), and ice to suck *ad libitum*. Perchloride of iron, with morphia, was prescribed. On his return home that morning, contrary to orders, he went to the stables and attempted work, but, feeling so weak in the afternoon, was compelled to go to bed. Feeling still very poorly, he remained in bed the two following days (Dec. 30th and 31st), but got up on the third day (Jan. 1st, 1882), and being much better in all respects, went to work on Jan. 2nd, having had no pain during the last three days.

Jan. 3rd: Went to work as usual in the morning, but was so cold and thoroughly exhausted that at midday he went home and retired at once to bed.—4th: Passed a comfortable night, but woke early, feeling very sick, and at 7 A.M. vomited quite ten ounces of blood. Ice was freely given, and the usual treatment resorted to, after which he felt very comfortable. About 9 A.M. passed a very copious stool composed principally of blood. Nausea came on again in the afternoon, and at 3 P.M. vomited at least a pint of blood, after which he experienced considerable relief.—5th: Passed rather a restless night. Has had no sickness or nausea at all to-day, but complains bitterly of dreadful exhaustion and prostration with a good deal of troublesome headache; bowels acted once, composed of faeces and blood; has taken nourishment well.—6th: Passed a very restless night, being a little delirious at times. Early in the morning he had a severe rigor, which lasted twenty minutes; after the rigor had passed off he felt very sick, and suddenly vomited a pint of blood, which gave intense relief. In the middle of the day two large solid lumps of blood-clot passed the bowels. In the evening had another rigor similar to that in the morning; but this was not followed by nausea.—7th: Passed a better night but is very weak and prostrate; in the morning felt very sick and vomited ten ounces of blood, principally in large clots; this gave considerable relief, and he felt comfortable for the rest of the day.—8th: Passed a comfortable night. At 10 o'clock A.M. was seized with a most severe rigor lasting over twenty minutes, which left him so utterly exhausted that he never rallied, and in spite of all treatment got rapidly worse and died at 10 P.M., being conscious up to the last few moments of his life.

**Necropsy of body, thirty-six hours after death.**—Body a good deal emaciated, but free from marks and scars. Examination of abdomen: The liver was somewhat under normal size; the peritoneum covering it was more or less adherent throughout, especially on its upper surface, and in parts there were firm adhesions to the under-surface of the diaphragm. The organ was pale and firm, presenting on section a waxy, and in parts a somewhat nutmeg, appearance. On removing the stomach an abscess was found, the size of a small orange, in close relationship with the splenic extremity. This abscess was bounded in front by the splenic end and posterior surface of the stomach; on the outer, or left, side by the lower end of the spleen; below by the pancreas. It had perforated the stomach just where the splenic extremity and posterior surface meet, in four places; one of them freely admitted the index finger, two others admitted the little finger, and the fourth the top of a penholder. The lower part of the largest perforation was much thickened, and seemed to be in a most acute stage of ulceration. A medium-sized branch of the splenic artery, which ran by its side (on the posterior surface of the stomach), presented a perforation large enough to admit a very small pocket-case director; this perforation of the artery was situated just inside the abscess cavity. The abscess contained about an ounce of thick, dark, grumous matter. The mucous

membrane of the stomach adjacent to these perforations was very vascular, and the veins gorged with blood, but that covering the rest of the organ was of natural colour, though very anæmic. The stomach contained about ten ounces of dark, thick grumous matter, the same as that found in the abscess; it was about the consistence of cream. The spleen was soft and pulpy, and almost broke down on removal; its substance throughout was of a deep brick-red colour, and seemed to present one homogeneous mass, which was of about the consistence of brain matter. Its lower part was entirely disintegrated, and in a state of ulceration, forming the outer boundary to the abscess wall. The pancreas was healthy; at the splenic end its upper surface was thickened, and entered into the formation of the abscess. The kidneys were of normal size, very pale, but quite healthy. The cap-



Portion of stomach, showing the perforations; outer surface; a is a glass rod passed through the artery at the seat of perforation, the tissues surrounding which have been dissected sufficiently to expose the artery.

sules were easily removed. All the other organs were found perfectly healthy. The head, at the request of the friends, was not examined.

**Remarks.**—This case seemed to be clearly one of "ulcer of the stomach, with death from perforation." The appearance of the patient, his emaciated condition, his age and history in general made me strongly suspect that the ulceration was of a malignant type. The post-mortem examination, however, showed that perforation was secondary to abscess in the spleen. This abscess in perforating the stomach from without inwards had also perforated an artery; thus the cavity had been acting as a reservoir for the blood, which was discharged thence into the stomach, and this accounted, no doubt, for the somewhat long intervals between the vomitings of blood. With regard to the etiology, it is not improbable that hæmorrhagic infarction occurred during one of the patient's attacks in India, which had remained latent up to the fatal illness, and that consecutive inflammation and suppuration of the spleen were now accelerated by his intemperate habits and failing health.

**APOTHECARIES' HALL OF IRELAND.**—The following office-bearers have been elected for the ensuing year: Governor: Thomas Collins. Deputy Governor: R. Montgomery. Court of Directors and Examiners: E. H. Bolland, John Evans, A. Harvey, Charles Holmes, Charles Henry Leet, Charles Frederick Moore, Henry P. Nolan, Richard O'Flaherty, Edward O'Neill, George Bolster Owens, John Ryan, James Shaw, and George Wyse. Representative on the General Medical Council: Thomas Collins.

**SANITARY INSTITUTE OF GREAT BRITAIN.**—The fifth Autumn Congress and Sanitary Exhibition of this institute will be held at Newcastle-upon-Tyne on September 26th to 30th, under the presidency of Captain Douglas Galford, R.E., C.B., F.R.S. Prof. de Chaumont, M.D., F.R.S., has consented to give a lecture to the Congress.

## ON A CASE OF ABDOMINAL ANEURISM.

By S. M. SALAMAN, M.D.,  
SUPERINTENDENT, DECCAN CENTRAL GAOL, POONA;  
AND  
E. D. MACKELLAR, M.B.,  
POONA.

R. G—, Hindu, aged thirty-three, height 5 ft. 6 in., was admitted into the hospital of the Deccan Central Gaol on August 24th, 1880, and died on September 19th, 1880. At the time of entrance into gaol (four months before admission into gaol hospital) he weighed 90 lb. After death he weighed 71 lb. When he came into hospital he was a spare man, yet his condition must not be inferred from his weight according to European standards, as a Deccan Hindu of 5 ft. 6 to 8 in. may be in perfect health, and yet weigh no more than 100 lb. The patient sought for medical treatment on account of a painful throbbing lump in his abdomen. The pain, he said, was constant, but subject to irregular exacerbations. He stated that he had seen no lump, and felt no pain or throbbing till after his admission into gaol; but much importance cannot be attached to this assertion, as natives of his condition are usually wanting in exact observation, and, as a rule, are unwilling to make clear and consecutive statements about their ailments.

On examination, a smooth rounded swelling was seen a little below the inferior margin of the liver and rather to the right of the middle line. The swelling was somewhat of the same size and shape as the larger end of a hen's egg. It appeared to rise and fall with the pulse of the abdominal aorta. The skin covering it was unaltered and free. The percussion note was dull. Manipulation showed that the tumour was much larger than might have been supposed from mere inspection. It extended far to the right and considerably to the left of the middle line. Though it could not be entirely isolated, it could be freely grasped, and gave the sensation of forming a mass of sufficient size to fill the hand with the fingers moderately extended. It allowed of little or no motion in the axis of the body, but it could be moved with ease from side to side. It had the feeling of being firm, smooth, and widely lobed. Though it rose and fell so regularly with the movements of the aorta, it was altogether free from any eccentric expansion. Five days before the patient's death it became smaller, firmer, and less movable. The inferior margin of hepatic dulness was normal and demarcated from the tumour by a well-defined space that gave a tympanitic note on percussion. The only other abnormalities that could be seen were a general atheromatous condition of the visible arteries and a hydrocele of the right tunica vaginalis. There was no cardiac or local murmur, no difference in any of the pulses, no oedema or paralysis of the lower extremities. The patient's strength rapidly sank after his admission into hospital, and at the time of his death he was in a state of great emaciation. There seemed to be no other cause for this rapid loss of strength but the local one, as the patient was in other respects free from any marked complication till shortly before death, when subacute dysentery supervened.

On post-mortem examination the tumour was found to be an aneurism of the abdominal aorta situated below the celiac axis and embraced by the head of the pancreas. The sac was adherent to the surrounding organs and tissues, in some parts so loosely that the handle of the scalpel was sufficient to break down the attachments, in others so firm that a more or less careful dissection through the tissue of new formation was required to separate the tumour. The small intestine was the only structure that showed signs of having suffered from pressure. At one spot, though not adherent, it had become semi-gangrenous, and at another it was so firmly attached to the aneurism that it could not be set free without injury, and the central portion of the implicated intestinal wall was discoloured, softened, and almost eroded. The aneurism started from the anterior aspect of the aorta and the spine was not interfered with. As the tumour was adherent to parts that naturally allow of a considerable amount of play, its own free movement was not difficult to understand. The neighbouring arteries were unusually patent. The wall of the left ventricle of the heart was

markedly thickened. The valves were normal. The arch of the aorta was atheromatous, but presented no calcareous plates. The pleuræ of both lungs showed old adhesions. The liver was much congested. The large intestine was affected with severe and generalised dysenteric inflammation and ulceration. When the aneurism was removed from the body its contour was found to correspond with the idea formed of it during life. It measured 4½ in. in length, 2½ in. in breadth, and 2½ in. from before backwards. When cut into it was seen to be filled with stratified blood-clot of the consistence of the parenchyma of a healthy liver. The mouth of the sac measured 2½ in. in length and 1 in. in breadth. The clot in this situation was paler and firmer than that within the body of the sac. It sank slightly below the level of the unaltered arterial coats, thus increasing to a small extent the lumen of the aorta at this point. Its exposed surface was sufficiently smooth to interfere but little with the blood-current. Throughout the greater portion of the wall of the aneurism the arterial coats could be traced, but at points considerable thinning had taken place, and the parietes were reduced to a single yielding layer of connective tissue.

Perhaps the above case may be of interest from the fact that it presented some of the points that usually indicate that a tumour is not an aneurism, and that it appeared just to have missed a spontaneous cure. Possibly, too, it is worth remembering that the tumour could not be moved in the axis of the aorta. It may be added that at the beginning of the post-mortem examination a small incision was made through the abdominal parietes and the hand carefully inserted, with the object of ascertaining if any remedial measures might have been taken during life, but so far from this exploration throwing any additional light on the nature of the case, the true condition of things was not fully made out till the tumour was exposed and removed. The aneurism and the adherent parts, though movable *en masse*, had become so matted together that diagnosis without dissection was impossible.

## ON A CASE OF RAPID LITHOTRITY.

By THOMAS WRIGHT,  
SENIOR SURGEON, GENERAL HOSPITAL, NOTTINGHAM.

MR. G. H—, aged forty-six, farmer, applied to me in the latter part of last year with symptoms of stone, having suffered from similar symptoms for more than a year previously. On examination by a sound a calculus was detected which was believed to be suitable for removal by this method, all other conditions being favourable with the exception of a small meatus.

Nov. 13th.—The patient having been prepared, chloroform was first given and ether substituted after unconsciousness had been arrived at. Placed upon his back with his knees raised, the orifice of the urethra was slit up, and the ordinary lithotrite introduced. Crushing the calculus prior to the withdrawal of this instrument had been considerably accomplished, its size being declared when first seized to be above the average, the breaking giving evidence of its hardness. By a tube (No. 14½) a large quantity of debris was removed. Four more crushings were effected with the scoop-lithotrite, each crushing being followed by the introduction of the same tube for the extraction of pieces. At the end of forty-five minutes the bladder was found to contain nothing tangible. No blood was withdrawn, nor was the water tinged during the operation. Weight of calculus 112 grains; lithic acid. In the evening the temperature was 98° 8'. No tenderness or pain complained of beyond soreness in the urethra.—14th: Temperature 98° 6'. Passed water seven or eight times in twenty-four hours; total quantity two pints. Vomited once from anæsthetic. Evening: Temperature 100° 2'. Urine was passed more frequently, and the urine had an unpleasant odour, besides being slightly tinged with blood. No pieces had been seen.—15th: Urine less odorous, and free from blood. Passed two pints and a half of urine. Took food well, and general condition admirable. Soreness of urethra much less. Evening: Temperature 100° 8'. Discomfort in bowels. Enema was ordered.—16th: Temperature 98° 8'. Enema had acted well; urine passed much less frequently. In the evening the patient became very nervous and complained of pain in the left iliac fossa, which



was believed to be due to flatus. Temperature 100° 2.—18th: A normal temperature was recorded and a good night. Sat up for an hour. Evening: Temperature 100°. Urine slightly turbid on cooling. An enema ordered.—19th: Bowels acted naturally. Temperature normal. Complained of hæmorrhoids. From this date nothing material was noted, and the patient returned to his home on Nov. 25th.

*Remarks.*—In a highly nervous and sensitive man a stone of fair size was thus removed with ease, and followed by no discomfort nor untoward circumstance, showing clearly that in this method we have a means of affording relief to our patients much less dangerous to the sufferer than lithotomy, and more palatable to the friends.

WON, J. M. D. LOND.

## CHILD BIRTHS IN GENERAL PRACTICE.

By CAREY COOMBS, M.D. LOND.

SOME time ago in a leading article in THE LANCET a regret was expressed that the statistics of childbirth were so difficult to obtain. I was reminded of this by an application from the Registrar-General's office for details of a death occurring in my practice which was connected with pregnancy, so I have summarised my cases, and have compared the numbers with the total births. A country practice is not bounded by an exact line, but I should have been called in to any difficult labour, or one that was likely to prove fatal, within a certain area, during the past ten years. The number of births in that period, in a population of 4900, has been 1350, or nearly, of which number 660 have been attended by me and my assistants. The number of deaths in childbed during the same period has been about eight. The causes of death in these cases have been as follows:—

CASE 1.—Mrs. S—, aged forty-six, a flabby woman, in her ninth confinement, was first seen by my assistant, but the presentation was so high up after several hours of labour that he sent for me. I found the child's face presenting, and turned with some difficulty, because the membranes had ruptured twenty-four hours before, and because the pelvis was narrow the extraction of the head was very troublesome. This patient died from phlebitis about five weeks later.

CASE 2.—Mrs. C—, aged about forty, with a rather narrow pelvis, was delivered naturally of a live child after three hours of very strong expulsive pains. Eight days afterwards she was seized with pain in the bowels and faintness, and died in an hour or two. There was no autopsy.

CASE 3.—Mrs. W—, aged thirty-seven, was attended by my assistant in her fourth confinement. The child was born easily, but the placenta was adherent, and very fragile, and he had much difficulty in removing it. This patient sank after four weeks of pelvic cellulitis.

CASE 4.—Mrs. M—, aged over forty; in her ninth pregnancy. She had hæmorrhage every month. At the sixth and seventh months the amount of discharge increased, and at the eighth month, when the hæmorrhage had been going on for thirty-six hours, I was asked to see her. The placenta was not so completely over the lower part of the uterus that I had to detach it in dilating the os. The turning presented no special difficulty, but the extraction of the head occupied much time. This patient did well for a few days, but died of septicæmia about fourteen days after her delivery.

CASE 5.—Mrs. B—, aged about thirty-six. This woman was feeble and anæmic, had had several miscarriages, and died in her third full-time confinement from hæmorrhage. Her attendant told me that she had a good labour; the flooding came on soon after he left the house, and was fatal within two hours of the delivery.

CASE 6.—Mrs. F. F—, aged forty-four, an imbecile and a drunkard; she had lived under unfavourable circumstances during her pregnancy, with little food and much beer. In the ninth month she had frequent discharges of blood; and when seen at 8 A.M., and subsequently by my assistant was very weak—there was no uterine effort. When I saw her, about 4 or 5 P.M., she was collapsed, but the discharge had ceased, the os was dilatable, the head and placenta presenting; there were no pains, and there was no pulse worth mentioning. We tried to make her rally by the use of external heat, frequent warm nourishment, the subcutaneous

injection of ether, and transfusion, but I need hardly say that no attempt was made to deliver a woman in so low a condition. We remained with her till her death, at 11 P.M.

CASE 7.—Mrs. R—, aged twenty-five, was attended in her fourth labour by a midwife, who desired the husband to go for me as his wife was flooding. When I reached the house I found a fine young woman quite dead, with her uterus and the attached placenta lying in the bed.

CASE 8.—Mrs. P—, aged about thirty-two. As I sat in the room, attending her in her fifth confinement, I was annoyed by a decided smell of sewer-gas. As it appeared that a closet had been made in a corner of the room, in such a manner that the cesspool of the privy could send its gases into the room, my patient was removed as soon as possible, and the insanitary closet was stopped up. My patient had a good labour, but died twelve days after from septicæmia and meningitis.

In 1000 confinements there have been 13 cases of placental presentation, 20 infants have presented the breech, 12 the feet, and 13 the arm or shoulder. The last case of this kind was spontaneously evolved before I could see the patient. There were 7 cases of face presentation. In 2 instances there was mania. Three patients were convulsed, but none of them died. The long forceps were applied in 35 cases; short forceps in 52 cases; making a total of 87. In 21 cases version was required, and in seven cases the infant's head was opened. Two of these craniotomies were done in consultation, as were one or two of the versions; but the statistics generally apply to cases attended by myself or my assistants. I wish to call attention to the large number of placental presentations. Those occurring among farmers' wives appear to be due to the long periods, often many hours continuously, which they spend standing in the dairy. This laborious work is often continued throughout the pregnancy.

In conclusion, then, it appears that not half the child-births are attended by a medical man, and the calculation of the percentage of deaths must be based upon the total number of deliveries; eight deaths in 1350 confinements are equivalent to one in 168½. I find some difficulty in enumerating the cases of flooding, because this symptom is so hard to define; but if the hæmorrhagic cases, placental, accidental, and post-partum, were added to others in which manual interference was required, and to the cases requiring delivery by forceps or the perforator, the proportion of purely natural labours would seem small as compared with those occurring in the practice of some men who have published their statistics.

Castle Cary.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### WESTMINSTER HOSPITAL.

ULCERATIVE (? SEPTIC) ENDOCARDITIS SIMULATING  
ENTERIC FEVER; DEATH; NECROPSY; REMARKS.

(Under the care of Dr. STURGES.)

FOR the following notes we are indebted to Mr. E. Carroll, clinical clerk.

Sarah E—, aged thirty-nine, was admitted on June 13th, 1882. She was married, and had had one living child and three miscarriages, the last two years and a half ago. She had been a healthy woman till two months before admission, had lived the greater part of her life in London, and of late had occupied herself in household work.

Two months before admission she began to feel ill, her appetite failed, she had pain in the chest and between the shoulders more or less constantly; she also had pains, which she described as "rheumatic," affecting first one limb and then another, and was under treatment for this. No more definite symptoms showed themselves until three days



before admission, when she took to her bed feeling "feverish," without diarrhoea, vomiting, or cough.

On admission the patient looked pale and ill. The tongue was rather tremulous, and covered, except at the edges, with dirty, yellow, moist fur. (The tongue remained in this condition all through the illness, and never became dry or brown.) Skin moist; pulse 96. Urine acid; no albumen; specific gravity 1015. Chest: Heart apparently normal in position and action; no bruit; breath-sounds natural. The abdomen was not tumid or tender; no gurgling; no enlargement of liver or spleen; no pain complained of; no dyspnoea; no diarrhoea. The patient complained principally of languor, want of appetite, and debility. The temperature on admission was 100°; next morning 103.6°. Liquid diet, milk and beef-tea.

June 15th: Left pupil larger than right; tongue still furred, slightly drier. Temperature last night 102.6°; pulse 108. Ordered five minims of dilute hydrochloric acid three times a day.—17th: Temperature for last two days has varied considerably—on the 15th, 99.2° to 102.4°; on the 16th, 101.4° to 104°; on the 17th, 97.6° to 102.4°.—20th: Bowels have been opened occasionally, once every other day, till to-day. To-day two motions, resembling enteric stools in appearance and smell; no tumefaction or tenderness of abdomen; highest temperature 101.8°.—21st: Temperature still high, 102.4°. Ordered two teaspoonfuls of brandy every three hours.—22nd: Temperature 101.2° to 103.4°; on the 23rd, 101.6° to 102.4°; on the 24th, 102.4° to 103.6°. The patient is in much the same condition; complains of numbness and aching pain in left foot and leg, principally in the calf. There is no visible change in tissue; foot very cold; hot fomentations. Ordered hot bottle to foot. Bowels opened on an average twice a day; motions as before; lips very pale. Ordered two teaspoonfuls of brandy every second hour.—28th: Temperature has varied from 98.3° to 104.2°. Some slight pain in abdomen; no tenderness; tongue the same; diarrhoea continues; two motions a day.—27th: No pain in leg; stiffness.—Temperature on the 28th, 99.8° to 101.2°; on the 29th, 99.4° to 102.6°; on the 30th, 101.4° to 102.6°.

July 3rd: The condition of the patient much the same. Ordered one grain and a half of sulphate of quinia, eight minims of dilute hydrochloric acid, in water, three times a day. Brandy continued.—5th: Condition still unsatisfactory. Heart and lungs examined; nothing abnormal found. Slight cough; bowels the same; tongue still furred and moist. Temperature 100° to 103°; pulse 116.—8th: The quinine mixture increased to two grains; brandy continued. Pulse more rapid and feeble; tongue still furred, moist, and tremulous. The heart-sounds normal; a few rhonchi over left chest, in front. Brandy omitted. Temperature 99.2° to 103.6°.—19th: The patient had well-marked rigor early this morning, lasting forty minutes; condition appears critical. Respiration rapid and shallow, 40; skin cold and clammy; lips pale. Very feeble, complains of nothing definitely, quite sensible; no bruit heard; no dulness over chest; a few rhonchi at bases; pulse 150. Ordered six ounces of brandy in twenty-four hours.—10th: The patient has gradually sunk into a great collapse; legs drawn up; no distension or tenderness of abdomen. Temperatures 98°, 97°, 96.4°, and 95.8°. Almost pulseless at wrist; lips very livid; face much cyanosed; cold clammy sweats, occasionally delirium. Champagne ordered; was sick after three doses; brandy, hot bottles.—11th: The patient died at 2.30 this morning, in a state of great collapse. Last temperature taken, 95°.

*Necropsy.*—Body well nourished; rigor mortis persistent. Brain, pleura, lungs, and pericardium normal. All the cavities of the heart were distended with decolorised fibrinous clot; the muscular tissue was pale, and that of the right side much paler than that of the left. The wall of the right ventricle was very thin, in some places not exceeding  $\frac{1}{8}$  in.; there was over the apex a thickish layer of subpericardial fat. The aortic valves were the seat of ulcerative inflammation, which in places exhibited perforation. Connected with the same valves were large vegetations. One valve was divided by the ulcerative process as far as its base, while from a second an oval mass of old fibrinous clot, about an inch in length, depended from a thin pedicle; this valve also had a small perforation about its centre. On the remaining valve was a conical vegetation about the size of a small pea. All the vegetations were on the ventricular aspect of the valves. Spleen and intestines normal. Careful search was made for emboli, but none were discoverable in any part of the body.

*Remarks by Dr. STURGES.*—The above case is of interest

as a contribution to the clinical history of an affection which is at present classified under two headings: the typhoid and the pyæmic. It is a striking illustration of the former. Not only were the symptoms of enteric fever very closely imitated, but there were circumstances of the patient's history referring to defective drainage in the house whence she came which pointed in the same direction. It will be seen that after remaining for three weeks in the condition described with no very threatening symptoms the patient, on what was reckoned the thirtieth day of the fever, had a severe rigor, after which she became collapsed, and rapidly sank. It was thus only a few hours before death that any symptom occurred to bring the case within the definition of septic fever. With such an ending, however, had the physical signs lent their aid we might have had the satisfaction of arriving at a correct diagnosis during life; but it so happened that auscultation gave no assistance. Owing to the ambiguous character of the earlier and of the latest symptoms, the chest was carefully examined both when the patient first came under notice and when she was about to die. It may be stated positively, therefore, that the cardiac sounds were clear and without murmur. How it happened that such lesions as were found post mortem failed to announce themselves in life need not here be discussed. It is of interest to observe how the accidental absence of cardiac murmur may leave us without the means of discriminating ulcerative endocarditis from enteric fever, a disease which already has a good deal credited to it, and which we are perhaps too apt to appropriate upon insufficient warrant. Those interested in the pathology of ulcerative endocarditis may profitably peruse Dr. Coupland's cases, published in the *Medical Times and Gazette* of this year, as well as a clinical lecture by Dr. Wilks, in the *British Medical Journal*, Jan. 14th, 1882.

## GOCULDAS TEJPAL HOSPITAL, BOMBAY.

### CASES OF ELEPHANTIASIS OF SCROTUM.

(Under the care of Surgeon-Major T. CODY.)

The following cases conclude the report commenced in the "Mirror" on July 29th, and continued last week.

**CASE 4. Elephantiasis of Scrotum; Removal by Operation; Recovery.**—A Mussulman priest, aged forty-two, had a tumour involving both penis and scrotum, a growth of about ten years. In operating on this case there was some trouble in freeing the penis from the diseased structures, as there were little patches of healthy integument on both sides of it, which had to be preserved. The diseased structures on the scrotum went very high up, so that there was some difficulty in fixing the testes, both of which were found healthy and preserved, in their position. This case was operated on under the antiseptic spray, and the dressing used was a layer of carded oakum well saturated in the spray, and covered by four layers of antiseptic gauze, two of saturated gutta-percha tissue, and all applied under the spray and covered over with a piece of oiled cloth.

On the fifth day after the operation there was an erysipelatous blush over the right pubic and pelvic regions, which was painted over with a solution of the perchloride of iron. The erysipelatous redness shifted down the right thigh and leg and eventually extended to the left side and the back, lasting altogether for about five or six days, and producing little or no constitutional disturbance. Wherever it appeared it was painted with solution of the perchloride of iron, thirty drops of which were also given internally three times a day after food. After the fifth or sixth day the erysipelas disappeared altogether, and the wound progressed without a further bad symptom. When the discharge ceased the granulating surface was dressed with boracic acid ointment, under which the healing process progressed most favourably. This man was altogether about six weeks in hospital. The tumour weighed six pounds.

**CASE 5. Elephantiasis of Scrotum; Removal; Recovery.**—An old Hindoo, aged sixty-two, a carpenter, was admitted with a tumour involving the integument on the under surface of the penis (that on the dorsum being quite healthy) and the entire scrotum. It was a growth of over twelve years, and when removed weighed above eleven pounds. The left testicle was found diseased and excised, but the right being healthy was preserved. He was an excellent patient,

being perfectly indifferent to himself and his disease, and regarding what was done for him in a most philosophic manner. The result was he made an excellent recovery, and left the hospital about two months after the operation, with the wounds all healed.

ELEPHANTIASIS OF THE LABIA VULVI; REMOVAL;  
RECOVERY.

A Hindoo woman, aged thirty years, presented a most unsightly elephantoid tumour in the left labium, which extended downwards into the perineum. In the right labium there was a smaller tumour, about the size of an orange and unconnected with the first. The incision to remove the tumour on the left side extended from the mons Veneris to the end of the perineum, and was carried on the inner side through the mucous membrane on the inner surface of the labium. The incision on the outer side extended to the left groin and margin of the thigh; and when the mass, which weighed about five pounds, was removed, a most unsightly gaping wound was left. There was very little hæmorrhage, and slight torsion was found sufficient to arrest that in the three small vessels severed. The smaller tumour on the right was now removed, and the edges of the wound were brought together without any trouble. To effect healing of the first wound the legs had to be brought together and the thighs tied firmly by a broad bandage. Three or four wire sutures were put in by which the mucous membrane of the vagina and the outer integument were connected. This position, however, was more relied on to assist the healing process than anything else, and she was so kept, with the legs tied together, for over three weeks. It was most remarkable how the parts began to assume their natural shape as the healing process went on. The surface had altogether healed over five weeks after the operation, when the patient was removed by her husband.

## Reviews and Notices of Books.

*Foods, their Composition and Analysis.* A Manual for the use of Analytical Chemists and others, with an Introductory Essay on the History of Adulteration. By ALEXANDER WYNTER BLYTH, M.R.C.S., F.C.S., &c., Public Analyst for the County of Devon, and Medical Officer of Health and Public Analyst for St. Marylebone. London: Charles Griffin and Co. 1882.

ALTHOUGH this work is intended primarily for the use of analytical chemists, it contains much that will prove of value and interest to those engaged in the practice of medicine. The historical introduction is evidently the result of considerable labour and research, and it is amusing to find that the practice of sophistication was not unfamiliar to the Greek and Roman traders. In fact the adulteration of wine in ancient Athens was practised to such an extent that a special inspector was appointed to investigate the matter. In our own country, in the latter part of the twelfth century, "false weights, false measures, false pretences of all kinds were the instruments of commerce most generally in use; no buyer would trust the word of a seller, and there was hardly any class in which a man might not with reason suspect that his neighbour intended to rob him." The author's account includes a history of adulteration as practised from very early times by bakers, brewers, vintners, druggists, and others, and he also refers at some length to the history of the crime as practised in France, Germany, and other countries. The chapter on the Duty of the Inspector or Purchaser under the Adulteration Act is thoroughly sound and practical, and will be read with much interest. The advice given to inspectors is not only sound but judicious. "The official purchaser," says the author, "should not select, to the exclusion of others, the poorest shops, but take samples as equally as possible." He points out that the purchase need not be effected in an officious manner, and that it is not fair, for example, to enter a shop full of people and with ostentation buy and divide the sample before the customers.

The subject of the adulteration of bread with alum is of considerable interest to medical men. This substance is added to bad or slightly damaged flour both by the miller and baker. Its action, according to Liebig, is to render insoluble gluten which has been made soluble by the acetic or lactic acid developed in damp flour, and hence it arrests the undue conversion of starch into dextrine or sugar. The author considers that the influence of alum on health in the small quantities in which it is usually added to bread is very problematical, and that it rests upon theory more than observation. We are not prepared to say that this view is not correct, but it is certainly opposed to the observations of some recent writers on therapeutics—Phillips, for example, who says that he has often traced indigestion to alum in bread. In testing for alum the crust and crumb should be analysed separately, for many bakers use for the latter only a flour technically called "cones," which is strongly alumed.

The chapters and articles on Milk, Cream, Butter, and Cheese are written in a workmanlike manner, and are deserving of attentive perusal. A full account is given not only of cow's milk but of human milk, and of the milk of the goat, mare, ass, camel, hippopotamus, and other animals. A very interesting description is given of the milk-like secretions of birds and plants. It is by no means certain that mammals alone secrete milk, for pigeons after the young birds are hatched secrete in their crops a nutritious albuminous fluid which is used for feeding the offspring. In the vegetable kingdom many plants and trees yield a white fatty secretion popularly known as milk, but these fluids as a rule have no right to the title, being totally different both in composition and properties. Curiously enough, however, a true "milk tree" (*Brosimum glactodendron*) is found in Central America. On incising the trunk it yields an abundance of a thickish feebly acid fluid which coagulates on exposure to the air. This juice has been recently analysed by M. Boussingault, who finds that it is analogous to ordinary milk, containing an albuminous principle, a fatty principle, and sugar and phosphates. Koumiss is now so largely used in the treatment of wasting diseases that we turn to the author's account with much interest. He gives several analyses, and describes its mode of preparation by the Tartars from the milk of the mare and camel. A substitute for koumiss may be readily prepared from cow's milk, even by those who have had but little experience in such matters, and detailed information on this point would have been welcome. The custom of washing cheeses with a solution of arsenic to prevent the attacks of the fly is deserving of notice, and might serve to throw light on some obscure case of disease.

The chapters on Tea, Coffee, Cocoa, Chocolate, and Maté are full of interesting and valuable information. The different kinds of wine, beer, and spirits come in for their share of attention, arrack even not being omitted. In addition to the points we have briefly indicated, there are articles on various condiments, such as mustard, pepper, and Cayenne. It may be of interest to the rising generation to learn that sweets are much less frequently adulterated than is commonly supposed. A large proportion of the common sweets contain nothing but sugar, for the manufacturer, by careful heating and manipulation, is able to impart a quite surprising scale of colours, from the purest white to fawn-colour, straw-colour, reddish-brown, brown, and even black, by this agent alone.

The sections on Water Analysis are eminently practical, and, like the rest of the work, are fully illustrated. We have given the barest possible outline of the contents of this volume. It is thoroughly practical, and should be in the hands of every medical practitioner not fully acquainted with the subjects of which it treats.

*An Index of Comparative Therapeutics*, with Tables of Differential Diagnosis, a Pronouncing Dose-list on the Genitive Case and Memoranda concerning Clinical Thermometry, Incompatibility of Medicines, Ethics, Obstetrics, Poisons, Anæsthetics, Fees, Asphyxia, Urinary Examinations, Pharmacology, Nomenclature, &c. By SAMUEL D. L. POTTER, A.M., M.D., President of the Milwaukee Academy of Medicine, Author of "The Logical Basis of the High Potency Question," and many other essays in defence of the Milwaukee Test. Second Edition. Chicago: Gross and Delbridge. 1882.

THIS is a most amusing work, but it has been much more carefully compiled than would be supposed from a cursory inspection. The author has attempted a kind of index of treatment, a comparative review of the different modes of cure recommended by the leading authorities on therapeutics. A compilation of this description involves a great deal of tiresome and tedious work, and we should be none the less grateful to the author because on many points of nomenclature, and even treatment, his views will be found opposed to the majority of readers in this country. In the index he says: "The critical reader will, no doubt, notice under any given title the omission of some favourite remedy, and the insertion of others which to him seem less important. The compiler has been compelled to use his own judgment in regard to this, and cannot expect that the result will please all." Nothing could be fairer, and we are bound to say that the author's selection has been made with care and discretion. There are in reality very few omissions. Take, for example, the case of asthma; here, amongst other modes of treatment, directions are given for the use of iodide of potassium, opium, arsenic, belladonna, lobelia, cannabis indica, coffee, ipecacuanha, stramonium, and datura tatula, Grindelia robusta, nitre papers, chloroform, ether, nitrite of amyl, sulphurous acid, antimony, chloral, bromide of potassium, and eucalyptus. Under the head of prophylactic treatment reference is made to the necessity for avoiding the exciting causes of a paroxysm, such, for example, as indigestible food, wet feet, sudden changes in temperature, constipation, and so on. The author mentions incidentally the application of the constant current over the pneumogastric nerve. This one example, taken quite at random, will show that the work has been well and carefully done. The author apologises for the omission of all reference to certain works on materia medica and therapeutics, pointing out that the nature of the plan adopted by him precludes reference to those "who deny disease-entity or omit pathological and physiological indications for drug usage." The chapters on Ethics and Fees are of interest, although they have no special reference to practice as pursued in this country. It would have been more in accordance with our notion of the general fitness of things had these articles been relegated to a special section, and not mixed up with questions of treatment. It is rather an abrupt change from ethics to excrement, and from "feces" to fees. The alphabetical arrangement is convenient, but has its disadvantages. On the whole the work is a good one, and will be found useful for reference.

*Nitro-Glycerine in Angina Pectoris*. By WILLIAM MURRELL, M.D., M.R.C.P. London: H. K. Lewis. 1882.

THE profession are much indebted to the author of this brochure for having introduced to their notice the important power possessed by nitro-glycerine in controlling the attacks of that most painful, alarming, and fateful condition known as angina pectoris. Whatever light subsequent research may throw upon the nature of this condition, and however much its therapeutics may thereby be modified, physicians will always be ready to acknowledge the value of the two drugs, allied in composition and in physiological action—nitrite of amyl and nitro-glycerine,—and of the two the latter certainly possesses considerable advantages over the former; for

although, as Dr. Murrell abundantly proves, the action of nitro-glycerine varies in a most remarkable degree with individual idiosyncrasy, a fact that led to much conflict of testimony many years ago, it has the merits of being more stable, of being slower in producing its effects, and producing them more permanently than does inhalation of the nitrite of amyl. This is clearly shown by the author, who has been enabled to compare not only the effects of the two drugs upon the circulation, but the very striking influence produced by nitro-glycerine in increasing the flow of urine. For this latter purpose he made observations upon the amount of urine excreted at short intervals after administration of nitro-glycerine to an epispadic, and the results are both striking and interesting. The little book contains full details of several cases treated by the author, and its perusal should go far to encourage practitioners to employ the remedy in full confidence of an alleviation, and in some instances of cure, of anginal seizures.

## THE BRITISH MEDICAL ASSOCIATION. FIFTIETH ANNUAL MEETING,

*Held at Worcester, August, 1882.*

THE third general meeting took place on Thursday morning, the 10th inst., and commenced with the reading of the Report of the Medical Reform Committee by Dr. Ed. Waters, of Chester. The report referred chiefly to the recent Royal Commission on the Medical Acts, which was stated to mark a distinctive era in the history of medical reform. It was held that the Commission had conceded all that the Association had for years contended, and the aid of the Branch Councils of the Association was sought to memorialise the Privy Council and petition Parliament to bring in a Bill founded upon the report of the Royal Commission. The report was adopted, and a vote of thanks to Dr. Waters and the Committee was passed unanimously, on the motion of Mr. H. P. Symonds, seconded by Mr. Coates.

Dr. A. CARPENTER read the report of the Committee appointed to obtain restrictive legislation for habitual drunkards. It announced the approaching opening of the Dalrymple Home for Inebriates in a healthy suburb of London, and the steps to be taken to place it under the provisions of the Habitual Drunkards Act, 1879. The Committee have also issued circulars to boards of guardians, asking for an expression of opinion on the propriety of guardians having the power to detain drunkards in work-houses for the purpose of recovering from the effects of their excesses. Favourable replies had been received, and the Committee urged the members of the Association to use their influence with boards of guardians. Dr. Drysdale seconded the motion, which was supported by Dr. Gray, who expressed the opinion that the certificate might be signed by one instead of two justices.

Mr. STOKES (Dublin) then delivered the Address in Surgery. He said that the Association, as it had its birth in the "Faithful City," so it had proved faithful in many good and noble ways—faithful in removing professional jealousies and softening asperities—faithful in protecting with its broad and strong shield those who had been cruelly and unjustly attacked—faithful in its efforts to raise the social status of the profession—faithful in its attempts to extricate public opinion from the quagmires of sentimentalism and folly—faithful in aiding and encouraging the scientific vanguard of the profession. The list of advances in surgery during the last half century was a goodly one. Among these were the abandonment of an indiscriminate bloodletting in almost every form of acute disease, of a reckless use of mercury in the treatment of certain diseases, and of setons and moxæ in hopelessly irremediable articular and other diseases. Having enumerated

a goodly list of the modern improvements in surgical treatment, he singled out as topics which far surpassed in importance all others—the three “giant strides that the past half century has witnessed,”—namely, the discovery and application of anæsthetics, the restoration of diseased or injured bones and joints necessitating resection, and “the enunciation of the principle and establishment of the practice by Pasteur and Lister of antisepticism in the treatment of wounds.” Such advances may well make us feel a pardonable pride in British surgery, and give confidence in the coming triumphs of our art. As to anæsthetics, he adverted to the peril which must necessarily attend their administration, and the need for caution and the adoption of such a rule as that formulated by Mr. Hutchinson in reference to the use of chloroform in cases below six and above sixty years of age. He expressed a personal preference for ether, as economising time, as being safer, and, as a rule, being followed by less sickness and a slower return to sensibility. The best methods for administering it were those in which the air is rebreathed by the patient, and experience had not confirmed the *a priori* belief that this admixture of ether vapour and carbonic acid gas introduced an additional element of danger. After briefly enumerating the advantages of anæsthetics, and referring to Morton's priority in their application to surgical practice, he passed to the subject of antiseptic surgery, in support of which he spoke in terms of considerable force and eloquence. Naturally he referred to the address delivered by Mr. Savory at the Association meeting at Cork in 1879, where the subject had been adversely handled, and declared that when “the address is stripped of all its brilliant eloquence and rhetorical decoration” it reveals the admission of the germ theory of putrefaction, and the fact that the method of dressing employed by Mr. Savory is essentially antiseptic. Mr. Lister's recent utterances upon the value of the carbolic spray had been much misunderstood; for he did not abandon the antiseptic principles, but looked forward to obtaining more perfect means than the carbolic spray afforded. The various views of the nature of inflammation propounded by Burdon Sanderson, Ogston, and Hueter, as to whether the infective properties of inflammatory products are or are not primarily dependent on the contact of atmospheric organisms, were shown to be equally consonant with the prophylactic principle of antiseptic surgery. The weak point of the “persistent and obstinate opposition” to Listerism is the general admission of the truth of the germ theory of putrefaction; whilst Mr. Lawson Tait's “dead tissue factor” was regarded as a superfluity. “Those who advocate and practise what they are pleased to term a ‘modified’ antiseptic system, attempt, in fact, in a roundabout, clumsy, inefficient way, to do precisely what those who practise Listerism achieve by means which are the outcome of accurate scientific research. The aim in both cases is to neutralise or destroy the agencies which predispose to and produce the *materies septicæ*; in the one instance by numerous uncertain and often inefficient methods, and in the other by the unerring artillery of chemical agency.” Mr. Stokes disposed of the taunt that Listerism lacked originality by mentioning what he had himself seen of Maisonneuve's practice. He considered that ovariectomy was not the best test of the efficacy of the method; one of the best tests of its value is resection of the knee-joint; and he illustrated this from his own experience. He also related other remarkable instances of “antiseptic triumphs,” and asked whether such results could have been obtained previous to Listerian teachings. There could be but one reply—Impossible. As to its hygienic effects, he mentioned the change that had been wrought in the hospital to which he is attached in the prevalence of erysipelas, pyæmia, and hospital gangrene—when its present condition was contrasted with that which prevailed during his studentship, an experience which had been so widely repeated abroad. Mr. Stokes then defended Professor Lister and his followers for not having more recourse to statistics in demonstrating the superiority of antiseptic methods, and asked why Mr. Savory made no mention of ovariectomy when he gave the statistics of operations at St. Bartholomew's Hospital. Without himself regarding statistics with the reverential awe of some, he mentioned that at the Richmond Surgical Hospital in 600 operations performed by himself and colleagues during the past three years, the mortality was 3·6 per cent.; “and there was not a single case in which Listerism was accurately employed that was followed by any infectious disease.” He enumerated some of the directions in which owing to anti-

septics the field of surgery had been widened, severely commented on the line taken by those who wilfully refuse to acknowledge its benefits, and concluded his remarks on this head as follows: “In the interests and for the credit of British surgery it is time so unrighteous a warfare should cease. It is time that the irritating dust of an unreasoning prejudice should be swept away. It is time that one of the greatest discoveries and boons to surgery this century has produced should be universally recognised as such. It is time that its discoverer and exponent should be acknowledged as one of whom it may well be said—

‘With genius Nature joins in everlasting covenant still,  
Thy promises of one, the other fails not to fulfil.’”

In the third part of his address Mr. Stokes dealt with the method adopted for bringing about a regeneration of bones and joints, in cases of disease or injury necessitating resection, with which the names of Syme, Langenbeck, and Ollier must for ever be associated. He described the conditions under which once operations were most successful, and referred to the great advance made by the introduction of bone-transplantation by Dr. McEwen of Glasgow. Then, speaking more particularly of bone-resection, he urged its performance before any profound organic changes take place. A reference to amputation, and especially to the single flap operation of the late Mr. Carden of Worcester, closed this survey of surgery, and the rest of the address was occupied by an eloquent vindication of experimental research, and a protest against the increasing agitation that is now maintained in opposition to it. He concluded:—“I have mentioned many achievements in surgery the past half century has witnessed. Fifty years hence this great Association will, I hope, again meet here to celebrate its centenary; and my successor will, I trust, with greater ability and eloquence than I can command, tell of as great or greater triumphs than I have done. To enable him to do so we can all aid, some powerfully, others feebly; but still every unit in this great brotherhood can assist; and it should be our ambition as well as our prayer, that when the hour arrives for us to cease from our work, we may all feel, on looking back on our lives, that we have done something to that end. Something—be it great or small—in the interests of our common humanity, in the interests of our loved country, and of a pure devotion to truth, to render the science to which we have devoted our lives nobler and fairer than before.”

On the motion of Mr. TEALE, seconded by Sir W. MACCORMAC, a cordial vote of thanks was passed to Mr. Stokes for his address.

The Stewart prize of 50 guineas was then presented by the President to Dr. Vandyke Carter, of Bombay, for his researches on Sperrillum Fever. The prize was received by Surgeon-General Walker on behalf of Dr. Carter.

The annual dinner of the Association took place on Thursday evening in the Guildhall, the President, Dr. Strange, being supported by the Bish-<sup>op</sup> and the Dean of Worcester, Sir Jas. Paget, Sir Richard Temple, Sir E. A. H. Lechmere, M.P., Mr. Geo. Hastings, M.P., the Mayor of Worcester (Col. Stallard), and many others, to the number of more than 200.

The concluding general meeting was held on Friday morning, when there was a considerable attendance, in anticipation of a vote being taken with regard to the compulsory notification of infectious disease. An animated debate had taken place the day before in the Public Medicine section, and a pamphlet impugning the action of the Parliamentary Bills Committee had been widely circulated.

Dr. CARTER, of Liverpool, introduced a discussion on the Compulsory Notification of Infectious Disease. The Public Health Act of 1872 was wise in principle, regarding the medical man as the medical officer of health of every family he attended. After the passing of the Act a desire arose for notification, putting compulsion and fine upon medical men unless they notified to the sanitary authority every case of infectious disease. This rested on the assumption that medical men did not care to limit the spread of infectious disease. He was in favour of notification in the abstract, but not of compulsion. Compulsory notification had done no good, and provoked an antagonism between two branches of the medical service, which tended to check the steady onward progress which had been made under the Public Health Act. A quarter of a million of lives had been saved by the operation of the Act. Were they to introduce a new principle, which had been proved to fail, because medical officers of health wanted it? In order to test the opinion of the

Association, he proposed that a plebiscite be issued, asking whether the members of the Association did or did not agree to the principle of compulsion.

Dr. WHITTLE, of Liverpool, seconded the resolution.

Dr. LITTLEJOHN entirely objected to a plebiscite. The experiment of notification had been tried for four years in Edinburgh. The form of intimation adopted there would do much to disarm opposition. At the bottom were the words, "No immediate attention is required." If the word "no" was erased, it was understood that the case required immediate attention. The medical man in charge was made master of the situation. The public were satisfied that the clause was necessary to health, and the clause was a most undoubted success. Dr. Littlejohn concluded by moving an amendment, that the meeting declined to withdraw from the position which the Association had repeatedly taken in urging Parliament to make the notification of infectious disease generally compulsory.

Mr. DAVID EVERETT, who seconded the amendment, said that medical men were the only persons who could notify infectious disease, because they were the only persons who could diagnose it. He would safeguard the Act in every possible way, so as not to affect the liberty of the medical man in attendance.

Dr. A. CARPENTER could not agree either to the resolution or amendment, and asked whether medical men could not perform a duty without hanging round their necks penal clauses? The penalty should be put upon the householder, and the Act placed on the same footing as the Contagious Diseases (Animals) Act in this particular.

Mr. G. W. HASTINGS, M.P., said that, having introduced the Bill for the Notification of Disease, he might be allowed to say a few words upon it. His desire was that the Bill should be sent to a Select Committee. The medical profession would then have had ample opportunity of laying the whole case before the Select Committee. If the subject were not taken up by the President of the Local Government Board, he should reintroduce the Bill at the beginning of next session, in order that it might be sent to a Select Committee. Bolton was the only borough that petitioned against the Bill. Thirty-one cities and towns had voluntarily adopted the Act. No representation had been made by any town where the system was in force that it should be abolished. No objection could be made to the dual system. If the householder would not send in a certificate, the medical man would have a right to say to the householder, "If you don't, I will."

Dr. FITZPATRICK made a strong speech against the amendment, and protested against the introduction of Government compulsion and penal clauses hampering medical men in the performance of their duties. The death certificate, he contended, was not compulsory, and it was contrary to the spirit of the profession that such a system should be introduced.

A division was then taken by show of hands, the meeting having become very excited and tumultuous. The President declared the amendment carried, and was about to put it again as a substantive motion, and many members were leaving the hall, when Dr. Mahomed (London) claimed a hearing. He declared that the amendment which had just been carried embodied no statement that the objectionable clause would be removed, and that whilst all were of opinion that compulsory notification was desirable, yet few held that the medical man should have the onus of it. He therefore moved a further amendment, in the sense of Dr. Carpenter's remarks, "That this meeting earnestly desires the compulsory notification of infectious disease, but wishes to express an opinion that the compulsion to notify should be placed upon the householder, in his duty as a citizen, and not upon the doctor." Mr. Husband seconded the amendment, which was carried by a large majority, and then adopted as a substantive resolution.

The Middlemore prize of sixty guineas was presented by the President, on behalf of the Association, to Mr. W. Adams Frost, F.R.C.S., for researches in ophthalmic surgery.

Professor HUMPHRY moved the adoption of the report of the Collective Investigation Committee, which referred to the appointment of Dr. Mahomed as secretary, and the work already taken in hand largely through his personal efforts. Three inquiries are at present on foot—viz., acute pneumonia, chorea, and acute rheumatism,—and the Branch Committee were invited to propose subjects for local investigation. A large number of branches were already engaged in the work. Mr. Dixon seconded the motion, and the report was adopted, the committee being reappointed.

Mr. E. HART moved the adoption of the report of the Parliamentary Bills Committee, which dealt with the subjects of the medical officers of the militia service, the regulation of midwives by examination and registration, the notification of contagious diseases, and the withdrawal by the Chancellor of the Exchequer of his proposed tax on carriages. The motion was seconded by Mr. Leighton Jones and carried.

Dr. WADE proposed that the report of the Scientific Grants Committee be adopted, and that a grant of £300 be made for its purposes. The researches in progress, many of which were approaching completion, include one on Anæsthetics, by Dr. McKendrick; on the Functions of the Kidney, by Dr. Newman; on the Relation of Organisms of Septic Disease, by Mr. Stanley Boyd; on the Pathology of the Heart, by Dr. C. S. Roy; on Methods for showing the presence of Bacteria in Epidemic Structures, by Dr. Thin; on the Variation and Duration of the Cardiac Ventricular Systole in Man under different conditions of Rapidity, Temperature, &c., by Dr. Chapman; on the Intimate Nature of the Contagious and Acute Infective Diseases, by Dr. G. F. Dowdeswell; on the Elimination of Nitrogen, by Mr. North; on the Pathological Histology of the Bloodvessels, by Dr. Heneage Gibbes; on the Electro-physiology of the Human Nerves, by Mr. A. De Wetteville and Dr. Waller; and on the Relation between Bacteria and Surgical Disease, by Dr. Ogston. Dr. Chadwick seconded the motion, which was carried.

Dr. KEELEY proposed that the warm thanks of the members be given to the Mayor and Corporation for granting the use of the Guildhall and Music-hall.

Dr. HARRISON seconded the motion, which was adopted.

Votes of thanks were also given to the county magistrates for the use of the Shire Hall, to the Dean and Chapter of Worcester, the Philharmonic Society of Worcester, and the members of choirs of Worcester, Gloucester, and Hereford, to Mr. Done, to Earl Beauchamp for his invitation to the garden party, and to Dr. Strange and Mr. Hastings for the invitation to the *soirée*.

Mr. E. HART proposed, in the name of the 800 members who had attended the meeting, a vote of thanks to the President, for the preparations he had made in anticipation of the meeting, his hospitality, and his able address. Never had a president performed his duties with more efficiency and urbanity.

Dr. STEWART, in seconding the motion, said that Dr. Strange was one of the highest authorities on sanitary science, and referred to a paper written by Dr. Strange on the subject thirty years ago.

A vote of thanks was then given to the Hon. Local Committee, and the proceedings terminated.

On this day a large number of members availed themselves of an invitation to visit Droitwich and its brine baths. They were there entertained at luncheon, and the little town was adorned with bunting and banners in honour of the occasion. In the afternoon a large gathering of ladies and gentlemen assembled at the beautiful seat of Earl and Countess Beauchamp, Madresfield Court, Great Malvern, where a garden party was given by the noble owners, who received their guests as they entered the grounds. In the evening a musical *soirée* was given by the President of the Association and Mr. George Hastings, M.P., in the Shire Hall, to the members of the Association and their friends.

Saturday was devoted to excursions, which were well planned, and successfully carried out, the beautiful weather adding greatly to the success of these expeditions. One party visited the Malvern hills, where the geological structure of the hills and surrounding country was explained by the Rev. W. S. Symonds, F.G.S., and G. N. Piper, Esq. Another party proceeded by rail to Ross, and thence by the Wye to Monmouth, or by rail to the same place, Tintern, and Chepstow. A third excursion was to Stratford-on-Avon, and thence to Leamington, where one hundred members were entertained at luncheon by the local members; from Leamington by carriage to Kenilworth, and thence to Warwick.

## THE SECTIONS.

### SURGERY.

At the second session of this section two important subjects were the main topics of discussion—the surgery of arteries, and abdominal surgery.

Mr. BRYANT related a case of Double Popliteal Aneurism, of which one was cured by pressure, and the other by Speir's artery constrictor with antiseptic (not aseptic) precautions.



Mr. THOMSON related the History of his case of Ligature of the Innominate Artery for subclavian aneurism, and showed the specimen. Subsequent speakers were quite agreed that the fatal result was not dependent upon the ligature of the artery, but was due to ulceration of the drainage-tube sinus, probably opening up the vertebral artery; the ligature (of aorta) had acted perfectly. The experience of this case was held to be encouraging, but it left open the question whether in another case it would not be well to ligature the vertebral artery at the same time as the innominate, even if not the common carotid artery as well.

Mr. A. H. DOLMAN reported a Case of Traumatic Axillary Aneurism successfully treated by ligature of the subclavian artery. So much difficulty was met with in getting the thread around the artery (the left), that the clavicle was divided to expose the vessel.—Mr. BARWELL showed the Aneurism Needle he had had made for cases of this kind, and expressed his belief that had it been employed division of the bone would have been unnecessary.

Mr. BARTLETT read a paper on five cases of Ligature of Large Arteries. One was a case of femoral aneurism, for which he tied the common femoral trunk with chromic catgut; the wound did not remain aseptic, and secondary hæmorrhage came on. The wound was then opened up, when it was found that the artery had separated one-tenth of an inch above the ligature. The two ends of the vessel were then tied with a hempen thread. Again there was repeated secondary hæmorrhage, for which the external iliac artery was ligatured with whipcord, with a final successful result. This case presented many features of great interest from a practical point of view, and would in itself have afforded ample material for a good discussion.

Mr. BENNETT MAY related a case of Ligature of the External Iliac Artery and discussed the best material for ligatures, and stated that there was more difficulty in getting primary union of a wound when chromic catgut was used than when carbolic gut was employed, and he expressed his preference for common catgut soaked for a long while in carbolic oil.

Mr. ROBSON showed an apparatus for obtaining an antiseptic atmosphere to replace the carbolic acid spray in surgical operations. Asserting that while the carbolic acid spray was aseptic, it was not antiseptic, and was also harmful, Mr. Robson advocated the value of an antiseptic, dry, non-poisonous atmosphere. This he obtains by pumping air through cotton-wool to purify it from all suspended impurities, and then through eucalyptus oil. To show the antiseptic value of an atmosphere of this kind, he had taken several large, wide-mouthed glass jars and poured a little of one of these oils into each, and had then suspended jars of sterilised hay infusion in them, and had removed their cotton caps for various periods; in every instance except one bacteria had not subsequently developed in the infusion. He had also used it for surgical purposes, and Mr. Spencer Wells had employed it during the excision of a mamma, and had expressed himself pleased with it.

Mr. R. H. B. NICHOLSON recorded a successful case of gastrotomy.

Mr. GEORGE ELDER related a successful case of nephrotomy and nephrectomy for scrofulous pyelitis.

Mr. LAWSON TAIT showed a girl from whom he had excised a kidney through the linea alba; he also showed the kidney, which was sacculated, and contained a large calculus.

Dr. CULLINGWORTH related a case of nephrectomy by abdominal section for hydronephrosis, in which the patient died from shock twelve hours after the operation; and in reference to this case Mr. TAIT remarked that he should never attempt nephrectomy for renal cysts, as the operation of incising and draining these cysts proved so successful in his hands.

Mr. LAWSON TAIT recorded a third successful case of cholecystotomy, and showed a large number of gall-stones he had removed from the gall-bladder. The gall-bladder formed a prominent abdominal tumour, and it was an interesting feature of the case that although the cystic duct was completely obstructed, there had not at any time been jaundice. He opened the gall-bladder, and stitched the edges of the wound in it to the abdominal incision, and extracted a large number of stones. The discharge had continued mucous until that week, when bile had made its appearance, showing that the duct had become patent again. Mr. Tait therefore intended to freshen the wound, and close the sinus.

Mr. LAWSON TAIT then read a paper on 100 Consecutive cases of Ovariectomy performed during the last thirteen or fourteen months, and in which he had not used any kind of antiseptic measure. Of these, three patients died, one from choking during vomiting, and two from venous thrombosis starting at the pedicle and spreading quite up to the heart. Six of the patients were pregnant at the time of operation, one in addition had acute peritonitis—all got well; one of them miscarried, and five were delivered of living children at term. Four patients had acute peritonitis at the time of operation, and all recovered. In two the tumour was solid fibroma of the left ovary; in ninety-eight it was cystoma. Of the latter eleven were parovarian cysts, sixty were cysts of one ovary only, and among these were the three deaths, and twenty-seven were cysts of both ovaries. In fifty-three cases there were serious adhesions, but he had not found that this fact in any way added to the mortality. Of the three fatal cases there were no adhesions in two, and slight parietal adhesions in the third. In seventeen cases the tumour was sessile. All these cases were dressed with dry absorbent cotton-wool; in about one-twentieth of the cases a part of the wound opened, and then it was dressed with zinc ointment or red lotion. Mr. Tait attributed his improved mortality: (1) To the total abandonment of Mr. Spencer Wells's clamp; (2) to the thorough cleansing of the peritoneum, as recommended by Keith; (3) to the draining of the peritoneum, as recommended by Keith; (4) to increased personal experience; (5) to the diminished number of cases which had been previously tapped; the two of his patients who had died from thrombosis had been tapped, one sixteen and the other thirty times. He believed that if tapping was never adopted there would be no mortality after ovariectomy except from tetanus and similar outstanding risks; (6) the complete abandonment of antiseptic treatment; (7) the establishment of hospital discipline and hygiene; this he deemed of so much importance that in only exceptional circumstances would he consent to operate in private houses.—Dr. WARD COUSINS said that one danger of tapping was rotation of the pedicle on itself.—Mr. COATES (Salisbury) said that it was very difficult to harmonise Mr. Tait's statements with those of Dr. Stokes earlier in the day in reference to antiseptics. But his experience in general surgery was that while before his adoption of the Listerian treatment he did not obtain primary union of wounds in one per cent. of his cases, since that adoption he obtained it in every case. He incidentally mentioned a case of a very large splenic tumour, in which he was urgently requested to do, at any rate, an exploratory operation. On opening the belly and passing in his hand he found a large number of soft very vascular adhesions between the tumour and the abdominal wall, in tearing through which there was very free hæmorrhage; when this had ceased he closed the wound. The patient recovered, and from that time the tumour rapidly shrank in size.—Mr. M. THOMSON referred to the great diminution in the mortality of his cases that Mr. Tait observed when he first adopted the antiseptic treatment, and maintained that the results of general surgery abundantly proved the value of this treatment.—Dr. BANTOCK, in opposition to Mr. Tait, maintained that adhesions of ovarian tumours to intestine and pelvic organs are serious complications of ovariectomy. He had given up antiseptics, and he had not had more septicæmia than other operators who had used it, and he asserted that Listerism had not freed us from septicæmia.—Dr. SUTTON (Pittsburgh) had spent a considerable period in studying European surgery, and he stated that in Berlin, Vienna, Halle, Kiel, and Leipzig he found antiseptics everywhere, and such results obtained with it that on coming to England he dared not have opened the abdomen without employing antiseptics. He then went to see Keith's practice, and his views were changed; for Dr. Keith and his son (who has done five cases) had had a run of fifty-five cases of ovariectomy with only one death; alluding to Dr. Keith's abandonment of Listerism, he said that he had Dr. Keith's authority for stating that he had never used the carbolic spray stronger than was recommended by Prof. Lister. He had also seen Mr. Tait's practice for three or four weeks, and he had been very careful to watch his practice closely; but he had only seen one of his wounds in which there was a drop of pus—one already mentioned by Mr. Tait. In America antiseptic surgery had many friends in the East, but had not made much headway out West; and since the International Congress all American surgeons were waiting to see what the English surgeons would make of this question.—Dr. ED. TAYLOR, who was for some years Mr. Spence's assistant, said that the question

was one of careless surgery *versus* first-rate surgery. Listerism was but a cover for careless surgery, the results of which had been squallied by Mr. Spence's first-rate surgery. —Mr. TAIT, in reply, said that the unfair treatment he had received in London had reached such a point that he had had to threaten one gentleman with an action for libel. He advocated placing the operation of ovariectomy in the hands of a few surgeons only. In reference to the question of antiseptic surgery, he stated that he found one great argument against it in the constant changes which were being introduced into it. One preparation was always being abandoned in favour of another; the original catgut ligature was replaced by the chromic gut; and a new method of preparing the latter was recently introduced. If the practice were so perfect as had been represented, it would not need such constant modifications.

The last meeting of the section was mainly taken up with a discussion on bone-setting, which was opened by Mr. HOWARD MARSH, who referred to the cases benefited by "bone-setters," and urged that these should be taken in hand with more boldness by surgeons, while many cases of stiff joints should be prevented by more judicious treatment. —Mr. W. ADAMS followed with a paper on the same subject, in which he attempted to classify the cases which would be benefited by forcible movement; and he urged that the treatment should be gradual and prolonged, rather than rapid. —Mr. DAQUE FOX, who had assisted one of the family of Taylors, for many years "bone-setters," gave a very interesting account of the work of the firm. He said that in his experience "bone-setting" consisted largely in the treatment of recent fractures and sprains, and to only a limited extent in stiff joints. He urged surgeons to take more pains in the treatment of sprains, strains, and other apparently minor and simple injuries, which, if neglected, were often attended with grave inconveniences. —Mr. BERNARD ROTH related two cases of stiff shoulder after injury in which the treatment by forcible movement had not been successful, and he stated that the shoulder joint was not favourable for this treatment. —Mr. PEARCE GOULD, referring to cases in which the adhesions were mainly, if not entirely, extra articular, said that it was of importance to break down all the adhesions at once, and then to persevere with passive movement to the full extent, and gradually to bring up the nutrition of the wasted disused muscles by active movements; perseverance on the part of surgeon and patient was very necessary. —Mr. RICHARDSON CROSS gave the results of his experience at Bristol, which had been rather large. —There was not time to read all the papers set down, and one of the disappointed authors expressed himself as greatly aggrieved at this, and doubtless will not again offer a paper to the Association.

#### OPHTHALMOLOGY.

At the first session of the Section a discussion on the Extraction of Cataract in the Lens Capsule was opened by Dr. EDWYN ANDREW, who described new instruments to separate the lens in its capsule by tearing through the suspensory ligament. To obviate all pressure upon the globe during the operation he has discarded all forms of speculum, and instead he passes a thread of catgut through one or both eyelids, and by it has the lid or lids held apart and away from the globe. Dr. Andrew advocated a more frequent resort to this operation. The general opinion elicited was that this mode of cataract extraction is good in over-ripe cataract; and that it is easier to perform the older the patient, owing to the lessened resistance of the suspensory ligament in old age. In connexion with this latter point Mr. PRIESTLEY SMITH stated the interesting fact that having experimented on the extraction of the lens and capsule on the dead body in many cases, he had found it was much easier to do it in the corpses of aged persons. —Mr. C. MACNAMARA, whose name is associated with this operation, and who has had a large experience of it, stated that he prefers it to any other in properly selected cases, and particularly in old people.

Next day Mr. ANDERSON CRITCHETT read a paper on the Treatment of Lamellar Cataract, in which he advocated, in preference to removal of the lens, the formation of an artificial pupil by Tyrrell's hook.

Dr. ARTHUR BENSON followed with a paper on the Treatment of Partial Trichiasis. This is an affection which has hitherto been very troublesome, and the plan Mr. Benson recommends is to thrust one pole of an electrolytic machine into the eyelid, towards, or, if possible, into the erring

hair-follicle, and to place the other pole on the forehead. The object is to destroy the hair-follicle, and the treatment is continued until the eyelash comes out easily with the root-sheath attached.

Mr. NETTLESHIP and Mr. PRIESTLEY SMITH related three cases of Neuritic Atrophy of the Optic Nerve followed by continuous dropping of watery fluid from the nose. The fluid possessed negative characters, and was not cerebro-spinal. In one of the cases there was evidence of a growth in the nose, and in another the nasal mucous membrane was thickened and excoriated, but whether as the cause or the result of the discharge was not known. In one case there were also curious nervous symptoms, drowsiness and stupor, when the flow temporarily ceased; and during one of these attacks the patient died, but an autopsy was not obtained. Mr. PRIESTLEY SMITH showed at this meeting a new registering perimeter, which had the merits of simple construction and inexpensiveness.

Mr. NETTLESHIP opened a discussion on the value of eye symptoms in the Localisation of Brain Disease. The principal points alluded to were unioocular papillitis, with evidence of intracranial disease; optic atrophy, especially in relation to colour-blindness; hemianopia, and the recently recorded cases of hemiachromatopsia, the author thinking it probable that in most cases of hemianopia the lesion is higher up than the optic tract; cerebral amaurosis from lesion of the occipital lobes; ocular paralyses, peripheral, nuclear, and cortical. Attention was called to several other conditions bearing more or less closely on the subject—e.g., "pseudo-glioma," with brain symptoms, recoverable infantile amaurosis, hydrocephalic choroiditis, megrim, complicated herpes of cranial nerves, and others. —A short discussion followed, in which Dr. Edwyn Andrew, Dr. Hughlings Jackson, and Mr. Priestley Smith took part.

#### PATHOLOGY.

At the first meeting of this Section considerable inconvenience was occasioned by the failure to keep his engagement of Professor Hamilton, who had promised to open a discussion on the Pathology of Diabetes. —Dr. STEPHEN MACKENZIE was called upon, without notice, to take his place, and specially referred to the cause of death in diabetes, and the nature of diabetic coma, which he discussed, maintaining that it was complex, in the majority of cases being due to acetonaemia, and in only a small proportion of cases due to fat embolism. He agreed with others in believing this coma to be most common in young subjects. The statistics of the London Hospital were quoted to show the relative frequency of the various complications of diabetes. —Dr. PAVY enunciated his well-known views on Glycogenesis and Glycosuria. —Dr. SAUNDY stated that although he had carefully looked for it he had not often succeeded in demonstrating fat embolism in death from diabetic coma. —Dr. SHINGLETON SMITH contended for the nervous origin of diabetes; and as one piece of evidence, related a case of tumour in the cervical region of the spinal cord, which was accompanied with glycosuria. At the same meeting,

Dr. SAUNDY read a paper on the changes in the Sympathetic in Bright's Disease, and detailed observations of his own.

Dr. HUGHLINGS JACKSON read a paper by Dr. Gowers to accompany a demonstration of microscopical specimens of morbid changes of the spinal cord.

At the second meeting of the Section,

Mr. JONATHAN HUTCHINSON, in a speech considerably exceeding the recognised limit of time, opened a discussion on the etiology of tumours, in which he insisted on their local origin, and dwelt particularly upon rodent ulcer and the pre-cancerous stage of disease. —Sir JAMES PAGET followed, and quoting many cases illustrative of his views, contended for the dual origin of malignant tumours, constitutional tendency, and local change. —Mr. BUTLIN gave an excellent demonstration of the microscopical appearances of the chief forms of tumours. —Dr. THIN showed some hairs in which trichophyton tonsurans had been artificially cultivated; and Mr. ABRAHAM gave a very interesting demonstration of granulation tissue in a sponge network as obtained in the new process of sponge-grafting.

A paper on Sarcoma of the Bladder was read by Mr. R. WILLIAMS.

The closing meeting was opened by an exhaustive paper on Rodent Ulcer by Dr. SANGSTER, in which he clearly

established the fact that the disease is not primarily connected with the sweat-glands, but that the morbid change starts from the Malpighian layer and outer sheath of the hair-follicles.—Dr. THIN disputed this view. The rest of the morning was occupied with a demonstration of various forms of bacilli, which excited a good deal of interest, and was one of the most successful events of the meeting.—Dr. HERON showed Ehrlich's process of preparing tubercle bacillus, and he was followed by Dr. GIBBES, who demonstrated his process of preparing the same bacilli, which was described in THE LANCET of August 5th. It was very evident that this process, while decidedly simpler than Ehrlich's, was also more effective, and is, therefore, more useful.—Dr. S. MACKENZIE also showed a specimen of Tubercle Bacillus prepared by Goldammer's method.—Dr. SHINGLETON SMITH showed Bacillus Anthracis, and Dr. THIN the Bacillus of Leprosy.

## PUBLIC MEDICINE.

At the first meeting, Dr. SWETE, in an interesting paper, detailed the various sanitary improvements carried out at the Worcester Infirmary since its foundation, and in this way gave a sanitary sketch of the advance of sanitary science during that period.

The two chief discussions were on the Notification of Infectious Disease, which was further debated at a general meeting, as reported above; and on the Public Medicine aspects of the Alcohol Question, which was introduced by Dr. NORMAN KERR, who said that some diseases were caused by alcohol alone, as delirium tremens, dipsomania, and alcohol poisoning, acute and chronic. Some, which arose from other causes, sometimes were caused by alcohol directly, as alcoholic phthisis, gout, and paraplegia. Alcohol might also be a main contributory factor, as in fatal frostbite and sunstroke after drinking. The proportion of sickness and death from alcohol had been shown in the Government returns of the Indian Army for 1849. The mortality of the temperate was double, and that of the intemperate quadruple that of the total abstainers. The abstaining deaths were 11.1 per 1000; the temperate 23.1; and the intemperate 44.5. The admissions of the abstainers were only 10.7 per 1000 less than those of the temperate, showing that the diseases of the former took a milder form. This experience was confirmed by a recent actuarial report, comparing the sickness of the Sons of Temperance with three groups of non-abstaining friendly societies. The average sickness per annum of the temperance "Sons" was 7.48 weeks; of the Oddfellows (City) 26.20; (Rural) 24.68; and of the Foresters 27.66. Insurance companies were so satisfied of the superior healthfulness of the abstinent, that one had paid the abstainers insured 23 per cent. additional bonus, and another offered an extra bonus of 20 per cent. The United Kingdom Association showed a 17 per cent. lower death-rate in the abstaining than in the general section. In Glasgow there had been a sudden increase of nearly 1000 deaths in the year that the lowering of the spirit duties began to operate. The influence of alcohol on the death-rate was well illustrated in the following table from the Registrar-General's report for 1880:—

Mean Annual Rate of Mortality in England for Three Quinquennads.

Classes.	Cause of Disease.	Annual Deaths to 1,000,000 Living.		
		Five years, 1865-9.	Five years, 1870-4.	Five years, 1875-9.
I.	Zymotic Diseases	5171.8	4842.0	3887.6
II.	Constitutional	4145.4	3771.8	3631.0
III.	Local	8887.2	9151.0	9345.0
IV.	Developmental	2605.0	3362.2	3037.0
V.	Violent Deaths	797.4	750.4	744.0

From this table it would be seen that in every class except one the mortality had steadily diminished; but in Class III. the mortality had as steadily increased. In this class the principal increase had been in deaths from diseases of the brain and nervous system, of the organs of circulation, of the respiratory organs, of the liver, and of the kidneys. These were precisely the organs most apt to be seriously affected by indulgence in alcohol. Dr. Kerr had estimated the annual deaths from personal intemperance in the United Kingdom

at 40,500. Dr. Morton's estimate was equivalent to 14,000 more. The Harveian Society's first inquiry showed results equal to 2300 more deaths for England and Wales than Dr. Kerr had attributed to the whole kingdom. Their second inquiry would give nearly 10,000 more than his own computation. Dr. Richardson put the figures at 50,000. The indirect fatality by violence, disease, poverty, &c., arising from the intemperance of others was probably double the mortality of the personally intemperate. Dr. Noble's and Dr. Richardson's ascription of one-third of the total deaths would amount to 235,775 deaths from alcohol in 1880, far beyond Dr. Kerr's estimate of 120,000 in all. The association ought to ask returns from 500 practitioners in different parts of the kingdom, to afford a fair basis for an accurate estimate. The amount of alcohol ordered to the poor ranged from none at all up to £4 6s. 5d. per pauper. There had been a great reduction recently. In Greenwich and Whitechapel this had been two-thirds of the alcoholic expenditure, in Shoreditch one-half, and in Wandsworth and Clapham nine-tenths. At St. George's the charge for alcohol had fallen from £1500 per annum to £13. In St. Marylebone, in 1881, the cost was £1633 in the workhouse. During the three quarters already expired of 1882, the cost in the workhouse was nil, and in the new infirmary £280. This showed a reduction of £1300 per annum. The health of the inmates had not suffered, while their good conduct had improved. The Habitual Drunkards Act was very imperfect—the applicant for admission to a retreat having to confess himself an habitual drunkard before two magistrates; but it was desirable to give it a fair trial. It was hoped to open the Dalrymple Home for Inebriates this year, and financial support was much needed. For the cure of dipsomania, total abstinence was indispensable. Heredity was the chief predisposing cause. The marked increase in the variety and consumption of unwholesome beverages was an aspect of the question which called for the consideration of students of public health, as an increased use of non-intoxicants was a favourable omen of the future improved sobriety and consequent health of the community.

The second meeting was devoted to a lively discussion on the compulsory notification of infectious diseases. Dr. RANSOME led off with a paper on the Scientific and Practical Objects of Registration of Disease, in which he strongly advocated compulsory notification.—Dr. CARTER, of Liverpool, as strongly opposed this, and he urged that it was necessary for those towns which had adopted it to show a greater diminution of zymotic diseases than occurred in other towns which could not otherwise be accounted for. Such proof, he alleged, had not been given; for instance, Bolton, which had such an Act in force, had not progressed so fast as Liverpool, which was without the Act, or the country generally. The Act led to concealment of disease, as he showed by ascertained cases. He feared, too, that the demands made in the name of science would be greatly increased, and this, putting compulsion on medical men, compulsory removal to hospital, and compulsory closure of shops and schools would soon be followed by still more arbitrary requests. The discussion was finally transferred to the ensuing general meeting, as reported elsewhere.

## OBSTETRIC MEDICINE.

The President, Dr. Leishman, was unable to attend, and the chair was taken by Dr. COGHILL, who made a few introductory remarks.

Dr. BANTOCK read a paper on his cases of Hysterectomy, and in the subsequent discussion Drs. J. Williams and Wallace strongly deprecated a frequent resort to this operation, asserting that the cases justifying it were not numerous.

Dr. EDIS gave a *précis* of the rational treatment of Menorrhagia, and Dr. C. H. ROUTH described a form of Dysmenorrhœa associated with Gonorrhœa.

The second meeting was entirely taken up by a discussion on Subinvolution of the Uterus, its causes, its relation to uterine disease, and its preventive treatment, which was opened by a paper by Dr. JOHN WILLIAMS. He referred to the various methods for determining the progress of the involution of the uterus after delivery and to the work of Heschl, Dupaul, Serdukoff, Milsom, and Sinclair. The uterus disappeared into the pelvis on or before the twelfth day after delivery, when involution goes on healthily. Taking this as a standard, Dr. Williams found, from the study of 113 cases, that the causes of involution are post-partum hæmorrhage, retention of portions of placenta or membranes, lacerations of the perineum, pelvic inflammations and fever during the lying-in

period. Lacerations of the cervix do not appear to give rise to it. Subinvolution causes menorrhagia, dysmenorrhœa, and prolapsus. The pelvic inflammations so frequently associated with it are not its results. Its preventive treatment consists in completely emptying the uterus after delivery, maintaining an efficient contraction of the organ, and preventing fever. The best means of securing the two last are the frequent use of hot disinfecting vaginal injections, and perfect closure of tears of the vaginal orifice.

### MEETING OF FELLOWS OF THE COLLEGE OF SURGEONS AT WORCESTER.

A MEETING of Fellows of the Royal College of Surgeons of England, called by advertisement, was held at the Medical Library, Worcester, on Thursday, August 10th, President C. G. Wheelhouse, Leeds, in the chair. There were present: Mr. William Adams, London; Mr. Allard, Tewkesbury; Mr. J. Archer, Birmingham; Mr. Banks, Liverpool; Mr. Balding, Royston; Mr. Carter, Pewsey; Mr. Cowell, London; Mr. Crosse, Norwich; Mr. Cornwall, Fairford; Mr. Pearce Gould, London; Mr. Harris, Redruth; Mr. Reginald Harrison, Liverpool; Mr. Hacham, Birmingham; Mr. Husband, Bournemouth; Dr. Howard, London; Sir William MacCormac, London; Mr. Manby, Wolverhampton; Mr. Rushton Parker, Liverpool; Mr. Augustin Prichard, Clifton; Mr. Oliver Pemberton, Birmingham; Mr. Solomon, Birmingham; Mr. Lawson Tait, Birmingham; Mr. Teale, Leeds; Dr. Rayner, Stockport; Mr. W. L. Underhill, Tipton; Mr. Welch, Honiton; Mr. Watkin Williams, Birmingham; Dr. Roger Williams, London; and Mr. Bartleet, Birmingham. Mr. Bartleet said he had received numerous letters approving of the meeting at Worcester, and expressions of regret at inability to attend from Mr. Macnamara, London, and Mr. Pilcher, Boston. Mr. Wheelhouse and Mr. Bartleet having explained the objects of the meeting, it was proposed by Mr. Lawson Tait, seconded by Mr. Oliver Pemberton, and after considerable discussion resolved *nem. con.*, "That an Association of Fellows of the Royal College of Surgeons of England be and hereby is formed." "That the objects of this Association be the consideration of all matters affecting the interests of the Fellows and the government of the College." "That the Annual Meeting of this Association be held at, and during, the annual meeting of the British Medical Association." "That the Fellows attending the present meeting do form a Committee of this Association for the present year, and that Mr. Wheelhouse be President, Mr. Husband Treasurer, and Mr. Pearce Gould and Mr. Bartleet Secretaries, and that all Fellows of the College be eligible as members upon payment of an annual subscription of five shillings."

### POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE annual meeting of the Poor-law Medical Association was held at Worcester on the 9th inst. Dr. Joseph Rogers of London (President of the Council) presided, and observed that within the last two years, in consequence of certain occurrences, he had made up his mind to abandon as far as he was individually concerned the idea of appealing to the Local Government Board, and had determined to endeavour to mould their Association into a mutual defence association. As the result of his experience he was inclined to say that a most unkind feeling existed throughout the country between boards of guardians and their medical officers. He believed it arose from the circumstance that the pauper poor were looked upon as a horrible incubus by boards of guardians, and therefore anybody who had anything to do with them was tarred with the same brush.

The hon. secretary (Mr. Wickham Barnes) read the financial report for the year, and stated that there was a small balance in hand.

A general discussion then took place, in which various grievances of Poor-law medical officers were referred to, and the best method of their remuneration was canvassed. The

necessity for greater liberality on the part of the class of officers for whom the Association was established was also insisted on.

### ENDEMIC HÆMATURIA IN EGYPT.

To the Editor of THE LANCET.

SIR,—The circumstance that *The Times'* correspondent at Alexandria has telegraphed words of warning and alarm must be my apology for reopening this important subject.

The observations made public on the authority of Dr. Mackie seem to state the case very fairly, and professional readers of the telegram will have at once concluded that the "parasite" causing the disease was none other than the now well-known Bilharzia hæmatobia. As probably no European doctor has seen more cases of this kind than Dr. Mackie, the remarks are valuable, but perhaps it will be useful to supplement them.

When the Eastern Telegraph Company ascertained that their officers were suffering from the bilharzia disorder they acted with great promptness, and at their request I drew up a memorandum recommending certain prophylactic measures. This was printed and issued to the company's stations and employés. Guided by my advice the Board of Management allowed all their clerks to return home, placing six of these gentlemen under my professional care. It may serve to abate alarm when I state that none of the patients had the disorder in its severest form, and were it not that the symptoms had been aggravated by repeated attacks of intermittent fever, the general health of the victims would not have seriously suffered. Without doubt Dr. Mackie has good reasons for authorising *The Times'* correspondent to say that the disease is "often fatal," but so far as my observation extends the prognosis is generally favourable in uncomplicated cases if the patients are removed from the locality of infection. The exceptional instances are those in which there is an unusual degree of infection. In such cases even the strongest patient must sooner or later succumb to anæmia and its consequences.

Into clinical details one cannot now enter, but my meaning will perhaps be better understood if I place what may be respectively called "slight" and "excessive" invasions in contrast. In cases of the former kind not more than a dozen or so of the parasite's eggs will be passed at each act of micturition, whereas in the latter it is not uncommon for the patient to pass fifty, or, for that matter, a hundred dozen bilharzia eggs at a time. In severe cases the daily average of evacuated ova greatly exceeds this estimate. As before hinted, however, the severity of the symptoms and consequent dangers are, as a rule, more dependent upon associated disorders than upon the actual number of parasites present.

The natural history bearings of the bilharzia endemic are of great interest, especially in relation to sanitation and epidemiology. As, however, I hope to be able to draw attention to this part of the subject at the forthcoming Southampton meeting of the British Association, I will only add that what little was advanced on this score in the telegram of last week is in perfect accord with the results of recent scientific inquiry.—I am, Sir, yours truly,

T. SPENCER COBBOLD, M.D., F.R.S.

Portsmouth-road, August 14th, 1882.

PRESENTATIONS.—Last week a silver epergne and two silver candelabra to match were presented to Mr. John Bowes, of Richmond, Yorks, in recognition of the value of his professional services rendered to the town during a residence of fifty years.—On the 11th inst. a meeting was held at the National Schools, Seaforth, to bid farewell to Dr. Swaby Smith, who, after fifteen years' residence in the town, was about to remove to the West-end of London. An illuminated address was on the occasion presented to Dr. and Mrs. Smith, accompanied with a purse containing a hundred guineas, subscribed for by the members of St. Thomas's Church.

MR. R. CLAYTON MERCER, late of Accrington, has bequeathed £1000 to the Victoria University, Manchester, for the foundation of a scholarship in chemistry; £500 to the Manchester Royal Infirmary; £500 to the Manchester Eye Hospital, and £500 to the Blackburn and East Lancashire Infirmary.

# THE LANCET.

LONDON: SATURDAY, AUGUST 19, 1882.

THE position of a jubilee orator is not an easy one to fill. He is expected to survey the progress of things from the standpoint at which he has arrived, and to embrace the past, the present, and the future within his view. Of course this expectation relieves him of the trouble of seeking for a subject on which to discourse, with the uncertainty whether such subject is after all the most suitable for the occasion; but then, on the other hand, he may find, if he has to deal with such rapidly growing subjects as medicine and surgery, that the material at his command is far too abundant to be satisfactorily utilised or rendered palatable to his hearers. It was, then, doubtless with a sense of relief that the members of the British Medical Association listened to the orators of last week, and found that, although they had recognised what was required of them, they had resolved to attempt no comprehensive survey, but to deal rather with the leading principles and the directions in which their sciences are moving. This was pre-eminently the case with the orator in Medicine, Dr. WADE, who, in a sober and thoughtful address not marked by the impassioned eloquence of his surgical colleague, advocated the claims of rationalism in therapeutics as the aim of modern medical endeavour. Naturally his thoughts turned back across the half-century which had passed by since the medical men of England under CHARLES HASTINGS formed themselves into an association, and his comparison between the state of medicine then and now—a contrast which Dr. STRANGE had so admirably depicted the day before—centred in one great prophylactic and therapeutic measure, which had then nearly reached the limit of its popularity after an undivided sway for centuries over the medical mind. To those who have been educated in these latter days, the attempt to realise the extent to which this practice was carried in their fathers' times is almost impossible. The steps that led to this great revolution—the almost entire abandonment within a few years of a routine measure, in the efficacy of which there had been previously such abounding faith—were well described by Dr. WADE. It was a time of general upheaval, political, social, and indeed scientific; for science was then beginning to assert herself and to disturb settled dogmas of all kinds. No wonder that the dogma of the efficacy of bloodletting fell before the assaults made upon it by the scientific mind of MARSHALL HALL, supported as his arguments were by a body of facts obtained by experiment. Along with this questioning of authority there arose a new faith, which some would strangely miscall scepticism—faith in the powers of nature to restore the deranged mechanism to its integrity with or without assistance. The truth is that as our conceptions of the nature of disease widen, so necessarily must our belief in the recuperative power of nature expand; and the line in which therapeutics has to run is not in thwarting this natural tendency, or in lowering vitality by depletion and purgation, but in sup-

plying where indicated such reinforcement to the natural processes as may hasten the process of recovery, in removing the obstacles from the way, and in withholding the administration of that which may injure or retard the restoration. Those who think that by so doing medicine is falling from her high estate are but shallow-minded people after all—who imagine that vigorous and violent measures are the test of wealth of resource and of skill in treatment, and who would rather a dying man were tormented with all the drugs of the Pharmacopœia than that his path should be eased in its inevitably downward course. With the fall of bloodletting passed away other measures of so-called heroic therapeutics, and we look forward to the time when, with fuller knowledge of the action of remedies as well as of the natural processes of disease, medicine may become more and more entitled to take rank as a strictly defined science.

Whether this desirable state of things will receive speedy realisation may well be doubted. Errors there will be, many (like those instanced by Dr. WADE of the treatment of delirium tremens by digitalis, and of acute inflammatory diseases by alcohol) based on false generalisation, whereby systems of treatment are blindly perpetuated, and specifics vaunted on insufficient evidence. For with increasing knowledge comes the clearer revelation of the complexity of conditions that combine to make disease what it is, and yet it is so difficult to detach oneself from preconceived notions in its treatment. In one direction, at the present day, Dr. WADE thinks we are going astray; we are aiming too much at giving nutriment to an enfeebled frame, and too little at attempting the restoration of deranged function. This may be so; but how difficult it is for us, if we wish to walk by sight and not by faith alone, to continue to employ remedies the precise action of which, on general grounds, is often problematical, and as regards the patient is certainly so; bound down to certain rules of dosage and the like, and ignorant of a large part of the functional disturbances we are seeking to get right. Although, then, the scientific practitioner may be alive to the importance of pursuing rational therapeutics, although he may be persuaded that physiologically such or such a line of treatment is the most correct, yet is he constrained by certain arbitrary rules of his art, by certain generalisations framed by others, to adopt measures which may be not only unsound physiologically, but even harmful to the individual patient. What need for surprise, then, if he prefer to stay his hand, and, under judicious watchfulness, leave the cure in the hands of nature, bringing to her assistance, when necessary, such aids as seem most suitable. Medicine must make progress, but it must advance slowly in the direction of treatment if that treatment is to be based on the only sound foundation, that of the physiology of disease, or, in other words, of *pathology* in its broadest signification.

THE event of greatest interest to the surgeons assembled at Worcester was undeniably Professor STOKES's Address. The occasion—the jubilee of the Association,—the honoured name inherited and the high reputation borne by the orator, demanded a contribution to surgical literature of more than passing value. In substance, in form, and in delivery, the Address was fully equal to all expectations and hopes, and to his character as a skilful and wise surgeon Professor



STOKES has now added the reputation of an orator worthy of his country. We do not here purpose to follow him in all the points of his excellent Address. We concur fully in his choice of the three greatest advances in surgery during the last half-century so far as anæsthesia and the antiseptic treatment are concerned, and we well appreciate the reasons which led him to place osteogenesis as the third. We would, in passing, commend the scientific candour with which he admitted the claim of America to the introduction of anæsthesia into surgical practice, and the eloquent appeal for greater freedom in physiological investigation which naturally sprang from his sketch of the introduction of osteoplastic surgery, for the establishment of which experiments on living animals have proved so useful. The chief burden of the Address was the value of aseptic surgery, and none who heard it could fail to have been impressed, not only with the orator's knowledge of the facts, his thorough conviction of the soundness of the practice he advocated, and the eloquence with which he pleaded, but also, and perhaps even chiefly, with the earnest tone which ran through his whole appeal. He spoke as one to whom this was more than any mere scientific theory or discovery, or the doctrine of any school—as one who felt that it was a matter of stern duty and heavy responsibility, who felt that it was time that all personal predilections and personal pride should be put away in face of the ever-accumulating facts. It was a remarkable criticism on this Address that but a few hours later surgeons were attributing their success in abdominal surgery partly to the abandonment of all antiseptic measures, and were speaking of it as a cloak of careless surgery. Such discrepancies must arrest the attention of all intelligent observers; and assuming, as we are bound to do, that the facts stated are accurate, we must look for the explanation of the discrepancy in the mode of statement or in the deductions drawn therefrom. The position taken up by Mr. LAWSON TAIT is certainly an extreme one. He states that his latest brilliant results in ovariectomy are partly attributable to his discontinuing to use any so-called antiseptic measures. Although he at first thought that the adoption of LISTER'S treatment had greatly lessened his mortality after this operation, he now teaches that in this he was deceived, and that the improved results were due to other modifications he introduced into his practice at the same time. It is not any change of opinion, however, that we would now discuss, but rather the facts alleged. We do not know what views Mr. LAWSON TAIT may hold as to the origin of septic diseases; for ourselves, we are content to accept the "germ theory," as it is now generally called. On the one hand, then, we have Professor LISTER, Professor STOKES, VOLKMANN, NUSSBAUM, ESMARCH, and a whole array of other surgeons, asserting that just in proportion as they have employed efficient means of preventing the access and development of "germs" in wounds and discharges, have they been able to banish entirely all forms of septic disease from their practice, even under conditions in which such diseases have before been rampant. On the other hand, we have Mr. LAWSON TAIT recommending the entire abandonment of all antiseptic precautions. But he comes altogether too late to succeed in controverting Mr. LISTER'S doctrine and practice. The history of surgery shows conclusively that

wounds treated without regard to asepsis are liable to putrefactive changes and septic complications. No amount of statistics such as Mr. TAIT adduces can prove the negative. Their sole value is to show that in that particular operation asepsis is secured by other means than antiseptic dressings. Nothing can ever upset the established fact that the antiseptic treatment of Mr. LISTER, where thoroughly carried out, has reduced the mortality from septic diseases in a far greater degree than any or even all other improvements in wound dressing that have ever been introduced. When facts at first sight at variance with these are observed, the scientific course is to see in what way they can be reconciled with them, and not to concentrate attention on them, and refusing to look beyond them, affirm that in them alone, and in one interpretation of them, lies "the truth, the whole truth, and nothing but the truth." Mr. TAIT'S facts support Mr. LISTER'S views rather than contradict them. He is an experienced and skilful operator who leaves the parts in the best condition for healing, and disturbs them as little as possible. When the wound is entirely closed, the conditions for primary healing are satisfactorily secured, the cut surfaces are maintained in exact apposition, no tension exists, there are no foreign bodies in the wound, and on the inner surface is a membrane in which plastic exudation occurs with remarkable rapidity. The wounded parts in the cavity within are then shut off from all outside contamination, tension from retained fluid does not occur, absorption rapidly ensues, and even if "germs" have been admitted during the operation, they do not find a suitable nidus for development if the fluid does not accumulate. In the cases that are drained, on the other hand, the fluid is allowed to escape as fast as it is secreted, there is never any cavity nor retained fluid, and thus again asepsis is secured. The real reading of Mr. TAIT'S figures would therefore seem to be that he has learnt from experience exactly when it is necessary to use a drainage-tube, and thus avoids all retention of peritoneal secretion, and all probability, or even possibility, of septic decomposition within the abdomen. It is therefore quite unscientific to suppose that Mr. TAIT'S experience can be used as an argument against the aseptic treatment. One of Mr. TAIT'S attacks upon Mr. LISTER'S teaching was singularly unhappy. He urged that the frequent changes in and additions to the aseptic treatment afforded a strong argument against its value. This development of the practice is, on the other hand, one of the surest signs of its vitality and truth. Mr. LISTER has never wavered from his original assertion of the principle of his treatment, and just as soon as he announces finality in his practice will he forfeit his claim to the character of a scientific surgeon. To improve methods is not to change a principle. Because a ligature acknowledged to be imperfect has been replaced by a better one, it in no way follows that the principle of using an absorbable animal material has been found faulty. In a word, then, antiseptic surgery showed no signs of waning vigour at the Worcester meeting, and nothing that was stated there need in any way disconcert any follower of Mr. LISTER.

We have not sufficient space to refer to the other topics of interest that were raised. The surgery of arteries proved an attractive subject of debate, and evidently we are far

from finality in this direction. The most important communication on this head was undoubtedly Mr. THOMSON'S case of ligation of the innominate artery, which though unfortunately not successful, will accomplish a useful purpose if it brings the conviction that this operation is not beyond the pale of surgery. The discussion on bone-setting shows that the younger generation of surgeons are more alive than their seniors to their responsibilities in this direction. The subject is worthy of more study than it has generally received, and we hope that Mr. DACRE FOX'S appeal will be responded to. Mr. GREIG SMITH suggests that operative interference in diseases of joints should be pushed even beyond its present limits. In all directions the outlook of surgery as presented at Worcester is encouraging; there are signs of advance all along the line, and of men rising up to take the places of those to whom surgery owes so much of its progress during the last five decades.

A GOOD *résumé* of the opinions at present held in regard to colour is given by M. J. SOURY, in the *Revue des Cours Scientifiques*. The theory, which may now be called old, though it replaced that of NEWTON, is the YOUNG-HELMHOLTZ theory. According to this, the retina of man possesses three distinct kinds of nerve fibrils, each of which is capable of distinguishing one of three colours supposed to be fundamental or elementary. One of these sets of fibres is sensible to red alone, another to green, and the third to violet or perhaps to blue. Our entire chromatic scale is made up of combinations of these three primary colours. Every sensation is due to the excitation of the fibres of the retina by these tints, each set of fibres being strongly stimulated by its own special excitant, and feebly stimulated by the others. In the case of red, for example, the terminal apparatus of the fibres adapted for conducting red are powerfully stimulated by the large waves of the less refrangible extremity of the spectrum, whilst the terminal apparatus of the nerves adapted for green and violet are very feebly stimulated, and the sensation of red is the result. In like manner, when the sensation of green is perceived, the terminal apparatus of the nerves adapted for conducting the impression of green are stimulated by the waves of moderate amplitude in the middle of the spectrum, whilst the red and violet fibres respond but slightly to such waves, and the sensation of green results. And so, too, the fibres adapted for conducting violet respond to the short and rapid waves of the more refrangible rays which have only moderate action on the green and still less on the red conducting fibres. The intermediate colours, such as orange, are due to the simultaneous stimulation of the several sets of fibres to a greater or less extent, and when all these sets are equally excited, the impression of white light results.

Lately, a new theory—that of HERING—has been advanced. According to this physicist there are six simple sensations of vision, and the various colours seen result from their different association and blending. These elementary sensations are disposed in couples or antagonistic pairs: black and white, green and red, yellow and blue. On this theory violet is a compound colour formed by the blending of blue and red, and in an ordinary perception of colour four primary sensations are excited: black and white

and two colours; but the blue and the yellow are never simultaneously excited, nor are the red and the green. When the blue sensation is experienced the yellow is virtual, and, though present, is not perceived by the mind. Black and white are capable of mingling, and produce all the shades of grey, but red and green or blue and yellow have no disposition to blend, but rather behave like the poles of an electric battery, and it is in this sense that the school of HERING, of which HAPPE is the chief exponent, speak of the polarity of colours. The organic substratum of colour sensation, according to HERING, is not the terminal apparatus of the nerve fibre itself, but certain hypothetical substances, such as the visual purple, which undergo chemical change. On looking at "white" light, the visual purple, by a photo-chemical process, is constantly undergoing decomposition and destruction, and is as rapidly restored. Red light decomposes the visual purple slowly, violet light decomposes it more rapidly. Further, on HERING'S theory, processes both of disassimilation and of assimilation are supposed to take place, so that when exposure to red light has exhausted or partially destroyed the visual purple, or its mother substance, purpurogene, green light aids in the reparation of this material, and fits the eye again for perceiving red light. Black does the same office for a retina exhausted with white light, and blue for yellow. This theory affords a good explanation of the phenomena of contrast, and of complementary colours. A red wafer placed on a sheet of white paper gives the sensation of a vivid red disc. As long as it is looked at it causes disassimilation of the retinal purple, which is as constantly renewed; but if the eyes be closed, the sensation of red vanishes, and is replaced by green. Why? Because assimilation is now taking place in excess of disassimilation. When one of these states is equal to the other two, the two antagonistic sensations are reciprocally destructive. Hence red and green do not blend to form white. The third theory, originally suggested by DRAPER, and more recently developed by PREYER and by CHARPENTIER, refers the colour sensations we perceive to modifications of temperature. PREYER distinguishes the quantity or intensity, the quality or tone, and the temperature. The intensity depends on the force with which the retina is impressed by the ethereal waves; the quality on the nature of the excitation caused by the vibrations of the particles of ether constituting the waves; vibrations the rapidity of which increases with the diminution in the size of the waves. In regard to temperature, PREYER differentiates the colours into hot and cold—the warm colours are red, orange, yellow, and yellow-green; the cool colours are green-blue, blue, and violet. CHARPENTIER, who has just completed a series of researches with LANDOLT, finds that the statements recently made to the effect that certain zones of the retina are specially adapted for the perception of certain colours have been founded on imperfect observations, and that even the most peripheral portions of the retina can differentiate colours providing they are sufficiently intense. Aware of the observations of MUNK and SAMELSOHN, the former of whom seems to have demonstrated that the seat of chromatic sensation is in the cortical layers of the occipital lobes, whilst the latter has published a case of hemianopsia, in which the sense of

space was preserved in the affected half of the retina while the chromatic sense was lost, CHARPENTIER differentiates in every normal eye a sensibility for light, a sensibility for colour, and a visual sensibility or sensibility for form. In every chromatic impression made on the peripheric regions of the retina he further distinguishes three phases: a simple impression of light, a vague indeterminate impression of colour, and a distinct impression of the true colour. The first phase he thinks clearly proves that the luminous sensation is distinct from that of colour, that it is the result of a simple excitation of the optic nerve, but in the second phase the cerebral centres for colour are excited, and the reason that a quicker and surer recognition of colour is made by the macula and central parts of the retina is only because they are more used. The sense of colour and of light being a general function of the retina, he regards neither the rods nor the cones as the retinal elements which are stimulated by chromatic stimuli. He rather looks to the layer of ganglionic cells which lie on the anterior part of the retina as the functionally active elements. It is clear that there is still a wide field for research in this subject open to the scientific explorer.

THE Report of the Select Committee of the House of Commons upon the administration, operation, and effect of the Contagious Diseases Acts of 1866 and 1869 has just been published. The Committee was first appointed in June, 1879, and was continued by four subsequent reappointments, so that the inquiry has extended over a period of upwards of three years. The subject was divided by the Committee into two branches: first, the hygienic effects of the Acts; and, secondly, the constitutional, moral, and social aspects of their principles and administration. And this division has been followed in the Report, prefaced by a summary of the provisions of the Contagious Diseases Acts, and a statement of the recommendations of the Royal Commission of 1871.

Under the first head—the hygienic effects of the Acts—a very careful analysis is given of the statistics obtained from the Army returns, a comparison of the results as to disease at the military stations subjected to the Acts and those unsubjected to them, and an investigation into the extent of the fluctuations in the proportion of cases occurring in the two groups respectively during periods prior and subsequent to the introduction of the Acts. The Committee also had under consideration an objection which has been often raised to the Army statistics, that under the head of “primary venereal sores” are included two different forms of the disease—the hard, or, as it is termed by some, the “infecting” sore, and the soft or “pseudo-syphilitic.” They came to the conclusion that this was unavoidable, and did not appear “to interfere with the value of the departmental statistics of the disease.” It would be impossible, in the space at our disposal, to enter upon the details of this portion of the Report, but we recommend the study of them to all who take an interest in the question. The conclusion at which the Committee arrived as regards the effects of the Acts on the efficiency of the Army is, that “out of 16·69 per 1000 who would probably have been withdrawn from the efficient strength of the Army in the subjected districts, if they had

not been under the Acts, 5·38 per 1000 have been daily saved to the efficient strength of the army by the operation of the Acts. To this saving ought to be added the gain to the service derived from the increased immunity of the men from the various debilitating and incapacitating disorders which, though not classed as venereal diseases, not unfrequently result therefrom.” The Committee also report as their opinion that the Acts have had a beneficial effect in reducing the amount of venereal disease among the civil population, and in diminishing the virulence of the disease among the prostitutes in the subjected districts. They conclude by saying that the “extent to which the Acts have diminished primary and constitutional syphilis in the subjected districts appears of itself to your Committee to establish the hygienic utility of the Acts. The diminution of gonorrhoea in the subjected districts, attributable to the Acts, in the same period is less considerable, but substantial.”

Under the second head of the inquiry—the constitutional, moral, and social aspects of the principles and administration of the Acts—the Committee carefully considered the objections raised against them by the opponents, and the advantages (other than hygienic) claimed for them by the advocates, of the Acts. The conclusion at which they arrived was that the objections were not sustained by the evidence adduced in support of them. One of these appeared to the Committee so serious, that if it could be proved, it would be fatal to the maintenance of the Acts: “that virtuous women may be, and are, brought under their operation.” They therefore spared no labour in probing it to the utmost, with the result that “the charges of misconduct brought against the police have broken down, and they desire to record their concurrence in the opinion expressed by the Royal Commission, ‘that the police are not chargeable with any abuse of their authority, and that they have hitherto discharged a novel and difficult duty with moderation and caution.’” The Committee consider that the Acts are shown to have been beneficial by the diminution of prostitution in the subjected districts, and especially the diminution of juvenile prostitution, by the improvement of the physical condition of the women, and by the promotion of public order and decency in the subjected districts.

After this protracted, careful, and patient inquiry, the Committee came to the conclusion that they could not recommend the repeal of the Acts. They state very forcibly that the repeal in districts where they have been in operation for thirteen years and more would mean: “a. Full licence for venereal disease of all kinds to disseminate itself unchecked either by police or by hospital treatment. b. A serious diminution in the effective strength of our army and navy, which would be especially felt in the event of their services being suddenly called into requisition. c. The relegation of numbers of these unhappy women to the state of hopeless misery, squalor, and disease in which they lived before the system was introduced. d. The letting loose of increased crowds of abandoned women and girls of all ages upon streets and thoroughfares swarming with soldiers and sailors, with little or no practical check or control over their behaviour. It is scarcely surprising that such a prospect should excite feelings of dismay in the

minds of the more intelligent and thoughtful inhabitants of subjected districts."

The Committee do not recommend the extension of the Acts to the United Kingdom generally, apparently from a feeling of deference to the opinions of a considerable minority opposed to it; in other words, because public opinion is not yet ripe for such an extension. But they are decidedly of opinion that "it would be unfair to soldiers and sailors, and unwise from the point of view of the efficiency of the service, to abolish a system which, in localities favourable to its maintenance, has been found effective for rescuing men of both services from diseases to which they are especially exposed." They do not recommend any alteration in the registration and police supervision, the periodical examination of the prostitutes, or the detention in hospital of those who are diseased. They recommend that in some of the unsubjected districts female lock hospitals should be established; additional powers be given to the police to enter houses of ill-fame for the purpose of taking steps to diminish prostitution; and also powers to institute proceedings for the prosecution of brothel-keepers; that it should be a misdemeanour for any person to receive into a house any girl under sixteen years of age for an immoral purpose; and that police magistrates should have power to grant a search warrant in cases where there is good reason to believe this has been done, and to commit for trial any person committing such an offence.

The evidence taken before the Committee, and on which the Report is founded, will be published in due course, and will no doubt bear out their recommendations. In the meantime we can only say that the Report itself affords sufficient proof of the care with which the inquiry has been conducted, and the impartial consideration which has been given to the various important points involved in the question under investigation. The conclusion at which the Committee have arrived, in favour of the maintenance of the Contagious Diseases Acts, must commend itself to every one who has any knowledge of the widespread prevalence of venereal disease in our garrison towns and sea-ports, and of its injurious effects upon the health of the population.

MODERN pathology has proved beyond question that oxidation processes in the body are increased during pyrexia. The increase in the most important product of oxidation, carbonic acid, has long been known; but the corresponding increase in the amount of oxygen taken in has only lately been proved by LILIENFELD and PINKLER. Further steps in the investigation are necessary to determine the organ in which the increased process of combustion occurs, and the manner in which it takes place. Hitherto, on these subjects, we have only more or less probable hypotheses. According to a recent statement by Professor ZUNTZ, of Berlin, the facts known are susceptible of two explanations. The increased metabolism of pyrexia may occur in consequence of the presence of a ferment-like substance in the blood, which causes a destruction of the elements of the blood and tissues. So far as micro-organisms have been discovered to be the pathological cause of many fevers, the interchange of material involved in the growth and multiplication of these parasites may be the source of the increased interchange of material in these diseases. The

second hypothesis is that the interchange of material is conditioned through the nervous apparatus, on which the pyrogenic irritant exerts its primary action, and through which the interchange of material is increased in one or in many organs. Since the chief part of the oxygen comes from the muscles, and the amount of oxidation is certainly determined in them by nervous influences, the question arises, in connexion with this second hypothesis, whether an increased innervation of the voluntary muscles is not the cause, alone or combined with other influences, of the increased metabolism of fever. The explanation derives support from the rigor at the commencement, and the strong sense of muscular fatigue which attends the entire course of fever.

To obtain further evidence on the question, and so to endeavour to decide between the two above-named hypotheses, it appeared desirable to cut off the influence of the nervous system from the muscles by means of curara. If the increased metabolism is produced by the direct action of a ferment on the blood or tissues, or if it is merely due to the growth of bacteria, or if it is produced, as some think, through vaso-motor influences, it would occur after a feeble dose of good curara, which leaves heart and vessels intact, just as in normal animals, and would then be all the more significant because the metabolism is lowered in a curarised animal. ZUNTZ has endeavoured to solve this problem by keeping the animal in a bath of uniform temperature in connexion with an apparatus which permitted a careful collection and estimation of the amount of exhaled carbonic acid. The animals were then exposed to a pyrogenic agent, which in a normal animal caused a brisk pyrexia, with a corresponding increase in the gaseous absorption and excretion. Under the influence of curara, however, the amount of oxygen absorbed, and, as far as could be ascertained, that of carbonic acid eliminated, remained constant.

ZUNTZ admits that a negative result can only be allowed weight when the number of experiments has been large, but to it he has found hitherto no exception. Nor was there any exception to the uniformity with which febrile disturbance was produced in the control experiments by the pyrogenic substance injected. At first a decomposing infusion of hay was used, but in a subsequent series, for greater certainty, he inoculated the animals with blood from one recently dead from the septicæmia described by GAFFKY. He satisfied himself by experiment with the accuracy of GAFFKY'S statement that this virus causes, almost with certainty, the temperature to rise about eight hours after the injection, and that a few hours later a temperature of 105.5° F. is attained. In only a few instances among a large number of rabbits experimented on was the elevation of temperature slight and transient, although the microscopical examination of the blood showed the presence of the specific organisms, and death occurred in the course of forty-eight hours. With full consciousness of these possibilities of error, ZUNTZ believes that the number of experiments is now such that he can affirm the important fact that the one and only cause of the increase of oxidation processes in the body which occur in fever is dependent on the muscular innervation. Is, therefore, curara to take the place of the cold bath in hyperpyrexia?

## Annotations.

"Ne quid nimis."

### THE BRITISH MEDICAL ASSOCIATION.

THE jubilee meeting of the British Medical Association that has just been celebrated may prove to be memorable in many ways in the history of the Association. From all accounts it was one of the most pleasant gatherings that have taken place (although by no means the largest in point of numbers); and the interesting and beautiful district in which the members assembled was as much appreciated as the hospitality which the professional and municipal authorities of Worcester so lavishly bestowed. Of the actual gains to science accruing from this meeting it is not possible to speak with certainty; the sections were numerous, and in many of them subjects of wide interest were discussed in a more or less exhaustive manner. It has been said with truth that in such meetings there is too pretentious a programme attempted, and that the majority of the members subordinate the scientific labours to the opportunities afforded them of gaining an insight into the characteristic features of the district in which the meeting is held, its manufactures, its arts, and its natural beauties. There is so much to see and learn that is of wide human interest that comparatively few care to pay attention to the purely scientific work, which is the real *raison d'être* of the gathering. It might be well if the sectional work were more limited, and the opportunity seized for the consideration of a few special subjects, rather than for attempts to be made to secure a long list of communications, which are either doomed not to be read, or, if read, to be inadequately discussed. In his speech at the annual dinner, when proposing the toast of "Success to the British Medical Association," Sir James Paget dwelt largely upon the scientific work of the Association, as being the most important of its functions, and the one in which the greatest advances had been made, and he evidently desired to convey the impression that by a continued adherence to scientific investigations the Association would be doing work which ultimately would prove of greater advantage than by pursuing its political functions at the expense of science. The same spirit pervaded some of the addresses delivered by the presidents of sections, notably that of Dr. Allbutt in Medicine, of Professor Humphry in Anatomy, and Dr. Hughlings Jackson in Pathology, and certainly one of the greatest advantages of these gatherings is that the members can hear from men who have attained high positions by their own devotion to science, the underlying principles of scientific medicine. The general addresses were all pitched in the right key, and, as was fitting, each of the orators in turn indulged in retrospection, and in a certain amount of forecast. Dr. Strange, the President, in his able opening address, fearlessly pointed out the besetting evils of the present day, and did well to speak out plainly upon matters in which the honour and dignity of the profession are so vitally concerned. The reports of the committees that may be specially alluded to were that of the Scientific Grants Committee and that on Collective Investigation. In both these directions the Association is doing well to expend a portion of its funds. The work of collective investigation has practically only just commenced; but before the next annual meeting it is believed that the committee will be in possession of facts which will enable them to see how this useful work is really taken up by country practitioners. So far it promises well; and if energy and zeal on the part of its secretary be met by a like spirit among the profession generally the undertaking may prove to be the most valuable of any that the Association has yet ventured upon. It is, perhaps, hardly to be expected that in so large a body perfect

harmony should reign; and there is undoubtedly a growing discontent amongst the general body of members with the central management. This feeling managed to find expression on two occasions at Worcester, and Dr. Ward Cousins' motion respecting the *Journal* and Finance Committee received a certain amount of support. The growth of the Association of late years will only prove advantageous to it if the leading members, those in whom the conduct of the Association rests, are mindful of the interests of the profession, and the action of the Parliamentary Bills Committee with respect to legislation for the compulsory notification of disease shows how easy it is for them to put themselves into collision with the body of the profession. For although, theoretically, the Committee of Council is representative of all the branches, it is well known that the actual working members of that committee consist of a few whose time, duties, and places of residence enable them to attend its meetings. The wider, then, the Association extends its limits the greater will be the demand for securing a thorough representation on its governing body of all its branches; and, unless those at present in authority exert themselves to satisfy this desire, the opposition to the present régime will grow to such an extent as to be disastrous to that harmony which alone can maintain the Association in the position it ought to occupy. Therefore this Worcester meeting may prove to be, in more senses than one, a landmark in the Association's history, and the next few years may witness the inauguration of changes of the greatest moment in its constitution.

### THE PRESIDENT'S ADDRESS AND THE LATE MR. WAKLEY.

AN old and esteemed correspondent writes:—The learned President of the British Medical Association can hardly be complimented on his choice of simile at that point of his address at which he speaks of the first days of THE LANCET. When he describes a weasel or polecat biting, scratching, and driving out bats, he gives us a picture of the habits of those animals which dear old Goldsmith himself would hardly have dared to introduce into "Natural History"; and when he describes these animals as engaged in hanging up the bats like vermin on a barn door, natural history altogether lapses into such fable as "Alice in Wonderland" might very much like to work into a new edition. Dr. Strange, however, may be forgiven this, and a great deal more, for the kind manner in which he has spoken of the founder, the projector, and for so many years the Editor of THE LANCET, the late Mr. Thomas Wakley. Dr. Strange says, the services which that journal, after it had conquered its own independence, rendered to medicine, was simply incalculable. Monopolies destroyed; hole-and-corner meetings and doings of the corporations, for the benefit of the few to the detriment and exclusion of the many, exposed; pompous ignorance and overbearing imbecility held up to scorn; the oppressed and obscure, but honest and industrious, seeker after truth brought to the front; the attack on the Legislature, its apathy towards all that concerned the interest of our profession, its tolerance of abominable monopolies and abuses in high places; the farce of the Coroner's Court; the winking at the adulteration of the food of the people; the inhuman neglect of the sick poor; the disregard of all decency in the burial of the dead;—these abuses, said the President, were one by one attacked and their authors and abettors lashed with a pitiless and unsparing hand, until redress and reform were grudgingly conceded. To these kind, and it may, with perfect truth, be said honest recognitions, others might have been added. For example, there was nothing so grateful to the founder of THE LANCET as the recognition of the service which he rendered to the British soldier. The writer of this note sat some



quarter of a century ago by the side of Mr. Wakley in a crowded assembly. A distinguished literary man of the time had interrupted the conversation for a moment by a congratulatory word to the Coroner for Middlesex in respect to his services in suppressing the brutal practice of flogging, literally to death sometimes, men belonging to the army service; and when we resumed our talk the first word uttered by Mr. Wakley was to the effect that he had rendered no public service for which he hoped to be so much remembered. Dr. Strange, in a further recollection of the past, draws a contrast between the founder of THE LANCET and the founder and editor of the once famous *Medico-Chirurgical Review*, Dr. (afterwards Sir John) Forbes. The contrast is, no doubt, a striking one. Mr. Wakley was all verve, action, fire; Dr. Forbes was all quietude, repose, reflection. Mr. Wakley was from the beginning to the end of his career constructive; Dr. Forbes from the beginning to the end of his career was analytical. Mr. Wakley was a leader writer; Dr. Forbes was a reviewer. Mr. Wakley did not wait for men to finish writing what was foolish or mischievous, he attacked them while they were at it; Dr. Forbes waited until they committed themselves to paper, and then tore them to pieces if he did not agree with them, with a skill and deliberateness which had few parallels. Mr. Wakley's genius lay in comprehending the present, that which was before him, and in discriminating between the good and the bad as it existed at the time; Dr. Forbes' genius consisted of insight, detection of concealed difficulties, and foresight of changes and difficulties that were to come. Mr. Wakley, though severest of severe critics in public work, was gentle in nature, essentially good tempered, and never put out, whatever might occur. He slept annoyances down. Dr. Forbes was of a quiet nature too, but with a certain irritability which he could not repress, and a weariness he could not conceal. At the same time both men had much that was in common. Both had this admirable trait, that they were considerate for all men younger than themselves whom they had learned to appreciate. Both had the happy faculty of distinguishing the working men from the drones; the real men from the pretenders. Both had energy, endurance, courage, perseverance, and each in his respective way loved nothing so well as the profession which it was their part to raise to a nobler standpoint, a more useful service, and a more befitting position than it had ever attained in English history.

The journal founded and edited by Sir John Forbes has for some years ceased to exist, failing to meet the current want or current tastes: a fact which everyone must regret; for the tone of the *Review* was classical, practical, cultivated, and perhaps, after all, required nothing more than the hand of its projector to keep it alive. The momentum given to THE LANCET by Mr. Wakley is still felt through every column of the journal, which now commands a larger circle of readers, both professional and lay, than he ever addressed. The spirit in which he conducted it is religiously, it may be said filially, preserved under the present Editor, who has the gratification of seeing its influence extending, its size having been amplified threefold, and its services as the leading medical and sanitary power acknowledged throughout every English-speaking community in the civilised world.

#### GUY'S HOSPITAL AND CRITICAL CASES.

OUR readers are aware of the circumstances of the refusal of the house-surgeon of Guy's Hospital to retain or admit John Tyson, found by him among the out-patients to be labouring under small-pox. It is to be regretted that after detecting so grave a disease the resident medical officer, though we admit the limitation of his powers, did not retain the man in some isolated place, or send him in a cab—with instructions for its disinfection

to follow—to Stockwell. After he was dismissed, Tyson got into an omnibus and went to Stockwell, thereby breaking the law by exposing himself while knowing himself to be labouring under infectious disease. These facts have been under the consideration of a Committee of the Metropolitan Asylums Board. One or two members of the Board thought the hospital authorities deserving of censure. But the Board has contented itself with arriving at one or two practical resolutions—viz., that every hospital should have an isolation room in which to place a doubtful case; secondly, that it be recommended to the Local Government Board that patients be received at the Metropolitan Asylums Hospitals on the certificate of the resident medical officer of any of the London hospitals. We ourselves have carefully pointed out the necessity for these and other changes in connexion with this painful case. The fact is, that the whole arrangements for the conveyance of the infectious sick, and of the sick and wounded generally, are very clumsy and circuitous. We want an ambulance system in London similar to that which they have in New York, where, by ringing a bell, an ambulance apparatus from any hospital can be secured in a few minutes.

#### THE EGYPTIAN EXPEDITION.

THE greater number of medical officers and the Field Hospitals have now embarked for Alexandria, the 2nd Bearer Company, under the charge of Surgeon-Major O'Dwyer, with Surgeon-Major J. Walker, Surgeons R. V. Ash, B. Connolly, A. Harding, P. Connolly, E. D. Farmer, R. C. Laffan, Lieutenants of Orderlies D. O'Connor and Tighe, and 143 non-commissioned officers and men of the Army Hospital Corps left Portsmouth in the *City of Paris* and *Texas* on Saturday last.

Surgeon-Majors R. P. Fergusson and W. Cairns left the Albert Docks on Monday, in charge of the troops on board the *Lydian Monarch* for Alexandria.

Deputy Surgeon J. J. Clark, Bengal Medical Service, proceeds with the force from Bengal to Egypt in charge of the 1st Division.

Surgeon J. C. Dowman has proceeded to Egypt in the *Adjutant*, which left the Albert Docks on the 17th inst.

The steamship *Courland* has been placed at the disposal of the medical authorities by the Admiralty for service as tender to the hospital ship *Carthage*; she will be fitted with cots to accommodate thirty sick and wounded and is now on her way to Cyprus, where the dépôt of the Army Hospital Corps will be formed, and which will be constituted an important base and reserve. Deputy Surgeon J. Lamprey will superintend the medical arrangements on the island.

#### "THE COSTLINESS OF MEDICAL WORKS."

DR. BARRON, of Southport, whose letter appeared in our last issue, enters a strong, and perhaps not wholly groundless, protest against the costliness of medical works. He regrets, and doubtless every one of his readers will join him in deploring, the fact that because medical works are, as a rule, expensive they are not extensively purchased, and probably not generally read. The medical libraries do something to circulate works on medical and surgical subjects among the profession; but it is notorious that practitioners do not, as a rule, possess large collections of the volumes published for their enlightenment. We confess that our own view of this matter is not precisely that taken by our correspondent. We admit that the high prices charged for professional works may, and doubtless do, to some extent, limit their sale, but we doubt whether the total number of books sold would be greatly increased if their cost were even considerably less. It is impossible to disguise the fact that the medical calling is one which makes a proportionally larger

demand on the mental attention of its members than almost any other. The busy practitioner finds his time very fully occupied, and the few occasional moments of leisure from actual clinical business which he can command scarcely suffice for the study of such reports of cases, reprints of papers read and discussions taking place at the Societies as appear in the medical periodicals, and those special works which, so to say, force themselves—whether cheap or costly—into every medical man's book-room. If, which rarely happens, the practitioner has spare time on his hands, he is likely to follow the bent of a cultivated taste, and find pleasure in the perusal of ordinary literature. Although we would not be misunderstood in this respect, we doubt whether it is not one of the needs of the social epoch as regards the status and popularity of the profession that even greater attention than is now commonly devoted to general literature should be so bestowed. It is notorious that medical men are apt to be single-barreled in their conversational powers, because they have little or no time to read or think on other than their own technical topics. Practically this gives them too distinctive a character in society. It is not as a rule possible instantly to recognise the barrister or the clergyman, unless the latter persists in the ridiculous custom of going about marked by the cut of his clothes. It is, however, almost invariably possible to spot the medical practitioner in any social gathering, because he looks and talks "shop" in default of being *au courant* with other subjects, except as they may be incidentally touched from his own standpoint. We are, therefore, less desirous that medical men should be further burdened with their own particular literature than that they should be able to find time and inclination to make frequent excursions beyond its special province. For the rest, it need only be urged that medical books are, as a rule, more costly to publish than other works, and because the sale is very limited the price is high. Standard or classical—in a word, necessary—works may be issued at low prices, but the bulk of medical books cannot be published cheaply unless authors are prepared to lose heavily by their issue. The only recompense for such a sacrifice would be extension of personal popularity and increase of practice; and it is the special desire of the profession just now to discourage as far as possible the publication and sale of works which are practically advertisements. The question raised is one that needs to be looked at all round.

#### VASO-CONSTRICTOR NERVES.

AN elaborate study of the sympathetic nerves which cause the dilatation of the vessels of the mouth and lips has been made by MM. Dastre and Morat. Two years ago they announced the discovery, in the cervical trunk of the sympathetic, of filaments, the function of which is to cause dilatation of the vessels of one region of the head, and thus to antagonise the action of the other fibres of the sympathetic. If the spinal cord is divided in the lower part of the neck, stimulation of the posterior segment causes a primary dilatation of the vessels of a large part of the head, especially in the region of the ear and of the mucous membrane and skin of the nose and mouth. The result is the same in the cat, rabbit, hare, and dog, and seems to show that vaso-dilator nerves arise from this part of the spinal cord. If the dorsal nerves from the second to the fifth are exposed, divided, and the peripheral ends are stimulated, dilatation of vessels occurs, but in a limited region of the mouth and face, and only in the dog. The result only follows stimulation of the anterior roots. Hence, in this animal at any rate, the vaso-dilator nerves seem to leave the cord by this path. A similar experiment with the branches from these roots to the sympathetic gives the same result and conclusion, and may,

in like manner, be followed up the cervical sympathetic trunk. Many fibres were traced by the experimental method into the fifth nerve. The course of the nerves being thus ascertained, an attempt was made to excite them by an agent less artificial than electricity. Asphyxial blood is a powerful stimulant to the central nervous system, but it stimulates both classes of vascular nerves, and one or the other effect may predominate. In the bucco-facial region the effect of asphyxia is congestion. If the sympathetic is divided on one side, the congestion is much lighter, sometimes is absent. Hence the asphyxial vascular dilatation must be due, in part at least, to the influence of these sympathetic fibres. A dilator action may also be excited by reflex influences. Stimulation of the central extremity of the divided vagus, isolated from the sympathetic in the lower part of the neck, causes a primary and bilateral dilatation, which is lessened or prevented by preceding division of the sympathetic. It is also prevented if complete muscular relaxation is produced by the inhalation of chloroform, or if the spinal cord has been divided. It is especially considerable if the stimulation is applied to the superior laryngeal nerve, or to the trunk of the vagus, as far as the origin of the pulmonary branches, but is almost absent when the stimulation is below this point. Bucco-facial congestion may also be produced by excitation of the central end of the sciatic or of the tibial nerve, and probably also of other cutaneous branches. A certain degree of congestion is produced by asphyxia, and by reflex excitation, after the division of the sympathetic; and when sufficient time has elapsed to permit the degeneration of the nerve fibres, stimulation of the superior maxillary nerve still causes a certain degree of congestion of the corresponding lip. Hence the cervical sympathetic appears not to contain all the vaso-dilator nerves of this region. In this respect the dilator nerves of the vessels resemble the dilator nerves of the iris, which run in part only in the sympathetic trunk.

#### THE DROWNING SEASON.

THE season of deaths by drowning has arrived, and it has been most painfully signalled this year by the untimely death of a distinguished man, who was as greatly respected as he was widely known. Professor Jevons stood on the verge of a great philosophic success when he met his death under circumstances peculiarly painful to his family and his friends. He went out to bathe in perfect health and spirits, and his body was found a few hours afterwards, life being totally extinct. It is not much use in a case like this to ask whether the deceased over-estimated his powers as a swimmer, or did not realise the special risks of the coast. There is always danger in bathing. On the sands at Boulogne the tide may come in suddenly, and sweep away the machines. At any one of our English watering-places an under-current may throw the most cautious bather and carry him out of his depth. If it be cold a man may get cramp. If it be hot he may be suddenly attacked with apoplexy, or be struck down with sunstroke. The perils of the sea are many and ever present. There is only one policy of self-protection, and that, unfortunately, the majority of persons will not adopt. The use of a swimming collar, or waist belt, or any other contrivance which might help to keep the head above water in a moment of danger, and so preserve the wearer from drowning until assistance arrived, is considered beneath the dignity of anyone who ventures into the water. Want of moral courage to take proper precaution lies at the root of most personal "accidents." It is very little, if any, use to offer this remark, because even those who acknowledge its accuracy will not be practically impressed by it. We can only lament these sacrifices of life to the passion of independence. The death of Professor Jevons will cause widespread

regret, and in a certain melancholy way it may help for the moment to emphasise the warning which year by year it is our wont to give.

#### HEALTH OF THE PRINCE OF WALES.

THE facts concerning the health of the Prince of Wales, recently commented upon, are simple, and it is well that they should be stated simply. His Royal Highness has had a great deal of work lately, and, like other men who are somewhat jaded, he has been recommended to embrace the opportunity offered by the season and family arrangements to visit a pleasant locality, and while there to do as the rest of the visitors will do—that is, “take the waters.” The change of scene and climate, the rest, and such modifications in his mode of life as are necessitated by the sojourn at a German bath, will, it is hoped and believed, be of service to His Royal Highness. There is really no more to be said about the matter, except to express the loyal wish that the “treatment”—if treatment this can be called—may be successful. The Prince leads a life which is exhausting, and he needs rest. That rest may be enjoyed where he is going, and, in all human probability, his Royal Highness will enter upon his autumnal sports all the better for the preliminary trip he is about to take.

#### HOMŒOPATHY AND THE BRITISH MEDICAL ASSOCIATION.

THE authorities of the British Medical Association may congratulate themselves on escaping so easily from an embarrassing position in reference to the question of homœopathy. The injudicious allusions to it last year by Dr. Bristowe and Mr. Hutchinson respectively, by mutual understanding and with the concurrence of the Council, placed the Association in a very painful position. It was not to be supposed for a moment that a great medical Association, having the same opinion and the same laws, in regard to homœopathy, held and practised by scientific medical men all over the world, could quietly let pass such advice as was administered to it by gentlemen who only looked on the subject from an academic and benevolent point of view. It is not now—when homœopathy is extinct; when the real disciples of Hahnemann in England can be counted on one's fingers; when these say that homœopathy is no longer taught, even in the School of Homœopathy; when the contempt and denunciation of homœopathy have received their triumphant vindication—that a great medical Association should have been asked to show any quarter to medical men who still either believe in the exploded nonsense or trade on the belief of non-medical persons who do so. But this was the suggestion of the authors of the address in Surgery and the address in Medicine last year. And when the members of the Association would naturally have risen to protest, they were given to understand it would not be courteous to express their dissent then and there. Many significant indications have been given to the Council that the members of the Association would not allow themselves twice to be found in such a childish and false position. It is not one of the notes of liberal profession to tolerate either false principles or those who trade on them. Accordingly, the Council, in its report at the recent meeting, dealt boldly and candidly with the members on the subject, and announced rules which will make it impossible for a homœopath henceforth to become a member of the Association. Mr. Nelson Hardy wished to go further. He wished to so alter the resolution adopting the report as to secure that the removal of a belief in homœopathy, or of any other designation implying a special mode of treatment, should *ipso facto* disqualify for membership of the Association. The Association was content to be assured that the new rules would hence-

forth exclude all homœopaths. If any homœopath now chooses to remain a member, he may; but his sense of dignity will be a subject for the study of his fellow members. Here this question will end for the present. There is only one way in which gentlemen now using the title and the shibboleths of Hahnemann can be admitted to Medical Societies, and that is by ceasing to use them. It is they who raise the sect and import narrowness into medicine. It is they who exclude themselves. They would not be owned even by Hahnemann. They have abandoned the fundamental points of his faith and practice. Let them act candidly with the public and abandon a name which misleads it, and they will find no want of magnanimity in the profession to which they return.

#### DWELLINGS OF THE POOR.

POLITICAL exigencies have hitherto intervened to prevent the present Government following the example set by their predecessors in matters of sanitary reform. The Bill, however, dealing with the question of artisans' dwellings, which has just received the assent of the Queen, is a piece of domestic legislation which is likely to be attended with beneficial and important results. The Act of 1875, introduced by Sir Richard Cross, has not worked so efficiently as was expected, owing to its being hampered with the regulation requiring that the whole population displaced should be provided with accommodation within the same area. The present Bill affords relief in this respect, since accommodation for only one-half the population displaced need now be provided. This will considerably lessen the cost to the ratepayers—a consideration which has hitherto prevented improvements being carried out as extensively as was contemplated. There is one provision in the new Bill, however, which, we fear, will require to be reconsidered. Formerly all expenses connected with putting the Act in operation has been borne by the Metropolitan Board of Works; now, when areas containing less than ten houses have to be dealt with, the expenses are to fall upon the local rates. There can be little doubt that many districts are too poor to expend the necessary sums, and these districts will be found to be generally those in which nests of objectionable tenements abound; the expenses therefore entailed on these parishes would be out of all proportion to the rates required from the general population of the metropolis. It seems only fair that the expenses of improvements intended to benefit the whole community should be equally distributed. If the wealthy inhabitants of the West-end wish to diminish the risk of zymotic disease being imported to their mansions, they must see that the dwellings of their poorer neighbours are maintained in a wholesome condition in less wealthy and fashionable districts, and expect to pay a fair share for the protection afforded. The Bill, however, will give a considerable impetus to the improvements already in progress, and with the erection of dwellings of a superior order in the metropolis, together with the facilities afforded by the railways for those whose avocations permit them to go a little way out of town for cheap and decent quarters, it is to be hoped that the artisan class will soon be provided with ampler accommodation, and that the terrible injury both to health and morals which overcrowding, together with insanitary and squalid surroundings, engender, will gradually diminish and finally become extinct. But although hopeful for the future with regard to the house accommodation of the artisan class, we fear the Bill will fail to benefit the very poor. When the present rookeries and alleys in which they now herd are swept away, where are they to find a refuge? The rent of rooms in the buildings which replace them will, we fear, be too costly for them, and they will crowd together more closely in the dens that remain. It will be a source of

but little satisfaction if, after considerable expense, we find that we have given one class more elbow-room at the expense of another. It is to be hoped that those who have charge of the carrying out of the Artisan and Suburban Dwellings Acts will not be too ambitious in their schemes, but will bear in mind the needs and requirements of the very poor. In fact, they should be the first consideration. The mechanic with his regular wages and tolerably sure employment, would not, as a rule, find it difficult to arrange to live in the suburbs, but to the very poor, whose wages are scanty and often very precarious, such a proceeding would be impossible.

#### RIDER'S SPRAIN.

WE have recently had attention drawn in our columns to an accident not infrequent in the hunting field and among riders, the true nature of which has not hitherto been pointed out, while its treatment has for the most part remained entirely in the hands of the surgical instrument maker. Everyone not constantly taking horse exercise is well aware of the strain upon the adductor muscles that "gripping" a horse occasions. This strain leads to pain and tenderness along the inner side of the thigh and over the tendon of the adductor longus in particular. This is occasioned by the prolonged and unaccustomed use of this group of muscles. If during hunting or riding, from some movement of the horse, a sudden and severe strain is thrown upon these muscles, the adductor longus is apt to yield, and a rent occurs in it just where the narrow tendon joins the expanding muscular tissue. The immediate symptom is severe pain in the part with or without a sensation of a snap, and inability to maintain one's "seat." The torn bloodvessels pour out blood, and an extensive bruise or even a blood tumour may result. The treatment consists in rest and such applications as will most quickly lead to absorption of the effused blood and healing of the breach in the muscle. Equable pressure fulfils these aims, but some would prefer the previous application of cold to the part. Subsequently some means of applying firm pressure along the upper and inner part of the thigh is necessary during horse exercise. This allows the contraction of the adductor muscles without pain or a sense of weakness. For the purpose special appliances are manufactured, but riders have found a not inefficient substitute in a girth or stirrup leather. The accident is stated to be more common in civil than in military life, and in different cases it varies very much in degree, in some a great part or the whole of the muscle being torn, in others only a few of its fibres.

#### MONSTROSITIES IN THE PUBLIC STREETS.

A CORRESPONDENT asks if there is any Act of Parliament which prohibits the parade of monstrosities and deformities in the public streets. Unfortunately there is not. Such an Act is much needed. Great harm may be done by the exhibition of revolting spectacles to the general community. We can only express our regret that there should be no law capable of being applied to the mitigation of the nuisance of which he complains. Not only are many of the pitiable objects to be seen in the streets of London and other large cities hideous and sickening; they cannot be witnessed without the production of an impression on the nervous system which is likely enough to be mischievous. In certain cases, not only may the individual suddenly be brought under the influence of such an impression, and be injuriously affected, but, by the operation of well-known laws of development, the very monstrosity or deformity reflected on the sensorium may be reproduced in another generation, passing from mother to unborn child. This is a matter of considerable moment, and should help to draw the attention of public authorities to the need of a prohibitory law.

#### PROFESSOR ESMARCH ON THE CASE OF PRESIDENT GARFIELD.

PROFESSOR ESMARCH delivered a lecture on the treatment of President Garfield's wound before the Physiological Society of Kiel in February last. This lecture he has now printed and circulated, and it is impossible that the views of a surgeon so accomplished and so worthy of expressing an opinion on such a case should not be canvassed. The facts of the case are first of all clearly and fairly stated from Dr. Bliss's own published accounts of the progress of the case and of the post-mortem examination. Professor Esmarch's conclusions are (1) that the wound was not in itself absolutely fatal; (2) that the bullet was not the cause of the septic suppurative in the wound which led to the fatal result; (3) that the cause of the septic suppurative was introduced from without, and that as contributing directly or indirectly to this were the following errors in the treatment—the repeated probing and examination of the wound with instruments and fingers not rendered aseptic, the failure to dress the wound aseptically, the syringing out of the wound with fluids not sufficiently antiseptic, and the failure to give a complete vent to the "bagging" pus; (4) there was no true pyæmia, but only metastatic inflammation of the parotid gland; (5) the cause of death was hæmorrhage, moderate in amount, but occurring in one whose strength was undermined by septic fever, decubitus, bronchial catarrh, and hypostatic pneumonia; (6) although the splenic artery may have been injured primarily by the bullet, or by a splinter of bone, this would not have led to the formation of a false aneurism except for the establishment of putrid suppurative. In conclusion, Professor Esmarch refers to the popular superstition that the bullet is the cause of all danger in a gunshot wound, and that to extract the bullet should be the chief aim of the surgeon. He asserts that most of the secondary dangers arise rather from the fingers of those who explore the wound, and that the American surgeons committed the error of doing too much rather than of doing too little, as they have been freely accused of at home. Finally, he surmises that if no search had been made for the ball, and the wound had been dressed aseptically, the unfortunate patient would have been alive now. Valuable as is Prof. Esmarch's opinion on such a point, we regret that this lecture has been published, at any rate so soon. It would not have lost in value by being kept back until the acrimonious discussions on the conduct of the attending surgeons had died out on the other side of the Atlantic. It is proverbially easy to be wise after the event, and it is an ungracious task to criticise adversely the conduct of men who, under very trying circumstances, were suddenly called upon to act in a grave emergency. We are willing to admit that mistakes may have been committed, but it is a case in which the golden rule is eminently applicable: "Let him that is without sin first cast a stone."

#### GASTRIC ULCER.

IN the course of some experiments on the production of nephritis by the injection of cantharidin under the skin, Aufrecht has made the remarkable discovery that ulceration of the stomach may result from these injections. After the subcutaneous injection of cantharidin, suspended in oil to lessen the local irritation, he found in guinea-pigs a large number of circumscribed changes in the mucous membrane of the stomach. These were at first regarded as merely hæmorrhages, but on closer examination were found to be spots of loss of substance, the boundary of which projected above the level of the adjacent mucous membrane. These changes were especially conspicuous in the stomach of a rabbit, which died ten days after the injection of two and a half milligrammes of cantharidin. About fifteen small

ulcers were found in the stomach, many of them with raised edges, and all filled with blood-clot. There were also six circular spots of a dull grey colour, sharply limited, without any extravasation. A microscopical examination showed in the latter the following changes. The epithelium of the glands was paler and less granular than normal. Between the glands was a clear amorphous material; the capillaries were distended with blood, whereas, elsewhere, they were empty. A similar change was found in the vicinity of the extravasations, and the glandular epithelium here presented irregularity. The extravasations were of uniform brownish-red blood, in which no intact blood-corpuscles could be seen. There was no sharp limitation to the blood effused, such as might have been expected had the hæmorrhage resulted from the rupture of one vessel. From these facts he concludes that the extravasation is the second stage in the process, consecutive to inflammation, which appears to be the first alteration. Anfrecht believes that these facts indicate that in man a similar sequence may obtain, and that ulcer of the stomach probably commences as inflammation, and not, as is commonly assumed, by hæmorrhage.

#### ISOLATION HOSPITAL FOR RAMSGATE.

FROM the last report of the proceedings of the Ramsgate Improvement Commissioners, we fear that this body is about to take a retrograde step. Some years ago the Commissioners joined Margate and Broadstairs in erecting a hospital for infectious diseases, but they unfortunately delayed action too long, and a temporary wooden structure was hurriedly put up in face of an epidemic of small-pox. The building, though a good one, has long been found ill adapted to many purposes to which such a hospital may be put at a seaside resort, and complaints have been made as to the lack of accommodation available. Hence for some two years or more a permanent extension has been talked of, and a joint hospital committee appear to have done their best to carry it through. After many delays the scheme has come before a Ramsgate committee, and their report, which shelves the question, has been adopted by the Commissioners. The grounds for this unfortunate proceeding are in some respects curious. The extension is regarded as "hazardous and inopportune." With regard to its being hazardous, we find the chairman of the Ramsgate committee explaining that temporary buildings could be erected if an epidemic broke out in the town. We certainly fail to understand what is here meant. If infectious hospitals ever do harm to their immediate neighbourhood, and are hence hazardous, it is when large numbers of patients are aggregated together; and the chairman, if correctly reported, instead of proposing the erection of a building containing a small number of beds in which to isolate a few attacks, and so to prevent an epidemic, would literally wait till the epidemic is prevalent, and then attempt to deal with the large number of patients which previous neglect of isolation will have rendered possible; thus risk of danger, if any exists, is courted. How this scheme can be inopportune we also fail, from a medical point of view, to see. Medical men have at times hardly known what to do in order to secure the isolation needed for these prosperous Kent coast watering-places, and yet the remedy is again postponed. The district in question ought also to have had sufficient experience of temporary buildings, for those at first erected were not ready to deal with the epidemic which led to their construction; and we would warn Ramsgate against further procrastination in this matter, which may at any moment be of vital importance in so far as its first interests are concerned. The town is stated to be at present remarkably free from infectious disease, and there is plenty of room at the hospital; but the reverse has been the case, and may be so again.

#### THE FOURTH INTERNATIONAL SANITARY CONGRESS.

THE first international congress of sanitary reformers was held, it will be remembered, some eight years ago at Brussels, the King of the Belgians presiding. The second congress met at Paris, under the patronage of the French Government, during the Universal Exhibition of 1878. It was a most brilliant gathering of some five hundred adherents representing eighteen nationalities. They met at the Palace of the Trocadero, and subsequent results have proved that the debates were not futile in producing practical improvements. The third congress, held at Turin in 1880, was also a great success. The Italian Government lent its aid, the King of Italy in person attended at some of the meetings. And now the fourth congress will be held at Geneva, from the 4th to the 9th of September, together with an exhibition of sanitary appliances from the 1st to the 15th, in the large military buildings of the Plain Palais. The programme of the congress, with a synopsis of the opening speeches of each section, has already been published in pamphlet form, and notification of adherence, together with a subscription of twenty francs, should be sent before August 31st to Doctor P. L. Durrant, 4, Rue Pinto, St. Pierre, Geneva. In exchange for this modest subscription, a printed and elaborate report of the proceedings of the congress will be received, and its members benefit by the arrangements made with the Swiss, Italian, and French railways. Delegates from England, we understand, will, while paying full fare to Geneva, receive a free return ticket from Geneva to Calais. The organising committee will, if required, secure rooms for visitors. The Congress is to be held at the Geneva University, and there will be a club room at the disposal of the members for writing and receiving letters, &c. Excursions on the lake of Geneva have been organised, and there will be no lack of those usual festivities that enliven gatherings of this description. We will give a summary, on a future occasion, of the subjects selected for discussion, and, perhaps, as this is a tempting season for a visit to Geneva, England may be more fully represented than at previous International Congresses. The majority of adherents are, of course, medical men, but all whose scientific studies are connected with the preservation of public health are welcome, and this includes architects and sanitary engineers.

#### "DOUBLE SUICIDES."

A VERY important question is raised, or rather revived, by the occurrence of "double suicides;" of which we have recently had a conspicuous example. When two persons conspire together to kill each other, or to destroy their several lives simultaneously—it matters not which of the two forms of resolution may be adopted—it is simply absurd to suppose they are insane. The penalties entailed by a verdict of *felo de se* are, however, so revolting, that juries make ridiculous returns rather than bring in a proper verdict. It is not impossible, but it is in the last degree unlikely that a case of double suicide should have been one of double insanity. The only way this could happen would be by the morbid influence of one mind on another anterior to the commission of the act. There may be such cases, but they are so rare as to render it unreasonable to take the bare probability into account. Some years ago a case was reported in which two members of the same family became insane on the same subject, and for a considerable time played into each other's hands in the matter of a common delusion as to rank. There is, of course, no psychological reason why these two lunatics might not have conspired to kill themselves, but the conjunction of mind and purpose is extremely unlikely to have taken place. In making this remark we are not unmindful of the cases of double insanity and double suicide which have



been recorded. A closer scrutiny of the last-mentioned class of cases would probably lead to their more precise classification as instances of murder and suicide. However this may be, it is time that the law which induces juries to regard almost every case of suicide as one of insanity should be repealed. It is a disgrace to our statute-book, a perpetual offence to the common sense of the community, and of no deterrent influence as regards the crime of self-murder, because it is practically sure to be evaded.

### CONTAGIOUS DISEASES ACTS.

THE annual report by the Assistant Commissioner of Police on the operation of the Contagious Diseases Acts during the year 1881 appears opportunely, just as the report of the Select Committee on the subject is attracting attention. The results for the year are very satisfactory, showing as they do a decrease in the number of registered prostitutes and in the number of brothels in the protected districts. During the year, of 489 prostitutes who came into these districts from places not under the Acts, 322, or 65.8 per cent., were found to be diseased on their first medical examination—a strong proof of the necessity for some check upon the means of spreading so frightful a disease. The beneficial influence of the Acts is shown by the fact that 74 young girls under eighteen years of age, 86 women from eighteen to thirty, and 4 above thirty, who were found in bad company and improper places, but had not commenced a life of prostitution, were rescued; while 32 under eighteen and 97 above that age, “who had commenced an immoral life, abandoned it on being cautioned by the police.” There are numerous tables appended to the report which show clearly a large reduction in the numbers both of women and brothels in all the districts since the Acts came into operation. In 1866, when the Act was passed, there were in the subjected districts 135 prostitutes under sixteen years of age, and of these nearly one-fourth were under fifteen; while in 1881 there were none under the latter age and only 6 under sixteen. There has also been a very great reduction in the number of public-houses and beerhouses where common women resided, or which were provided with accommodation for the purposes of prostitution. In the last ten years such public-houses have been reduced from 98 to 12, and beerhouses from 40 to 3. If a longer period than ten years be taken, the reduction is still more striking. Of the 12 still existing there are 8, and of the 3 one, in the Chatham district. Such a fact is far from creditable to the magistrates with whom the power of granting licences rests, and furnishes a strong argument in favour of giving more power to the police towards effecting the suppression of such haunts of vice. We are glad to observe that the duty of the police specially employed under the Acts has been very satisfactorily discharged, there having been only one case of excess or violation of duty brought to notice during the year.

### DR. RICHARDSON AND THE EISTEDDFOD.

DR. B. W. RICHARDSON is to deliver the inaugural address of the great Welsh festival, the national Eisteddfod, which opens at Denbigh on Monday next, the 21st inst. The Eisteddfod has been held, it is said, since the fifth century, representing largely, and, indeed, almost exclusively, the arts of music and poetry. For a few years past a new section has been introduced devoted to the discussion of subjects of scientific and social importance, and now the festival is opened by some public man, statesman, or man of science or letters on the invitation of the organising committee. This year the choice of an orator fell on our medical confrère, who will have, it is expected, one of the largest audiences he has ever addressed.

### AMBULANCES FOR THE METROPOLIS.

WE have received a paper by Mr. John Furley on the use of ambulance litters and horse carriages for the removal of sick and injured persons, especially in reference to the metropolis, which he read before a recent general assembly of the Knights of St. John of Jerusalem. After recounting the efforts of the Association to instruct the public in rendering efficient first aid to the wounded, and to provide ambulances at the police stations, Mr. Furley states: “I am of opinion that telegraphic or telephonic communication between the City and metropolitan police stations and hospitals, though it might prove occasionally advantageous, is not absolutely necessary, and that the establishment of fully-equipped ambulances in connexion with the metropolitan hospitals would entail a very large annual expenditure, which none of these institutions would be justified in incurring. But it cannot be denied that some steps should be taken to facilitate the removal of sick and injured persons, and I can but think that this want will best be met by developing the system already commenced by the St. John Ambulance Association, and placing the best stretchers and litters at police and fire brigade stations, and at other convenient places; and that at certain points, especially in the suburbs, horse ambulance carriages should be stationed ready to be sent out at short notice.” Mr. Furley urges the formation of properly trained bands of volunteer ambulance helpers in towns and villages to conduct the removal of sick and injured persons, and appends the rules of some such bands already formed. The paper may be obtained on application at St. John's Gate, Clerkenwell.

### GASTROSTOMY.

ON the 21st ult. Sir William Mac Cormac performed this operation, at Hackney, on a gentleman aged fifty-five years (a patient of Dr. Daly), who had malignant stricture of the œsophagus. The operation, as well as the subsequent dressings, was performed with the strictest antiseptic precautions. The procedure was divided into two stages, the stomach not being opened for fourteen days from the first operation. The temperature never rose above 98.6° or the pulse above 80. The patient, during the fortnight, was fed by the rectum, defibrinated bullock's blood being chiefly used for this purpose. The patient recovered without any unfavourable symptoms. He was up sixteen days after the operation. He is now fed through the opening in his stomach four times a day; he has a pint of milk, with a couple of eggs, or a pint of beef-tea or soup, at a time. He is gaining flesh and is in good spirits. Further details of this case will be published hereafter.

### THE PHRENIC NERVES.

THE effects of lesions of the phrenic nerves have been studied experimentally by MM. Henocque and Eloy. The effects on respiration of injury to one or both were registered on recording apparatus. The immediate effect of a lesion of one nerve was found to be a change in the respiratory rhythm, the movements being at first rendered more energetic. After a few moments the diaphragm ceased to move on the side which had been injured, and the contractions of the inferior intercostal muscles and accessory elevators of the upper ribs were rendered feeble. The experiments were made on animals in which the respiration is both abdominal and costo-abdominal—the dog, cat, guinea-pig, and the monkey. Death often rapidly follows an injury to the phrenic nerve, but some animals survive, and the thorax is then motionless on the corresponding side, especially in the cat and the monkey. The respiratory movements become visible a few days afterwards, and are of course due

only to the intercostals. At a later period, during the reparation and regeneration of the nerves, the tone of the voice was observed to be altered. Respiratory tracings taken two, four, and ten months afterwards showed the gradual return of the respiratory curve to the normal. But even when the rhythm was restored, the movements continued deficient in extent. Moreover, in spite of the regeneration of the nerves, there remained an hypertrophy of the inferior intercostal muscles, set up by their supplementary activity.

#### HOSPITAL ACCOMMODATION IN SOUTHWARK.

WE have been at some pains to inquire into the recent case of burn in an out-patient, who died while under treatment at Guy's Hospital. The case was that of a little child one year and ten months old, suffering from burns on both arms. It was dressed in the casualty-room, attended again the next day, was redressed and sent home, where it died on the following morning. It appears that while it is the usual practice at this hospital to admit all such cases, it has been found necessary, owing to the large number of applicants for admission, to send many accidents to other institutions, while in a few an attempt has been made to relieve by outdoor assistance. At the present time we find that several surgical wards have two, three, and even four over the regulation number, so that while every effort seems to be made to meet the demand for relief, it must remain impossible to accommodate many of the cases which flock to the hospital. It may be mentioned that the population of the district in which Guy's and St. Thomas's Hospitals are situated has increased more than a million and a quarter since the beginning of the century, while the hospital accommodation has remained almost at a standstill.

#### DRUNK AND DYING.

WE frequently have to record cases of death from apoplexy or other disease in the police cell. In too many instances the unfortunate has been rudely lodged there under the supposition that it is simply a case of "dead drunk." This week we hear of a case from Aberdeen in which the prisoner was arrested with a companion as drunk and disorderly, and apparently the two women were at least very drunk. They were frequently seen through the night, but about 4.30 A.M. one of them was found on the floor dead. Dr. Macgregor was, of course, unable without a post-mortem to certify the cause of death, and when this was afterwards performed, along with Dr. Frank Ogston, pulmonary apoplexy was found to account for death. Professor Ogston states that sudden deaths often arise from this cause. This woman was about thirty years of age. In this case there was probably little to indicate the approaching danger, but where real illness is present or suspected the raised and sloping portion of the floor dignified by the name of bed is not likely to conduce to recovery.

#### ROCHDALE MANURE WORKS.

THE Rochdale system of excrement removal and disposal is about to undergo an important modification. The excreta of the population are collected separately by means of a pail-privy system, and they are then conveyed to works where they are manufactured into a manure for which a ready sale has always been obtained. But the process of manufacture is alleged to have caused nuisance, and to be somewhat expensive. Hence a new system is to be substituted for the old one, the process being one by which the contents of the pails, after admixture with chemicals to fix the ammonia, &c., will be submitted to a current of dry air at a temperature of 1200° Fahr., in revolving cylinders. The result is the almost immediate reduction of their contents to a powder, which

forms a valuable manure. The contents of ashpits constitute the only fuel required, and in this one item of fuel alone a saving of over £500 a year is expected. After a series of experiments made with the aid of the superintendent of the works, to whom the new process is due, Mr. Alderman Taylor has brought the subject under the notice of the Corporation, and their sanction has been given to the purchase of such apparatus as the Health Committee may require in effecting the desired change.

#### UNCERTIFIED CAUSES OF DEATH IN BRISTOL.

THE Medical Officer of Health for the City of Bristol, in his report for the quarter ending June last, calls attention to the number of uncertified causes of death registered within his sanitary district. It appears that during the three months under notice thirty-three uncertified causes of death were registered in Bristol, equal to 3.1 per cent. of the total deaths. Nineteen of these thirty-three deaths were attributed to premature birth; and Mr. David Davies records his opinion that a record of the primary cause of the premature birth should in such cases be ascertained and recorded. Unfortunately, the present state of registration law makes no provision for the certification of causes of death unless a registered medical practitioner has been in attendance or an inquest is held. Neither of these conditions is fulfilled in a large proportion of cases of premature birth, hence no satisfactory evidence can be forthcoming as to the true cause of death. Mr. Davies thinks that when premature birth is the cause of the death of an infant as certified by a registered medical practitioner, it is much to be desired that, whenever possible, the cause of the premature death should be stated. We fear that the true value of careful certification of causes of death from the point of view of public hygiene is not yet sufficiently recognised. More precise information as to the large proportion of infant mortality attributed to premature birth would possess a very definite value.

#### THE PONT DU PECQ MURDER.

No special medical, or even medico-psychological, interest attaches to the Pont du Pecq murder or the murderers. It seems to have been a case of consummate villainy throughout. If there be any notable feature in the affair it is the elaboration — we had almost said the refinement — of the utter scoundrelism shown by one of the delinquents. We fail to discover trace of "extenuating circumstances" in the case. The woman was, if possible, worse than the man, and the brother must have been as corrupt as, if not equally criminal with, the principals in this atrocious tragedy. It is necessary to protest against the attempt to throw a glamour of interest over crimes by treating them as of psychological interest. There is no interest in such cases; they are simply the outcome of infinitely contemptible and degraded natures, from which the stamp of humanity seems to be wholly effaced.

A VIRULENT epidemic of measles, marked by unwonted fatality, has, it is reported, broken out at Fraserburgh, a Highland village. The population almost wholly subsist by fishing, and their habitations are, as might be expected, very defective in the matter of air-space and sanitary arrangements generally.

ONE of the best maps of the seat of war in Lower Egypt which we have seen is that issued by Mr. Stanford, of Charing-cross. It is on a scale of two miles to an inch, and is admirably clear and well defined.

THE Companionship of the Order of the Bath has been conferred on Fleet Surgeon Doyle Money Shaw, Royal Navy.

DR. BARRY, who was instructed by the Local Government Board to inquire into the cause and extent of the epidemic of enteric fever at Bangor, has made a preliminary statement to the sanitary authority of that place. He arrives at the conclusion that the main cause of the outbreak, which up to last week had led to 141 attacks and 8 deaths, was pollution of the water-supply above the point of intake, but that the disease was spread by the gravely defective condition of the sewers and house-drains in respect of ventilation. In all these respects his opinion is confirmatory of that given by Dr. Rees, the local medical officer of health. Dr. Barry strongly urged remedial measures upon the authority.

THE outbreak of small-pox in Newcastle is causing considerable anxiety to the inhabitants of the town. Fortunately the sanitary authorities are in possession of a hospital to which cases may be removed, and the means of removal, in the shape of a comfortable ambulance, is provided by the Corporation. The epidemic seems to be almost entirely confined to the Byker district. In spite of energetic action on the part of the authorities, and the increased labours of the vaccination officers, the disease appears at present to give no indications of subsidence.

## HEALTH OF THE ARMY.

### No. II.

IN an average annual strength of 50,136 European soldiers serving in India, exclusive of the field force in Afghanistan, the proportion per 1000 of strength admitted into hospital was 1748, died 24·65, sent to England as invalids 29·88, and constantly non-effective from sickness 69·32. These are all lower than in 1879, but, with the exception of the invalids, considerably above the average of the last ten years. The reduction upon the results of the preceding year has been manifest in all three Presidencies except as regards the deaths in Bombay, where there has been a very marked increase.

In the Bengal Presidency the admissions were in the ratio of 1763, the deaths of 29·26, the invalids of 25·51, and the constantly sick of 70·29 per 1000. These ratios, and especially the deaths and mean sick, are very unsatisfactory compared with the average of the last ten years, although lower than in 1879. If the strength and casualties of the field force were added the death-rate would be as high as 32·68 per 1000, of which only 1·68 was caused by wounds in action. The most prevalent diseases were fevers, which gave rise to nearly half the admissions, and next to them rank diseases of the digestive system. The latter were the most fatal, though very little higher than fevers, and next to these was cholera. The Peshawar division as usual furnished the highest proportion of cases, from the prevalence of paroxysmal fevers, which were the cause of a great amount of sickness also in the Meerut, Gwalior, and Rawal Pindi divisions. The highest death-rate was in the Peshawar, and next to it, omitting troops on the march, in the Oudh division; in the former the excess was chiefly from dysentery and diarrhoea, fever and cholera, and in the latter from fever and cholera. In the appendix to the report a table is given "taken from the report of the principal medical officer," showing the deaths at each of the stations, but the sum of them when grouped in divisions differs so much from those accounted for in the classified table of diseases that it seems quite untrustworthy. For instance, in the Oudh division only 59 out of 82 are allotted to stations, in Meerut 59 out of 76, in Sirhind 38 out of 62, in Rawal Pindi 45 out of 82, and in Peshawar 96 out of 120. We cannot but think that if the table could not be corrected to at least a much nearer approximation it would have been better omitted, or some explanation of the discrepancies should have been given.

A table appended to the report shows that 278 cases of enteric fever and 94 deaths occurred in the command, ex-

clusive of 90 cases with 40 deaths in the Frontier Field Force, being in the ratio of 9·07 and 3·07 respectively. The stations at which it was most prevalent and fatal were Nowshera, Lucknow, Ranikhet, Dugshai, Bareilly, Sitapur, and Moradabad. The 30th Regiment, which had just arrived from England, had 65 cases and 13 deaths at Bareilly and Ranikhet and other stations in the Rohilcund division. In the Peshawar division the disease occurred chiefly in the 8th Hussars, 12th and 14th Regiments. No information is given as to the corps in which it prevailed in the other divisions. Nearly half of the cases occurred in the second quarter of the year. Cholera was the cause of 6·8 admissions, and 4·86 per 1000 of the strength. It prevailed in an epidemic form at Allahabad and Lucknow. At the former station the admissions were in the ratio of 57, and the deaths of 42 per 1000, and at the latter of 26·7 and 17·81 respectively. It also prevailed, though much less severely, at Cawnpore, Moradabad, and Peshawar. Among troops on the march, the average strength of which for the year was 2180, there were 41 cases and 34 deaths. With reference to the advantage derived from the immediate removal of troops from a station on the outbreak of cholera, the principal medical officer observes, "The benefits derived from leaving the infected locality have again been plainly shown, but this should be done as soon as possible, and to as great a distance as possible. 'Preparatory' camps in the neighbourhood of the infected barracks rarely produce any good effect. It would be more prudent to prepare a camp at a selected distant site as soon as the disease is reported in the city or district, and to remove the troops to it by railway at the earliest indication of disease in cantonment. The circumstances of the epidemic at Allahabad were plain as to the danger which is incurred by keeping the troops loitering about an infected locality instead of immediately removing them to a sufficient distance."

As we have already stated, diseases of the digestive system are the class which has given rise to the highest rate of mortality. In the Peshawar division the deaths by dysentery and diarrhoea amounted to 9·47 per 1000 of mean strength, and among troops on the march to 8·97. The ratio was also very high in the Meerut and Rawal Pindi divisions. It is worthy of note that there was not a single death by either of these two diseases recorded at the hill stations. There were 230 admissions and 86 deaths by sunstroke, but no information is given as to the localities where or the circumstances under which they occurred; the admissions were in the ratio of 7·50, and the deaths of 2·80 per 1000 of strength. From an examination of the tables we infer that Peshawar and Lahore furnished an undue proportion of the deaths.

The remarks by Surgeon-General Crawford—now Director General—on the sanitary conditions of the troops in Bengal, and their influence on the character of prevailing diseases, are deserving of careful study. We cannot afford space to enter upon all the points discussed, but shall confine ourselves to the following extracts on the subject of the diet of the soldier. In a memorandum by the Army Sanitary Commission it is stated "that by the experience of medical officers much of the loss from invaliding in Indian climates is due to the continued action of habits of eating, drinking, and clothing, which are directly opposed to the requirements of those climates. In every one of these points improvements can be introduced. What is wanted, in fact, is not transference to India of the European method of rationing and management, but the adoption of a rational regimen for the British soldier adapted for Indian climates; possibly more than one such regimen would be required in different districts of the country." On this Dr. Crawford remarks: "Such a proposal is extremely plausible, and no one can doubt but that if diets of large bodies of soldiers could be made more suitable to the climate, a great proportion of disease under Group IX [diseases of the digestive system] would disappear. But the practical difficulties in the way are enormous, and even supposing that six or seven such suitable diets for India, from Colombo to Peshawar and Thayetmyo, could be arranged and enforced, the possibility of reduced dietetic diseases would still remain doubtful, because it is less what the soldier eats and drinks by order which produces disease than what he eats and drinks without order. . . . And the Sanitary Commission do not state what is to be done if the soldier does not accept that view of a reduced diet. . . . The remarks of the Army Sanitary Commission do not appear to have been based on a sufficient appreciation of the fact that the main difficulty to be overcome in reducing dietetic disease in India is to

induce the soldier to be self-denying, temperate, and careful individually. So far as the regulations are concerned every forethought is given as to what he should eat and drink and what he should avoid. But considerations of health are rarely balanced against temporary enjoyment, and sickness too often follows, not from want of due care by the authorities, but, in spite of all rules, by the carelessness of the soldier himself. These are evidently the matured opinions of a man accustomed to deal practically with soldiers, as opposed to the theoretical ideas evolved in a room in the great establishment at Pall-mall.

In Madras the strength of the troops was 10,280, and the admissions into hospital were in the proportion of 1370; the deaths of 10·51, the invaliding of 23·15, and the mean sick of 62·96 per 1000. These ratios are all lower than in 1879, and those of the deaths and invaliding are considerably under the average of the last ten years. The artillery furnished the highest proportion both of admissions and deaths, the cavalry the lowest of admissions, and the infantry of deaths in the command. Paroxysmal fevers were the most prevalent diseases, and next to them diseases of the digestive system, and the latter gave rise to the highest death-rate. Of the larger stations, Bellary and Rangoon both furnished heavy sick rates, and Kamptee a high death-rate. This excessive sickness was due to the prevalence of paroxysmal fevers, and the mortality at Kamptee chiefly to enteric fever and sunstroke. Twenty-five admissions and eleven deaths by enteric fever are recorded. Of these 1 occurred at Bellary, 1 fatal case at Tayrangoon, 13 cases and 6 deaths at Secunderabad in a force of 2530 men, and 10 cases with 4 deaths among 770 men at Kamptee. The evidence with regard to the disease at Kamptee points very clearly to contaminated water-supply as the cause, and the outbreak ceased on the well being closed. No information is given as to circumstances under which the cases occurred at Secunderabad or the probable causes. Only one case of cholera, which, however, terminated fatally, occurred in the command, at Tayrangoon in British Burmah. As usual, in this Presidency, hepatitis and abscess of the liver proved the most fatal in the class of diseases of the digestive system, having been the cause of 14 out of 21 deaths.

The average strength of the troops in Bombay was 9200. The admissions into hospital were 2118, the deaths 25·10, the invaliding 51·96, and the mean sick 70·89 per 1000. The proportion of deaths was one-half higher than in 1879, but the other ratios were lower than in that year; all, however, were greatly above the average of the last ten years. The most prevailing diseases were paroxysmal fevers, the cases of which were nearly equal to the average strength, and diseases of the digestive system, which were upwards of one-fourth of it. Fevers and diseases of the digestive system were the causes of upwards of half the deaths. The admissions were excessively high at Baroda, Kurrachee, Neemuch, and Ahmednugger, and the deaths at Kurrachee, Bombay, and Ahmednugger. The unhealthiness of Kurrachee is attributed by the principal medical officer to the arrival of the 98th Regiment in September "in a weakly state, many of the men presenting symptoms of a scorbutic taint, supposed to have originated in Malta, where they had served four years, and three years previously in the West Indies; they suffered much at Kurrachee from paroxysmal and other fevers." The depot of the 66th Regiment was also stationed there during the absence of the regiment in Afghanistan, and this may have contributed to the high sick-rate. At Poona "a considerable proportion of the garrison was formed by depôts consisting of the more weakly men of regiments on field service in Afghanistan, from which also many men were sent back in bad health;" and the 1st battalion Rifle Brigade arrived at an unfavourable season during the month of October. The high rate of sickness and mortality at Bombay and Colaba is also "accounted for by the arrival of the 61st regiment from Malta at the most unfavourable period of the year." There can be no doubt that the high rates of sickness and mortality in Bombay were greatly influenced by the Afghan war, which involved the necessity for troops being brought out to India at unfavourable periods, and also for the weak and sickly men being left behind when the regiments left for service in the field. There were 53 cases with 33 deaths of enteric fever in the command, being in the ratio of 5·76 and 3·59 per 1000. The stations at which it was most prevalent were Mhow, Kurrachee, Nusseerabad, Poona, and Kirkee; and the principal medical officer states that "from all the information collected suspicion is attached to the

drinking water" as the cause of it. Half the cases and deaths occurred in the last quarter of the year. There were no cases of cholera in the command during the year. The mortality from dysentery was very high in the Sind circle, which includes the station of Kurrachee, and it was also high in the Presidency division.

There does not appear to be anything calling specially for remark in the health of the troops on board ship, except the occurrence of two cases of enteric fever in H.M.S. *Euphrates* on the voyage from Malta to Bombay, probably contracted in Malta, which suggests the possibility of a connexion with the cases which occurred in the Bombay command in the last quarter of the year.

## A NEW MEDICAL SOCIETY FOR THE WESTERN SUBURBS OF LONDON.

ON Friday afternoon, July 28th, a numerous and influentially attended meeting of medical men practising in the western districts and suburbs of London took place in the board-room of the West London Hospital, and after voting Dr. Goddard Rogers into the chair, carried a series of resolutions, the most important of which constituted a new society. This, now named the "West London Medico-Chirurgical Society," is to meet at the above-mentioned hospital on the first Friday of every month, at 8 P.M., throughout the winter, for the consideration of subjects connected with the arts and sciences of medicine, surgery, and midwifery. The annual subscription is five shillings, and there is no entrance fee. Though intended mainly for the use and advantage of local practitioners, all "medical men not practising homœopathy" are eligible for membership. The Society has been started with considerable enthusiasm, although in consequence of the near approach of the holiday season and the desire to give the council and secretaries time to prepare for next winter, the meeting was held at somewhat short notice. The Society is likely to commence with about a hundred original members. The Council are keeping the list of original members open, and the secretaries are anxious to receive applications for membership. The following officers were elected for the first year:—President: Dr. Edward Hart Vinen. Vice-Presidents: Dr. Thudichum, Mr. B. J. Vernon, Mr. Hemming, and Mr. Frederick Lawrence. Treasurer: Mr. William Bird. Council: Drs. Alderson, Picket, Goddard Rogers, Sinclair, Thompson, W. Travers, Messrs. Alderton, Barnes, Sunn, Ottley, Potter, Walker, and Willing. Secretaries: Mr. C. B. Kestley and Mr. F. F. Schacht.

The new Society has an excellent room to meet in, very conveniently placed for access by rail and omnibus, and it has already a goodly number of members; it has an able and experienced president, and the idea of it appears to have been everywhere received with great cordiality. A district which includes, besides hospitals, three magnificent Poor-law infirmaries and several dispensaries must furnish plenty of material.

## Public Health and Poor Law.

### REPORTS OF THE METROPOLITAN ASYLUMS BOARD HOSPITALS.

*Fulham Hospital.*—Mr. R. D. R. Sweeting, the medical superintendent of this hospital, reports that during 1881 the total admissions of small-pox patients were 1952, the mortality being at the rate of 7·3 per cent. amongst the vaccinated, 31·0 amongst those whose vaccination was "doubtful," and 44·3 amongst the unvaccinated. During the months of October and November cases were admitted only from the borough of Chelsea, in accordance with the terms of an injunction which was obtained against the use of the hospital for the metropolis generally. Amongst the more interesting points adverted to in the report we would note the following. As many as 120 vaccinated children under ten years of age were admitted. Only three of them were efficiently vaccinated,

but the large number suffering from small-pox before the period at which revaccination is generally deemed necessary is an important consideration in determining the proper date for that operation. Amongst the diseases admitted in mistake for small-pox, measles stands first on the list, and it is pointed out how much more difficult the diagnosis is between measles and the early stage of small-pox than between chicken-pox and small-pox. All the cases of measles sent to the hospital in error were received as small-pox, but out of thirty-two cases of chicken-pox thus sent, twenty-six were at once diagnosed and hence refused admission. Since the hospital was opened Mr. Sweeting has met with small-pox in forty-four patients after alleged revaccination, and he has reported the details of the cases to a Committee of the Epidemiological Society who are investigating this subject. One undoubted example of small-pox incubated in utero came under observation. The child was born two days after the mother's attack, and its eruption appeared on the seventh day after birth. The immunity of the staff from small-pox is adverted to, but we have recently given Mr. Sweeting's interesting information as to this as summarised in his Memorandum on Vaccination.

**Deptford Hospital.**—Dr. J. MacCombie reports that 3185 acute cases of small-pox were admitted, in addition to 1590 convalescents who were sent from other hospitals to Deptford on their way to the small-pox encampment at Darent. The mortality among the vaccinated was 7·6 per cent., that amongst those alleged to have been vaccinated, but on whom no indication of the operation could be seen, was 35·9 per cent., and that amongst the unvaccinated was 47·4 per cent. Further, dividing the vaccinated into two classes, the mortality was 3·5 per cent. amongst patients having marks covering at least one-third of a square inch, whereas it was 9·5 amongst those with imperfect marks. Dr. MacCombie finds that, given good vaccination marks, children under ten years, or even fifteen years, of age run but little risk of death from small-pox, but that given vaccination as it has hitherto been performed, the mortality steadily rises from 1 per cent. amongst those under ten years to 2·8 per cent. between ten and fourteen years, and he shows also that the protection afforded by vaccination against fatal attacks of the disease is exhausted at an earlier age in the imperfectly vaccinated than in the well vaccinated. So also his experience, as detailed, is to the effect that the highest proportion of small-pox attacks amongst the vaccinated occurs at the two periods ten to fourteen years, and fifteen to nineteen years, the proportion of attacks in these two periods being respectively 19 and 21 per cent., and he infers that the influence of primary vaccination is lost in about an equal proportion of vaccinated subjects in the five years immediately preceding and immediately following the usual age of puberty. Hence, he urges, that revaccination should, as a rule, and not only as an exception, be performed some five years before puberty. He also alleges that some persons are so susceptible to small-pox that the efficient protection afforded by revaccination may wear out in some ten years, and he states that out of 3855 vaccinated patients admitted, twenty-two were found to have been successfully revaccinated in early life. The only exceptions to the immunity of the staff from small-pox occurred in a fever nurse, whose revaccination was overlooked, and in a ward servant, whose revaccination came too late to afford protection.

**Stockwell Hospital.**—In the fever hospital there were 1223 admissions, including 955 cases of scarlet fever, 162 of enteric fever, and 68 of typhus. Into the small-pox hospital 999 cases were admitted, and Dr. Bernard gives the mortality as 6·5 per cent. amongst the vaccinated, 44·1 per cent. amongst the doubtfully vaccinated, and 40·2 amongst the unvaccinated.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5283 births and 3425 deaths were registered during the week ending the 12th inst. The annual death-rate in these towns, which had been equal to 19·0, 19·6, and 20·1 per 1000 in the three preceding weeks, further rose last week to 21·1. The lowest rates in these towns last week were 11·9 in Halifax, 13·1 in Derby, and 15·4 in Plymouth. The rates in the other towns ranged upwards to 26·3 in Hull, 27·5 in Huddersfield, 28·6 in Newcastle-upon-Tyne, 29·3 in Bolton, and 31·1 in Sunderland. The deaths referred to the principal zymotic

diseases in the twenty-eight towns were 752, showing a further increase of 53 upon recent weekly numbers; 439 resulted from diarrhoea, 97 from whooping-cough, 80 from scarlet fever, 59 from measles, 45 from "fever," 24 from diphtheria, and 8 from small-pox. The lowest death-rates from these diseases occurred in Wolverhampton and Halifax, and the highest in Sunderland and Hull. Whooping-cough caused the highest death-rates in Sunderland and Preston; scarlet fever in Hull and Portsmouth; measles in Huddersfield; and "fever" in Birkenhead and Derby. Of the 25 deaths from diphtheria in the twenty-eight towns, 18 occurred in London. The fatal cases of diarrhoea in the twenty-eight towns showed a further considerable increase upon recent weekly numbers, although they were again far below the average for the season; the highest death-rates from this disease were recorded in Bolton and Leicester. Small-pox caused 4 deaths in London, 3 in Newcastle-upon-Tyne, and 1 in Nottingham. The number of small-pox patients in the metropolitan asylum hospitals, which in the fifteen preceding weeks had declined from 350 to 138, further fell to 123 on Saturday last; 19 new cases of small-pox were admitted to these hospitals during last week, against 10 and 16 in the two preceding weeks. The deaths referred to the diseases of the respiratory organs in London, which had been 157, 183, and 193 in the three previous weeks, further rose to 223 last week, and were 53 above the corrected average number in the corresponding week of the last ten years. The causes of 92, or 2·7 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Plymouth, Derby, Birkenhead, and Cardiff; while the largest proportions of uncertified deaths occurred in Brighton, Liverpool, Salford, and Sunderland.

### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been 21·3 per 1000 in each of the two preceding weeks, declined to 20·1 in the week ending the 12th inst.; and was 1·2 below the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 118 last week, and showed a slight increase upon recent weekly numbers; they included 61 from diarrhoea, 14 from scarlet fever, 13 from diphtheria, 11 from measles, 11 from whooping-cough, 8 from "fever," and not one from small-pox. The death-rate from these principal zymotic diseases averaged 5·0 per 1000, and was 1·1 above the mean rate from the same diseases in the large English towns. The 61 deaths attributed to diarrhoea exceeded the number in the previous week by 5, and were 24 above the number in the corresponding week of last year; the fatality from this disease again exceeded that recorded in the English towns, the largest excess occurring in Dundee and Leith. The 14 fatal cases of scarlet fever showed a marked increase upon recent weekly numbers, and included 6 in Glasgow, 3 in Leith, and 2 both in Dundee and Aberdeen. The 13 deaths from diphtheria also showed a further increase, 9 being returned in Glasgow and 3 in Greenock. The 11 fatal cases of measles included 4 in Dundee, 4 in Leith, and 3 in Glasgow; 42 fatal cases of measles have occurred in Dundee since the beginning of July. Six of the deaths from whooping-cough occurred in Glasgow, and 2 both in Edinburgh and Perth. The 8 deaths referred to "fever," of which 6 were returned in Glasgow, were 2 fewer than those in the previous week. The deaths referred to acute diseases of the lungs in the eight towns, which had steadily declined in the four preceding weeks from 95 to 74, further fell to 71 last week, and were fewer by 16 than those attributed to the same diseases in the corresponding week of last year.

### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 20·8 and 22·9, rose again to 21·1 in the week ending the 12th inst. During the first six weeks of the current quarter the death-rate in the city has averaged 21·0 per 1000, against 18·2 in London and 18·1 in Edinburgh. The 157 deaths in Dublin last week showed a further increase of 4 upon the low numbers of recent weeks; they included 6 which were referred to "fever," 9 to diarrhoea, and not one either to small-pox, measles, scarlet fever, diphtheria, or whooping-cough. Thus 15 deaths resulted from these principal zymotic diseases,



against 12 and 16 in the two preceding weeks; these were equal to an annual rate of 2.2 per 1000, against 3.9 in London and 2.5 in Edinburgh. The fatal cases of diarrhoea, which had been 5 and 6 in the two previous weeks, further rose to 9 last week, and exceeded the number returned in any previous week of the year. The deaths referred to different forms of "fever" (mainly enteric or typhus), which had been 3 and 7 in the two previous weeks, were 6 last week. The death-rate from "fever" considerably exceeded the average rate from the same cause in the twenty-eight large English towns. The deaths of infants corresponded with the number of the previous week, while those of elderly persons showed a considerable increase. The causes of 21, or 13 per cent., of the deaths registered in the week were uncertified.

### THE SERVICES.

Sir Robert Christison, Bart., at present Surgeon General of the N.W. Provinces, India, will be succeeded by Deputy Surgeon-General J. Walker, Bengal Medical Service.

Brigade Surgeon J. Guthrie has been appointed to officiate as Principal Medical Officer of the Oudh Division, with the temporary rank of Deputy Surgeon-General, vice Surgeon-General J. E. Clutterbuck, transferred to the Home establishment and posted to Malta.

YEOMANRY CAVALRY.—East Lothian: Surgeon David James, M.D., resigns his commission.

ENGINEER VOLUNTEERS.—1st Lancashire: Acting Surgeon Robert Arthur Henry Wood resigns his appointment.

ADMIRALTY.—Fleet Surgeon John Mockridge has been placed on the Retired List of his rank.

The following appointments have been made:—Staff Surgeon W. J. Iman, to the *Warrior*, vice Mockridge; Staff Surgeon Alexander Mitchell, to the *Dragon*, vice Hudson; Surgeon Andrew D. Peyton, to the *Cambridge*, vice Miller, appointed to the *Dee*; Surgeon Thomas D. Gimlette, to the *Seahorse*; Surgeon John G. Wray, to the *Orwell*, vice T. D. Gimlette.

## Correspondence.

"Audi alteram partem."

### WHAT HINDERS NOTIFICATION OF INFECTIOUS DISEASE.

To the Editor of THE LANCET.

SIR,—Anyone reading the letter signed "R." in your last issue, on the notification of infectious disease, with your annotation thereon, might very probably consider your remarks fairly called for, always supposing that the statements contained in "R.'s" letter accurately represented the facts of the case. Let us see, however, how far "R.'s" version of the case is really the true one, and whether his letter is calculated to lead your readers to a just appreciation of the conduct of the sanitary authority and its officers in Blackpool.

To economise space, I will deal with "R.'s" letter and your annotation conjointly.

First, then, in this borough, when the house of any poor person is invaded with infectious disease, the Corporation undertake (when it is considered advisable by the medical attendant and desired by the patients or their friends) to remove the infected person to the sanatorium at the town's expense, and maintain the patient with a relative to nurse the case, if so desired, at a trifling cost, until the sickness is over and convalescence complete; each medical man attending his own patients.

Secondly, the Corporation supply, gratuitously, disinfectants of all kinds for every purpose, including carbolic oil in scarlatinal cases, to poor persons who are unable or unwilling to procure the same for themselves.

Thirdly, as soon as the medical attendant considers the proper time has arrived, the houses are thoroughly cleansed and disinfected; all clothes and bedding are disinfected or destroyed when necessary, in the latter case compensa-

tion being made, and all the expenses of disinfection being defrayed by the Corporation.

Now, Sir, in the case referred to by "R." the patient was a young child of a poor cab driver who had just come to Blackpool, and imported the disease from a distance. As such the case was notified to me on June 16th. As customary, the first thing that was done by the sanitary inspector was to offer removal to and accommodation in the sanatorium with the consent of the medical attendant, but this was declined. Isolation being refused, the inspector, acting on my instructions, told the cab driver that as he was living in the same house with a patient suffering from scarlatina he should not ply for hire. In so instructing the inspector I believed I was removing from "R.'s" shoulders the odium which attached to such a duty, and which "R." would only be glad to escape. At the same time the inspector was instructed not to interfere in any other way with "R.'s" conduct of the case. I trusted to "R." to let me know through the inspector when the cabman might safely resume his employment.

I now come to the statement in "R.'s" letter that on the 18th, while desquamation was still proceeding, the inspector gave the cab-driver permission to ply for hire. This statement the inspector declares is absolutely untrue, and I fully believe him. The inspector never saw the man at this time. The man's wife entreated the inspector to see for himself that the child was sitting up and better, which in these parts means well; she stated that "the doctor had given over coming," that her husband never went near the child, and slept in another room, and begged that he might be allowed to "take a job," which she particularised. To all this the inspector replied that it was very soon for her husband to ply for hire, but that her own doctor should know best; he never, as stated in "R.'s" letter, "gave permission," and the cab-driver ultimately resumed work on his own responsibility. It was at this time that the inspector, believing the woman's tale that the doctor had ceased attendance, suggested cleansing and disinfecting the house, as soon as the child was well enough, and told her where she could get the disinfecting oil supplied by the Corporation in such cases. It is utterly false, and a pure invention of somebody's, to say that a prescription was left at the house by the inspector; he never did so, either by my directions or without them. With the exception of what I have stated above, the whole story is a pure fiction. The paper which the inspector showed subsequently to "R." at "R.'s" house was one in which I had written down more than a year before, the form for preparing the carbolic oil, the druggist who supplies disinfectants for the Corporation having at the time forgotten the verbal instructions I had given him long before, some time in 1879, for preparing it. This paper never after saw the light until the night of June 20th, when it was shown to "R." by the inspector, at the time he was, by my directions, making an explanation to "R." of the real facts of the case. It was after all this that the inspector ascertained that "the doctor" had not ceased attendance on the case. The conversation I have above referred to between the inspector and the child's mother was the only approach to interference on the inspector's part from beginning to end of the case, and your statement that "when the medical man called on the 20th he found the work very much taken out of his hands" is utterly untrue and groundless. I myself trusted altogether to "R.'s" conduct of the case, and believing that in endeavouring to check the dissemination of the disease I had at the time done all my duty (the case having been notified as "imported"), never went near the house. I have never seen either the cabman, or his wife, or the little patient, and I never heard until the night of the 20th that the carbolic oil had been suggested by the inspector; nor did I know until after the sanitary meeting of the 21st that the borough surveyor had offered employment to the cabman during his temporary suspension from his ordinary work, and this is the first time, to my knowledge, that such a proposal has been made.

I must now say, Sir, that I think Mr. MacDonald, the inspector, has just cause of complaint against "R.," who, in his letter to a public journal, distinctly implies a falsehood to him, choosing to believe the woman, who it is evident had strong motives for saying what the inspector alleges she did say, rather than the inspector, who could have no motive in inventing an untruth. It also appears strange to me, a reader of THE LANCET for nearly twenty years, that you should depart from your usual custom in this case, and pass such a

judgment as is contained in your annotation, on the indictment made in "R.'s" letter, before hearing both sides of the case.

Sir, the whole story is a bubble, though perhaps not quite a bubble which bursts itself: it reminds one more of one of Dr. Carver's glass balls at the Aquarium, the fiction of which it is composed being vitrified with a little truth: it requires breaking. The process of smashing up the ball is easy, but vexatious to one whose time is valuable, and can be better employed.

I will, Sir, very soon offer for your acceptance a *résumé* of the results of compulsory notification in Blackpool, and I think I can convince your readers that the Act has done great good in the borough, and has been a large factor in securing immunity from infectious disease to the vast numbers of people who visit this health-resort. At the same time I shall endeavour to show that where compulsory notification obtains the Legislature should insist that the medical officer of health should be untrammelled by private practice, and free from all the influences connected with it, which tend to curtail the efficiency of his work for the public good. This would also place him out of reach of attacks made on him through his official position, and which are based on feelings from which, it is sad to say, some members of our profession are not altogether free.

I am, Sir, yours, &c.,

LESLIE H. JONES, M.D., &c.,  
Medical Officer of Health, Blackpool.

August 14th, 1882.

I have read the above letter, written by the medical officer of health, and I am prepared to declare on oath, if necessary, that the statements contained in it are true.

(Signed) FRANCIS McDONALD,  
Inspector of Nuisances.

\* \* Our remarks were intended to apply to all cases of a kind similar to that which seemed to be set forth in the letter of our correspondent "B."—ED. L.

## "STAMPING OUT SMALL-POX."

To the Editor of THE LANCET.

SIR,—It is very natural that a gentleman who has been especially engaged in contending with an outbreak of small-pox should consider that the exertions of the staff of which he was a member had materially shortened the duration of the epidemic. Yet the facts so impartially stated by Dr. Higham Hill in your issue of the 29th ult. having reference to a recent outbreak in Sydney, New South Wales, do not clearly support such an opinion; and with regard to the estimation of the value of measures of quarantine and isolation in general you may think it worth while to point this out. Dr. Hill admits that, in the absence of compulsory registration of cases of small-pox (a want which was supplied by Act of Parliament during the seventh month of the outbreak), there were many concealed cases which formed "hot-beds of infection," and which protracted the epidemic. These cases of concealment were generally believed in Sydney to be very numerous, and the attention of the Government was drawn to their existence during the early months by a physician who is a member of the Legislative Assembly. These being the facts, then—that small-pox existed among an ill-vaccinated population, that measures of isolation were imperfectly carried out, and that the total number of cases of illness was nevertheless extremely small, although they were spread over a period of nearly eight months—if Dr. Hill's opinion that the epidemic may be fairly said to have been stamped out be accredited, it must be inferred that isolation of persons suffering from small-pox is not a measure of much value in checking the spread of the disease. But this is contrary to experience.

The contagiousness of small-pox is relative in degree to conditions which are local and constitutional. The local conditions of Sydney are—a population of about 270,000, spread over a very large area; its position on the east coast of Australia, so that the prevailing winds reach it after crossing the Pacific, while to the west is an immense extent of forest land which ends only at the great central wilderness, and whence blow very dry winds; and the position of the city itself upon the banks of a harbour of which the numerous and far-reaching arms and bays are full of very deep water, and penetrate and divide the most populous parts of it in very many directions. The air is pure and exhilarating to a degree only comparable

with mountain air, and the sunlight is constant. The constitutional conditions of its people are—constant employment, high rates of wages, reasonably numerous holidays, and such supplies of good food of all kinds as the London artisan never sees except on some such rare occasion as that of a club dinner; and the knowledge that he is an important and powerful member of the community, which, if it do not always breed content, at least gives healthy occupation to his mind.

I do not wish to undervalue the effect of the measures which Dr. Hill took an able part in carrying out under grave difficulties; but I think it due to the general question of quarantine and isolation to point out that upon the whole there are strong grounds for believing that his case does not detract from the value of those measures, as his account of it leads the reader to infer. On the contrary, the just inference is that with a perfect system of isolation, and, what is much more important, with compulsory vaccination, small-pox would not assume epidemic proportions in Sydney.

I am, Sir, yours truly,

London, August 1st, 1882. J. ASHBURTON THOMPSON, M.D.

## VACCINATION IN ENGLAND AND IN SCOTLAND.

To the Editor of THE LANCET.

SIR,—Dr. Hamilton's letter on Vaccination in Scotland deserves a reply, especially as he is of opinion that, north of the Tweed, they manage this important operation better than in England. In Scotland the limit of time allowed for vaccination is six months, in England it is three. Dr. Hamilton mentions various reasons why the longer time should be preferred; but in my opinion there are stronger reasons why the three months' limit should be adhered to. If a child should be born with constitutional syphilis, three months would be ample time in which to allow the symptoms to manifest themselves; and if at the end of that period a child looked healthy, I should have no hesitation in vaccinating it, instead of waiting for three months longer, to see if any symptoms of the disease should appear. When a child is vaccinated at the age of three months it gets over the effects of the operation before the troubles of dentition begin, which are often of themselves sufficiently severe without being complicated by vaccination. Cutaneous eruptions, convulsions, and various other ailments, are more apt to manifest themselves during dentition than at any other time; and should a child, when vaccinated about the age of six months, be seized with any of those affections, the vaccination would get blamed for it. Then, should an epidemic of small-pox break out in a locality, it would be better to be able to enforce the vaccination of all infants when three months old rather than allow them to remain unvaccinated for three months longer, during which time they would be exposed to infection. In Scotland, vaccination cannot be enforced until a child attains the age of six months. In the large English towns many persons change their place of residence so frequently, and remove to districts apart from where the infants are born, that many of them are lost, and cannot be traced by the vaccination officers. For this reason London is the worst vaccinated city in the kingdom. To extend the time of vaccination to six months would aggravate this state of matters.

The vaccination grant is an allowance by Government of 1s. a head upon each infant vaccinated at the public station. This raises the fee to 2s. 6d. a case (not too large a sum). The grant is given to encourage careful and efficient vaccination. Last year £12,000 were distributed among the public vaccinators of England, and notwithstanding Dr. Hamilton's remarks about "duty," I am inclined to think that the majority of medical men in Scotland would consider it just that a fair proportion of this sum should have been allotted to deserving public vaccinators in their country. I believe that in Scotland no vaccination fees are paid out of the rates except for the infants of those who are in receipt of parish relief. In England the public vaccination station is free to all, and I have no hesitation in affirming that infants vaccinated at the public stations are more efficiently protected against small-pox than are those vaccinated by private practitioners, who are often satisfied with one vesicle.

I am, Sir, your obedient servant,

Manchester, Aug. 7th, 1882.

T. N. O.

## "SALICYLIC SILK."

*To the Editor of THE LANCET.*

SIR,—In reference to the use of the mackintosh with the salicylic dressing, will you allow me to say that, although the mackintosh was used in the cases published by me in THE LANCET last year, it was shortly afterwards discontinued, according to Mr. McGill's original suggestion.

Yours faithfully,

WALTER H. BROWN,

Late House-Surgeon to the General Infirmary, Leeds.  
August 13th, 1882.

## SCOTTISH NOTES.

*(From our Correspondent.)*

It is announced that Dr. Macintosh, F.R.S., at present Superintendent of Murthly Asylum, Perthshire, has been appointed to the chair of Natural History at St. Andrews, rendered vacant by the translation of Dr. Alleyne Nicholson to Aberdeen. Not only the many scientific friends of Dr. Macintosh, but all interested in the welfare of St. Andrews, will rejoice at the excellent selection made by the patron, the Marquis of Ailsa. Besides the work done in zoology by Dr. Macintosh, and known to all scientists, he has at Murthly surrounded himself with a collection, in the vegetable as well as the animal world, which of itself would form a respectable museum, while his efforts to the same end, in so completely furnishing the Perth Museum, show further his enthusiasm for the subject he will now be called upon to teach.

An important motion was under discussion at the last meeting of the Aberdeen Town Council. The Lord Provost proposed, and it was unanimously agreed, that a City Improvements Bill should be proceeded with next session. He went on to detail the alterations which he thought should be embraced in the scheme, which is altogether of an extensive character. By the method mentioned many advantages from a health point of view are likely to accrue, as several of the best known rookeries will be removed that the new and necessary thoroughfares may be provided. The Links, it would appear, are now owned in part by others as well as the corporation, and it is proposed that those interests should be purchased. These valuable recreation grounds will also be more accessible if Castle-street is extended thereto as proposed, and if the other drives mentioned are formed. The excellent bathing facilities will then be more easily obtained, and these it is proposed to increase by large additions to the bathing establishment. The Bill, as foreshadowed, seems specially intended to afford better means of communication throughout the town, to meet the wants of the rapidly increasing suburban population, and to extend the city boundaries; but such demolitions are involved as will have a most wholesome influence upon the public health.

Long lists have been published as advertisements in the daily papers, recording the successes of students during the past session. When well deserved, such a stimulus is likely to be useful, but honourable mention and certificates should indicate more than medium merit, and that this is scarcely so is indicated by the fact that fifty per cent. entitles the student to a place among the distinguished ones. What excuse is offered by the unsuccessful it is difficult to surmise, but, perhaps, the mention of almost 150 names in one class so reduces the number of the disappointed that the trifling residuum needs little consideration. If fifty per cent. entitles a student to honours, the not unnatural question arises, What is the percentage necessary for a pass or for honours in the M.B. Examination?

The bathing season is this year peculiarly prolific of accidents in Scotland. As many as eight fatalities have been thus caused in one day, and the season's sacrifice promises to be very large. One would imagine that some of the sea-coast towns would find it to their advantage to provide and offer special guarantees against a form of death so common and expected as scarcely longer to deserve classification as accidental. In private establishments men are kept ready for rescue in an emergency, and the frequency with which they require to act, as well as the immunity from accident which those useful institutions enjoy, point to

stricter police regulations and the employment of good swimmers to carry these out, as likely means for the saving of life, at least in the more frequented towns and villages.

It is marvellous how little is done in Scotland to render the popular health resorts more attractive. We take our cures from change of air just as seriously as we do physic. In almost none of the watering-places have we any provision made for rational enjoyment, and such common seaside pastimes as promenade concerts, balls, &c., are scarcely known, while floating baths, aquaria, picture-galleries, and even proper boating facilities are unheard-of luxuries, except at Rothesay, where some attempts have been made to follow southern models. The variety so necessary to the convalescent or overworked is difficult to find, and the town which would energetically engage to provide fitting amusements would be amply repaid.

The public health of Brechin is so bad at present that Drs. Anderson and Lawrence have felt it their duty jointly to call the immediate attention of the authorities to the subject. They forcibly point to the laxity with which complaints as to defective drainage, suspected water, &c., are considered, and mention instances where both of these are evidently the cause of the typhoid fever so prevalent at present. As is usual in these cases, the first effect of the independent criticism is disagreement all round. The owners of the suspected well write to say that on the authority of an analytical chemist their water is pure. The chemist publishes his report, and shows that he gave but a qualified approval. The magistrates are not allowed to take a sample of water from this private source for analysis, even though one of the partners is provost of the town; and the only satisfactory action taken is with regard to the drainage, which will have immediate attention. The medical men urge that notification of infectious diseases should be enforced, and are evidently prepared to accept the duty.

Typhoid fever has also broken out in Cupar, but precautionary measures have been at once adopted against its spread.

## IRELAND.

*(From our own Correspondent.)*

THE rapid development of the medical sciences, especially physiology, has demanded an outlay at all large medical schools, so as to allow the teaching to keep up with the advances that have been made. The School of Physic of the University of Dublin, and the Medical School of the Royal College of Surgeons have had large sums expended for this purpose, and the Board of the Ledwich School of Medicine and Surgery have very wisely determined to make certain alterations and additions at their institution, so as to constitute it thoroughly efficient in every respect. Contracts have been signed and the work is now being rapidly carried on, the estimated cost being upwards of £500. It will include a physiological laboratory, a chemical laboratory capable of accommodating at least seventy students, a museum for the teaching of pathology and osteology, a lavatory supplied with hot water, spirit tanks for subjects, &c.

The annual report of the President of the Queen's College, Galway, for the session 1881-2 shows that the College has steadily progressed, and it is worthy of note that the success of the Queen's Colleges was never so marked as at the time they lost their special privileges and vested educational interests as the constituent parts of the Queen's University. The number of students in the Colleges, which was 375 in the opening session, 1849-50, and which rose to 953 in 1879-80, was increasing at a much more rapid rate during the last two sessions of the University. The number stood at 1010 in 1880-81, while the closing session 1881-2 exhibited results more satisfactory than any previously recorded, the number of students receiving instruction being 1154. One hundred and twenty-two students attended lectures during the past session in the Faculty of Medicine at the Queen's College, Galway, the highest number yet recorded.

From the twenty-fourth report of the Board of Superintendence of Dublin Hospitals, it appears that nine institutions receive grants from Parliament. The number of patients admitted during the year was 8970, which, with 798 previously in the hospitals, made a total under treatment of 9768. The deaths amounted to 452, or a mortality of

5.12 per cent. on those treated to a termination; and the total average daily number of beds occupied was 718. The income was £38,653 18s. 1d., and the expenditure £37,807 3s. 1d., the large sum of £8381 2s. 2d. for salaries of officers and wages of servants being included in the latter. There is a considerable difference in the average annual cost of a bed for maintenance in these nine institutions respectively. For example, in Cork-street Fever Hospital the cost was as high as £87 18s. 11d., while in the Westmoreland Lock it was £28 16s. 4d., and in the Incurables as low as £10 18s. 10d. It is satisfactory to learn that the apartment which is placed under the seats of the operating theatre at the Richmond Hospital, and in which autopsies were heretofore conducted, is no longer to be used for that purpose.

The state of the Recorder's Court in Dublin has long attracted attention, and last week, prior to his lordship taking his seat, a suitor, owing to the excessive heat and bad ventilation, fainted. The Recorder has on more than one occasion represented the state of Green-street Courthouse buildings to the authorities at the Castle, and these representations found their way from the Castle to the Corporation, who were the responsible parties; but with that body the matter remained a dead letter. At a meeting of the Town Council last Monday, one of the members said that nothing could be worse than the condition of the courts in question. The cells beneath were simply "pest-houses," and the sanitary and other arrangements were absolutely disgraceful. The Corporation had applied to the Government and to the Grand Jury to make the necessary alterations, and ultimately a presentment was put for £2500 to be expended in remodelling the courthouse. This was cut down to £500, and eventually thrown out by the Grand Jury. There are some who consider that a new site and an expenditure of some £50,000 will be required, as to endeavour to alter the present structure would be throwing money away.

An association has been formed for opposing the Compulsory Notification of Infectious Diseases by medical practitioners, as it has been ascertained that many, while in favour of notification in the abstract, protest against the imposition of such compulsion upon the medical attendant. It is feared also that should the Bill at present pending in the House of Commons, and specially intended for England and Wales, be adopted, it would be followed by an extension of the same law to Ireland.

The annual Report of the Local Government Board is satisfactory in reference to the considerable decrease which has taken place, as compared with the previous year, of persons receiving in-door relief. A large decrease has also occurred in the number of sick admitted to the various workhouses, and to the number suffering from fever and other contagious diseases.

At the recent examinations for the Indian Medical Service Dr. Charles, who obtained first place, was a most distinguished student of the Queen's College, Cork, gaining all the scholarships and prizes of his course, and the three exhibitions at its close. He is also a Gold Medalist of the Queen's University, graduating with first honours.

Dr. Michael Kinane of Templemore, Tipperary, died on the 11th inst., after two hours' illness. The deceased gentleman had been married only a few days.

The Rev. Dr. Egan, late President of the Killaloe Diocesan College, has been appointed a Fellow of the Royal University of Ireland.

Small-pox has disappeared from Dublin for upwards of a year, but it exists to a slight extent in Belfast and Clonmel.

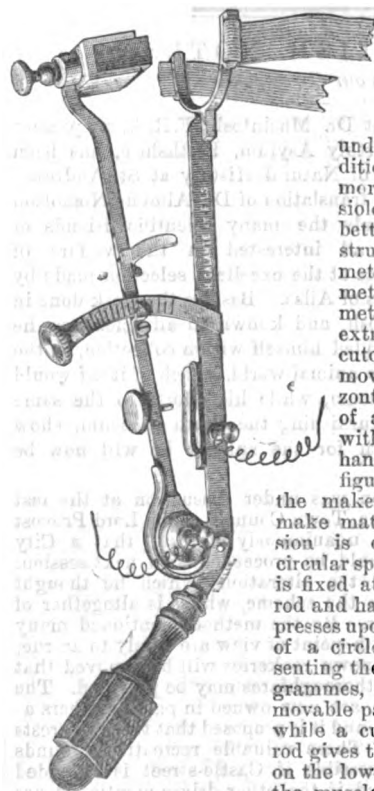
**AMBULANCE CLASSES FOR THE POLICE.**—At Scotland Yard last week certificates were presented to seventy-nine police officers who had passed the examination of the St. John Ambulance Association. Dr. Sieveking presided; and there were also present—Dr. Steet, medical officer, General Post Office; Colonel F. Duncan, R.A., director of the Association; Captain H. C. Perrott, secretary; and others.

ON Saturday afternoon, the 12th inst., the remains of Dr. James Miller, of Great Percy-street, Clerkenwell, were interred in Kensal-green Cemetery. Dr. Miller, who died somewhat suddenly, had been one of the police divisional surgeons of the G or Clerkenwell division for some ten years, and the police, to show their respect, gave him a public funeral.

## PARIS.

(From our Special Correspondent.)

THE last *Compte Rendu* of the Biological Society contains the description of a new instrument presented to the Society at a recent meeting by Dr. Danillo of St. Petersburg and called the "Reflexometer." It is used for measuring the force required to obtain the phenomena known as "reflexes" or myotatic movements, as well as for indicating



the exact moment at which percussion takes place. The inventor thinks that investigation as to the changes of medullary reflectivity

under pathological conditions will be rendered more exact when its physiological variations are better known. The instrument consists of a metallic rod, fifteen centimetres long by five millimetres wide. The free extremity carries the percutor, whilst the other is movable around an horizontal axis, at the junction of a second rod parallel with the first and its handle. A glance at the figure kindly furnished by

the maker, M. Galante, will make matters clearer. Percussion is obtained by a semi-circular spring, one end of which is fixed at the junction of the rod and handle, whilst the other presses upon the rod. A segment of a circle, with a scale representing the force of the spring in grammes, is attached to the immovable part of the apparatus; while a cursor on the movable rod gives the reading. The fork on the lower branch is applied to the muscle or tendon under examination, and the percutor is raised by a little transversal bar in front of the cursor to the required height. The contact of the percutor with the tendon corresponds with the parallelism of the two rods, and with the contact of a screw on the movable branch, with the insulated binding screw of the immovable branch. This is announced by a Deprez signal worked by a battery, the rheophores of which are connected, one with the binding screw already described, and the other with a screw placed at the junction of the handle and rod. Dr. Danillo's apparatus is the modification of an instrument proposed for the purpose and described by M. Brissand in his inaugural thesis.

The same bulletin contains a communication by Professor Charles Bouchard, on the presence of ptomaines, or cadaveric alkaloids, under some circumstances, in the urine. The investigations of Bronardel and Bontney brought to light a test which shows that there is a great analogy between these alkaloids and the poisonous fungi. On the other hand, the ptomaines only appear in animal matter where microscopic vegetable organisms are found. Hence the supposition that cadaveric alkaloids are the product of dissimulation of vegetable organisms. If bacteria living in dead animal matter produce ptomaines, it is possible that the bacteria of a living animal organism may produce analogous substances. Starting from this hypothesis, Professor Bouchard submitted the urine of a number of patients to analysis, after having carefully arranged their diet, and excluded all alkaloids from their medication. In order also to prevent any fermentation or putrefaction, the urine was discharged into a recipient containing a sufficient quantity of powdered boric acid to saturate it. These researches were made in a number of cases of typhoid fever, two of infectious pneumonia, one of infectious pleurisy, and one of

icterus occurring in the course of a phthisis, and which was judged to be infectious from the coincidence of an infectious nephritis. The chemical process employed for the detection of the alkaloids invariably failed to reveal their presence in healthy urine. This is not in accordance with the results obtained by M. Pouchet, but the contradiction may be due to a difference in the mode of research. But in the infectious cases the ptomaines were always to be found. The quantity generated daily in a case of typhoid does not appear to exceed a milligramme. Whether the toxic effects of the product have any bearing upon the symptoms of the disease remains to be seen. Some experiments with hypodermic injections in rabbits and guinea-pigs were negative, in one instance only giving rise to dilatation of the pupil and acceleration of the heart's action.

In a former letter, Sept. 3rd, 1881, an account was given of a new treatment for small-pox, advocated by Dr. Ducastel before the Academy of Medicine. It consisted in the administration of a mixture containing opium and ether, of a second mixture containing perchloride of iron, of the hypodermic injection of ether, and the administration of alcohol. Since May 1st, Dr. Dreyfus-Brisac has been in charge of some small-pox wards, at the Hospital St. Antoine, where he has had a full opportunity of testing its value. His report is published in the current number of the *Gazette Hebdomadaire*. The treatment was at first carried out in its entirety, but after a time the perchloride of iron was omitted except in hæmorrhagic cases. The injections of ether were disagreeable, but not enough to cause any of the patients to refuse them. Sometimes they caused a painful inflammatory induration, which occasionally terminated in a purulent collection, requiring incision, or in a small superficial sore which heals up rapidly. The effect of the treatment on the general intoxication remains problematic, but its influence on the eruption is undeniable, and the description given by M. Ducastel is confirmed in every particular (see THE LANCET, Sept. 3rd, 1881). The papules on the mucous surfaces abort in the same way as those on the skin, and since the introduction of the treatment the necessity for gargles has almost entirely been done away with. Considered in connexion with the eruption only, small-pox is transformed into varioloid, and the serious complications of the third period of the disease scarcely ever occur; one patient only having succumbed from this cause. In many of the cases a severe eruption of boils, without any evil consequence, occurs during convalescence. Dr. Dreyfus-Brisac has always endeavoured to carry out the treatment with opium and ether, but he thinks that the former plays the more important part, for when the mixture, as occasionally happens, is rejected by the stomach, and the treatment is practically reduced to the hypodermic injection of ether, the result is far from being as satisfactory as with the mixed medication.

M. Felizet, surgeon to the Paris hospitals, believes that he can cure diabetes with bromide of potassium, and has made a communication both to the Academy of Sciences and the Academy of Medicine to this effect. He states that, having had occasion to administer this drug for nervous symptoms, occurring in a glycosuric patient, the sugar diminished coincidentally with the improvement of the nervous condition. The administration of bromide to animals suffering from experimental glycosuria (from pricking the fourth ventricle) confirmed this result; and during the last six years M. Felizet has satisfied himself of the curative effects of the remedy in no less than fifteen carefully observed cases. Bromide of potassium is mentioned in nearly all the text-books amongst the medicines useful in diabetes; and Baggie and Flint have especially studied its action in this disease. Such an extraordinary success as that described by M. Felizet is, however, quite unknown to physicians. Let us hope that the discovery of our *chirurgical confrère* may be confirmed by future experience, and that this incursion into the domain of medicine may not prove the wisdom of the old saying concerning the *sutor* and the *crepida*.

The world is indebted to M. Naquet, the celebrated chemist, politician, and advocate for divorce, for the invention of ——— a new hair dye! The *Figaro* having discovered the fact that a patent had been taken out some time since by a person of this name, propounded the question whether the inventor was really the well-known deputy. M. Naquet has replied in a witty letter explaining the circumstance. He says that he had been strongly impressed two or three years ago by the report of Dr. Dubrisay to the

*Conseil d'Hygiène*, on the poisonous composition of most hair dyes. A minister of the Empire had even lost his life in consequence of their use. Since the ridiculous practice of staining the hair exists and that satire is unable to put it down, M. Naquet thought it would be a humane enterprise to seek some harmless substitute for the dangerous compounds generally employed. The dye for which he took out a patent is a mixture of subnitrate of bismuth and hyposulphite of soda. Being unwilling that his name should be used in connexion with it, or to engage in its manufacture or sale himself, M. Naquet had intended to make over his rights to someone who should work the patent for the benefit of all but in the midst of his numerous occupations he had forgotten all about it. At the present time the patent has lapsed and the invention become common property.

Paris, August 15th, 1882.

## MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Monday the Artisans' Dwellings Bill passed through committee and was reported without amendments to the House. The Poor-law Amendment Bill was read a third time and passed, as was also the Artisans' Dwellings Bill on Tuesday.

In the House of Commons on Thursday, the 10th inst., a return was presented, on the motion of Mr. Dodson, containing a list of the alkali and other chemical works registered under the Act of 1881.

On Friday, a petition for redress of the grievances of militia surgeons was presented from the South Midland Branch of the British Medical Association.—A copy was presented of the half-yearly report to the Lord Chancellor of Lunacy Visitors.

On Saturday, the 36th report of the Commissioners in Lunacy was presented.

On Monday, the Lords' amendment to the Commons' amendments of the Lunacy Registration Bill was agreed to.—An abstract of the accounts for 1881 of county and borough asylums was presented.—Mr. O'Donnell put a fresh series of questions to the Secretary for India with reference to the mortality in Indian gaols, and Lord Hartington again replied that the Government of India were not of opinion that it was caused by the reduced dietary, and that he saw no grounds for imputing neglect of duty to the prison officials.

On Tuesday, the 31st report on the district criminal and private lunatic asylums of Ireland was presented, as also was the annual statistical report on the health of the navy.

### Carandonagh Water-supply.

Mr. Healy gave notice that he would ask the Chief Secretary to the Lord Lieutenant of Ireland if he had any objection to lay upon the table the report of Professor Leebod's analysis of the Carandonagh waters, in the year 1875-6, for the Local Government Board; whether it is the fact that the town contains 750 inhabitants, exclusive of workhouse, hospital, military, and constabulary barracks, and that for over eleven years the water-supply has been insufficient and very bad; whether, during the same period, typhus and typhoid fever were never absent summer or winter; if two dispensary doctors have died from fever in this town; whether the present doctor immediately after his appointment suffered for many months from fever; whether many other inhabitants of the town have suffered in the same way; and whether, under all the circumstances, anything can be done by the Local Government Board to insist upon a proper supply of water being obtained.

### Surgeon M'Gann.

Mr. O'Shea gave notice of the following question to the Secretary of War:—Whether the cases of Surgeon M'Gann, and other officers of the Medical Department, whose distinguished services in South Africa were mentioned in General Orders and Despatches, have been considered.

On Wednesday, the annual report on sanitary measures in India was presented.

On Thursday, in reply to Mr. O'Shea, Mr. Childers stated that several medical officers did excellent service in the late war in South Africa, of whom Surgeon M'Gann was one.



They had been thanked for their services, and their conduct had been duly recorded.

#### *The Norwich Vaccination Inquiry.*

Mr. Dodson, in reply to Mr. Hopwood, stated that he had received a report from the medical inspector who visited Norwich with regard to the deaths which were attributed to the effects of vaccination. In consequence of that report, he had directed a public inquiry to be held; and considering the gravity of the cases, and the strong public feeling regarding them, he proposed to associate with the local inspector one of the Local Government Board's most experienced general inspectors in the conduct of the inquiry.

## Obituary.

### DR. ARTHUR G. REID, OF HANKOW, CHINA.

OUR obituary list contained a few weeks ago the announcement of Dr. Reid's death at Hankow, on June 20th, the news having been received by telegram. A widespread circle of friends in the East and at home will have learnt with much sorrow that so promising a career has been brought to a premature close. Dr. Reid was educated at the University of Edinburgh, and after having been house-surgeon to the late Professor Spence, with whom he formed ties of close friendship, settled at Hankow in China, in practice amongst the foreign residents. His professional zeal not finding sufficient scope amongst the small foreign population, he conducted gratuitously a hospital for Chinese under the auspices of the London Missionary Society; and it was in this field that he made the numerous clinical observations regarding leprosy which were published in the *China Customs Gazette*, and which are quoted in all modern standard works on that disease.

Dr. Reid recently visited Europe and enlarged his experience by visits to the hospitals of Edinburgh, London, Paris, and Vienna, keeping steadily in view the acquisition of the modern methods of investigation in diseases of the nervous system, with special reference to their application to the study of leprosy. He intended to remain only a short time in China; and the chief inducement that reconciled him to the prospect of a further stay in Hankow was the hope of being able to throw some further light on that obscure disease. We understand that Dr. Reid had accumulated extensive notes in reference to the distribution of the disease in Central China; and it is to be hoped that some means may be taken of rendering the information they contain available to the profession.

Dr. Reid died suddenly of sanguineous apoplexy, when apparently in his usual health. He was a little over forty years of age.

## Medical News.

UNIVERSITY OF LONDON. — The following is the list of candidates who have passed the recent Intermediate Examination in Medicine:—

#### FIRST DIVISION.

Anderson, George Elliott Caldwell, Guy's Hospital.  
Bowes, William Henry, Guy's Hospital.  
Brock, James Harry Ernest, University College.  
Carr, John Walter, University College.  
Elliott, John, B.Sc., Owens College and St. Barthol. Hosp.  
Hayman, William Speed, King's College.  
Innes, Charles Barclay, St. Bartholomew's Hospital.  
Jones, Fredk. Wm. Caton, St. Bartholomew's Hospital.  
Jones, Samuel Cromwell, University College.  
M'Cabe, William Alexander Bowes, University College.  
Purslow, Chas. Edwin, Queen's and Mason Colls., Birmingham.  
Spong, Charles Stuart, B.Sc., Guy's Hospital.  
Watson, William Ivens Buswell, Guy's Hospital.  
Wells, George Lee, St. Bartholomew's Hospital.  
Woolbert, Henry Robert, University College.

#### SECOND DIVISION.

Adie, Joseph Rosamond, University College.  
Andrews, Charles, University College.  
Arkle, Charles Joseph, University College.  
Barnett, Lawrence, University College.  
Bernard, Letitia Caroline, Lond. School of Medicine for Women.  
Brogden, Richard William, Guy's Hospital.  
Caldecott, Charles, Guy's Hospital.  
Chapman, Harry Cecil, St. Bartholomew's Hospital.

Cocking, William Tusting, University College.  
Cooper, Henry Charles Evans, Guy's Hospital.  
Dutt, Upendra Krishna, B.Sc., St. Mary's Hospital.  
Fenton, Herbert Alfred Hill, St. Thomas's Hospital.  
Fisher, Henry Holdrich, St. Bartholomew's Hospital.  
Flemming, Percy, University College.  
Frames, Alfred Cromwell, St. Bartholomew's Hospital.  
Francis, Alfred George, St. Bartholomew's Hospital.  
Hinds, Frank, University College.  
Hodgson, Gerald George, King's College.  
Hurst, Walter, Owens and University Colleges.  
Irvin, Frederic David, University College.  
Joberns, William, Queen's and Mason Colleges, Birmingham.  
Lanckester, Herbert Henry, St. Thomas's Hospital.  
Little, Arthur Nicholas, Bristol Medical School.  
Mumby, Langton Philip, Westminster Hospital.  
Penrose, Francis George, University College.  
Pettifer, Edmund Cleaver, St. Bartholomew's Hospital.  
Pilgrim, Herbert Wilson, University of Edinburgh.  
Randell, Reginald Maurice Henry, Guy's Hospital.  
Robinson, Henry Betham, St. Thomas's Hospital.  
Rouse, Rolla Edward, St. Thomas's Hospital.  
Sellick, James Henderson, Guy's Hospital.  
Stragnell, Walter Thomas, St. Bartholomew's Hospital.  
Swain, James, Westminster Hospital.  
Taylor, Alfred Ernest, Guy's Hospital.  
Trautman, Frank, Bristol Medical School.  
Turner, Philip Dymock, University College.  
Vernon, John James Dean, Guy's Hospital.  
Vince, John Foster, Queen's and Mason Colls., Birmingham.  
Voelcker, Arthur Francis, University College.  
Whitcombe, Philip Percival, St. Mary's Hospital.  
Williamson, Richard Thomas, Owens College.

#### EXCLUDING PHYSIOLOGY.

##### FIRST DIVISION.

Carpenter, George Alfred, St. Thomas's Hospital.

##### SECOND DIVISION.

Freeland, Freeland John, King's College.

Lanckester, Alfred Owen, St. Bartholomew's Hospital.

#### PHYSIOLOGY ONLY.

##### SECOND DIVISION.

Gross, Charles, Guy's Hospital.  
Shillito, Henry, Birmingham School and Mason College.  
Tilly, Alfred, St. Mary's Hospital.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 10th:—

Cox, Roland Frederic, Twickenham.  
Myddelton-Gay, Edward Herbert, Littlehampton.  
Smith, James Edward, Hammersmith.  
Thomas, Arthur William, Chelsea.  
Treasure, William Beeson Crawford, Crewkerne.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Harry Appleton, Charing-cross Hospital; Chas. G. Gummer, St. Bartholomew's Hospital.

GLASGOW UNIVERSITY. — In the graduation list which appeared in THE LANCET of last week, the name "Gume" should have been printed *Grime*.

MR. RICHARD AXFORD, late medical officer for the workhouse and third district of the Bridgwater Union, has received a superannuation allowance of £25 a year.

A LARGE number of cases of insolation at New York are reported, resulting from the intense heat which has characterised the last few weeks.

THE scarlet fever epidemic at Accrington is stated to be on the increase. It has been decided to close all the schools of the town.

IT is proposed to celebrate the centenary of the Hull Infirmary, with the object of enlarging, improving, and endowing the institution, and of obtaining the addition of a convalescent home in connexion with it.

ROYAL BOTANIC SOCIETY. — The forty-third anniversary meeting of this Society was held last week at the Gardens, Regent's Park, Dr. H. A. Pitman in the chair. The financial condition and other matters in connexion with the Society were described by the report as satisfactory.

THE BRITISH ASSOCIATION. — The arrangements for the fifty-second annual meeting of this Association, which is about to be held at Southampton, extending from Wednesday, the 23rd inst., to Thursday, the 31st, are now completed. The first general meeting will be held on Wednesday evening at the Victoria Skating Rink, when Sir John Lubbock will resign the chair to Dr. C. W. Siemens, and the president elect will give his inaugural address. On Thursday evening there will be a *soirée* at the Hartley Institution; on Friday evening a discourse on the "Tides," by Sir William Thomson, M.A., in the Skating Rink; on Monday evening a

discourse on "Pelagic Life," by Mr. H. N. Moseley, M.A., at the Skating Rink; on Tuesday evening a *soirée* at the Hartley Institution; and on Wednesday afternoon the concluding general meeting at the Skating Rink. The several sections will meet daily at 11 o'clock in the morning from Thursday to Tuesday, both inclusive, in various public buildings. Amongst the excursions arranged for will be one to Netley Abbey and Hospital, where a garden party is to be given by the Surgeon-General and officers of the Army Medical Department.

THE death of Dr. W. H. Cook, medical officer of the Hampstead Infirmary, affords another illustration of the risks attending medical practice. Dr. Cook fell a victim to an attack of scarlet fever contracted from a patient whom he was attending for the disease.

DISASTERS AT SEA.—A Society has at last been formed for the promotion of increased places of safety on our coasts for fishermen and mariners. It is proposed that convict labour be used in the construction of these harbours. Mr. F. Johnson, Norman-road, St. Leonards-on-Sea, is the hon. secretary.

A CENTENARIAN.—On Monday evening Mrs. Burton died at her residence, Whitecross-street, Barton-on-Humber, aged 100 years. She had lived there all her life, except a few years spent in domestic service. The old lady was born on August 1st, 1782, and therefore attained her hundredth year on the 1st inst.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—At the quarterly general meeting of the Association to be held in the rooms of the Medical Society of London, Chandos-street, Cavendish-square, on Friday (this day), at 4 P.M., Dr. G. Shearer, F.L.S. (formerly of China), will read a paper on "Recent Apologists for the Opium Trade."

SEWER VENTILATION.—At a meeting of the Works Improvement Committee, Hove, on the 22nd ult., a communication was read from Mr. Paddon, of the Brighton and Hove General Gas Company, granting permission to the Commissioners to erect a shaft inside their works at Hove to ventilate the St. Aubyn's sewer, upon their undertaking to do the work to the company's approval, to remove the pipe and restore the ground upon receiving seven days' notice, to pay the sum of 1s. per year as rent, and to keep the Company clear of all expense in connexion with the work. The committee recommended that the surveyor be directed to carry out the proposed works forthwith, at a cost not exceeding £15. The same committee also recommends that the surveyor be directed to prepare and bring up plans and estimates of the cost of carrying out the necessary works for connecting the public sewers. At their next meeting (on the 5th inst.), the surveyor produced a specification of the works necessary to be carried out for connecting the sewers, and stated that he estimated the cost of carrying out such works at the sum of £2580. The committee recommend that the plans and estimate of the cost of carrying out the necessary works for connecting the public sewers be approved, and that the Board be recommended to carry out such works by contract; the sum required for the same to be borrowed under the powers of the Public Health Act, 1875.

## Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

ADCOCK, HAROLD, M.R.C.S., has been appointed Medical Officer for the Corby District of the Kettering Union.  
CLAYWORTH, C. CREASY, L.R.C.P.Ed., M.R.C.S., has been appointed Resident Medical Officer to the Sydney Hospital, Australia.  
CLOUGH, MORLEY EDISON, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Hambleton District of the Droxford Union.  
DAVISON, J. T. R., M.D., C.M.Ed., has been appointed Senior Resident House-Surgeon to the Royal Southern Hospital, Liverpool, vice J. M. Chisholm, M.A., M.D.Edin., M.R.C.S., resigned.  
DENNE, T. V. DE, M.R.C.S., L.R.C.P., has been appointed Medical Officer and Public Vaccinator to the No. 2 Rowley Regis District of the Dudley Union, vice H. R. Ker, resigned.  
DURDIN, ROBT. CHAS. GARDE, L.R.C.S., L.K.Q.C.P.I., has been appointed Medical Officer for the Desford District of the Market Bosworth Union.

FITZPATRICK, M. M., M.B., C.M.Ed., has been appointed Junior Resident House-Surgeon to the Royal Southern Hospital, Liverpool, vice W. H. Irvin Sellars, M.B.Ed., M.R.C.S., promoted.  
LYON, ADAM CORBETT, M.B., C.M.Aber., has been appointed Medical Officer for the Rillington District of the Malton Union.  
MANN, JOHN DIXON, M.D., M.R.C.P., has been appointed Physician to the Salford and Pendleton Royal Hospital.  
MONTGOMERY, J. W., F.O.S., has been appointed Public Analyst for the County of Westmoreland, vice Siebold, resigned.  
O'CONNOR, BERNARD, M.D., M.R.C.P.Lond., has been appointed Physician to the Hospital for Consumption and Diseases of the Chest, Mount Vernon, Hampstead, vice Dr. Burrell, resigned.  
ROE, EDWIN HODGSON, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Cadishead District of the Barton-on-Irwell Union.  
SCHMIDT, ALFRED EDWIN, L.R.C.P.Ed., L.S.A.Lond., has been appointed Medical Officer for the Third District of the Bethnal-green Union, vice Richards, resigned.  
SELLARS, W. H. IRVIN, M.B.Edin., M.R.C.S., has been appointed Second Resident House-Surgeon to the Royal Southern Hospital, Liverpool, vice J. T. R. Davison, M.D., C.M.Edin., promoted.  
SPICER, R. H. SCANES, B.Sc.Lond., M.R.C.S., L.S.A.Lond., has been appointed Resident Medical Officer to St. Mary's Hospital.  
SPURGIN, THOMAS, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Third District of the Ongar Union, vice Potter, deceased.  
STEVENSON, RALPH DRUMMOND, M.B., C.M.Glas., has been appointed Resident Surgeon to the Daylesford Hospital, Australia.  
SYMONS, CROFT GEORGE, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Bedford District of the Hoxne Union.  
WEBB, CHARLES FRERE, F.R.C.P.Ed., M.R.C.S., has been appointed Public Analyst for the Borough of Basingstoke.

## Births, Marriages, and Deaths.

### BIRTHS.

FINZI.—On the 10th inst., at Sutherland-gardens, the wife of Dr. L. M. Finzi, M.R.C.S., L.R.C.P.Lond., of a daughter.  
HARDWICK.—On the 13th inst., at Pillar House, Needham Market, Suffolk, the wife of Fredk. S. Hardwick, M.D., of a daughter.  
HUTCHINSON.—On the 10th inst., the wife of S. J. Hutchinson, M.R.C.S. &c., of Brook-street, Grosvenor-square, and Brondesbury, N.W., of a son.  
PHILLIPS.—On the 5th inst., at Woodville, New Ferry-park, Cheshire, the wife of Edward T. M. Phillips, M.R.C.S., L.D.S., of a daughter.  
PIERREPONT.—On the 4th inst., at The Common, Ealing, the wife of Dr. E. Pierrepont, of a daughter.  
RICE.—On the 8th inst., at the Infirmary, Plumstead, the wife of George Rice, M.B., C.M., of a daughter.  
SMITH.—On the 13th inst., at George-street, Hanover-square, the wife of Eustace Smith, M.D., F.R.C.P., of a son.

### MARRIAGES.

BRISBANE—WATSON.—On the 10th inst., at the Presbyterian Church, Colebrooke-row, by the Rev. Thain Davidson, D.D., James Brisbane, M.D., of 21, Park-road, Regent's-park, to Mary Jane, eldest daughter of the late William Watson, Esq., of 30, Highbury-hill, N.  
DOCKRELL—OLDFIELD.—On the 9th inst., at St. Jude's Church, Kilmainham, Dublin, by the Rev. Thos. Mills, A.M., assisted by the Rev. T. Aldwell, Morgan Dockrell, B.A., M.B. Dub. Univ., of Old Kent-road, London, S.E., youngest son of the late Thomas Dockrell, Esq., J.P., of Monkstown, co. Dublin, to Emily, only daughter of the late Alexander Oldfield, Esq., of Nottingham, and granddaughter of the late Lieutenant Ball, R.N.  
GRAHAM—PONDER.—On the 15th inst., at St. Matthew's Church, Oakley-square, J. Campbell Graham, M.D., youngest son of the Rev. W. Graham, of Bonn, D.D., M.R.I.A., to Mary Jessie, second daughter of the late Stephen Ponder, Esq., of Canton, and Hampton, Middlesex.  
HARRIS—SMITH.—On the 8th inst., at Patterdale Church, by the Rev. W. Pattinson, M.A., Vicar, Alfred Harris, M.B. & C.M., of Dalston, son of the late Anthony Harris, of Middlesborough, to Grace Elizabeth, widow of the late C. E. Smith, M.D.

### DEATHS.

CHAVASSE.—On the 13th inst., at Duchesse-road, Edgbaston, Samuel Chavasse, M.R.C.S., late of Newhall-street, Birmingham.  
COOK.—On the 2nd inst., at Abercrombie Villas, Hampstead, William Henry Cook, M.D., aged 57.  
GILES.—On the 8th inst., at his residence, Pendreath, Torquay, Richard Giles, M.D., late of Oxford.  
TENNANT.—On the 11th inst., suddenly, at Lambert-road, Brixton, William D. Tennant, M.R.C.S., youngest son of the late Rev. Sanderson Tennant, M.A., of Kensington, aged 32.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### HOSPITALS IN THE PUNJAB.

SURGEON-GENERAL S. C. TOWNSEND'S Report of the Punjab Dispensaries for the year 1880 shows that 181 hospitals and dispensaries were open at the commencement of the year, four new dispensaries were established and one closed, leaving 184 in operation at the close of the year. 34,729 in-door and 1,838,700 out-door patients were treated, and 3531 major and 100,803 minor operations performed; the percentages of men, women, and children treated were 64, 19.5, and 16.5. Dr. Townsend notes as the imperfections of the dispensary system: (1) Want of inspection; (2) consequent suspicion of correctness of statistics; (3) employment in some districts of hakims of very doubtful qualifications; and (4) want of system in allocation of dispensaries. These matters are engaging the attention of Government.

Mr. Moore.—Our correspondent's letter has been forwarded to the advertiser.

### "THE ABORTIVE TREATMENT OF GONORRHOEA."

To the Editor of THE LANCET.

SIR,—Since reading the able papers contributed to your pages by Mr. Watson Cheyne, I would say, relative to the abortive treatment of gonorrhoea, that I have used two-drachm doses of sandal-wood oil three and even four times a day in the prodromatory and inflammatory stages of the disease, especially in "primary cases," with well-marked results. The purulent secretion has been completely arrested within thirty to forty-eight hours, rarely continuing on to seventy-two hours. The *modus operandi* I cannot explain, but have in these followed up the cessation of the discharge for three or four days by urethral injections of chloride of zinc (preferring the liquor of the British Pharmacopoeia in the preparation of the same), as, in some instances where I omitted the injections, I found the discharge reappear on the discontinuance of the oil. I might add that by the above method of treatment the inflammatory sequences are reduced to a minimum. I do not recollect whether the remedy has ever been suggested before, but in my Indian experience I have obtained very beneficial results in the treatment of paroxysmal hæmaturia with large doses of the oil, though not so large as those suggested above.—I am, Sir, faithfully yours,

C. H. F. UNDERWOOD, L.K.Q.C.P.I., &c.

Edinburgh, August 12th, 1882.

To the Editor of THE LANCET.

SIR,—In Mr. Watson Cheyne's and Dr. Ryley's treatment of the above subject I see no mention of "hydrastin," which, from an extensive practice, I can strongly recommend. The best treatment I have found might be summed up with the following:—Internally, three minims of the oil of turpentine and one ounce of infusion of buchu, three times daily. Locally, warm-water injection, followed directly by the following: Two drachms of hydrastin Canadensis, two drachms of subnitrate of bismuth, and four drachms of glycerine, with sufficient water to make four ounces, which should be retained in the urethra as long as possible. The nitrate of silver, sulphate of zinc, &c., locally I found worse than useless, and from personal experience I should certainly never prescribe any of them.

I am, Sir, yours, &c.,

Abergeldie, August 14th, 1882.

A STUDENT.

Enquirer (Edinburgh).—Messrs. Spottiswoode's, New-street-square, London.

### BICYCLE-RIDING.

To the Editor of THE LANCET.

SIR,—I should be glad if any of your numerous correspondents would inform me if their experience justifies them in concluding that bicyclists are as a class unduly affected with rupture, and whether bicycle-riding has a pronounced tendency to produce that infirmity.

I am, Sir, yours obediently,

August 14th, 1882.

F.R.C.S.

### MEDICAL AESTHETICS.

At the banquet given at the annual meeting of the State Medical Society of Arkansas (says the New York Medical Record) there were ingenious accompaniments to the feast. At each plate was a little white roll, in appearance suggesting a surgeon's bandage, and labeled "Epicurean bandage." Upon unrolling this it was found to consist of a yard of fine gros grain silk ribbon, upon the middle third of which was printed, in red letters, the bill of fare, in the form of a prescription, in Latin phraseology, the perusal of which afforded much amusement. At each plate also lay a model of a surgeon's saw in stiff card, upon which were printed the toasts, with the names of those who were to respond to them.

Mr. McNaught does not say anything in his letter to explain that part of his views which shocked us most—the proposal that, to save the rate-payers, the unfortunate officer of health should be required to attend all infectious cases for his present salary. We are glad that he approves of the notification of disease as advocated by us.

### SUCCESSFUL PRECAUTIONARY MEASURES AGAINST PUERPERAL FEVER.

To the Editor of THE LANCET.

SIR,—Noticing a fatal case of puerperal fever directly due to scarlatina poison (recorded in last week's LANCET), I thought the following case might interest your readers.

On July 31st I was called to see the child of Mrs. M—. On arrival I found the child suffering from scarlet fever. At the same time I was requested to see an aunt of the child, who was ill, and whom I found suffering from scarlet fever also. Noticing that the mother was pregnant, and to all appearances in an advanced stage, I strongly advised the immediate removal of both the patients. The mother, however, would not hear of the child being removed, but allowed her sister to be taken to the hospital, where she remains at the present time, having had a severe attack, her throat being much affected. The child subsequently skinned very freely. On August 5th the mother was taken with labour pains, and was delivered of a child at 8 P.M., in the same room in which the child was, there being no other room in which to isolate the case. I had the woman placed between sheets impregnated with carbolic as soon as labour set in; and in place of using lard to lubricate the fingers for making examinations, carbolicised oil was employed. All the napkins used then and subsequently were saturated with the same. The case progressed favourably, no bad symptoms intervening.

I should be glad to know if any of your readers have tried the same precautions in similar cases, and if with the same results; and also whether any of them have ever had similar cases where they have taken no precautions with as favourable results, as I would like to satisfy myself that it was really the precautions taken that prevented the development of puerperal fever, and not the insusceptibility of the patient.

I am, Sir, yours, &c.,

H. G. SWORN, L.K.Q.C.P., &c.

Liverpool-road, N., August 15th, 1882.

Badynion.—The rule varies in different places; but either practice is courteous, and the courtesy should be accepted and reciprocated.

### PUERPERAL CONVULSIONS.

To the Editor of THE LANCET.

SIR,—About the year 1875—I cannot lay my hand on my notes—I treated a case of puerperal convulsions by injection of morphia with success. I had administered chloroform previously, but finding the fits recurring on ceasing to give the anæsthetic, I thought to try the hypodermic injection of morphia, which had the desired effect. I have used it since in a case in which it failed to cause more than a diminution in severity, the patient of another medical man, whom I saw rather late in consultation, dying soon after. I have administered the injections advantageously in non-puerperal convulsions.

I am, Sir, your obedient servant,

RICHARD LEIGH, M.R.C.S.,  
Assistant Medical Officer to the Liverpool Lying-in  
Hospital and Ladies' Charity.

Liverpool, August 11th, 1882.

Mrs. Annabella Russell.—We know of no source for the information desired other than the various reports of the local medical officers of health.

### MEDICAL EVIDENCE WITHOUT PAYING FOR IT.

To the Editor of THE LANCET.

SIR,—The following represents a class of cases which I believe is getting rather common now, and which I think is hardly fair to medical men. I am called up early and find the patient dead. I send a certificate to the coroner's officer, stating I had seen the man a fortnight previously, and the facts of the case, requesting to know if there is any need of an inquest. The widow comes back and says that her husband's body is removed to the mortuary, and there would be an inquest. I hear no more until I see the report in the local paper, when I find that my information to the coroner is used instead of my evidence as a witness, and thus my fee is saved to the county. Is this the way that medical coroners are expected to treat their medical brethren?

I am, Sir, yours, &c.,

Highbury, August 16th, 1882.

Geo. THOS. KEELE.

## SUMMER SANITATION.

THE New York Board of Health, which has powers granted to few such municipal bodies by legislators, appoints each year fifty physicians as sanitary inspectors, who for five weeks in July and August inspect the tenement houses of the city, report the grossest nuisances to be abated, prescribe especially for the sick children of the poor, and distribute tickets to the excursions given by the various charitable associations.

**Mr. W. B. Holderness.**—The remuneration is inadequate. Our correspondent should have had an understanding before giving evidence; but he should press his claim for two or three guineas a day more.

## "SCOTCH MEDICAL SCHOOLS."

To the Editor of THE LANCET.

SIR,—“Alpha’s” letter, which puts forward the cheapness of class and hospital fees as a subsidiary attraction to the Scottish schools, may be held to apply to the Glasgow of the past, but certainly not to the Edinburgh of the present. The total minimum of the university course is put at £107 odd in the Calendar, but this does not include practical classes, and allows only one course of dissecting. It really runs up to something like £130 or £140. The cheapest (and thereto most excellent) teaching I know of is at Leipzig, where a class of laryngoscopy costs 15s., and a full course of ophthalmoscopy and Augen-klinik £1. Board and lodging are perhaps about the same in Edinburgh as in London, but the “conditions of life” that surround the student are more comfortable. There is plenty of inducement to take walking excursions into the country; then the sea is not far off, and there are plenty of tennis-courts and an excellent, if somewhat remote, cricket-field and club. The latter is chiefly kept up by the English and colonial students, as cricket, although rooting, is not quite a national game in Scotland. Rugby, Harrow, Winchester, and Marlborough men are usually to be found in the eleven plus a contingent from Australia and Canada. Scotland may well be proud that her capital attracts students of medicine from all parts of the world to the tune of about 2000. Only a small proportion of these are Scotchmen, which is not to be wondered at when we consider what the population of Scotland is, and the fact that there are schools at Glasgow and Aberdeen. Of the university graduates of 1881 only 57 out of 123 were natives. I have met a good many foreigners in my time—Frenchmen from Mauritius, Indian natives, a Russian, a Pole, men too from our remotest colonies.

I am, Sir, yours faithfully,

BETA.

Edinburgh, August 12th, 1882.

**Enquirer.**—Both particulars are essential to be known by the purchaser. It is enough to advertise the cash receipts.

L.R.C.S.E.—No.

## "LAWN TENNIS ARM."

To the Editor of THE LANCET.

SIR,—With reference to the correspondence which has appeared in THE LANCET on the above subject, allow me to report a case which I consider almost perfectly answers the description of the injury given by Mr. Morris.

Mr. G. W.—last winter, during a very hard-fought game of racquets, suddenly after a back-handed stroke felt severe pain over the pronator radii and teres, which incapacitated him from taking further interest in the game, because, as he described it, he could not hit a single ball. There was swelling and tenderness on pressure along the course of the pronator. Cold-water bandages and subsequently soap liniment gave relief. He can now play cricket, and bat half a day without the slightest inconvenience, but if he plays lawn tennis for an hour, the muscle gets so painful and stiff that he can scarcely use his arm. As in the former there is no back-stroke, it proves pretty conclusively that the back-stroke is the cause of the injury.

Mr. W.—is a well-known cricketer, very powerfully built, and all the year round in good condition, so that I do not think the present weight of racquets or tennis-bats likely to affect him; and he informs me that he always plays with a 13 oz. one, which is comparatively light.

I am, Sir, yours faithfully,

Over Darwen, August 9th, 1882.

C. SUTCLIFFE, M.R.C.S. Eng.

## A QUERY.

To the Editor of THE LANCET.

SIR,—I fancy I have had as much experience in the treatment of children as most medical men, but at the present time I have a case that rather foils me. Could any of your correspondents suggest any treatment for it? The patient is a female child, about four years of age. I was first called to see her about four months ago. She then seemed to be suffering from torpid liver, with urticaria and enlarged tonsil on the right side. She had the usual remedies and change of air, but she still has frequent daily attacks of the nettle rash, the enlarged tonsil still remaining, and the urine about normal in quantity, but turbid, as if containing mucus. In other respects the child seems well; her appetite is good; there are no symptoms of worms; no vaginitis. I have tried all the usual remedies—the alkaline salines, cod-liver oil with tonics, also warm baths and counter-irritation over the kidneys—but up to the present the patient remains *in statu quo*.

I am, Sir, yours faithfully,

August 15th, 1882.

L.R.C.P.

## COW'S MILK DURING THE PERIOD OF RUT.

To the Editor of THE LANCET.

SIR,—Some time ago a very intelligent patient made a suggestion to me in connexion with the artificial feeding of children, which I think of some importance and worthy of consideration by my professional brethren. I was in attendance on this gentleman's child, which nearly lost its life from diarrhoea and vomiting caused, I was informed, by the administration of milk of a somewhat doubtful character. This was the third attack of stomach and bowel derangement, occurring at intervals of three weeks. It was here that the father's suggestion came in: “Is it not possible, seeing that this child has got nothing but ‘one cow’s milk,’ that the bowel complaint is due to natural changes in the milk incidental to the period of rut, which in the cow is every three weeks?” This was an aspect of the question which had never struck me before, but it is the case that when this child, after recovering from the attack in question, was put on the ordinary milk that was bought for general use in the house, it had no return of the bowel derangement.

As I have no very good opportunity for the study of this question, I should like to ask those who practice in the country whether they are aware of any facts confirmatory of my patient's suggestion. Does cow's milk really undergo any alteration in composition during the period of rut? and, if so, have they noticed any ill-effects from the use of such milk?

I am, Sir, yours sincerely,

Glasgow, August 15th, 1882.

ALEX. NAPIER.

R.—Our correspondent is entitled to his fee. A midwifery engagement binds a practitioner, and has often been recognised as a sound basis for claiming the fee.

## "BLOOD DIET."

To the Editor of THE LANCET.

SIR,—With reference to giving preparations of blood to delicate children, I have been experimenting for the last five years at the Royal Hospital for Children and Women with it. At Guy's *conversations* last October I showed a specimen of dried blood dissolved in gelatine. I have come to the conclusion, after many trials, that the best way to prepare it is the following. A given quantity of blood is collected, and, before coagulation takes place, is mixed with three-parts of water, and kept in constant movement for some time, then gradually evaporated over a water bath at a temperature not exceeding 100° F. Very great care has to be taken to prevent coagulation. When the consistence of chocolate is reached, a higher temperature may be used to perfect drying. It should be reduced to a powder in a mortar. It is like coffee, with very little taste, but with a peculiar odour. If properly prepared it should be perfectly soluble in water. I commence for a child one year old with a teaspoonful during the day.

I am, Sir, yours faithfully,

ED. O. DAY,

Assistant-Surgeon to the Royal Hospital for Children, &c.,

August 12th, 1882.

M. R.—Our correspondent will find the information he requires in our Students' Number for Sept. 10th, 1881.

## DOUBLE GINGLYMUS OF THE KNEE-JOINT.

To the Editor of THE LANCET.

SIR,—The following case I think must be a novel one, and, with your kind permission, I offer it as a small contribution.

Mrs. S.—I delivered of a healthy child three months ago, the right leg folded on the thigh in front, with the toes lying in the groin. In straightening the limb I found no difficulty until it arrived at a straight position, when there was a hitch, and some little difficulty in forcing the leg backwards. On achieving that I found the muscles strong enough to bring the limb back to the position in which I found it. There was complete absence of the patella—in fact, a hollow where it should have been.

My treatment was to contrive some means of keeping the limb in a straight position, allowing the natural movement of the joint. This I attained by having a piece of poroplastic felt shaped to the back of the thigh and also the calf, with a ginglymus joint between, allowing the required movement, with what ultimate result I am not able to say; but perhaps somebody more experienced and having met a similar case may be able to say it for me.—I am, Sir, your obedient servant,

Chelsea, August 14th, 1882.

H. FISHER, M.D.

## FEES.

To the Editor of THE LANCET.

SIR,—I was called last Sunday week by the police to see a man who was at an inn. I found him to be a lunatic, and certified to that effect, so that he might be taken away to safer quarters. On the following Tuesday I received a letter by post (which I did not get till 10 o'clock, being engaged out) from the police superintendent asking me to attend at the police-court (which is about four miles away) at 11.15 A.M. the same morning to give evidence before the magistrates against the man charged with being a lunatic at large. At great inconvenience I attended, and after giving my evidence, wrote out the usual certificate in such cases, when I was offered the fee of £1 1s., and was told the Court allowed no more, which was both for certificate and attendance there.

Now, I wish to ask if that is all the fees I can claim, for the usual fee of a lunacy certificate is £1 1s.; and in a case of assault about two months ago, before the same Court, I was allowed £1 1s. for giving my evidence there as a medical witness.—I am, Sir, yours faithfully,

August 14th, 1882.

F. F.

**ERRATUM.**—In Mr. Walker's paper, published last week, on the increase of Carbonic Acid in the Atmosphere, page 220, line 21, for "animals," read *annuals*.

**COMMUNICATIONS** not noticed in our present number will receive attention in our next.

**COMMUNICATIONS, LETTERS, &c.**, have been received from—Mr. Berkeley Hill, London; Mr. Price, London; Mr. Skirving, Edinburgh; Mr. Day; Mr. Underwood, Edinburgh; Mr. Chavaase, Birmingham; Dr. Napier, Glasgow; Mr. Scriven, London; Dr. P. Boerner, Berlin; Mr. Wright; Mr. S. Drew; Mr. Rushton Parker, Birmingham; Mr. Sworn, London; Mr. Lowns, Pakhor; Mr. Lediard, Carlisle; Mr. Symons, London; Mr. Jackman, Coggeshall; Mr. Bull, Stony Stratford; Mrs. Russell, Sandhurst; Dr. Sydney, Hounslow; Mr. Mollett; Dr. Edis, London; Dr. Coombs, Castle Cary; Dr. Davy, Southernhay; Dr. Leslie Jones, Blackpool; Dr. Elder, Nottingham; Mr. Keele; Mr. Macnaught, Greenock; Mr. Schacht, London; Mr. Benham; Dr. Norman Kerr, London; Dr. Hubert Bruxelles; Dr. Lucas, Ahmedabad; Mr. Boys; Mr. Melhuish, Worcester; Dr. Downes, Kashmir; Mr. Holderness; Mr. Leigh, Liverpool; Mrs. Dance; Mr. Lupton, Stratford-upon-Avon; Mr. Walsham, Portsea; Mr. Bartlett, Edgbaston; Mr. W. H. Brown, Leeds; Mr. Ruckley, High Wycombe; Mr. Pentland, Edinburgh; Mr. Coombs, Bedford; Mr. Pretty, Fressingfield; Mr. Wylie, Belfast; Mr. Sauder, Manchester; Mr. Brennan, Liverpool; Mr. Davidson, Bally Castle; Messrs. Debenham and Tewson, London; Mr. Lloyd, Liverpool; Mr. Willey, Birmingham; Mr. Pelton, Tunbridge Wells; Mr. Elliott, Carlisle; Mr. Curme, Blandford; Sartorius; L.R.C.S.E.; W. X., Liverpool; Surgery, Kilburn; Biceps; Melampus; Doctor; Nemo; Pluribus; F. F.; Beta; Nemo; T. M.; &c., &c.

**LETTERS**, each with enclosure, are also acknowledged from—Mr. Grant, Birmingham; Mr. Norman, Cheltenham; Messrs. Keith and Co., Edinburgh; Mr. Lowes, Ferry-hill; Mr. Blaker, Sussex; Mr. Browne, Douglas; Mr. Bayberry, London; Messrs. Hewlett and Co., London; Messrs. Burgess and Co., London; Messrs. Isaacs and Co., London; Mr. Wilson, Edinburgh; Dr. Searle, Penzance; Mr. Curran, Hull; Dr. Mitchell, Wighton; Dr. Brannigan, Liverpool; Messrs. Knight and Garrard, Rotherham; Mr. Smith, Birmingham; Mr. Corns, Oldham; Dr. Mitchell, Brockley; Mr. Lalr, Birkenhead; Mr. Johnson, West Burton; Mr. Hodgkinson; Mr. Sutherland, Burnockfield; Mr. Hunt, Hull; Mr. Jones, Sheffield; Mr. Lyman, Stoke-on-Trent; Mr. Irving, Long Benington; Messrs. Lucas Brothers, Baltimore; Mr. Kingley, South Shields; Messrs. Keene, Dundee; Mr. Atkinson, Ripponden; Dr. Blythman, Swinton; Mr. Binks, Wakefield; Messrs. Theakston and Co., Scarborough; Dr. Freston, Bermondsey; Mr. Jeffery, Epsom; Mr. Underhill, Birmingham; Mr. Masterton, London; Mr. Young, Westminster; Messrs. Thew and Son, King's Lynn; Mr. Woodland, Uxbridge-road; Dr. Clarke, Polkestone; Dr. C. Hewett, London; Mr. Reynolds, Uttoxeter; Dr. Mallane, Nottingham; Dr. Frippier, Liverpool; Mr. Bryan, London; Dr. Knight, Rowrah; Mr. Swinson, Birmingham; Messrs. Linton and Co., Manchester; Medicus, Seaford; M.D. Lowestoft; Alpha, London; N. E., York; T. V. R., Islington; Beta-Midlands, London; C. S., Barnard Castle; W. J. B.; Decimus; Medicus, Clevedon; Medicus, Bacup; M.B. 7; O. A. W.; Assistant, Bishop-Midland; A.; Q. V. R.; Medicus, Wigan; A. B., Colchester; R. W.; Medicus, Sutton; W. B., London; Zero; Undergraduate; Medicus, Sheffield; F. E., Guildford; Medicus, Birmingham; P. A., Newport; Rector, Seaford; G. E., Bedford; W. T., Stepney; &c., &c.

*Jewish Chronicle, Goole Weekly Times, Yorkshire Post, Port Elizabeth Telegraph, Greenock Telegraph, Bridgend Chronicle, &c.*, have been received.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, August 17th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Aug. 11	30.27	E.	62	58	92	71	56	..	Overcast
" 12	30.03	S.E.	63	60	115	82	53	..	Hazy
" 13	29.91	S.W.	67	63	92	71	58	..	Hazy
" 14	29.89	S.W.	65	62	113	74	58	..	Cloudy
" 15	29.78	N.W.	65	60	104	70	58	..	Cloudy
" 16	29.63	W.	55	53	99	62	50	.31	Raining
" 17	29.84	N.W.	58	56	..	64	51	.02	Dull

## Medical Diary for the ensuing Week.

### Monday, August 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.  
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.  
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.  
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

### Tuesday, August 22.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.  
WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
WEST LONDON HOSPITAL.—Operations, 3 P.M.

### Wednesday, August 23

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.  
MIDDLESEX HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.  
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.  
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.  
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

### Thursday, August 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.  
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.  
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.  
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.  
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

### Friday, August 25.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.  
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.  
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

### Saturday, August 26.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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## Address

ON THE

GROWTH OF OUR KNOWLEDGE OF THE  
FUNCTION OF SECRETION.DELIVERED ON AUGUST 24TH, 1882, IN THE BIOLOGICAL  
SECTION OF THE  
BRITISH ASSOCIATION.

BY ARTHUR GAMGEE, M.D., F.R.S.,

BRACKENBURY PROFESSOR OF PHYSIOLOGY IN OWENS COLLEGE,  
MANCHESTER, PRESIDENT OF THE SECTION.

WHEN the Council of the British Association did me the honour of asking me to preside over this section, it occurred to me that a suitable subject for the presidential address would be a Survey of the Growth of our Knowledge of the Function of Secretion, for no subject which has recently been the object of minute study by animal physiologists is more likely to interest all devoted to biological pursuits, however diverse. I accordingly propose to direct your attention for the greater part of the time at our disposal to-day to what appears to me to be the most important and the most interesting of the researches bearing on this subject.

Before, however, entering upon the proper subject of this address, it would ill become me, as president of this section, were I not to speak to you, however imperfectly, of two great losses which we have sustained, and which have saddened, and still sadden, the hearts of many of us. The year 1882 will long be memorable, and sadly memorable, as a year during which English biology sustained irreparable losses. So much has lately been written concerning that veteran in science, Charles Darwin, who will figure in the history of the human intellect with such men as Socrates and Newton, that I feel no words of mine are needed to add to your sentiments of admiration and respect. He has made for himself an imperishable reputation as one of the subtlest, most patient, and most truthful observers of natural phenomena. His powers as an observer were, however, almost surpassed by his ingenuity as a reasoner, and his power to frame the hypothesis most apt, in the actual state of science, to reconcile all the facts which came within the range of his observation. We remember the time when the name of Charles Darwin, and the mention of the theories connected with his name awakened, on the part of many, sentiments of antagonism and of unreasonable opposition. But we have lived to witness what I may term a great reparation. Even those who did not know the man, and the qualities of mind and heart which endeared him to so many, have come to recognise that in his work he was actuated by a single-hearted desire to discover the truth; and, after calm reflection, they have conceded that his studies and his views, like all studies and all views which are based upon the truth, not only are not irreconcilable with, but add to our conceptions of, the dignity and glory of God. And here I may be allowed to remark that it is impossible to study the writings of Darwin, and especially the one in which he treats of "The Descent of Man," without recognising an undercurrent of reverent sentiment, which in one or two places finds expression in words telling us that man differs from the animal creation, if not in physical characteristics which cannot be bridged over, at least in moral attributes and in the "ennobling belief in God," by his power of forming that conception of the Deity which, to use Darwin's own words, is "the grand idea of God hating sin and loving righteousness."<sup>1</sup>

We cannot help mourning for our great ones, though they be taken from us in the fulness of years, and when their labours have been so numerous and so productive that we marvel that they have been able to achieve so much within the span of a single life; but our grief is immeasurably greater when the man of genius is taken from us in the plen-

tude of strength, as it were upon the threshold of a life full of extraordinary promise.

Francis Maitland Balfour, whose sudden death has so recently cast a gloom over us all, was a man who appeared destined to advance our knowledge of animal development more than it had been advanced by the labours of any one of his predecessors. His death recalls the train of thought which we have pursued when reflecting upon the lives and work of such men as Mayow and Bichat, Gerhardt and Clifford. If so much could be achieved in so short a life what great benefits would science not have derived, what remarkable steps in advance might not have been made, had it been given to these great minds to work on for the good of their race during a lifetime of ordinary length? It must be sufficient for us that it was destined otherwise; and, in mourning for our departed friend, we may at least reflect that we would not have had him less worthy of our admiration in order that we might mourn him the less.

## THE RESEARCHES OF FRANCIS MAITLAND BALFOUR.

At the risk of having to be somewhat brief in my discussion of the subject proper of this address, I must yield to the impulse which leads me to give you some account of Balfour's work.<sup>2</sup>

Having been educated at Harrow, Balfour entered Trinity College, Cambridge, in the year 1870. His friend and master, Michael Foster, has told us how, from the very first, besides engaging in systematic studies which he was able to pursue with no small degree of success, he devoted himself with passion to original research. At the very outset Balfour engaged in work which led to speculations of a fundamental and far-reaching nature, and of the three embryological papers<sup>3</sup> which he wrote before taking his degrees, two related to questions which occupied his attention in a special manner to the end. One of these, "On the Development and Growth of the Layers of the Blastoderm," contains several statements not afterwards maintained; for instance, as to the independent origin of the mesoblast in the chick, where it is said "neither to originate from the epiblast nor from the hypoblast, but to be formed coincidentally with the latter, out of apparently similar segmentation cells." The other, "On the Disappearance of the Primitive Groove in the Chick," calls attention to, and corroborates Dursy's discovery of seven years before, and closes with a suggestion of the great hypothesis (afterwards elaborated) that the primitive streak is a lingering remnant of the blastopore. Balfour also wrote, whilst an undergraduate, "On the Development of the Bloodvessels in the Chick," but it may be doubted whether he advanced our knowledge of this obscure subject.

The "Elements of Embryology," by Michael Foster and Balfour, appeared (1874) shortly after Balfour had taken his degree (1873), and Foster has generously recorded how great was the part his pupil took in the production of this book. The month after taking his degree he made his first journey to Naples, and it was whilst working there that he entered upon his remarkable investigation on the development of Elasmobranchs. The natural outcome of Gegenbauer's exposition<sup>4</sup> of the primitive character of this group was that increased interest should attach to all researches on its embryology. To an introductory account of the embryology of Elasmobranchs<sup>5</sup> Balfour owed, I believe, his fellowship at Trinity College, and from that time onwards until 1878 he pursued the investigation at Naples and in Cambridge. The collected results appeared in 1878, as "A Monograph on the Development of Elasmobranch Fishes." No research upon a limited group ever contained more numerous or more wide generalisations, extending over the whole domain of vertebrate embryology. I may dwell for a few moments upon some of its most interesting sections.

The structures, which we are now familiar with as "head-cavities," are described for the first time and named; their relation to the cranial nerves and their resemblance or equivalence to the muscle plates of the body is pointed out; and Balfour seizes upon their value in throwing light upon the great problems of the segmentation of the head and the segmental value of the cranial nerves. In particular the fifth nerve and the seventh, with the auditory, are

<sup>1</sup> The Descent of Man and Selection in Relation to Sex. Second Edition (1874), p. 144.

No. 3078.

<sup>2</sup> In the preparation of this part of my address I have been very greatly aided by one of Balfour's pupils, my nephew, D'Arcy W. Thompson, Scholar of Trinity College.

<sup>3</sup> Studies from the Cambridge Physiological Laboratory. Part I, 1873.

<sup>4</sup> Gegenbauer, *Das Knpfkelett der Selachier*, 1872.

<sup>5</sup> Quarterly Journal of Microscopical Science, vol. xiv., 1874.

specified as the segmental nerves of the mandibular and hyoid segments. The short, but very important, notice of the sympathetic system<sup>6</sup> showed that its ganglia developed on branches of the spinal nerves, and that it was therefore a product of the epiblast.<sup>6</sup> The primitive features of the mesoblast and notochord and their hypoblastic origin are described,<sup>7</sup> and furnish material for the comparison afterwards instituted in the "Comparative Embryology"<sup>8</sup> between their development in Elasmobranchs and their still more primitive origin in *Amphioxus*, as diverticula of the archenteron. A very able chapter on excretory organs concludes this monograph. This subject had engaged Balfour's attention very early, and his introductory account of Elasmobranch Development contains his discovery of segmental organs in Elasmobranchs—a discovery made independently but simultaneously by Professor Semper. These organs are shown to develop in the mesoblast, and are compared with the segmental organs of annelids.

A paper published in 1876 gives a singularly clear and thorough résumé of our knowledge of the development of the urino-genital system; and the diagrams there given, illustrating the homologies of the male and female urino-genital organs, are wonderfully simple and instructive. Shortly after the publication of this paper, Balfour became a Fellow of the Royal Society, from which he received a Royal Medal in 1881.

Among the interesting points that Balfour had made clear in connexion with the spinal nerves of Elasmobranchs, was the fact that the anterior and posterior roots arise alternately, and not in the same vertical plane. He sought for an explanation of this in *Amphioxus* at Naples, in 1876. Owsjannikow and Stieda had discovered that the nerves of the opposite sides in *Amphioxus* arise alternately, and Stieda further stated that the nerves of the same side arise alternately from the dorsal and ventral corners of the cord. Stieda considered that two adjacent nerves were together equivalent to a single spinal nerve of higher vertebrates. Balfour<sup>9</sup> found no trace of difference of level in the origin of nerves on the same side—i.e., he denied the existence of ventral or anterior roots; and afterwards, in investigating the cranial nerves of higher vertebrates, and being unable to find any trace of anterior roots, he framed the bold hypothesis<sup>10</sup> that the head and trunk had been differentiated from each other at a time when mixed motor and sensory posterior roots were the only roots present, and that cranial and spinal nerves had been independently evolved from a common ground-plan.

Balfour's investigation of the development of the ovary was incomplete when his work on Elasmobranchs appeared; and he continued to work at this subject, both in Elasmobranchs and Mammals, publishing upon it in 1878.<sup>11</sup> A paper published in the same year on the "Maturation and Impregnation of the Ovum," contained the very ingenious suggestion that the casting out of the polar bodies prevents the ovum developing by itself into a new individual—i.e., prevents parthenogenesis; and Balfour points out that parthenogenesis is practically confined to the arthropoda and rotifers, which are the only two groups in which polar bodies are not known to occur.

Balfour still continued, now in conjunction with Sedgwick, his researches on the urino-genital system, and described, among many other new points, the existence of a head-kidney (pronephros) in the chick.<sup>12</sup> In this year, Balfour also investigated<sup>13</sup> the early development of *Lacerta*, and pointed out the presence of a primitive streak and of a neurenteric canal. This investigation confirmed his belief in the hypothesis previously quoted that the primitive streak is the relic of a blastopore.

At this time Balfour was working hard at his text-book of "Comparative Embryology." His published papers were no less numerous than before, but consisted in part of extracts from the more speculative chapters of the forthcoming book. He, however, published a paper<sup>14</sup> containing the results of work scattered over two years, on the development of Spiders. He also published a paper<sup>15</sup> on the "Skeleton of the paired

Fins," based upon his work on "Elasmobranchs." In this he contests the views of Gegenbauer and Huxley, that the primitive fin consists of a central multi-segmented axis with many lateral rays, and is most nearly retained in *Ceratodus*; he rather considers the primitive form to be a longitudinal bar running along the base of the fin (basipterygium), and giving off at right angles series of rays which pass into the fin. He adheres to the view expressed in the "Elasmobranch Fishes" (p. 101) that the vertebrate limbs are remnants of two continuous lateral fins.

Another important paper of the same year dealt with the placenta. Balfour supposed that in the primitive placentalia, simple foetal villi, like those of the pig, projected from the discoidal allantoic region of the chorion into uterine crypts. The decidual discoidal placenta of rodents and insectivores is the first stage in advance of this primitive type. Then along different lines diverge the zonary placenta of carnivora, and the diffuse placenta of suidæ, lemuringæ, &c.; and the latter contracted down to the discoidal placenta of man, a form in no way to be confounded with the primitive discoidal placenta of rodents.

He engaged also, in conjunction with Mr. William N. Parker, in a very important research, to be published in full in the "Philosophical Transactions," on the "Structure and Development of Lepidosteus." This paper contains an immense amount of new matter, both anatomical and embryological, and shows that *Lepidosteus*, though a true ganoid, has very marked teleostean affinities.

Balfour's last published paper,<sup>16</sup> which appeared during his recent illness, was written with the assistance of Mr. Deighton, and related to the germinal layers of the chick. This paper describes, in a very beautiful way, the double origin of the mesoblast, partly from an axial strip of epiblast in the line of the primitive streak, and partly as two lateral plates differentiated from the hypoblast in front of the primitive streak.

Before his last fatal journey Mr. Balfour was engaged in preparing a new edition of the "Elements of Embryology," and in producing a very elaborate memoir on the "Anatomy and Development of Peripatus." He had previously investigated that animal in 1879, and had cleared up the matter of its segmental organs (overlooked by Moseley), and demonstrated the presence of ganglia on its ventral nerve-cords.

Mr. Balfour became a member of this Association in 1871, the year after he entered Trinity College. At the brilliant Belfast meeting in 1874 he read his first paper before the Association on Elasmobranch Fishes; and this paper and Balfour's share in the keen discussion which followed are still remembered with admiration by many. In 1880, at Swansea, he delivered an address, as chairman of the sub-section of anatomy and physiology, dealing with the mutual services rendered by the evolution theory to embryology, and by embryology to the evolution theory, with special reference to the developmental history of the nervous system.

But the great text-book of comparative embryology<sup>17</sup> is the real monument of Balfour's fame. It is impossible to convey an idea of the merits of this book. It grappled with the enormous mass of scattered literature upon the subject, and formed it all into a consecutive account, clear and accurate. Discordant statements were weighed and estimated, frequently brought into harmony by an ingenious explanation or by a new and crucial observation. Countless investigations were repeated and verified, and countless suggestions of important work that still remains to be done, make the book as valuable to the student as to the student. Among the chapters<sup>18</sup> most remarkable for broad and philosophic generalisations are those dealing with the "Ancestral Form of the Chordata," "Larval Forms," and the "Origin and Homologies of the Germinal Layers." Balfour accepts the gastrula as a stage in the evolution of the metazoa, and leans somewhat to invagination, as the more primitive process than delamination in the production of the gastrula. He shows distinctly that the mesoblast arose in the first instance not independently, but as a differentiation from the other two layers, and that the mesoblast is a homologous structure throughout the triploblastic metazoa. In the chapter on "Larval Forms" he gives numerous reasons and arguments for a larval development repeating the ancestral history, better and more fully than a foetal development; he reviews the types of larvæ (discriminating

<sup>6</sup> Elasmobranch Fishes, p. 172. <sup>7</sup> Ibid., pp. 49, 85, 92, 104.

<sup>8</sup> Comparative Embryology, vol. II, pp. 243-246.

<sup>9</sup> Journal of Anatomy and Physiology, vol. X., 1876.

<sup>10</sup> Elasmobranch Fishes, p. 193, Comparative Embryology, vol. II, p. 380.

<sup>11</sup> Quarterly Journal of Microscopical Science, vol. xviii., 1878.

<sup>12</sup> Proceedings of the Royal Society, vol. xxvii., 1878.

<sup>13</sup> Quarterly Journal of Microscopical Science, vol. xix., 1879.

<sup>14</sup> Ibid., vol. xx., 1880.

<sup>15</sup> Proceedings of the Zoological Society, 1881.

<sup>16</sup> Quarterly Journal of Microscopical Science, vol. xxii., 1882.

<sup>17</sup> Comparative Embryology, vol. I., 1880, vol. II., 1881.

<sup>18</sup> Ibid., vol. II., chap. xi., xii., xiii.

six types), the causes tending to produce secondary changes in larvæ, and suggests as a hypothesis for the passage from the radial to the bilateral type, that in a pilidium-like larva the oral face elongated unequally, an anterior part forming a præ-oral lobe, and a posterior outgrowth the trunk, while the aboral surface became the dorsal surface. He suggests that adult Echinodermata have retained, and not secondarily acquired, their radial symmetry, and considers a radially symmetrical organism, like a medusa, as the prototype of all the larval forms above the coelenterates. Balfour does not admit the specially close relationship of the Chordata with the Chætopoda, which Dohrn and Semper maintain, but considers that the Chordata descended from a stock of segmented worms derived from the same unsegmented types as the Chætopoda, but in which two lateral nerve-cords like those of the nemertines coalesced dorsally instead of ventrally. He considers that the mouth in ancestral Chordata was suctorial, and was not formed, as Dohrn supposes, by the coalescence of two visceral clefts. Finally, Balfour draws up a scheme of the phylogeny of the Chordata, according to which the hypothetical protochordata, with a notochord, a suctorial mouth, and very numerous gill-slits, acquired one by one, vertebræ, jaws, an air-bladder, a pentadactyl limb, an amnion: each new accession characterising a hypothetical protogroup, from which some existing group is supposed to have diverged.

Those of my hearers who had not followed Balfour's scientific labours, but who merely knew him as one of the most respected workers in the field of biology, will I trust, even from my brief sketch, have formed some idea of the activity and originality of his mind, and will understand how his death has occasioned a feeling almost akin to despair, in that he occupied a place which appears to us now impossible to fill.

#### ON THE GROWTH OF OUR KNOWLEDGE OF THE PROCESS OF SECRETION IN THE ANIMAL KINGDOM.

*The Views of the Ancients.*—It was known to the ancients that organs of the body exist which are concerned in the separation from it of excrementitious substances, although the greatest doubts prevailed as to the organs to which such functions should be ascribed. Thus we find Hippocrates defining it as characteristic of glands that they occur in moist parts of the body; but showing his ignorance of the true relations of glands to secretion by connecting them with the formation of hairs, and discussing the question which we find our own Wharton debating again in the seventeenth century, and which he formulates, "Num cerebrum ad glandularum numerum vel viscerum accedat." The general opinion of the ancients, and the opinion which was adopted and taught by Galen, was that the glands were sieves or collanders (cola), which served to strain off from the blood purely excrementitious substances. The liver and the kidneys were strangely enough removed from the group of glands and placed amongst the viscera. The first writer who appears systematically to have treated of the glands was the before-mentioned Wharton in his "*Adenographia sive glandularum totius corporis descriptio*." Although this author certainly added to the existing knowledge of the descriptive anatomy of secreting organs, his views on the functions of glands were strangely fanciful and erroneous.

The glands he considered to be specially related to the nervous system, the viscera, so-called, to the bloodvessels; such glands as the pancreas, and the salivary and lacrymal glands, being engaged in separating excrementitious substances from the nervous system. It was in 1665 that the great anatomist Malpighi<sup>19</sup> first attempted to investigate the structure of glands in a truly scientific spirit, endeavouring to establish a relationship between simple glandular follicles and such complex glands as the liver. All glands he believed to contain as ultimate elements bodies which he termed "*acini*," a word which in its primitive classical sense had been used to designate the stone or seed of the grape or the grape itself. The conception, indeed, which Malpighi formed of an "*acinus*" was rather that of a secreting nodule than of an ultimate saccular or tubular recess. The "*acini*," however, he believed to be in communication with the efferent ducts of the glands to which they belonged, and through which they poured out their proper secretion, derived in the first instance from the blood contained in minute arteries supplied to the gland. Ruysch (1696) known as the first celebrated injector of bloodvessels,

finding that frequently the fluids which he forced into the bloodvessels of glands escaped through their ducts, or made their way into the surrounding tissues, concluded that the bloodvessels communicated directly with the interior of the glands; these he held to be organs which, according to the views that had long prevailed, merely strained off from the blood certain of its more liquid constituents. The views entertained by the most eminent of the supporters of Ruysch, the illustrious Haller, were expressed by him as follows. After defining the term "*acinus*" to signify the ultimate division of a gland, he remarks that "*the acini consist of congeries of vessels, bound firmly together with a cellular web, containing an excretory duct in their interior, which commences from the most minute arteries by small ducts impervious to the blood. . . . So that secretion differs from the ordinary circulation of the blood in this particular, that the smallest arteries are continuous with veins of equal or greater size, capable therefore of receiving the blood, whilst the excretory ducts are much smaller, in order to effect the separation of the secretion.*"<sup>20</sup> The advocates of the Ruyschian theory were compelled to have recourse to the most improbable hypotheses to explain the diversity of the secretions of different glands: as, for example, that different glands secrete different liquids, because of the difference in the diameters of the pores by which the bloodvessels communicate with the glands; that the different arrangement of bloodvessels, the mode in which they divide, the resistance which they offer to the flow of blood through them, by modifying the pressure and velocity of the blood-flow through the organ, induce secretions varying in character. It is strange to learn from Haller, as was indubitably the fact, that the great majority of his contemporaries, such men as Peyer and Vieussens, and even Boerhaave, adopted the Ruyschian view of the structure of the glands. The opposition to Ruysch came first from Ferrein,<sup>21</sup> who maintained that the kidneys essentially consist of an assemblage of convoluted tubes, which he looked upon to be the seat of the renal secretion—tubes which a subsequent investigator, Schumlanisky,<sup>22</sup> looked upon as taking their origin in the acini of Malpighi, to which he referred the active part in secretion. Then followed the researches of Mascagni and Cruickshank, who found, by injecting quicksilver into the mammary glands, that the ramification of the ducts of this organ terminate in racemose follicles; though Mascagni still admitted a connexion, by means of open pores, between the sides of the glandular bloodvessels and the interior of the glands themselves. It was unquestionably Professor E. H. Weber, of Leipzig, who completely demolished the Ruyschian hypothesis, and who by numerous researches on the salivary glands of birds and of mammals, and on the pancreas of birds, established the general fact of the termination of gland ducts in blind extremities, though with modesty he put forward his opinions as confirming the inductions of Malpighi, expressing himself as follows:—"Admirably did Malpighi avail himself of the structure of the liver in the lower animals, and to the embryo of the higher, as a foundation stone for his opinions; for the arrangement of the whole glandular system speaks for itself, inasmuch as it simply consists of single, compact, hollow, blind canals, more or less numerous, floating in the fluid which surrounds their organs; and, although these ramifications are drawn out between the branches of the bloodvessels, there is no immediate passage from one to the other."

#### THE RESEARCHES OF JOHANNES MÜLLER.

Such was the state of knowledge in reference to the structure of secreting glands and secretion at the time when the great Johannes Müller undertook the investigation of which the results were first of all published in the memorable work entitled "*De Glandularum secretum Structurâ penitiori earumque prima Formatione*."<sup>23</sup> It is impossible not to sympathise with the reflection of Professor Heidenhain, recently made in reviewing the researches of Johannes Müller in connexion with this subject; "<sup>24</sup> to wit, that the physiologists of to-day may be accused of ingratitude for having allowed the great name of Johannes Müller to have well-nigh disappeared from the pages of physiological literature. We forget that this man—this giant in the field

<sup>19</sup> Haller, p. 275.

<sup>20</sup> Ferrein, "*Sur la Structure des Glandes*," &c., Mémoires de l'Acad. Roy. des Sciences de Paris, 1749.

<sup>21</sup> Schumlanisky, *Dissertatio Inaugur. Anatomica de Renum structura*, Argentorati, 1830.

<sup>22</sup> Heidenhain in Hermann's *Hand. der Phys.*, vol. v. (1830), p. 6.

<sup>19</sup> Malpighi, *Exercitatio Anatomica de Renibus*.

of biology as he is appropriately termed by Heidenhain, the last man of whom perhaps it will ever be said that he was at once the greatest comparative anatomist of his time and the most philosophical and original of all contemporary physiological writers—by his own researches, and particularly by the one which concerns us to-day, influenced the progress of physiology, at a most critical period, more than any other man. He was not, like his contemporaries Magendie and Flourens, a great physiological experimenter, though he showed that he well appreciated the value of experiment in advancing our science; but he was pre-eminently a physiologist who recognised the immense importance of a close study of structure, not only because of the interest which it presents to the pure and philosophical morphologist, but because of its absolute necessity, if we are to penetrate at all deeply into the secrets of animal function. Müller, in the first instance, had convinced himself, by the study of the circulation of organs sufficiently transparent to permit of it, especially the circulation through the liver of larval salamanders, that, in glands, arteries never end in any other mode than by capillaries leading into veins. He set himself then to study in the case of most glands, and in a large variety of animals, the relationship of gland ducts to the truly secreting parts of the organ, and the relation of the bloodvessels to these. Basing himself upon these anatomical studies of adult organs, and upon a careful study of the development of glands—a study which had been attempted slightly by Malpighi, and more satisfactorily in the case of the parotid by E. H. Weber<sup>25</sup>—Müller came to the conclusion that all glands possessed of a duct are only involutions more or less complex of membranes, the largest number being involutions of the external investment of the body or of the membranes opening upon its surface. The following are the general results relative to the structure of glands which Müller deduced from the anatomical study of individual organs<sup>26</sup> :—

1. However various the forms of their elementary parts, all secreting glands without exception (not only those of the human body, but all met with in the animal kingdom) follow the same law of conformation, and constitute an uninterrupted series from the simplest follicle to the most complex gland.

2. No line of demarcation can be drawn between the secreting organs of invertebrata and those of vertebrate animals; not merely do we meet with the simplest sacs and tubular secreting organs, like those of insects, in the higher animals, but there is a gradual transition from these simple secreting organs to the glands of the most perfect vertebrata.

3. All glands agree in affording by their interior a large surface for secretion. The varieties of internal surface by which the great end—extent of surface in a small space—is attained, are very numerous.

4. Acini, in the hypothetical sense in which the term has been used by writers—in the sense, viz., of secreting granules—do not really exist; there are no glomeruli of bloodvessels with ducts arising from them in a mysterious way, as has been supposed, whatever notions may have been held regarding them.

5. The parts described as acini are merely masses formed by the agglomeration of the extremities of the secreting canals; frequently, indeed, they are formed of minute vesicles aggregated together in grape-like bunches, which may be injected with mercury, and are often susceptible of inflation.

6. In many glands which have been incorrectly described to have acini or secreting granules, there are not even the hollow vesicular acini; the secreting tubes, instead of terminating in vesicles or cells, form long convoluted canals or straight tubuli or short cæca.

7. It has been demonstrated in the case of all glands that the bloodvessels are not continuous with the secreting tubes—that the minute vessels bear the same relation to the coats of the hollow secreting canals, and their closed extremities, as to any other delicate secreting membrane, such as, for example, the mucous membrane of pulmonary air cells.

8. The arborescent ramification of the bloodvessels accompany the ducts in their development, and the reticulated

capillaries in which the bloodvessels terminate are extended over all the closed elementary parts of the gland and supply them with blood. In the chick we may observe the simultaneous development of the two systems; in proportion as the development of internal surface from a plain membrane to cæcum and ramified cæca proceeds, the vascular layer of the originally simple membrane is raised on the exterior of the efflorescence.

9. The ramified canals and tubes, which when the structure is simple, as in insects and crustacea, and even in some glands of the mammalia, lie free and unconnected, become more aggregated together, and acquire a common covering, in proportion as their evolution is carried further; and thus is produced a parenchyma or solid organ.

10. The capillary bloodvessels are for the most part much more minute than the smallest branches of the ducts of secreting canals and their caecal extremities, even in the most complex glandular organs. The elementary parts of glands, though minute, are of such a size that the capillary bloodvessels form around them a network which invests them.

11. The formation of the glands in the embryo displays the same progressive evolution from the simple to the complex state as is observed in ascending the animal scale. The most perfect and complex glands of the higher animals, when they first appear in the embryo of these animals consist merely of the free efferent ducts without any branches, and in that state exactly resemble the secreting organs of the lower animals. The glands are formed from the unbranched tubes by a kind of efflorescence or ramification.

12. The mode in which the extent of internal secreting surface of a gland is realised is very various; and no one kind of conformation is peculiar to any kind of gland. Perfectly different glands may have a similar elementary structure, as is the case, for instance, with the testes and the cortical substance of the kidneys. And similar glands have often a perfectly different structure in different animals; of which the lacrymal glands, examined in the chelonia, birds, and mammalia, afford an example.

Johannes Müller recognised thoroughly, as we have seen, that the character of a secretion cannot be deduced from the structure of the organ which produces it. Was he able to throw any light upon the mystery which had baffled all his predecessors, and to explain the cause of the specific endowments of the different glandular organs? Let us allow Müller to speak :—"The peculiarity of secretions does not depend on the internal conformation of the glands; for, as I have sufficiently demonstrated, each secretion is in different animals the product of the most various glandular structures, and very different fluids are secreted by glands of similar organisation. The nature of the secretion depends therefore solely on the peculiar vital properties of the organic substance which forms the secreting canals, and which may remain the same, however different the conformation of the secreting cavities may be; while it may vary extremely although the form of the canal or ducts remain the same." It was the living lining substance of the gland which, according to Johannes Müller, formed the secretion, at the expense of materials which it obtained from the blood of contiguous capillaries. This living substance lining the inner recesses of the glands had not yet been differentiated into its constituent units, the secreting cells, and therefore Müller's statement wanted a certain definiteness, though, so far as he went, he was perfectly accurate.

#### THE RESEARCHES OF JOHN GOODSIR.

The success with which that eminent pupil of Johannes Müller, Theodore Schwann, had extended the generalisations of Schleiden (on the part taken by the cell in the formation of vegetable structures) to the elucidation of the animal tissues, had given the greatest impulse to the study of animal histology, and a large number of observers, especially in Germany and England, were directing their attention to the discovery and study, in all tissues and organs, of the all-important cells.

Purkinje had announced the hypothesis that the nucleated epithelium which he discovered to line the gland ducts might exercise secreting functions. Henle had described with great minuteness the epithelium cells which line the ducts of the principal glands and follicles, and which form the most superficial structures of mucous membrane, and Schwann had suggested that this epithelium probably played a part in the act of secretion. It was, however, unquestionably the Scottish anatomist, John Goodsir, to whom was

<sup>25</sup> E. H. Weber, Beobachtungen über die Structur einiger conglomerirten und einfachen Drüsen und ihre erste Entwicklung. Meckel's Archiv for 1827, p. 274.

<sup>26</sup> This abstract of Müller's general conclusions has been abbreviated from the sections treating on this subject in his Elements of Physiology. See Translation by Dr. Baly, London, 1833, vol. 1, p. 456, et seq.

reserved the merit of establishing in an indisputable manner the fact that the essential and ultimate secreting structures in glands are the morphological units, the gland cells. As Johannes Müller had examined the arrangements and coarser structure of glands throughout the animal kingdom, with the result of discovering the general plan of gland-structure, and the analogies existing between glands, however diverse, so John Goodsir passed under review the histological characters of the cells of different glands in a large variety of animals, vertebrate and invertebrate. His first results were published in the Transactions of the Royal Society of Edinburgh for the year 1842; his more matured views were developed in a paper entitled "On Secreting Structures," which formed one of a collection of papers which saw the light in 1845. As a result of his survey Goodsir came to conclusions of which the most important may be stated, almost in his own words, as follows:—"The ultimate secreting structure is the primitive cell endowed with a peculiar organic agency, according to the secretion it is destined to produce. I shall henceforward name it the primary secreting cell. Each primary secreting cell is endowed with its own peculiar property, according to the organ in which it is situated. In the liver it secretes bile, in the mamma milk, &c. The primary secreting cells of some glands have merely to separate, from the nutritive medium, a greater or less number of matters already existing in it. Other primary secreting cells are endowed with the more exalted property of elaborating, from the nutritive medium, matters which do not exist in it. The discovery of the secreting agency of the primitive cell does not remove the principal mystery in which the function has always been involved. One cell secretes bile, another milk; yet the one cell does not differ more in structure than the other, than the lining membrane of the duct of one gland from the lining membrane of the duct of another. The general fact, however, that the primitive cell is the ultimate secreting structure is of great value in physiological science, inasmuch as it connects secretion with growth, as phenomena regulated by the same laws."

Goodsir was unquestionably wrong in certain of his speculations concerning secreting cells; as, for instance, in attributing at one time the chief part in the process of secretion to the cell wall, and at a later period ascribing the same function to the cell nucleus. He certainly had not grasped the modern idea, which, as I shall afterwards more particularly point out, considers the act of secretion as one of the results of the activity of the living protoplasm of the cell. His assumption, too, that the secreting cell invariably contains, preformed, the characteristic matters of the secretion, is one which is by no means generally true. Nevertheless, it is impossible to study Goodsir's researches on the secreting cell without ascribing to him the merit of having been the one who made the most important generalisation, connecting cell life with a definite organic function.

I may be permitted, as it were parenthetically, to refer for a moment to John Goodsir with the veneration which is natural in one who was his pupil. If it be true that the rapid march of scientific discovery has caused us well-nigh to forget the great debts which we owe to Johannes Müller, it is no less true that John Goodsir's name has passed into premature and undeserved oblivion. Goodsir's was a mind which in some respects, especially in its tastes, resembled that of Müller. He was a devoted anatomist, and studied morphology in the first instance for its own sake, but also because of the light which it sheds on organic function. He had a powerful intellect, an insatiable thirst for knowledge, a sympathy with all branches of inquiry which could throw light upon the science to which he devoted his life, and a devout and reverential spirit, which was not the less strong because it only rarely found audible, though then it was emphatic, utterance. In the earlier part of his scientific career numerous papers, for the most part short, but characterised by remarkable originality of observation and freshness of thought, seemed to promise that Goodsir would be one of the most productive of the workers of his time. A lingering illness which, without altogether disabling him, enfeebled his physical powers, and cast a gloom upon a life which had promised so much, almost put an end to his career, in so far as the scientific world at large was concerned, and henceforward he devoted his remaining energies to studies of which the results were for the most part not published, but especially to the task of teaching. Goodsir was a master who, if judged of by the low standard of fitness to instruct the great majority of his pupils in such a manner as to enable them successfully to

pass examinations, would occupy no exalted position. He possessed, however, the far rarer power of instilling into the minds of the best of his pupils that love of original inquiry, and that deep regard for truth which are the chief incentives to all scientific research of any real value.

(To be concluded.)

## ABSTRACT OF THE Bradshawe Lecture ON

### THE INFLUENCE OF THE SYMPATHETIC SYSTEM ON DISEASE.

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AFTER a few preliminary observations, the lecturer announced his belief that the sympathetic system, though closely connected with the cerebro-spinal, yet possessed a certain independence of its own. This is shown not only by the observations of Parkes and Claude Bernard, by the experiments of Goltz upon vascular tone and of Vulpian upon the peripheral arterioles, but also by the fact that the fetus may arrive at full time with complete perfection of the functions of organic life, but without any trace of brain or spinal cord. Some observations were mentioned that rendered probable the existence of vaso-dilator nerves in all parts of the body.

Respecting the coarse recognisable lesions of the sympathetic, the investigations of Pió Foá, Fournier, Morselli, Colomietti, Giovanni, and others, were commented on. "The most usual lesions are pigmentation, colloid degeneration, with proliferation of endothelial cells and secondary fatty metamorphosis, interstitial hyperplasia leading to hypertrophy, and sclerosis of nerve elements; such lesions being more than enough to modify vaso-motor function, and, according to their seat, to lead to very various morbid phenomena."

Late observations on the sympathetic in phthisis were referred to, the ganglia being most diseased on the side in which the lung is most affected. But in this, as in so many other examples of coarse lesion of the sympathetic, the nerve is affected only secondarily, and must be credited, not as exciting the disease itself, but only as causing certain symptoms—flushing, sweating, palpitation, and diarrhoea, for instance. And when we see certain phenomena associated with definite lesions of the sympathetic, we are surely justified in believing that these symptoms own a sympathetic origin when the lesion of this nerve is beyond our powers of investigation. We see the starting-point of the irritation, the channels by which the irritation is conveyed, the consequence of the irritative action beyond the ganglion, but the absolute condition of the ganglion itself, in so far as it differs from its state in health, is incapable of being demonstrated, at least post mortem.

Dr. Woakes' paper at the Congress, on the Inferior Cervical Ganglion as a Correlating Nerve Centre, was referred to; and it was shown how this idea of the correlation of the ganglia could be expanded; how the influence of emotion may be seen on the cervical ganglia (blushing &c.), on the cardiac nerves, on the splanchnic, and on the abdominal plexus, especially the vesical; how, again, irritation from the various plexuses, particularly in the pelvis, travels up through the sympathetic chain and excites emotion. In this connexion, hysteria, hypochondriasis, and various other of the neurasthenias, are seen to own sometimes a central, sometimes a peripheral origin; and these diseases, when reflex, afford additional examples of the truth of Dr. Wilks's cases of sympathetic mania from tumour in the abdomen, from adherent omentum, from hernia, from misplacement of colon, and from cæcal abscess.

The influence of the sympathetic on inflammation was thus stated:—1. There is some source of irritation—cold, a blow,



a septic focus. 2. The centripetal nerves, whether sensory or not, which are within reach of this irritation, are excited more or less violently. 3. These nerves transmit to the vaso-motor centres of the region the excitation which they have undergone. 4. The tonic activity of these centres is disturbed, and suspended more or less completely. 5. So cessation or diminution of the tone of the vessels that are subordinate to these centres. 6. Consequently more or less dilatation of these vessels. 7. But this vaso-motor disturbance can only be considered as favouring the development of inflammation. It is only secondary in importance, and does not suffice of itself to make up the phenomena that we call inflammation. It places the vessels in a condition for easily and necessarily receiving more blood, it induces stasis of circulation, and offers facilities for the emigration of leucocytes; but the initial phenomena of inflammation consist in the disturbance of the intimate nutrition produced in the organised living tissue. The vitality of the cells, having been gradually lowered by the previous state of its nutrition, being thereby placed in a condition of vulnerability, is ready at any moment to respond to morbid impressions. These may be reflex, as the impress of cold, or direct, as from the presence of morbid germs in the blood; and the vaso-motor action of the vessels, which without this previous alteration of the cell nutrition would stop short at non-inflammatory congestion, is of enormous importance in determining the various stages and symptoms of the progress of inflammation, although independent and unconnected directly with the initial phenomena.

But although vaso-motor paresis has little or nothing to do directly with the initial phenomena of inflammation, there are numerous instances of indirect action. Why do we look with grave suspicion on pulmonary congestion, or a similar condition in any other portion of the system? Is it not that a region so affected is peculiarly liable to take on active mischief? A congested part becomes gradually of necessity a part in which nutrition is badly performed. The affected spot becoming less and less perfectly nourished is *ipso facto* more or less vulnerable to influences external to itself. The external influence arrives, modifies directly or reflexly still further the nutrition of a part already vulnerable, already possessing unstable cells; and the predisposition, the external influence, the modification of nutrition by the exciting cause, and the vaso-motor paresis, make up the necessary factors in the causation of inflammation.

After mentioning the mechanism of the action of the sympathetic in oedema and in various kinds of congestion, its influence on the sweat-glands, and therefore on hyperidrosis, was stated to be not a vaso-motor one, but one that depends on secreting fibres emanating from the cord through the rami communicantes to the sympathetic ganglia. Hyperidrosis is caused by a paresis of these inhibitory fibres, as is seen in certain recorded cases of coarse lesion of the sympathetic in unilateral epidrosis. A consideration of the part played by this system of nerves in general paralysis of the insane, and other diseases of the brain and cord, leads to a review of Donders' statements as to the functions of the oculo-motor, the sympathetic, and the fifth nerves in the causation of myosis, a symptom which is less frequently associated with sympathetic lesions than might be expected from the results of physiological experiment. The arguments for the vaso-motor theory of epilepsy were then stated, as well as Dr. Gowers' objections to this theory, and the lecturer remarked, "The difficulties are the greater, inasmuch as all theories must be more or less hypothetical. It seems likely that the convulsive centre in the medulla is a minute corpus striatum for collecting, modifying, radiating convulsive motor phenomena from the cerebral motor area; that epilepsy with convulsion may depend on direct or reflex irritation of this centre, but far more frequently on some condition of cells in the cerebral motor area, that may well be termed instability; that these lesions and their consequent phenomena may be wholly independent of vaso-motor disturbance; but that loss of consciousness, occurring either as an early symptom of the convulsive form of epilepsy, or as an independent phenomenon, owns as its cause anæmia of the non-motor area of the brain, an anæmia depending on vaso-motor irritation. Brown-Séquard's experiment, showing that compression of the cervical sympathetic was a valuable means against *le petit mal*, points to the truth of this latter proposition."

Some of the so-called sympathetic diseases were then passed in review—hemicrania, exophthalmic goitre, and

progressive facial hemiatrophy. The symptoms of the two chief varieties of hemicrania were mentioned, and the conclusion drawn that the symptoms of each form of this affection, especially the oculo-pupillary phenomena, point to the cervical sympathetic, or to the corresponding half of the excito-spinal regions of the cord as the part specially implicated; and the success of caffeine, quinine, guarana, and ergot in the paralytic variety, and of nitrite of amyl, carbonic acid inhalation, hot drinks, &c., in the spastic, points to the same conclusion.

As to Graves' disease, the lecturer takes the view of Eulenburg and Guttman that the exophthalmos has little, if any, connexion with the sympathetic, that the thyroid swelling is directly due to paresis of the cervical sympathetic, and the palpitation indirectly, being caused by increased action of the automatic ganglia of the heart, due to excessive blood supply from paretic conditions of the vaso-motors of the coronary arteries. He owns, however, that no explanation is very satisfactory.

The influence of the sympathetic on progressive facial hemiatrophy is far more indefinite, and can scarcely be traced, except in its connexion with the nutrition of the fifth nerve. The various forms of palpitation were then touched upon, and angina pectoris, which is very frequently a sympathetic disease, or rather a phenomenon depending on sympathetic irritation. The influence of the depressor nerve on the general circulation and its mechanism on the abdominal vessels was described. The position of the sympathetic with reference to the great question of vascular tone affects not only the vessels themselves, as in at least one form of aneurism, but more or less every morbid condition of the body. The condition of the heart reacts on arterial pressure, and arterial pressure on the condition of the heart. Modifications of vascular tone, as shown by the sphygmograph, are among the most useful elements in preventive medicine.

The vaso-motor neuroses of the extremities were next mentioned as described by Dr. Weir Mitchell, McBride, and Allan Hamilton of America, Dr. Sturge of London, Seeligmüller and Bernhardt in Germany. Most commonly the symptoms seem due to paralysis of vaso-motors entering the peripheral vessels, but there is a form that seems to own a contractile causation, and Dr. Hadden has lately suggested that myxœdema is practically the outcome of this contraction. In considering lesions of the abdominal sympathetic, and the gastric and intestinal neuralgia, the old question arises as to the length of time reflex irritation or reflex paralysis may persist; and in this relation the lecturer gave the following case: A very sensible and active shopwoman, thirty-six years of age, gave the following account of herself: She believed that she had been born blind of the right eye; at any rate she remembered when she was a very little girl being taken to see an oculist in London who said she would never see. She could not distinguish light with the right eye. In January of the pre-ent year she had a canine tooth on the right side of the mouth extracted. She immediately became conscious of light, and in a few days entirely gained sight in this eye. The optic disc and retina were perfectly normal, yet for thirty-six years she was quite blind, apparently from some reflex influence connected with the alveolus of the canine tooth.

In considering diabetes mellitus, it may be said briefly that the influence of the sympathetic system is very great in this disease. It includes direct or reflex lesions of a bulbar centre, or lesions so near as to be almost direct, hyperæmia of liver, sometimes stasis in the capillaries of the general circulation, an influence on the secretion of glycogen, and of the ferment necessary to its transformation. Paresis of the renal vaso-motors, sometimes dependent on lesion of a minute spot on the floor of the fourth ventricle, induces diabetes insipidus, and this is still further proved by the fact that this morbid condition can be cured by faradisation over the kidney, and by the administration of ergot.

The whole subject of pigmentation is peculiarly in the domain of the sympathetic. Jaschowitz divided the sympathetic in the spleen, and caused increased flow of blood and a copious deposit of hæmaturic pigment in its cells. There is a marked connexion between pigmentation and anæmia under certain conditions, as the former is frequently associated with a splenic cachexia, in which there is a destruction of red globules. The morbid state of blood, whether caused by direct lesion of abdominal organs or plexuses, by influences acting from without or mental shock, will induce some stasis of blood current, an important factor in all pigmentation. We have first lesion of sym-

pathetic ganglia, especially in the abdomen, influencing the production of pigment, then the circulation of abnormal blood in the vessels, reflexly influencing their calibre, then stasis of greater or less intensity, then pigmental deposit. This has been seen in Hodgkin's disease, in pernicious and other forms of anæmia, in cerebro-spinal sclerosis. Dr. Guéneau de Mussy speaks of staining in the face in phthisis as a sign of the presence of abdominal tubercle; whilst irritation of the solar plexus by experiment, or by the presence of cancer, has been proved to cause the appearance of numerous pigment granules in the blood, and to cause their deposit in the skin. Again, irritation originating in the uterine region, especially during pregnancy, causes pigmentation almost universally. Dr. Swayne's case of a lady in whom black pigmentation of the arms and hands occurred in each pregnancy has been already recorded in the Transactions of the Obstetrical Society.

In Addison's disease the changes have been well defined as: (1) A lesion of the sympathetic nervous system. (2) Inflammatory processes in the connective tissue of the suprarenal glands. (3) From the products of the inflammation ensues a paralytic condition of the vaso-motor fibres of the sympathetic, and consequently an imperfect distribution of blood. (4) On this is to be saddled all the phenomena of the disease: anæmia, disturbance of nutritive functions, bronzed skin, and a secondary affection of the blood.

*En résumé*, we may say that in congestion, in hyperidrosis, in some forms of angina pectoris, in sunstroke, in the regulation of vascular tone and in its many abnormalities, in vaso-motor neuroses of the extremities, in symmetrical vaso-motor gangrene, in some varieties of aneurism and of albuminuria, of diabetes mellitus, in diabetes insipidus, in hysteria, hypochondriasis, and other forms of neurasthenia, in those protean disturbances of the economy that are excited by emotion; and lastly, in pigmentation, including Addison's disease—the influence of the sympathetic seems primary and almost, if not wholly, independent. In inflammation, including practically inflammatory diseases of all organs, in fever, in hemicrania, exophthalmos, progressive facial hemiatrophy, and in epilepsy, the part played by this system of nerves is secondary, though important. In most of these, however, as of other ailments, the cardiac phenomena, the conditions of vascular tone, the perspiration and diarrhoea, the marvellous influence of the abdominal nerves and vessels on the distribution of blood in the body, are evidences of collateral and coincident disturbances of the sympathetic.

## THE SELF-LIMITED DURATION OF PULMONARY PHTHISIS.<sup>1</sup>

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THE title of the paper which, in compliance with a courteous invitation, I have the honour to submit to the section on Medicine may require some explanation. By the name pulmonary phthisis I mean the chronic affection so-called and studied half a century ago by Laennec, Louis, Connell, and their contemporaries. The history of this affection as contained in the medical literature of the last quarter of a century, illustrates the mutability of pathological doctrines, and the evils liable to ensue when the connexion which should exist between histological and clinical studies is severed. This is not the time nor place to consider the instructive lessons to be learned from this history. Suffice it to say that, at last, the teachings of histology coincide with those of clinical experience, and that now, after the lapse of fifty years, the names chronic phthisis and tuberculosis are again synonymous. By the term "self-limited" I mean the duration of a disease as determined by its intrinsic tendency—that is, irrespective of either medicinal or any extrinsic agencies. The term was introduced by the late Professor Jacob Bigelow in a discourse published in 1835. Quoting his definition, he says: "By a self-limited

disease I would be understood to express one which receives limits from its own nature, and not from foreign influences." He cited whooping-cough, measles, scarlet fever, small-pox, erysipelas, and typhoid fever as diseases which run a certain course and end after a certain time from their intrinsic limitations. This doctrine has lost the novelty which it had at the time of the publication of Bigelow's discourse. No one at the present day will dispute the doctrine as applied to certain diseases. Within late years the list of self-limited diseases has been extended. To the essential fevers (the eruptive, the continued, and the periodical) have been added acute pneumonia, acute articular rheumatism, and acute dysentery.

My object in this paper is to show that pulmonary phthisis may have a self-limited duration; that, in a certain proportion of cases, this disease ends favourably, irrespective of any appreciable extrinsic agencies, recovery taking place, provided the nature and extent of the local lesions be not such as to render them either irreparable or innocuous. If the doctrine of self-limitation as applied to phthisis be not entirely new, it has, at all events, received as yet very little consideration in medical literature and in medical practice. If the doctrine in this application be true, it has important pathological and practical bearings, to some of which I shall briefly advert.

How is self-limitation to be proved as applied to phthisis or to any other disease? Facts pertaining to morbid anatomy and to therapeutics may render the application of the doctrine probable; but, evidently, positive and complete proof can only be afforded by a collection of cases in which the disease pursued its course without active interference in the way of treatment, either medicinal or hygienic, and without notable changes in habits of life, or in any of the conditions under which the patients were situated when the disease became developed. For obvious reasons these requirements for absolute proof are not easily obtained in cases of a disease like pulmonary phthisis. Yet cases involving these requirements occasionally come under medical observation. The hopeful mental state which generally accompanies phthisis sometimes leads patients to trust altogether to nature for restoration to health, and to continue their usual manner of living without any alteration. Some patients do this from a conviction that they have not a malady of sufficient consequence to claim attention, beyond, perhaps, palliative remedies; and some from circumstances which render it difficult to do otherwise. Again, there are phthisical patients who do nothing in the way of either therapeutics or hygiene from a thorough scepticism as to the advantage of doing anything. Hence it is practicable to collect from a field of observation sufficiently large, during a term of years, a certain number of cases which exemplify the natural history of phthisis.

In 1858 I had collected a considerable number of histories of cases of phthisis, recorded during the preceding twenty years of medical practice, and I was led to examine the collection for those cases in which there had been an arrest of the disease. Twenty-four cases were in this category. The histories of these twenty-four cases were analysed with reference to points of agreement in the management; I assumed that in the points of agreement must lie the means by which the disease had been arrested, provided these points of agreement were not equally common in other cases in which the disease was not arrested. A striking result of this analytical study was, that in a few cases no appreciable influences, either of medication, diet, or regimen, had been brought to bear on the disease; the patients took no active remedies, and continued unchanged the same habits of living as before the development of the disease. It seemed a logical inference that in these cases the disease was not arrested, but that the recovery was owing to an intrinsic tendency thereto; in other words, the disease ended in recovery from self-limitation. An abridged account of the histories of these twenty-four cases was embraced in a report published in the *American Journal of Medical Sciences*, January, 1858.

In 1863 I had accumulated additional cases, in which the disease had either been arrested or ended from self-limitation. The number amounted to sixty-two. These cases were studied analytically in the same way as those analysed in 1858. In seven cases no medicinal or hygienic measures of management were employed. The recovery in four of these cases was complete. In three cases good general health had been regained and maintained for a long period, some cough and expectoration remaining. An abstract of the histories of the sixty-two cases was published in

<sup>1</sup> Read at the British Medical Association, Worcester, August, 188

the Transactions of the New York Academy of Medicine for the year 1863.

In 1875 were published, in a work entitled "Phthisis in a Series of Clinical Studies," the results of an analysis of the histories of all the cases of phthisis which I had recorded during a period of thirty-four years, the number being 670. Of these 670 cases forty-four ended in recovery. Details of the history of each of the forty-four cases are given in the work sufficiently to render evident the recovery and the correctness of the diagnosis. In addition to these forty-four cases there were thirty-one cases in which the disease ceased to progress, and remained non-progressive for at least several months, and in most instances for several years. In these thirty-one cases the phthisical disease was considered as having ended, complete recovery not taking place in consequence of irreparable lesions. As cases for analytical study with reference to the agencies which may have caused the arrest of the disease, these thirty-one cases of non-progressive phthisis seemed hardly less valuable than the forty-four cases which ended in complete recovery. Adding together the two groups of cases, out of the collection of 670 recorded histories of phthisis, there were seventy-five in which the disease either ended in complete recovery or remained for a long period non-progressive.

These seventy-five cases offered a rich field for analytical study with reference to several points of inquiry having important bearings on prognosis and treatment. The only point to be here noticed is the proof which some of the histories furnished of the recovery or the non-progression being due to an intrinsic tendency of the disease. In how many of these cases was it evident from the histories that the disease was not arrested by either medicinal or hygienic treatment? The answer to this question furnishes the proof of self-limitation.

Of the forty-four cases ending in recovery, in twenty-three there was no medicinal treatment to which arrest of the disease could be attributed. In several of the twenty-three cases there was no medicinal treatment; in the remainder of the cases, the treatment consisted of simple tonics, palliatives of cough, or remedies to meet some other symptomatic indications. In none of the cases could the medicinal treatment be considered as curative. Of the thirty-one cases of non-progression of the phthisical disease without complete recovery, in fifteen there was no medication by which it might be supposed the disease had been controlled, and in several no medicinal treatment whatever. The two groups of cases—namely, those ending in recovery, and those becoming non-progressive without recovery—thus furnished about an equal proportion of those in which medicinal treatment was either wanting, or in no degree curative, the proportion in the first group being twenty-three of forty-four, and in the second group fifteen of thirty-one. This correspondence in the two groups has perhaps a significance beyond mere coincidence. In respect of hygienic or non-medicinal treatment, in some cases of both groups there was no change whatever in habits of life or other circumstances. In other cases there were changes involving improved hygienic conditions, but in a considerable number the changes were of a character that a potential influence could not be attributed to them. It is probably correct to say that the changes may have favoured the recovery or the non-progression, but that they were inadequate to arrest the disease. In my work is introduced a condensed history of each of the seventy-five cases, which form the two groups now referred to.

A self-limited duration cannot be inferred from a single case, or from a very few cases, for this reason: the course and termination may have been affected by influences which are extrinsic, but not apparent. In order to obviate liability to error on this score, the number of cases must be sufficient to render it impossible, or vastly improbable, that in all such influences could have been overlooked. It is needless to say that the cases from which the inference of self-limitation is drawn must have been carefully observed and honestly recorded. Another requirement is essential—namely, there must be no room for distrusting the accuracy of the diagnosis. Assuming competency for observation and veracity, the diagnosis in each of the seventy-five cases is attested by the recorded histories, and it will be admitted that the number of cases is sufficiently large for the exclusion of error on the score of unrecognized extrinsic influences. The number of cases might be increased by the addition of those which have come under observation since 1875. This seems to me needless with a view to strengthen the conclusion

respecting self-limitation. I therefore submit, as substantiated by the clinical facts which I have cited, the following proposition:—Pulmonary phthisis, in a certain proportion of cases, has a self-limited duration, the disease ceasing to exist after more or less progress of the local affection, all symptoms referable to the lungs disappearing, and recovery, as regards the general health, being complete. The disease is also self-limited in a certain proportion of cases in which lesions remain, giving rise to more or less of cough and expectoration, the persistence of these lesions not being incompatible with good general health and long duration of life.

Many topics of interest and importance cluster around this proposition. It is an interesting fact that self-limitation is exemplified in the majority of the fatal cases of phthisis. As is well known, the disease, as a rule, advances not by a continuous progress, but by a series of successive invasions separated by variable intervals. After each invasion, or as it has been termed, tuberculous eruption, there is temporary self-limitation of the disease. I will not venture on a discussion of the question whether this fact is sufficiently explained by the statement that each eruption of tubercles for a time exhausts the tuberculous cachexia, or whether the fact be owing to the production of successive broods of the bacilli tuberculae. It suffices to state the clinical fact. The fact suggests a capital object in the treatment—namely, prevention of a renewed invasion. The continuous advancement of the disease, as an exception to the rule, is the pathological feature of the so-called "galloping consumption," or phthisis florida.

In the cases ending favourably, which have been referred to as furnishing proof of a self-limited duration, the diagnostic symptoms and physical signs were so well marked as to leave no room for doubt as to the existence of phthisis. From cases which have come under my observation, I have been led to believe that not very infrequently phthisis ends by self-limitation without having advanced far enough for the diagnosis to be considered as positive. A patient has had for some time a slight cough, either dry or with a scanty expectoration; there has been some loss in weight, and the body heat is somewhat raised, with, perhaps, spitting of blood. These symptoms, taken in connexion with the age of the patient, and, it may be, grounds for suspecting a congenital predisposition, point to a tuberculous affection. But examinations of the chest in such a case may fail to reveal distinct physical signs. Very likely the problem, as regards the physical diagnosis, is to determine whether at the summit of the chest on the right side there are abnormal signs or only the normal points of disparity between the two sides. There may be found only a subcrepitant r le, or slight pleuritic rubbing, or an interrupted respiratory murmur at the summit on one side, without conclusive evidence of tuberculous solidification. Under these circumstances, the physician either commits his judgment to a diagnosis of incipient phthisis, or, as is more probable, he reserves an opinion for further developments. After a short time all the pulmonary and general symptoms disappear. Now, if incipient phthisis have been dignified, the physician concludes that the diagnosis was erroneous. He feels obliged so to conclude in consequence of the common belief that phthisis does not thus commence and end from self-limitation. But it is highly probable that the diagnosis was correct. Phthisis existed and ended in its incipency. It would be proper enough to distinguish these as cases of abortive phthisis. If I mistake not, all medical observers of much experience will admit that the foregoing sketch represents a class of cases not extremely rare. That they are not very rare is a fair inference from the frequency with which the traces of an old, small phthisical affection are found in bodies dead with other diseases than phthisis.

A topic of practical importance is the bearing of self-limitation on the prognosis in individual cases of phthisis. The analytical study of my collection of cases showed that, as a rule, in those which ended favourably from an intrinsic tendency, the tuberculous affection was moderate or small in amount, but that there are exceptions to this rule. All observers of much experience will agree that the prognosis in cases of phthisis is to be based more on the general condition of the patient than on the local symptoms and signs. To consider the elements of prognosis would be here out of place, even if time permitted. In general terms, the symptoms which denote tolerance of the phthisical affection are those which indicate a favourable intrinsic tendency, and, on the other hand, pyrexia, progressive loss of weight,

frequency of the heart's action, and anorexia, point to an opposite tendency. Of special importance, in a practical view, is the bearing of the doctrine of self-limitation on the conclusions to be drawn from observations respecting the agency of therapeutic and hygienic measures in the treatment of cases of phthisis. How many and various are the remedies which have been supposed to have been sometimes curative in cases of this disease! Instances of their apparent curative power have been attested by honest observers. Making the fullest allowance for errors in diagnosis, I cannot doubt the credibility of more or less of these cases. Recovery has taken place under the employment of divers remedies; yet these remedies have so generally failed that, for the most part, they are now obsolete. The explanation of their apparent efficacy is to be found in the doctrine of self-limitation. The disease ended favourably, not from a specific influence of the remedies, but from an intrinsic tendency. This is not saying that the remedies may not have been, to a greater or less extent, serviceable. It may be laid down as a principle applicable to all diseases that whenever experience has seemed to show success from treatment by a variety of remedies the efficient cause lies in the disease itself. This principle becomes more evident the more we become acquainted with the natural history of diseases. To accept this principle is not to disparage medicinal treatment. In certain cases of phthisis, as of other diseases, self-limitation is a factor co-working with curative measures, and, as perhaps may be added, sometimes effective, in spite of measures which obstruct its operation. On the other hand, when this factor is feeble or wanting, curative treatment is not likely to prove of much avail. Evidently, in drawing conclusions respecting the curative effect of remedies allowance is to be made for this factor. The extent of its co-operation, doubtless, differs much in different cases, in some being sufficient in itself, and in others either considerable, or moderate, or slight.

The doctrine of self-limitation bears on the climatic and other measures entering into the hygienic treatment of cases of phthisis with not less force than on the employment of drugs. As regards climate, is there a practical theorem more perplexing to the practitioner of medicine than that of selecting the best resorts for phthisical patients, provided the selection be made on the basis of an impartial consideration of the reported results of climatic agencies in different situations? Underlying the exaggerations on the one hand, and on the other hand the depreciations of particular climatic resorts, founded on the different results in a few cases, is the factor of unknown power, self-limitation, the existence of which is generally ignored. Here is the explanation, at least in part, of the discrepancies of testimony concerning the results of climatic influences in different situations.

I forego reference to topics relating to the subject of this paper other than those briefly adverted to, feeling that I may have already overstepped the privilege of an invited guest. In conclusion, it must be admitted that the characteristics of the medical practice of to-day have resulted, in no small measure, from the knowledge which has been acquired of the natural history of diseases. And the practical applications of this knowledge have had relation especially to the doctrine of self-limitation. Bigelow, when he distinguished certain diseases as self-limited, probably had but a faint apprehension of the scope of this well-chosen term. The boundaries of its fullest extension have yet to be ascertained. Much knowledge of the natural history of diseases still remains to be acquired. It could hardly have been conjectured by Bigelow, when his discourse was written, that phthisis would be included among the self-limited diseases. The extent of influence attributable to self-limitation in this disease is by no means as yet ascertained. There is ample room for observations bearing on this point of inquiry. Impressed with the importance of clinical studies having this direction, I cannot forbear the remark that they promise more in the way of practical utility than has hitherto been derived from the discussion of the histological and pathological questions which, of late years, have engrossed so much attention and occupied so large a space in medical literature.

THE funds of several institutions in Lancashire have largely benefited by the will of Mr. Asa Lees, who died recently. The Oldham Infirmary receives £10,000; Owens College £10,000; the Royal Albert Asylum for Idiots £10,000; the Northern Counties Supplementary Hospital for Chronic and Incurable Diseases £2000.

## A METHOD OF APPLYING LIGATURES TO VEINS.

By HENRY SYDNEY, M.D., C.M.

IN applying a ligature to a vein, or adopting any mode of occlusion, inflammatory action is both inevitable and requisite. The form of phlebitis required is the healthy aseptic variety, with its limiting zone of plastic formation passing across the lumen of the vein and its solidified contents and preventing purulent matter or the results of disintegration from entering the circulation. The variety to be dreaded is the septic, where phlogogenous matter, zymotic or chemical, penetrates the tissues before the defences of the limiting zone can be formed, and diffuse suppuration is the result. If septic inflammation were due only to germs introduced from without, it might be hoped that strict antiseptic precautions would prevent it, but there is every reason to suppose that it can arise from the formation and absorption of a material not of a zymotic but a chemical nature, due to decomposition or retrograde metamorphosis of tissue or wound products. According to Billroth, the surface of a healthy granulating sore or a zone of healthy plastic formation is impermeable to septic organisms, but where, from the presence of crushed or devitalised tissues, the wound is unhealthy, septic material, either formed within or introduced from without, can be absorbed into the system. Now, in the ordinary mode of occluding veins by acupressure or subcutaneous ligature there is, in addition to the vein, a large amount of skin and other tissues seized, compressed and more or less devitalised; and consequently conditions are produced favourable to unhealthy tissue metamorphosis and absorption. This may appear a theoretical rather than a practical view, or a refinement of the septiphobia, now so extensively prevailing in the surgical portion of the profession, but it is nevertheless a very palpable possibility, if not probability, and one which, in view of the still questionable reputation of operations of complaisance on veins, cannot be allowed to pass unheeded. But from whatever point it is viewed, the principle of enclosing within ligature or acupressure tissues other than the vessel to be occluded is wrong, and whatever proceeding tends to limit the action of the ligature to the vessel only, excludes an element of danger. Whether the dangers of operation on veins are exaggerated or not, it is easily conceivable how on these busy highways of the system results are apt to follow grave in proportion to the ease with which, ceasing to be local, they become general, and therefore an essential precaution in operations is antiseptic procedure. A punctilious regard to cleanliness may obviate the employment of the redundant ceremonial of full antiseptic measures. Either the spray or the irrigator may be used. I have, when operating by ligature, had equally good results from both. I have also had perfect freedom from suppuration and sepsis, without either spray or irrigator, from an application to the skin of a thick ointment composed of wax, olive and eucalyptus oil and carbolic acid. This smeared over the parts forms a coating sufficiently thick, at the temperature of the skin, to prevent the contact of air with the punctures. In regard to the operation itself, it should, after the plan of Ricord and Duncan,<sup>1</sup> be subcutaneous, and the ligature of catgut. The ligature should be very fine: No. 1 size only. This for two reasons: because it requires less force to cause complete occlusion of a vessel with a thin than with a thick ligature; and a thick ligature embraces a greater portion of tissue, and therefore causes a greater amount of bruising and destruction. The disadvantages and even the danger, in the case of arteries, of using thick catgut, have been pointed out by Mr. Barwell<sup>2</sup> and Mr. French.<sup>3</sup> The ligature should not be in that rigid condition in which it usually is from being kept in carbolic oil, as, after soaking in the fluids of the wound, it becomes softened and elastic and in that condition stretches after tying, which, be it ever so little, is sometimes sufficient to prevent perfect occlusion. To soften the ligatures, they may be soaked in a 5 per cent. solution of carbolic acid before being used. I find that the addition of a small quantity of eucalyptus to the carbolic oil in

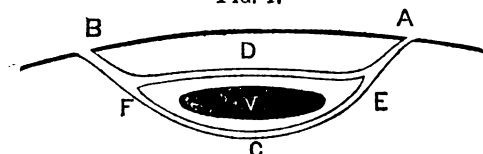
<sup>1</sup> Duncan, British Medical Journal, July, 1881.

<sup>2</sup> THE LANCET, July 30th, 1881.

<sup>3</sup> Ibid., Nov. 19th, 1881.

which they are usually kept makes them soft and elastic. In this condition, as in tying with horsehair, a double turn must often be made in the first knot, to prevent it slackening before the second can be brought to fix it. The vein only, with as little surrounding tissue as possible, should be included in the ligature. Not only is there less tissue bruised or devitalised, but less force is required to produce complete occlusion, just as an artery is more easily controlled by pressure on its bared trunk than over superimposed structures. With this object I employ two needles—a long sharp-pointed one, and a blunt grooved one to act as a director. The sharp needle is first thrust underneath the vein, and its point brought out through the skin on the opposite side. It is then withdrawn a sufficient distance in its track to allow of its point being passed over the vein between it and the skin. To serve as a guide, the grooved director is now inserted in the puncture of exit from which the needle has just been withdrawn, and the needle, now pushed on, meets the groove of the director and comes out at its former aperture. The subjoined diagram (Fig. 1) shows the lines of puncture, which include the vein, with some surrounding tissue. After these tracks were made, I

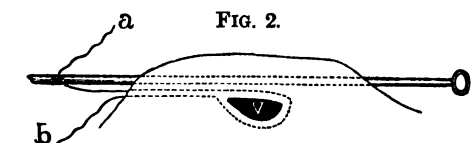
FIG. 1.



A E C F B, Track of first puncture under the vein, v. E, Point to which the needle is withdrawn. E D F, Track of puncture over the vein. F, Point at which the groove of the director at B meets the needle to conduct it out at its former channel, F B.

formerly used blunt needles and a director to pass the ligature round the vein and tie it. Latterly I have used a triangular-pointed needle five inches in length, with an eye in the middle and a bulbous extremity. It is thinner in the shaft than at the point, so that the ligature threaded through its centre passes without hindrance along with it into the puncture. The needle, with about eight inches of ligature, is thrust under the skin beneath the vein and brought out on the other side, as just explained. It is pushed on till the ligature appears, one end of which is then withdrawn sufficiently to allow it to be passed over the vein, guided out by the director as described, and pushed on till the other end of the ligature can be pulled through. At this stage of the operation, the position of the vein, the ligature, and the needle is as shown in the annexed diagram (Fig. 2).

FIG. 2.



a, Ligature drawn through after first transfixion under the vein, v. a, Ligature carried over the vein and coming out at the same orifice as b.

The ligature now forming a loop around the vein is drawn out of the needle, tied in a single knot, and that end of it which was first passed through is drawn back by the needle to the other side of the vein, and the knot passing under the skin, is then tightened. To tie again and complete the reef knot, the eye of the needle bearing the ligature must again be pushed through, and the knot tied as in the first instance; the other ligature is brought back in the needle, which may now be entirely withdrawn, and the knot made fast. The ends are now cut off as near to the knot as possible; this is done by pulling gently on the one-half of the ligature, and cutting it off close to the skin, so that it at once disappears beneath it when divided; the other end is similarly dealt with. The vein is now tied with a reef knot, which with both of its ends is beneath the skin. In this proceeding it will be observed that till the completion of the operation the needle is never withdrawn entirely out of the wound; and that it is by means of the eye carrying the ligature from one side to the other that the knot can be correctly and securely tied subcutaneously. To ensure more complete and permanent adhesion, as well as to avert clotting in the vein, two ligatures must be applied, at intervals not

exceeding an inch. The lower ligature to be first applied, and before tying the knot of the upper one all the blood in that part of the vein between the two points of occlusion must be pressed out, so that the sides of the vessel are brought into the closest contact. By this means a much firmer adhesion is obtained than through clotting and subsequent contraction and occlusion. Broca<sup>4</sup> lays great stress upon the different results of stability of obliteration of veins, produced by coagula and by adhesion of walls. The latter mode of adhesion he asserts to be more solid even than that which takes place between the pleuræ; whereas the other is frequently but temporary. The formation of thrombus is to be prevented, in the first place, as urgently pointed out by Erichsen, by keeping the ligature out of the vein; when from the pressure of hæmorrhage, of which there should not be any, there is reason to suppose the vessel is pierced, operation on that spot must be at once stopped, and another chosen. In the second place, by firm pressure on the limb, previous to any ligaturing, by means of a rubber bandage applied from the foot up to that part immediately below the spot chosen for operation. By doing this the veins are emptied of their contents, so that no thrombus with secondary phlebitis can result. For the same reason the bandage is also to be continued over and above the ligatured portions as the operation proceeds. The application to each of the punctures of a small piece of lint moistened with carbolic oil and covered by absorbent carbolized wool completes the procedure. Unless there is much pain, the dressing need not be removed for three or four days. During this time the patient is to be kept in bed; on the fifth or sixth day, according to the amount of tenderness, the leg may be put to the ground. It is seldom that I have seen suppuration except when thick ligatures have been used or when a large portion of tissue has been included. It has never, in any case, amounted to more than two or three drops of pus, which, after making its way out of the punctures, was immediately followed by healing. As I remarked, the application of two ligatures, less than an inch apart, is the surest means to produce obliteration; in ordinary cases two, or at most three, such obliterations are sufficient to relieve ordinary varicosity. In eighteen cases of operation where the measures and precautions I have enumerated have been observed, I have seen no bad results, or, indeed, any that caused the slightest anxiety. In one instance, that of a person about fifty-five years of age, in whom the saphena was tied six inches above the knee, an acute attack of gout developed, affecting the great toe of the limb operated upon. So far as I am able to judge during two years I have adopted these methods, the results have been permanent upon the vessels ligatured. The most satisfactory cases of all, probably because the disease in the veins was in an early stage of development, were those of some young military cadets upon whom I operated. The varicosities before operation were such as would have disqualified these gentlemen for the service.

In long-standing cases where there is much œdema and great tortuosity of vessels, there are considerable difficulties to encounter. In regard to these, Mr. Duncan's paper, already referred to, gives some valuable suggestions; amongst others, to facilitate the application of the ligature, he advises that a tight rubber band be placed high up round the limb; this, while it brings the veins out in strong relief, has the additional advantage of rapidly and surely showing by hæmorrhage whenever they are wounded. He has also found that a rubber bandage well applied and kept on for some time reduces that solid brawny œdema so frequently met with in varicose disease, in which the vessels run like gutters beneath the skin and render deligation difficult.

In conclusion, I need hardly observe that the method and precautionary procedures here set forth lay no claim to originality. The method, indeed, is synthetical, composed of elements selected from such procedures of others as promise the greatest immunity from the peculiar dangers which are understood to attend operations on venous tissues. Its details may appear complicated and superfluous; but with the facts of the later investigations of surgical pathologists before us, and the knowledge of how completely in the instance under consideration the results are dependent upon healthy inflammatory action, distinguished from that due to septic causes, there is an enhanced disposition to sacrifice expedition in method to correctness in principle, and to stoop to what may appear tedious minutiae to ensure safety.

Hounslow.

<sup>4</sup> Gazette Hebdomadaire, No. 16, 1882.



## OPERATION STATISTICS OF THE GLASGOW ROYAL INFIRMARY.

BY M. THOMAS, M.D., F.F.P.S. GLAS.,  
SUPERINTENDENT TO THE INFIRMARY.

As the statistics of operations given by Sir James Simpson are oftener quoted than those of any other authority, it occurred to me, after finishing the paper which appeared in THE LANCET of July 1st, to make an exact comparison, and on the same lines, of the operations performed here from 1868 to the present time. This is a continuation of

the statistics of this hospital, as given by Sir James, of the previous eighteen years. The subjoined table shows the very satisfactory results.

The decrease in the fatality of the operations during the last thirteen years ranges from 16·8 to 4·6 per cent. There is an increase of 13 per cent. in only one set of amputations—viz., secondary for disease of the forearm.

The total number of cases for the thirteen years was 822; deaths, 212; or 25·5 in every 100, against 39·1 as given by Sir James.

The total number of amputations for injury was 397; deaths, 126; or 31·7 per cent., against 43·6 per cent.

The total number of amputations for disease was 425; deaths, 86; or 20·2 per cent., against 33·8 per cent.

### RESULTS OF THE FOUR AMPUTATIONS OF THE THIGH, LEG, AND FOREARM, IN THE GLASGOW ROYAL INFIRMARY, IN THE SAME MANNER AS GIVEN BY SIR JAMES SIMPSON IN HIS PAPER ON HOSPITALISM.

	PRIMARY.								SECONDARY, FOR DISEASE.							
	Thigh.		Leg.		Arm.		Forearm.		Thigh.		Leg.		Arm.		Forearm.	
	No. of cases.	Deaths.	No. of cases.	Deaths.	No. of cases.	Deaths.	No. of cases.	Deaths.	No. of cases.	Deaths.	No. of cases.	Deaths.	No. of cases.	Deaths.	No. of cases.	Deaths.
1869	7	3	7	4	8	3	5	1	18	5	6	3	3	0	2	0
1870	5	1	13	5	8	2	6	0	19	3	12	2	4	0	4	0
1871	9	4	6	5	13	1	10	2	3	0	2	1	8	1	1	0
1872	11	3	12	5	7	2	5	0	31	9	9	1	5	2	7	2
1873	21	6	7	2	4	0	0	0	16	3	9	0	6	1	3	0
1874	15	9	8	5	14	5	4	1	31	12	11	3	9	3	4	2
1875	12	9	6	2	13	4	4	0	23	5	5	0	4	0	6	2
1876	9	3	7	3	6	0	2	0	22	5	3	1	3	0	1	0
1877	9	6	9	3	3	1	3	0	16	2	8	1	6	0	1	0
1878	9	1	8	1	7	2	5	1	19	3	6	1	2	0	2	1
1879	8	4	4	3	8	1	1	0	16	2	2	0	2	1	4	0
1880	9	5	4	0	7	0	6	0	20	1	4	1	1	0	1	0
1881	10	5	7	1	12	2	4	0	12	4	7	1	4	2	2	0
	134	59	98	39	110	23	55	5	246	54	84	15	57	10	38	7
	44·0		39·8		20·8		9·0		21·9		17·6		17·5		18·4*	
	60·0		53·7		37·6		13·6		38·4		32·9		26·0		5·2†	

\* Mortality per cent.

† Mortality per cent. of the previous eighteen years, as given by Sir James Simpson in his paper on Hospitalism.

#### Mortality of the Four Major Amputations, combining together Operations for Injuries and Operations for Disease.

Per cent.			
Thigh	cases, 380; deaths, 113; mort., 29·7, agst. 46·2		
Leg	„ 182; „ 54; „ 29·6, „ 44·0		
Arm	„ 167; „ 33; „ 19·7, „ 35·4		
Forearm	„ 93; „ 12; „ 12·9, „ 11·7		

In addition to the decreased mortality, which I attribute chiefly to the use of antiseptics, another noticeable feature in these statistics is the increase in the number of operations. In eighteen years the number was 661; for

the last thirteen years the number was 822; an increase of 19 per cent. It is to be hoped the mortality will continue to decrease, but I fear it will never reach the low percentage of country operations, as cases of the worst description are occasionally sent to us from some of the very districts mentioned by Sir James as places where success had been achieved, such as Motherwell, Airdrie, &c. It is impossible that cases coming so far can have the same chance as those treated at home; but there can be no doubt it is the discomfort of their homes which forces the country practitioner to send them into the infirmary. Small hospitals in such localities would be an immense boon to the poor sufferers, and their erection is only a question of time.

## MODERN STUDY OF MICRO-ORGANISMS, AND ITS INFLUENCE ON MEDICAL THOUGHT.<sup>1</sup>

BY SOLOMON CHARLES SMITH, M.D.,  
SURGEON TO THE HALIFAX INFIRMARY.

I WISH to draw attention to the position to which recent researches on bacteria have brought us in regard to the interesting question of the relation between micro-organisms and disease, partly because the subject is a most thought-producing one, partly because it is one in the investigation of which great strides have lately been made, and especially since in its elucidation we have now arrived at a point from

which research may advance along two separate lines, each useful when checked by the other, but liable to lead to error if prosecuted alone, and because there is great temptation to us all, in consequence of the brilliancy of the results lately obtained, to rush into the microscopic line of inquiry as to the nature of the germs of disease, to the exclusion of that other line of research, which I think is so important, as to the nature of those conditions which make man's body a fit nidus for the hatching of those germs, and the development of the diseases to which they are related. All our knowledge on this subject is new: the discovery of the yeast plant only took place in 1835, the trichophyton of ringworm ten years later, and the relation between living germs and suppuration only fifteen years ago; but the demonstration of the spirillum of relapsing fever, the bacilli of anthrax, of enteric fever, and now of tubercle, are things of the very present. And it seems probable that the widening of the circle of diseases which must be considered infective resulting from this new knowledge will lead to some modification of

<sup>1</sup> Read before the Yorkshire Branch of the British Medical Association held at Leeds, July 26th, 1882.

our ideas as to the nature of the infective process, and make us look not so exclusively to the germ as the all-powerful principle, but take greater cognisance of the preparedness of the individual to become a fit breeding ground for its growth and development. Even in what may be called laboratory experiments, attention to these two factors is found necessary in the cultivation of certain bacteria outside the body. The nature, the composition, and the moisture of the material upon which they are grown, and the temperature at which the experiment is conducted, are points upon which success or failure hinges—that is, these organisms develop readily enough if the conditions are suitable, but not otherwise. This did not escape the observation of Professor Tyndall, for in his researches he found that although the ordinary bacteria of decomposition were able to grow in every organic solution, still there was a considerable difference in the readiness with which they developed in the various kinds of infusion experimented on, the tubes containing some being far gone before those containing others were sensibly affected. "Two bacteria germs of equal vital vigour dropping from the atmosphere, the one into a neutral or slightly alkaline, the other into an acid, infusion, soon cease to be equal in vigour; the life of the one is promoted, the life of the other only tolerated, by its environment." "A germ brought close to the death point in a neutral or in an alkaline infusion may revive, while in an acid one it may perish; just as proper nutriment may rescue a dying man, while improper nutriment would fail to do so."<sup>2</sup>

Now, just as in these experiments fitness of soil was essential for growth of bacteria, I think we must look upon that rapid growth of micro-organisms which occurs in infectious disease as due not merely to an infection with certain germs, but to the existence of such a state of body as shall supply fit and proper food for their development. The list of diseases in which micro-organisms have been found is a long one, but till quite recently, although their constant association with these ailments was undoubted, the proof was wanting that they were actually their cause; but now we are told that in phthisis, which has long been known to be infective within the individual, and suspected to be contagious from one person to another, the contagium does actually reside in the bacterium, which has lately been discovered in that disease.

In the older methods of investigation by inoculation with morbid fluids, it was always difficult to prove that the bacteria which they undoubtedly contained were themselves the real producers of disease, and that the virulence did not lie in the fluids themselves; but Dr. Koch's researches carry us a long way out of this stage of doubt. In his investigations into the origin of tubercle he has not only demonstrated the existence of bacteria of special form, but has been able to cultivate them outside the body. This he did on soft gelatinous plates, upon which he found they would grow, which he inoculated successively one from another, so as to eliminate all chance of carrying forward any of the original morbid material; he then introduced these bacteria of the tenth generation into healthy animals with this result, that in their development and multiplication they again produced in these animals the same tubercular disease as their predecessors had caused in those from which they had originally been taken.

The interest of this discovery is enormous, since it not only puts phthisis among infectious diseases, but it proves that the living bacteria are themselves the actual infective particles. Everyone who has watched medical and even non-professional literature during the last few months, must have been struck with the great influence this has had upon medical thought, leading physicians to increased advocacy of isolation, separation, and antiseptics, and urging pathologists on, even in the face of the Vivisection Acts, to still greater efforts to trace out the life-history of a multitude of new micro-organisms. The journals are filled with descriptions of antiseptics, inhalations, and respirators, and other means of bringing parasiticide remedies into action against diseases which have not hitherto been looked upon as parasitic, and it would be difficult to say how many earnest microscopists are not now at work cultivating and classifying micro-organisms, with such effect that already the list of bacteria, bacilli, and micrococci found in different diseases is both long and intricate. Now, in all this good work knowledge is gained, but what I wish to point out is that these microscopic researches on bacteria will be practically useless

unless embodied with investigation into the causes which make the living body a fit breeding ground for them; and as these two lines of inquiry are fairly distinct, are likely to be undertaken by different men, and are in harmony with different modes of thought, I urge that we ought not to wait for more knowledge of bacteria, nor ought we all to enter the same field of minute microscopic research which has lately been so fruitful, nor especially ought we, because we do not all possess high objectives, to stand aside and consider ourselves out of the running, but should all do what we can to discover this other factor in the production of disease, convinced that there is full scope for ordinary clinical observation in the search for those conditions of health and surroundings which make man fit food for bacteria, fit soil for the growth of those micro-organisms which in their different modes of development produce the various forms of infectious disease. The researches on bacteria which have recently been made tell us plainly that they produce diseases which carry men off, but they do not give the reason why one is taken and the other left, and till we discover this other factor the germ theory does not cover the whole ground, does not explain all the phenomena. So long as germs were thought only to be concerned with what were then looked upon as infectious diseases, it was always possible to imagine that such individuals as had escaped illness had really escaped germs, but now that bacteria are held to be causative of other diseases which we always have in our midst, and which we obviously escape much more often than we catch, it becomes necessary to add to the bare and naked germ theory the hypothesis that there is a varying resisting power in living tissue, and that germs do not always find it a fit nidus for their development and multiplication. This is a necessary addendum to the germ theory, for without it too much is proved, and we ought all to be long since dead. What, then, are the conditions of health and of surroundings which so degrade the vitality of man's tissues as to render them a fit breeding ground for bacteria? This is a question as difficult as it is important, and one the answer to which is only to be found by patient observation of cases in the new light thrown upon them by the theory of specific germs. It is worth while bearing in mind, however, that there is a great variation in the comparative importance of the two elements in the etiology of different diseases, in some the contagium, in others the fitness of soil or the receptivity of the patient, being the predominating influence; and it would seem probable that the direction of investigation should be influenced by these peculiarities. Thus, in acute and obviously infectious diseases, such as small-pox, more is likely to be gained by observing the condition of those who escape infection, although exposed to it, than by records of the multitude who are attacked; whereas, in phthisis to the contagion of which, if it exists, we must all be constantly exposed, and in the production of which, therefore, the fitness of the individual for its development must be the main element, information is most likely to be gained by inquiry into the surroundings of certain groups of cases, where, as sometimes happens, a series of individuals successively occupying the same position one after the other succumb to tuberculosis—where, in fact, without exposure to any special risk of infection, the disease has appeared in great excess of the ordinary rate. I would suggest, however, that, as infectious diseases form a distinct group, they are likely to be influenced by some common cause, that there is probably some agency common to them all by which that lowering of vital resistance is produced which allows bacteria to develop within the body and involve it in disease.

Much has been learned lately about the nature of dust, and it has been shown that the floating particles in the air of our towns consist chiefly of living matter, micro-organisms, germs, not necessarily germs of disease, but of fermentation and decomposition, that decomposition which comes to all when they die. But these germs, like vultures, do not always wait for death, but gradually pervade our bodies while alive, and as our vital resistance grows weaker ultimately, by sheer numbers, gain the mastery. After any slow death bacteria are found so universally throughout the body that it is obvious that their germs must have spread themselves through the tissues during life, and I have repeatedly been able to demonstrate the existence of bacteria in the blood of persons seriously enfeebled by various diseases. If thus we are being constantly assailed by organisms to which we must ultimately succumb, and if we only keep them off by virtue of that power which all healthy living

<sup>2</sup> Tyndall: Floating Matter in the Air.

tissue possesses of resisting the growth of other living tissue within it, which is, in fact, one of the chief signs of its vitality, it is obvious that the more this vital resisting power is used up against ordinary germs of decomposition, the less will be left to withstand the development of the more special micro-organisms which are concerned in the production of disease. It seems fair, then, to believe that if we so arrange our lives that we shall commonly eat partly decomposing food, drink bacterial water, and breathe germ-laden air, even although neither the food, nor the water, nor the air contain anything which is capable of producing disease, we shall so exhaust and use up, if I may so say, the vital resistance of our tissues that, although we may still appear in good health, but little power may be left to us of resisting the development and multiplication within our bodies of any disease germs which may come across our path. These views as to the importance of the preceding condition in permitting the development of germs into disease are strengthened by the recent discovery of the bacterial origin of tubercle; for here we have an instance in which the contagion habitually passes over the strong to attack those who are fitted for it either by constitution or by preceding disease, or by reducing surroundings, and even when it has picked out a feeble member of the flock and attacked such an organ as the lung, is usually impotent against those portions whose functional activity is greatest, and is prone to affect those in which renewal of air and removal of exfoliated epithelium are least perfectly performed, such as parts which have been inflamed or tied down by previous thickening of the pleura, and especially the comparatively unused apices of the lungs. When we see the chest of a phthisical patient covered with patches of cloasma, the thickened and unremoved epithelium infiltrated by the spores and mycelium of the micro-organism *furfur*, we carry the mind's eye inwards and think of the apices of the lungs and the similar processes going on within them, their air cells, little moved by the feeble respiratory efforts of the patient, gradually plugging up with exfoliated epithelium matted together by the growth of tubercular bacilli, which, although carried in far greater number into those portions of the lung whose functional activity is greater, have only been able to take root in the half-dead epithelium of the stagnant apical air cells. All these thoughts put one more in sympathy with those who aim at warding off infectious disease by general improved sanitation, rather than with those who try to keep it at bay by isolation and quarantine. One cannot help seeing that if these latter do not combine with their efforts to stamp out disease by isolation of the germ-producing patient, such measures as shall in the meantime diminish the receptivity of the people, their fitness for breeding within them these germs of disease, the only result will be that some time or other the contagion will break through the quarantine, and run riot in a universally susceptible population. Let us, therefore, while earnestly studying the micro-organisms, which are the essential causes of the whole class of infectious diseases, also investigate and search out the conditions of body under which they are capable of developing within the animal frame, trusting that we may so be enabled to find some means of rendering ourselves unfit breeding grounds, at any rate for those which are least virulent, and hoping that the same measures which do this may so far diminish our receptivity for the others as to make their attacks less frequent and less fatal.

Hallfax.

## ACUTE CONJUNCTIVITIS CAUSED BY THE ELECTRIC LIGHT.

By W. C. ROCKLIFFE, M.A., M.D.

So far as I am acquainted with our English literature and periodicals, I am not aware that the effect of the electric light on the eye as producing acute conjunctivitis has been mentioned. The following case being the first I have met with, may therefore be of interest to the readers of THE LANCET.

A. B—, aged twenty-eight, was recently engaged in placing Siemens' electric light in the old part of the town, and, together with his fellow-workman, adjusting the carbon points of a lamp with 3000 candle power without coloured

glasses, which he informs me are always supposed to be worn during this portion of his business. As an almost daily occurrence the brilliancy of the spark causes more or less paralysis of the retina, or, to quote his own words, "he rarely is able to perceive the people walking on the footpath when descending the ladder from adjusting." Although this effect soon passes off, on this particular occasion, as he regained his power of vision (in about fifteen minutes), it was followed by rapidly increasing lachrymation, photophobia, pain and swelling of the lids, the whole symptoms being developed in thirty minutes. Having suffered from many slight attacks of a similar nature, he applied cold water, which previously had relieved him; but the pain and swelling increasing, I saw him the following day, apparently having suffered intense agony during the night. The lids of both eyes were very hot, red, swollen, and brawny, and level with the superciliary ridge, the swelling extending some little distance upwards over the forehead. The pain was most acute in and around the eye. On raising the lids (which was a very difficult operation, the photophobia being so very intense) a considerable amount of lachrymal fluid gushed out. The conjunctival vessels were exceedingly large, and the eyeball a brilliant scarlet; cornea clear. All these symptoms yielded to a brisk purge and lead lotion in forty-eight hours. His fellow-workman was similarly affected, but to a less extent.

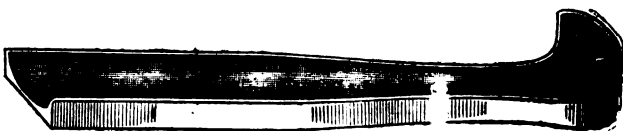
As a considerable heat is thrown out from the lamp, it would be interesting to know whether these symptoms were caused by the brilliancy or radiant heat.

Hull.

## NEW SPLINT-REST FOR SYME'S AMPUTATION.

By HENRY A. LEDIARD, F.R.C.S. ENG., &c.,  
SURGEON TO THE CUMBERLAND INFIRMARY.

THE accompanying woodcut represents a splint-rest which has been made for me by the infirmary joiner under the direction of Mr. A. Proffit, our house-surgeon at present. I have remarked that the ordinary straight backsplint, although most valuable in many amputations, fails to give support, if necessary, to the heel-flap in Syme's amputation. I allude to cases where the stitches are subjected to strain, and to cases where union of the flaps is delayed from some cause, and where adhesive plaster is employed after the stitches have been taken out. Again, in the usual dorsal position of the body after Syme's amputation, the cut end of the tibia tends to project somewhat from the drooping of the heel-flap, which is sometimes more bulky and heavy than at others, according to the nutrition of the patient and amount of tissue



available. I have lately tried the effect of a wooden splint so shaped as to fit the end of the stump and support its side and end. In order to promote drainage and to relieve tension, my old master, the late lamented Professor Spence, was in the habit of placing his Syme's amputations upon their sides and bending the knee. The discharge would thus drain through the outer angle of the flap, near where the tip of the external malleolus had been. This is an excellent method in some instances, if the lateral posture is tolerated, but the stump has occasionally a tendency to slew round, and to require readjusting with plaster. I consider, then, that the splint-rest figured will afford another step towards that rest and freedom from pain so essential in the treatment of wounds, which Hinton and Callender both taught and practised.

There are some Syme's amputations which do not require a thought from the moment of the completion of the operation, even strapping after removal of the stitches being wholly unnecessary; but it is not so in all, and whether the latter are treated with Listerism or the open method, I think that in a few cases my splint will be found serviceable. It will be observed that the splint is hollowed for the calf, as well as shaped for the stump end.

Carlisle.

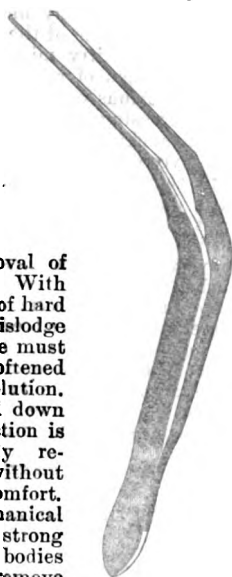
## NEW AURAL FORCEPS.

BY GEORGE ABBOTT, M.R.C.S.,

SURGEON TO THE CENTRAL LONDON OPHTHALMIC HOSPITAL, ETC.

FOR some years I have used an improved form of ear forceps, made for me by Messrs. Maw, Son, and Thompson, which I have found very convenient and useful for the various purposes for which such an instrument is required; and I therefore now bring it before the notice of the profession. It is much lighter than any I have yet seen, and from its peculiar form it can be applied even through a good-sized speculum. When in use it lies along the sides or floor of the canal, therefore it interferes but little with the axis of vision and facilitates the removal of anything the operator may desire. With it I have frequently removed plugs of hard cerumen which I had failed to dislodge with a syringe, and which otherwise must have waited until they had been softened by the application of some alkaline solution. If the points are gently insinuated down the sides of the meatus, slight traction is generally successful in promptly removing the whole mass and without causing the patient any discomfort. Though weak and acting at a mechanical disadvantage, the instrument is strong enough for the removal of foreign bodies which it is thought advisable to remove in this way, for it is certain that powerful instruments or much force is seldom necessary; indeed, as a rule, they are not only awkward but mischievous.

Tunbridge Wells.

A Mirror  
OFHOSPITAL PRACTICE,  
BRITISH AND FOREIGN.

*Nella autem est alla pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORCAESI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## UNIVERSITY COLLEGE HOSPITAL.

PYELITIS (TUBERCULAR?) WITHOUT VESICAL DISEASE;  
CONSTANT VESICAL PAIN REMOVED BY DRAINAGE  
OF THE BLADDER THROUGH A PERINEAL  
APERTURE; REMARKS.

(Under the care of Mr. BERKELEY HILL.)

IN certain cases of pyelitis, usually of tubercular origin, most of the patients' sufferings are due to constant irritation of the bladder. The following is an instance of the relief which follows continual drainage of that organ through a perineal fistula containing a tube wide enough to permit of immediate evacuation of the irritating pus and urine as they arrive from the ureters. Drainage of the bladder by cystotomy has been occasionally employed for thirty years by surgeons in Europe and in the United States to cure obstinate cystitis,<sup>1</sup> and attention has lately been again drawn to the expediency of opening the bladder for the purposes of searching its interior or of draining it in cases of obstinate cystitis or of severe pain in the bladder.<sup>2</sup> In the case about to be related drainage was obtained without dividing the neck of the bladder itself. The importance of this point was in-

sisted upon by Sir H. Thompson in the paper of which the title is appended.

H. H.—, aged thirty-two, was admitted into University College Hospital a second time on Oct. 12th, 1881. In 1879 he had been an out-patient under Mr. Godlee's care, suffering from painful, very frequent micturition. The pain was referred to the symphysis pubis, and was relieved by voiding urine. But it recurred every one or two hours, or as soon as one or two ounces of urine had collected. The man was pale and meagre, but otherwise free of objective symptoms. The lungs were clear; the urine acid and clear, and free of albumen; the urethra of normal width; the passage of a sound over the prostatic part caused a sharp burning pain, but the bladder otherwise indicated nothing abnormal. The prostate was not enlarged or tender, nor could the vesiculæ seminales be distinguished. The corda, epididymes, and testes proper were quite healthy. No pains were referred to the loins at this period. Rest and anodynes reduced the pain, and the man returned to work. In 1880 he was admitted to the hospital with considerable increase of his former symptoms. He complained in addition of aching in the left loin. There was also tenderness in the left renal region. The urine, still acid, contained pus in considerable quantity. Exploration of the bladder gave the same negative result as before. Continuous drainage through the retained catheter was complained of; washing out and the use of various injections were therefore substituted. Some intermission of the pain followed this treatment, and the patient left the hospital. He was lost sight of until October, 1881. He then micturated every quarter of an hour, both by day and by night. Pain was felt for a few seconds after micturition along the penis, and aching pain had been constant for the last few weeks in the left loin, being worse during micturition. Since October 2nd he had had constant hæmaturia. At first quite purple, the urine became gradually light red; its condition on admission was uniformly coloured throughout the flow. There was also much pus in the urine, and it was ammoniacal. The patient had lost flesh greatly, but was free from cough and night-sweats, and had never spat blood. There was some dulness of the right lung below the clavicle, and a few moist râles in the supra-pubic fossa. Careful examination discovered no morbid condition of the urino-generative organs, except the kidneys, and even when the patient was anaesthetised no lumbar tumour could be felt. After lying in bed a week the patient lost the blood from his urine for a short time; it then returned in the shape of clots. The fetor and pus continued. The passage of a large clot caused much pain; but, on the other hand, its exit left an interval of painlessness. During November the pain increased, and was often referred to the pubic region instead of the left loin, and occasionally to the right loin. The urine, in spite of regular washing of the bladder, remained foul, loaded with pus, and nearly always containing shreds of blood-clot. The patient rapidly lost strength; his temperature varied between 100° and 104°; his appetite went and bedsores appeared.

On November 30th the patient was etherised and his abdomen carefully explored, but without detecting a renal tumour. A staff for mesial lithotomy having been passed, the urethra was opened behind the bulb, and the finger passed into the bladder. No tumour, nor even roughness, could be distinguished on the mucous membrane, of which the whole surface was easily searched by the finger when the apex of the bladder was pushed downwards. A lithotomy tube was tied in. Immediate relief followed the operation, and the calls to micturate, which had been almost constant for many months, ceased at once. In a few days the lithotomy tube was removed, with the result of reviving the old penile and suprapubic pain and spasmodic desire to micturate. To prevent this, a soft rubber tube, just long enough to reach the interior of the bladder, and mounted with a shoulder at the perineal end, was introduced, and gave immediate relief. It was continuously worn for several months.

The patient's general condition steadily improved. His appetite returned, and he slept well, and soon his bedsores healed sufficiently to allow him to sit upright. This posture he found most agreeable, as it ensured the most rapid evacuation of urine. In a few weeks he could shuffle about the ward, wearing a woman's urinal. Though the patient gained flesh and strength, and was wholly free from pain for days together, his lumbar pain, now on one side, now on the other, returned for some hours occasionally. During these attacks the temperature would rise to 102° or 103° F.,

<sup>1</sup> The Medical Record of New York, June 12th, 1880, contains an excellent historical summary of thirty-two cases of cystotomy in the male, by Dr. Robert F. Weir.

<sup>2</sup> See papers read before the Medical and Chirurgical Society in 1882, by Mr. Reginald Harrison, Mr. Berkeley Hill, Sir Henry Thompson, and published in the Transactions.

its usual range being 97.5° or 99° in the forenoon and 100° or 101° in the afternoon. In February two short attacks of pyrexia with rigor drove him to bed for a few days. At these times 104° were reached. The urine improved somewhat; though always loaded with pus the putridity diminished, and even disappeared, so that it was sometimes acid as it escaped through the tube. The clots were also sometimes quite absent. The proportion of pus was generally about one-fifth of the whole bulk. In the latter end of March the bladder had contracted so much that when injected it could not hold more than one ounce, and the tube was frequently thrust forth. The patient felt well enough to work again, and desired that his fistula might be closed, that he might be free of the constant dribble. His solicitations became so urgent and his readiness to submit to any operation so unmistakable, that he was etherised and his loins carefully searched with the hope of finding a renal abscess or dilated pelvis which might be drained directly through the loin. But this discovery was not made; and the probability that both kidneys were greatly affected determined the abandonment of any project for nephrotomy. The perineal tube was, however, removed, and the fistula allowed to shrink. As soon as the passage had narrowed considerably, the old frequent and painful micturition returned to such an amount that the patient begged the fistula might be again widened. This was done, and the patient regained his former ease. Nevertheless, henceforth he lost ground; he became too weak to sit up, and his attacks of pyrexia were more frequent. Early in June he was transferred to the Highgate Infirmary of the Central London Sick Asylum District. On June 21st Dr. Garman, under whose care he had been placed, very kindly wrote that acute meningitis had set in, of which he shortly died.

It is much to be regretted that the religious scruples of the patient's friends prevented Dr. Garman from making a necropsy, and so tracing the whole course of the disease. The evidence that the bladder was not itself the seat of the mischief was satisfactory. The pus was never "ropy," and the pain felt in that part was the same all through long before any pus appeared. Lastly, the whole bladder was easily searched by the finger, and any abnormal condition of importance could not have been passed over.

There are several practical points illustrated by this succinct history of tubercular disease, apparently at first, and for a long time, primary of the kidney, causing during its development these symptoms of reflex irritation of the bladder and suprapubic pains long before signs of renal disease became obvious. This case is an example of the possibility of nephritic disease being mistaken for vesical disease. Yet there was early strong probability of the affection being renal, and not vesical, from the absence of disease in the generative organs. Tubercle of the neck of the bladder (prostatic and peri-prostatic tissue) gives rise to suprapubic pain and painful and frequent micturition before cystitis is excited. But there is usually associated with it tubercular disease of the testes or vesiculæ seminales; also tubercle of the kidneys is usually secondary in point of time to that of the generative organs. With regard to the treatment, only palliative means could be adopted. The history shows how much distress may be removed by drainage of the bladder in cases of advanced renal disease, even where that viscus is not itself diseased. When washing out does not give relief, the patient may be brought at once, by drainage through a fistula, from a condition of constant suffering to one of complete ease. The danger that attends cystotomy when the kidneys are affected is avoided by the plan adopted in this case—viz., by limiting the incision to the perineum and to the membranous portion of the urethra, instead of carrying the cut to the bladder itself. In cases of pyelitis, prolonged retention of the tube is requisite; in those of cystitis, the cause of disease—tumour, enlarged middle lobe, &c.—can be removed or remedied when a few weeks of rest suffice to cure the cystitis; consequently, in such cases, the drainage need not last long.

In women stretching the neck of the bladder sufficiently to give room for removing the cause of cystitis is frequently practised. And the same procedure will give ease in cases of pyelitis where there is vesical irritation also. Mr. Hill referred to an instance of this which occurred to him a year or two ago. A young lady, a patient of Mr. Shoppee's, of Kentish-town, was long tortured by vesical irritation with pyelitis. Mr. Berkeley Hill and Mr. Shoppee divided the

neck of the bladder and dilated the urethra. No disease of the bladder was found, but the incontinence which was left by the operation for some time afterwards removed the constant straining to pass urine, and relieved the patient of pain until her death, several months later, from the general progress of the disease.

### ROYAL HOSPITAL FOR CHILDREN AND WOMEN, WATERLOO BRIDGE-ROAD.

PYÆMIA WITH ABSCESS AND HÆMORRHAGE INTO PLEURAL CAVITY; HEAD OF RIB AFFECTED WITH CORRESPONDING FACETS OF VERTEBRÆ; NECROPSY.

(Under the care of Dr. PARK.)

FOR the following notes we are indebted to Mr. T. Frederick Briscoe, resident medical officer.

M. A. B—, aged three, admitted into Alexandra ward July 3rd, died July 7th. First taken ill on Wednesday, June 28th, with pain in right shoulder and outbursts of crying. There was no knowledge of an injury, but the child had romped a good deal with the other children. The family history was good; no hereditary tendency. The father is a painter, and the children have access to the paint-pots, sleeping in the same room. There was one other child. The patient had had no previous complaints. Before arriving at the hospital two medical men suspected rheumatism. He lay with his eyes half open, and his tongue was thickly coated with a white fur. There was an offensive faecal odour. The child seemed to suffer much, for on being handled his cry was very distressing; he was well nourished, and has had no cough. There was a diffused glandular swelling just above the left clavicle that caused the patient to call out when touched. Opposite the middle of the spine was an inflamed boil. The chest showed complete dullness in front of the left side; the heart sounds were very distant, and only heard at times; apex beat could now and then be made out at ensiform cartilage. On the same side behind dullness was elicited, with tubular breathing, and there was a questionable pleuritic rub. The opposite side of the chest was also affected, there being dullness, with feeble respiratory murmur. The skin was hot and dry. Temperature 103.4°. Urine acid; specific gravity 1020; no albumen or sugar. The right wrist was slightly enlarged. Patient to have a cantharides blister 4 in. by 4 in. applied to the heart. Ordered milk and beef-tea; also two ounces of port wine.

July 5th: Motions passed, pale and greenish streaks.—6th: The patient had been crying on and off all night. There was gurgling in the chest behind, the swelling at the root of the neck increasing. Ordered three grains of Dover's powder every four hours. The swelling at the wrist was the same. The child lay with his eyes half open; if raised in bed the painful cry was very distressing. He was quieter on his side.—7th: Died quietly at 1.10 P.M. The temperature gradually fell till the 6th, when it went up to 102.8°, then dropped a degree and a half; before death it went up again to 102.4°.

*Necropsy.*—On removing the sternum, sanguinolent discoloured pus oozed up, and on further removal the upper third of the left pleural cavity was full of a dirty rusty-coloured pus; in the same cavity and partially attached to the walls of the chest was a large blood-clot about the size of a hen's egg. The heart was pushed over to the right side. The head of the first rib and the adjoining neck was bare of cartilage, and separated from its articulation with the bodies of the vertebræ, which had also their facets bare of cartilage. The posterior third of the corresponding intercostal space was worm-eaten. Pus ran down beneath the tendinous structures close to the spine and also burrowed amongst the muscles of the back, and upwards into the neck. There were pleuritic adhesions on the right side, and a slight effusion. The pericardial cavity contained an excess of fluid. Disseminated through both lungs were pyæmic patches of the size of beans and peas, but mostly the latter. There was no fracture of ribs, and on minute examination no bloodvessel could be found ruptured to account for the hæmorrhage. The enlarged wrist on incision showed the parts to be healthy. The solitary glands with Peyer's patches were picked out in black spots as if there were some deposit there. Besides an excess of injection of a few of the valvule conniventes, the rest of the abdominal



contents were healthy, as far as the unaided eye went. There was a slight staining of the dura mater between it and the vertebrae, opposite the disease spot.

## THE MANCHESTER WORKHOUSE HOSPITAL.

### CASE OF ABDOMINAL ANEURISM RUPTURING INTO THE PSOAS MUSCLE.

FOR the following notes we are indebted to Mr. W. E. Bailey, M.B.

P. G.—, aged forty-two, labourer, married, was admitted on May 23rd, suffering from pain in both hips, back, and left side. His general appearance was that of a well-nourished man of muscular build. His previous health had been good until two years ago, when he fell from a scaffold, alighting on his back. After this accident he experienced severe pain of a gnawing character in the back and left lumbar region. The pain was constant, but subject to many severe exacerbations. Any attempt at progression increased its severity. No history of syphilis or chronic alcoholism.

On examining the seat of pain no swelling could be detected, but the dulness in the region of the left kidney was abnormally increased in area, extending horizontally from the vertebral column behind to a point midway between this and the middle line in front, and vertically in the mid-axillary line from the ninth rib to a couple of inches above the crest of the ilium. Pressure over the area of dulness caused great pain, and when in the recumbent position the patient experienced much difficulty in turning from side to side, during which effort the spinal column was kept quite rigid. Heart and lungs free from organic disease; pulse regular, quick, and moderately strong; anorexia; temperature normal; urine healthy. Palpitation and percussion revealed no other abnormal peculiarities in other regions of the abdominal cavity. Turpentine stupes were applied over the painful part, and one grain of opium was given at night with great relief.

Patient appeared to be doing well until the 29th of May, when he again suffered from very severe gnawing pains, which were relieved for the time by the application of turpentine stupes. The following evening the pain recurring in the left lumbar region, a hypodermic injection of amyl nitrite (1 in 10) was administered and followed by almost immediate relief. Patient slept well during the night, and expressed himself as feeling much better the following morning, the pain having entirely disappeared. About this time (June 1st) the patient was placed on low diet and large doses of potassium iodide, absolute rest in bed being enjoined. He seemed to be progressing satisfactorily until the evening of June 21st, when he became suddenly much worse. Mr. Voisey, the assistant medical officer on duty, being summoned, found the man suffering from excruciating pain in the left side, urgent dyspnoea, blanched countenance, body bedewed with a cold and clammy perspiration; pulse small, quick (140 per minute) and easily compressible; his facial expression was indicative of great suffering, and his general appearance gave the impression that extensive internal hæmorrhage had occurred. On examining the seat of pain, a slight swelling could now be perceived, characterised by expansile pulsation and dulness on percussion; but there was total absence of anything approaching the nature of a bruit. Slight pressure over the tumour gave great pain; the area of dulness was much increased, its boundaries being as follows: above, seventh intercostal space; below, crest of ilium; in front, a line drawn vertically from the anterior fold of the axilla to the crest of the ilium; and behind, the vertebral column. Over the rest of the abdomen the percussion note was normal, and remained so in whatever position the patient was placed. One grain of opium was ordered to be taken every three hours. The following morning (June 23rd), after a moderately good night, his general condition seemed slightly improved, and on examination the area of dulness had not further increased, but the expansile pulsation of the tumour was much more distinct, though still, on auscultation, no bruit could be detected. The radial pulse was almost imperceptible; the pain had abated in severity. The patient continued in this state until 9.45 the same evening, when the breathing suddenly became gasping, and he died a few minutes afterwards from syncope.

*Necropsy, seventy-two hours after death.*—Surface of body

very much blanched; lips pale. On opening the abdomen the peritoneal cavity was found to contain a large quantity of blood-clot, by far the larger mass having gravitated into the cavity of the pelvis. In the left lumbar region was a large fluctuating tumour, which had displaced the intestines and left kidney forwards, and to the right. Extending upwards it had encroached upon the left lung, and crossing the middle line a pouch as large as a hen's egg was situated in front of the right kidney. On cutting the peritoneum over the tumour the left kidney was found pushed forwards by a mass of coagulated blood effused between its posterior surface and the sheath of the psoas muscle; after removing this clot the psoas was found abnormally large and misshapen, and on incising it a large quantity of clotted blood, macerated muscular tissue, and laminated fibrin escaped. A horizontal incision was then made through the tumour, prolonged a cross the middle line to the small tumour already mentioned as situated in front of the right kidney; both the cavities communicated with the aorta by means of large openings. There was no trace of the posterior surface of the aorta, and the limiting sac of the aneurism behind was formed solely by the bodies of the first and second lumbar vertebrae, which were much eroded, and the intervertebral disc standing out between them unaltered. There was an irregular rent in the peritoneum at the junction of the sac of the aneurism of the left side, with the healthy part of the aorta through which the fatal gush into the peritoneal cavity must have occurred. Aorta studded with atheromatous patches; other organs healthy, but excessively anæmic.

## Reviews and Notices of Books.

*Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques.* Directeur de la Rédaction, Dr. JACCOUD. Tome XXXII. Pp. 796. London: J. B. Baillière, Tindall, and Cox. 1882.

THE principal articles contained in this volume are, Rougeole, by M. D'Espire; Saignée, by J. Ballet; Salicilique Acid, by MM. Prunier and Ory; Salivaire (appareil), by Delorme; Salivation, by Letulle; Sang, by MM. Danlos and Vibert; Sanitaire (régime), by M. Proust; Sarcome, by Heurtaux; Scarlatina, by Picot; Sciatique, by M. Homolle; Sclerème, by M. Balzer; Scorbut, by M. Rey; Scrofule, by M. Brissaud; Scrotum, by M. Jullien.

A large space is of course devoted to the blood by M. Danlos, which, in accordance with the excellent plan adopted in this dictionary of practical medicine and surgery, is considered in all its bearings under one head. Its physical properties are first considered, and then the phenomena of coagulation (the theory of coagulation is taken up at a later period). The corpuscles are next described, commencing with the red, and giving their size, form, chemical reaction, number, and structure. The question of the existence of an envelope M. Danlos does not regard as absolutely settled, though the balance of argument is against its presence. He has nothing to say in respect to the colourless corpuscles of Norris, Bizzozero, and Hart. The several modes of procuring blood-crystals are given, and he then proceeds to give the spectrum of oxidised and deoxidised hæmoglobin. A good account is added of the replacement of oxygen by other gases, as CO, NO, C<sub>2</sub>H<sub>2</sub>, and CNH, which last M. Danlos agrees with Gamgee in regarding as doubtful. The chemistry of the plasma follows, and it is impossible to read this without feeling how imperfect our knowledge is of the entire subject of the organic constituents of the blood, and how much remains to be done for pathology by modern chemistry, the variations in the kind and quantity of albuminous compounds in particular opening up a wide field for research. M. Vibert contributes a short but good article on the medico-legal aspects of the blood.

The article on Sarcoma by Heurtaux summarises very fairly our present knowledge of this form of disease. He recognises three kind of cells: round, fusiform, and giant, the predominance of one or the other of which confers its special characters on the growth. He does not admit the existence

of free nuclei. The cells in direct contact with each other or separated only by a little soft amorphous matter, and more or less numerous vessels, compose the whole mass of the tumour, and he describes the different forms of sarcoma under the headings given by Cornil and Ranvier, of encephaloid, fasciculated, myeloid, osteoid, neuroglie, angiolithic, mucous, lipomatous, and melanotic. The fasciculated form is our recurrent fibroid, the neuroglie is the glioma of Virchow, and the angiolithic is the psammoma of the same author.

As we advance in life many of the tissues harden and condense, a process of induration affects the internal organs, the functions of which are gradually performed with less and less activity, and by degrees the natural structures are to some extent replaced by connective tissue. In various forms of disease a similar but more rapidly progressive change is observed, to which the term sclerosis is applied. In investigating the phenomena attendant upon this change French observers have been prominent.

Kiernan, indeed, in this country was the first to point out the alterations which occur in chronic interstitial inflammation of the liver, and paved the way for an extensive generalisation of the process; but we are indebted to Esquirol and Calmeil for much original information in regard to the changes occurring in diffuse periencephalitis; to Duchenne for many important facts bearing on locomotor ataxy; and to Charcot for his observations on visceral cirrhosis. The microscope shows that sclerosis may be divided into two periods, one in which there is an immense development of embryonic cells with concomitant extension of vessels, and a second period in which either the vessels disappear and the tissue formed by the cells becomes hard, firm, and contracted, leading to the atrophy and disappearance of the normal tissue, whilst the new tissue itself, by further contraction, may ultimately become greatly reduced in bulk, so that a kidney, for example, suffering from advanced sclerosis may weigh less than an ounce; or, if the vascular supply be not interfered with, hypertrophy instead of atrophy may be seen, as in elephantiasis Arabum and hypertrophic cirrhosis of the liver. The etiology of sclerosis is that of chronic inflammation generally, and M. Balzer, by whom the article is written, divides the various forms primarily into diffuse, systematic, specific, and neoplastic sclerosis. In the diffuse form he includes traumatism and phlegmons of all kinds, in the systematic form he includes interstitial nephritis, cirrhosis of Laennec, and perivascular sclerosis, with passive congestion—in fact, all those forms which follow primitive interstitial inflammation, as well as those which are consecutive to parenchymatous lesion. His group of specific sclerosis embraces those that are of parasitic origin, as lepra, tuberculosis, syphilis, and those resulting from paludism, whilst the neoplastic sclerosis are represented by fibromata and scirrhus. Each of these forms is briefly described.

*Manual of Pathological Histology.* By CORNIL and RANVIER. Second Edition. Re-edited and Enlarged. Translated, with the approval of the Authors, by A. M. HART. London: Smith, Elder, and Co. 1882.

**PATHOLOGICAL** students are too familiar with MM. Cornil and Ranvier's manual and appreciate it too highly to do else than cordially welcome this translation, which has promptly followed upon the appearance of the French edition. For it is no exaggeration to say that the publication of the first part of the manual, thirteen years ago, was an event that did a great deal to stimulate careful histological study in morbid anatomy. The volume that then appeared dealt chiefly with tumours, and it supplied a want not met by the magnificent (but unfortunately never completed) masterpiece of Virchow, where histological details were somewhat subordinated to the wider bearings of the subject. In the present new edition this first volume comprises not only general pathology, but also deals with the lesions of the

tissues, the second volume, the appearance of which, we trust, will not be long delayed, being devoted to the special organs.

The great merit of Cornil and Ranvier's book has always seemed to us to lie in its eminently practical character. The authors deal but slightly with theoretical questions, and when they do venture upon such ground their deliverances are far less sound than many other treatises. But in the work of descriptive histology, and the correct interpretation of the characters presented by tissues and organs when examined by the microscope, they certainly excel; and many an investigator owes a debt of gratitude to these writers for having guided him aright in the pursuit of this branch of knowledge. The translator of this volume worked in their laboratories and has their particular sanction for the translation. The first edition was rendered into English by Drs. Shakespeare and Sims, of the United States, and they made several additions to the text and illustrations. But the present translation contains few such additions. Indeed, the work is sufficiently complete in itself, and it were a pity to deprive it of its characteristics by unneeded paragraphs.

In comparing this with the first edition we note several important changes, both in the sections devoted to normal histology of the tissues and in the purely pathological chapters. Moreover, the introduction of a chapter on the blood and several additions to that on diseases of the nervous system testify to the advances made in the science during the last decade. On the whole we may safely recommend the work as the foremost text-book of its class, and we are certain that it will now be widely studied by many to whom the original was a closed book.

## New Inventions.

### NEW SAFETY HYPODERMIC INJECTOR.

IN view of the frequent employment now made of hypodermic medication, and the costliness and trouble of the syringe generally used for the purpose, Dr. Ward Cousins, Surgeon to the Royal Portsmouth Hospital, has introduced a cheaper and simpler instrument. It consists of an elastic measuring ball and an injecting needle; a boss on the latter serves for a handle in its introduction; the needle may be either fixed to the ball or jointed at the boss. The balls are made in various sizes, holding from one to twenty minims, so that if the right ball be selected an accidental overdose of the drug administered is impossible. The ball is charged by compressing the ball and allowing it to expand, while the point of the needle is immersed in the fluid to be injected. Dr. Cousins urges that a separate instrument should be used for every drug, and also for every patient. We doubt whether this "safety" injector will replace the syringe now in use; but in cases where it may be considered necessary to leave the administration of hypodermic injections to nurses or patients' friends, this injector will be found a great improvement upon the syringe. The apparatus is made by Messrs. Lynch and Co. of Aldersgate-street.

### HUXLEY'S SUPPORT AGAINST RIDER'S SPRAIN.

THIS apparatus consists of a firm band fitted with a pad impinging on the usual seat of injury. The band is firmly buckled so as to secure pressure on the very highest part of the thigh. The holding it securely in this position has been the great difficulty, but this is effectually accomplished by Mr. Huxley's arrangement of support by a pelvic band, which renders the important thigh arrangement absolutely immovable. The drawback to the figure-of-8 contrivance, recommended by many surgeons, is that it is necessarily relaxed when in the riding position, and cannot secure the direct support realised in all positions by this band.

# THE LANCET.

LONDON: SATURDAY, AUGUST 26, 1882.

STRENUOUS as have been the efforts made to establish for syphilis a position in the domain of bacterial pathology, they have at present met with but scant success. Nevertheless, all analogy points to the probability that syphilis, like leprosy and so many acute diseases, depends upon an organised contagium, and the proof of it cannot be long delayed, although the observations which exist at present are too fragmentary and varying to be allowed very strong weight. KLEBS, indeed, has described bacteria in freshly extirpated primary indurations, but could not succeed in demonstrating the presence of such organisms in the secondary gummata. AUFRECHT found micrococci in the juice from a condyloma, and now a further link in the chain of evidence has been supplied by BIRCH-HIRSCHFELD, of Berlin, who states that he has found micro-organisms with constancy in gummatous ulcers. The growths were for the most part of recent date. The bacteria were most abundant at the limit of the granulation tissue towards the part which had undergone granular disintegration, and passed into the periphery of the latter—i.e., into the central caseating mass. They could be most readily demonstrated where the round and fusiform cells of the granulation tissue were less densely aggregated. As a rule, the bacteria were absent in the finely fibrous part of the syphiloma, and they could never be discovered in the syphilomata which had undergone complete cicatrisation.

Whenever the bacteria were free in the tissues, they were constantly aggregated into small colonies. When these were examined with a moderate magnifying power, they often gave the impression of roundish micrococci, but in many colonies they were seen to be small rods; under a higher magnifying power the roundish objects were discovered to be distinct rods, but very short, not more than a micro-millimetre in length, relatively thick, and with rounded extremities. While it seems probable that the round appearance of the elements is in many instances merely an optical illusion, yet in some colonies groups of distinct micrococci could be seen. They were especially conspicuous in the tissue at the base of a syphilitic ulcer of the intestine. Near each aggregation of minute rods there were also, in many preparations, groups containing rods of larger size, three or five micro-millimetres in length. These lay in long fusiform aggregations; transitional forms were seen between the larger and smaller rods. The larger were slightly curved, with rounded extremities, and frequently presented knob-like swellings. No distinct segmentation could be seen, but merely indications of the process. In some instances intracellular bacteria were found, especially in a gummatous tumour of the suprarenal body in a large liver gumma, and in one in the lung in a case of inherited syphilis. The cells which contained bacteria were round, oval, and spindle-shaped elements of the granulation tissue. They were often spread over a large area of the section, although they never

equalled in number the cells which contained no micro-organisms. The rods in the cells were short and thick, resembling perfectly those of the smaller aggregations. Some cells were entirely filled by them; in others the organisms were arranged in a ring in the periphery of the cell.

The free aggregations of bacteria were detected in a tolerably simple manner. Sections from organs which had been hardened in absolute alcohol were laid for a short time in vinegar, and then examined in glycerine. The masses of bacteria in the translucent tissue could then be readily seen, conspicuous, in consequence of their strong refracting power, among the other clear and swollen elements. Fuchsin was found to answer best for colouring the bacteria. The section was placed for a short time in a moderately concentrated watery solution, obtained by diluting an alcoholic solution. The water was then removed from the section by means of alcohol. It was cleared by oil of cloves, and examined in Canada balsam. The aggregated bacteria, and still more those in the cells, were then conspicuous by their red colour, which was, however, destroyed by the addition of concentrated acetic acid. Twelve gummata from seven cases were examined in this way: one of the brain, two of the lung (one of them from acquired and the other from congenital syphilis), five of the liver, one of the suprarenal body, one of the wall of the stomach, and two of the intestine. In all the bacteria were found, although their number presented considerable variations, and in some only the smallest, micrococcus-like rods could be seen. With these, tissues obtained in a fresh state from living subjects were also compared. These were taken from three condylomata, an indurated chancre, and a papule from a papular syphilide. Sections were made with a freezing microtome, and were cleared with acetic acid. In all were found the same masses of small, short, refracting rods. They were most abundant in the one broad condyloma, in which they lay in the cells of the Malpighian layer, and in the connective tissue of the papillary bodies. Lastly, the blood of a patient suffering from a syphilitic roseola was examined, but no bacteria could be found in it.

The micro-organisms found by KLEBS in the induration tissue of a chancre, granules and short thick rods, correspond closely in character with those now described by BIRCH-HIRSCHFELD; but the latter could see no individual movement of the bacteria, such as was described by KLEBS. The micrococcal objects found by AUFRECHT are also, perhaps, identical with the smallest rods, with which they correspond in their ready and deep colouration by fuchsin. Where these organisms are found in morbid structures which have lost their covering of protective epidermis, it is obviously possible that they may have entered from without, and may thus have no specific character or special pathological significance. But this objection does not apply to the presence of these bacteria within gummata in various internal organs, a fact which renders it highly probable that they are, in fact, the elements, or, at least, the bearers, of the syphilitic contagium. It is only by accumulated evidence of this character that the organised character of the syphilitic virus can be rendered probable. A rigid proof, in such a case, can only be furnished by the cultivation of the organisms out of the body, and the production of the

disease by their inoculation. The obvious difficulties in the way of such verification render it doubtful whether this rigid proof will ever be forthcoming.

THE notification of infectious disease is one of the great questions that must be settled. One human being can scarcely do a more cruel or a more unjust thing to another than convey to him by neglect an infectious disease. In this country we are worshippers of liberty; but true liberty has its limits, and anyone who claimed the right to transmit to his neighbour or his neighbour's child scarlet fever or the hideous small-pox, would find himself in the company of anti-vaccinationists and other fanatics. The facts which come to light every now and again of the transmission of such diseases by carelessness or concealment, are making a strong impression on the public mind, which, in the case of thirty-one towns, has grown into a demand for a law requiring the notification of infectious diseases. This demand is at first sight so reasonable, that there is great danger of its being made too abruptly and without sufficient regard to all the objections and difficulties in the way, and without due consideration of the question upon whom this duty of notification shall rest. It is evident that there is some difficulty in the mind of the profession itself as to this question, and that some of those who assume to represent it have really not been doing so. Though the accuracy of some of the statements in a pamphlet entitled "The Relation of the Parliamentary Bills Committee of the British Medical Association to the Compulsory Notification of Infectious Diseases" has been called in question, it is tolerably clear that the Parliamentary Bills Committee, consisting largely of medical officers of health and other metropolitan members, have been under great delusions as to the feeling of the Association in favour of a system of notification by the medical man. The recent discussion in the Association, and the resolution proposed by Dr. MAHOMED, in which it ended, are proof of this. This resolution took the shape of an amendment on a proposal of Dr. LITTLEJOHN'S,—

"To decline to withdraw the approval which the Association has repeatedly expressed in favour of urging Parliament to make the notification of infectious disease generally compulsory, under such conditions as may appear to be, after due inquiry, best calculated to protect the public health."

Dr. MAHOMED'S resolution, ultimately carried, is as follows:

"That this meeting earnestly desires compulsory notification of infectious disease, but it wishes to express its opinion that the compulsion to notify should be placed upon the householder, as his duty as a citizen, and not upon the doctor."

It is gratifying to us to find the Association expressing so plainly the views we have always held on this subject—a desire for a system of notification, and the opinion that the duty and responsibility of notifying should rest with the householder. It is time that this duty and responsibility were duly brought home, by the education of law, to the mind of the said householder, who with an apathy that would always be criminal if it were not frequently associated with ignorance, often infects a whole connexion or neighbourhood. Medical men require no such education. They have no leisure to become informers. They are the servants of

the patients, not of the State. But though they are naturally unwilling to be made informers, or, as Dr. MAHOMED said, detectives, they will be true to their reputation of doing more in the way of preventing disease than all the rest of the public put together. They will be true to their duty to their clients, and give them timely information of diseases which have a terrible public interest, and which the client will have to report to the sanitary authority. In any legislation on this subject much will be gained by consideration of the medical practitioner, and by securing that he shall be in no way hurried. The diagnosis of infectious diseases is sometimes, even for days, a matter of difficulty. The initiatory symptoms of the most diverse diseases have a considerable resemblance to each other. Time must be given for the medical man to be perfectly satisfied in his own mind. Medical officers of health who do their work best have no difficulty in securing the co-operation of medical men. It will be so still more under a public system of notification, when the diagnosis of disease will have a new and a public importance. Only there must be no undue haste. The medical man will be entitled, more than ever, to ask for time to form sound conclusions before imparting them to those who will have to transmit them to the sanitary authority.

Dr. ATTFIELD'S presidential address, delivered to the members of the British Pharmaceutical Conference at Southampton on Tuesday last, contains much that is of interest to medical men. Pharmacy in every country has to perform high and important duties towards the State. As the handmaid of medicine, she must help us in our endeavours to cure the sick and maintain the health of the community. To procure drugs she must search far and wide, and must then take steps to distribute them to the consumers. As Professor ATTFIELD points out, this question of distribution is a very serious one. Very different agents perform this duty. There is first the pharmacist proper, who is not only a distributor but a manufacturer or compounder of the pharmaceutical preparations he distributes. Then there is the druggist who makes few if any compounds, trusting for their purity and efficiency to wholesale manufacturers. Third in importance as a distributor of drugs is the general practitioner of medicine who supplies an important demand, not only where pharmacists could do the work, but in outlying country districts remote from a druggist's shop of any kind. The distribution of drugs is also effected to some extent by shopkeepers other than druggists—by grocers, drapers, and such vendors—who admittedly know nothing about drugs, and who, except that they buy in bulk from the wholesale dealer or manufacturer, and retail in small quantity, sell the drugs in the state in which they are received. Lastly, drug distribution is in many countries extensively accomplished by the agency of proprietary medicines termed "patent," though only so-called nowadays in a *lucus a non lucendo* sense, the composition of most of them being a secret. Those compounds pass from the producer to the consumer, either by the agency of the retail dealer or through the post-office. The maker of the patent medicines may or may not be a person having knowledge of drugs, and may not even reside in the country in which his articles are sold, so that he cannot be held legally responsible for any harm they may

do. As an example of the enormous use of these preparations in this country, we are told that patent medicine stamp duty to the amount of £144,000 was paid last year, which is equivalent to at least a million sterling as the present annual payment by the British public for secret remedies.

THE Report of the State Board of Health for the Hawaiian Islands, after dealing with a serious epidemic of small-pox during the past year, contains an account of the leper settlements for the islands, and of their administration. Dr. G. L. FITCH speaks in terms of the strongest condemnation of the manner in which lepers, when discovered, are hurried off to the principal island settlement, and he regards the severity as entirely uncalled for. But he bases his opinion largely on the view which he holds, to the effect that leprosy is not infectious or contagious; that it is, in fact, a fourth stage of syphilis brought about by the ravages of that disease in a virgin race, amongst whom the poison was introduced about a hundred and fifty years ago. The people being of a thoroughly licentious character, syphilis had, according to Dr. FITCH, thoroughly permeated the community about sixty years ago; and then, owing to a special predisposition of race, the disease known as leprosy manifested itself as a stage of syphilis. He brings forward a series of arguments in favour of his views, one of these being that he never yet has seen a case of leprosy in which syphilis as an antecedent, either hereditary or otherwise, could not be made out. On the other hand, Dr. N. B. EMERSON very strongly combats these views; he entertains the opinion expressed in the Report on Leprosy by the Royal College of Physicians, to the effect that leprosy is a disease *sui generis*, and quite unconnected with any other affection. He shows that leprosy antedates syphilis by many hundred years; that in many races syphilis in its most aggravated and neglected forms prevails without a sign of leprosy; and that, though the Hawaiians were extensively diseased with syphilis before leprosy appeared amongst them, yet that a considerable minority, including lepers, are and have been exempt from that disease in any form. And, lastly, he holds that views similar to those promulgated by Dr. FITCH are full of peril, because of the influence they may have in leading to a sanitary policy which is likely to be destructive to health amongst such a population as that under consideration. Dr. EMERSON'S views are certainly those which are most generally entertained, and they are based on a wide experience of the disease in many parts of the world. They must also be held to justify some form of isolation for those attacked with this terrible disease. But nothing can, we think, call for action such as is described in certain parts of the report, and which has also called forth a protest by the Assistant Attorney-General of the kingdom. This gentle man describes how people supposed to have leprosy have been taken summarily from their houses by the police authorities, and have, without a moment's preparation, been ordered into boats, and conveyed across to one of the island settlements, where, as he says, they "are practically doomed to death." Some of these people were parents hurriedly taken from their children, some husbands removed from their wives, and this without even a chance of getting the clothing necessary to their change of abode, or of an opportunity of arranging their affairs. It is hardly

to be wondered at, under these circumstances, that slight attacks of leprosy are carefully concealed, especially amongst women, who can remain in their own homes, that treatment in the early stages is hence neglected, and that the disease spreads till, as Dr. FITCH says, it is to be found everywhere amongst the native population. It is, however, satisfactory to find that the principal settlement at Kalawao consists of some 5000 acres of fine pasture land, interspersed with woodland and valley, mountain and ocean, where the lepers find agricultural and other employments, and that they are unanimous in their testimony as to the excellence of the food provided for them by the State Board in their enforced banishment.

## Annotations.

"Ne quid nimis."

### THE PROGRAMME OF THE INTERNATIONAL SANITARY CONGRESS.

THE carefully devised programme of debate laid down for the International Congress of Hygiene which, as we announced last week, will meet at Geneva from the 4th to the 9th of September, conveys a very clear conception of the subjects to be discussed. General meetings will be held in the afternoon, while in the morning the Congress will be divided into sections. The first afternoon will be devoted to inaugural addresses, and the report on the prize of £100 offered by the Provincial Council of Turin for the best work on hygiene in rural districts. The second sitting will be rendered particularly attractive by the presence of M. Pasteur, who has promised a paper on "L'Atténuation des Virus." Dr. and Professor A. Corradi, of Pavia, will introduce a debate on the contagious nature of phthisis and its relation to questions of general hygiene. Dr. G. Varrentrapp, sanitary councillor of Frankfurt-on-the-Main, is to read a paper on what are termed "holiday colonies," an organisation peculiar to Germany, by which delicate town children are sent out for various periods into rural districts. As an appropriate local subject, Dr. H. C. Lombard of Geneva will open the fourth meeting by discussing the influence of mountain air in the treatment of disease, and among the list of speakers we note the familiar name of Dr. Paul Bert. Dr. W. Marcet will also speak. The work of the sections is far more elaborate. There will be in all five sections. The first, devoted to general administrative and international hygiene, will debate the prophylaxis of typhoid fever and the influence of alcoholism. Dr. A. Proust, who with Dr. Bert was a member of M. Gambetta's cabinet, will present to this section a study on the Mecca pilgrimage and its influence in spreading cholera throughout Europe, with respect especially to the epidemic of 1881. The spread of yellow fever, quarantines, the necessity of weekly rest, and, finally, the principles of sanitary administration in England complete the subjects of this section. Mr. Edwin Chadwick, C.B., and Dr. Acland, Professor at Oxford, are to introduce the last-named subject. In the second section, devoted to Military and Public Hygiene, Dr. Vallin, Professor of Hygiene at the Val-de-Grâce, and editor of the *Revue d'Hygiène*, has a very remarkable paper on disinfection. The elaborate summary given of this essay in the programme shows that the learned professor has entirely adopted English ideas on this all-important subject, though these principles have so often been qualified in France as exaggerated and impracticable. Dr. Vallin now advocates compulsory declaration of infectious diseases, isolation, disinfection by fumigation, by dry heat, and destruction by fire, and within the room itself, of especially



contaminated objects. This—for the Continent—most progressive paper will be followed by another on the disinfection of persons. It would, however, take too much space to enumerate all the subjects that will be discussed in the sections, these embrace the question of cemeteries and cremation, medical and sanitary statistics of every description, the effect of bad shoes on the effective strength of armies, sanatorium for strumous children, hospital barracks, the prophylaxis of diphtheria, the disposal of sewage, the ventilation and warming of dwellings, industrial poisons, the report of the International Society for the Improvement of Drinking Water, putrefaction, the effect of schools on the health of children, the prophylaxis of hydrophobia, and, finally, a very interesting paper by the eminent architect, M. Emile Trélat, on the advantages and disadvantages of a permeable surface to the walls of dwellings. With so tempting a programme before them we trust that a large number of English sanitary reformers will assist by their counsel and presence this international effort to improve public health.

#### THE REPORT OF THE ROYAL COMMISSIONERS.

WE are at length in possession of the Blue Book of the Medical Acts Commission, including the report of the Commissioners appointed to inquire into the Medical Acts and Minutes of Evidence, Appendices, and Index. Thus, for the sum of five shillings, members of the profession, on application to Her Majesty's printers, Messrs. Eyre and Spottiswoode, can receive a valuable body of evidence on the working of our present examining bodies and of the Medical Council which cannot be had in any other form, and which is likely to constitute the basis of new and much needed legislation. We shall take an early opportunity of commenting on the evidence of the forty-two witnesses examined by the Commission, only in the meantime expressing satisfaction at the fact that the volume is issued in time for consideration before the pressure of the autumn session begins. In the absence of Lord Spencer, this duty will mainly fall on Mr. Mundella, who may be trusted to take a sensible view of the means for diminishing the absurd number and the competition of the licensing bodies, increasing the efficiency of the Medical Council, and making it more easy for the public to distinguish between qualified and unqualified practitioners of medicine.

#### THE TYPHOID FEVER EPIDEMIC AT BANGOR.

WE regret to learn that during the past two weeks the epidemic at Bangor has shown signs of rapid extension, and that considerable public anxiety prevails in consequence. It is, however, a matter of common experience that an enteric fever outbreak, commencing by means of water-pollution, makes later on, and this even when the original source of pollution has been stopped, rapid extension in localities where faulty sewers and house-drains exist. As we pointed out last week, these are precisely the conditions prevailing at Bangor. The houses being placed, by means of drain-pipes, in direct communication with sewers now containing the specifically poisoned fever evacuation, their occupants must of necessity be exposed to the influence of the poisoned drain air. The disconnexion of all house-drains, so as to secure an ample air-break between the house and the sewers, should be proceeded with without delay. It is alleged that sufficient skilled men cannot be obtained for this purpose, but if the sanitary authority were to appoint one or more skilled persons to supervise ordinary labourers, the work would, after the first start, not be found one of difficulty. At a meeting, presided over by the Bishop of Bangor, the question of hospital provision was raised. Quite apart from the boon which such provision would afford to the sick, it

would be an immense gain to the town if the sick could be aggregated in a place where they would be under efficient supervision, so that their excreta should no longer find their way into the faulty town sewers. The sanitary authority has ample powers to make such provision, and in the interests of the health of the community it should not be delayed. Hospital tents have been referred to as desirable. With regard to this, experience has shown that with well-constructed double-walled hospital marquees, such as are provided by Messrs. Pigott Brothers, of Bishopsgate-street Within, the best results may be expected; and, as the summer season is passing away, it may be well to recall the satisfactory results which followed on the heating of these tents by means of hot-water pipes when they were used last year by the St. Pancras vestry.

#### THE RAPIDITY OF VISUAL PERCEPTION.

M. CHARPENTIER has endeavoured to determine (as others have previously done) the interval which elapses between the appearance of a light before the eye and the production of a signal by the subject as soon as the light is perceived. In the course of these experiments, he ascertained whether the interval is the same for the central and peripheral parts of the retina, whether exercise is capable of modifying the duration, and whether such modification produced by exercise is or is not limited to the part exercised. In these experiments, the eye, fixed in the centre of a perimeter, was directed towards the bottom of a large box lined with black, in which a hole was made, a square centimetre in size, opposite a well-lighted window, but usually closed by a black metal plate. This plate was kept in position by an electro-magnet, so that it fell immediately as soon as the circuit was broken, and the interruption was also indicated by an automatic registration on a revolving cylinder. This marked the moment at which the window was exposed. The pressure of a button, the moment the light was seen, re-established the circuit, which was also marked on the registering cylinder. The interval between the interruption and restoration of the circuit, measured by the vibrations of an electric chronograph, indicated the time necessary for the individual to perceive and to signal the light. This perception-interval, "personal-equation" (which M. Charpentier calls by the somewhat misleading term of "duration of luminous perception"), is found to vary for the same person and under the same conditions, the longest interval being about double the shortest. But the mean of a series—say ten—is found to be the same for the whole period of the experiment. In the case of the author, for instance, with daylight, the average period was found to be .13 sec. The interval varies also, in different persons, from .09 sec. to .15 sec. Under normal circumstances the interval is the same for each eye. It is notably augmented by another cerebral occupation imposed on the person during the experiment. If the subject talks, for instance, or listens attentively to a lecture or a conversation, the latent interval may amount to .04 sec. or .06 sec. more than when all his attention is concentrated on the observation. The interval is always greater for indirect than for direct vision, and it is the longer the farther the point stimulated is from the centre of the retina. At first the difference is very considerable, amounting to as much as .07 sec.; but it lessens gradually during a long course of experiments, and at the end of six weeks did not in one case exceed .02 sec. The difference cannot, however, be altogether removed by exercise, which also lessens the interval for direct vision. Having ascertained that the interval was the same in each eye, M. Charpentier made, every day during six weeks, fifty observations at two points, one at the centre and another 80° distant from the centre in the outer part of the visual field. At the end of

this time he was in a position to appreciate the influence of exercise on these points in the other retina, and also on other points of the two retinæ. The interval attained was for the centre of the left eye '129 sec., and for the unexercised centre of the right eye '143 sec. At the peripheral spot in the left eye an interval of '1 sec. was required, and at the corresponding point in the other eye '210 sec. This exercise had notably lessened the interval at the points used in the left eye. It was interesting to ascertain whether it had had any influence on the points not exercised in this eye. It was found that the interval was similarly lessened for all peripheral points in the outer half of the field, but not for those in the inner half. Hence exercise of one excentric point seems to influence all points of the same half of the retina, and not those of the other half. More, this influence had extended to the corresponding half of the field of vision of the opposite eye, in which the interval was much shorter than in the non-corresponding half. This can only be explained by admitting the semi-decussation of the optic nerve fibres at the chiasma, and supposing that the exercise influences, not the retina, but the centre which receives the impressions from the corresponding half of each retina. M. Charpentier seems to have attended in his conclusions too exclusively to the sensory part of the process which he has measured, since a considerable part of the interval must have been occupied by the motor process involved in giving the signal. It is therefore clearly incorrect to speak of the interval as simply the "duration of perception." This consideration, however, brings out a new point of great interest. *A priori*, it might have been expected that exercise would have lessened the interval for the parts of the retina not practised, although in slighter degree, because the effect of exercise in abbreviating the interval must be supposed to tell upon the motor as well as the sensory portion of the process. But this seems not to be the case. The interval for the non-practised halves of the retina was not shortened, and hence exercise seems to facilitate chiefly the sensory portion of the process.

#### CITY DRINKING.

ONE of our contemporaries is informed by a medical man that "the growing habit with young men of taking nips of brandy," and glasses of "Irish," at all hours of the day, is becoming a serious evil. The practice of taking a glass whenever one meets a friend or acquaintance is, it is added, but too common, and in the City it often means half a dozen or more visits to the "shades" before luncheon. We hope our contemporary is wrongly informed. Certainly a more shady habit than that he describes could not be conceived. We are informed differently, and told that there is a marked tendency in the City for young men to take food, milk, or coffee, or sandwich, and not "nips"; further, that there is far more care in this matter in the City of London than in any other great city, as, for example, Liverpool, Manchester, or Newcastle, where casual and commercial drinking, as it may be called, is carried on with far less regard to consequences. Whether our information is right or that of our contemporary, it cannot be too plainly known that medical authorities are absolutely unanimous in the opinion that "nips" of spirit and odd glasses of wine and beer taken casually, without food, are an unmixed evil that every sensible man should discourage. There may be differences of opinion as to the amount of diluted alcohol at meals which is consistent with health and longevity, though even here there is a growing conviction that the quantity is a very moderate one. But alcohol in the empty stomach of a City man, with little fresh air or exercise to burn it off, is sheer harm, injuring the fine textures of the stomach and the neighbouring liver, and demoralising every function, from that of the brain to that of the kidney. No mixture of "bitters" makes this truth

any sweeter, or this habit less immoral. If teetotalers were less transcendental they might do immense good by forming a society the members of which should drink no alcohol but at meals. Meantime a word to the wise is enough; and no wise young man will continue a practice so unsanctioned by science and by religion.

#### THE LIFE GUARDS IN EGYPT.

THE correspondent of *The Times* with the army in Egypt has made a statement respecting the medical service of the Life Guards which appears to call for inquiry. He says that "it is unfortunate that, although an experienced surgeon-major like Dr. Spry has been provided to look after the health of these costly troops, he should have been left to his own unassisted skill to cure his patients, without the smallest supply of drugs, plaster, or other medical paraphernalia," on the passage from Alexandria to Aboukir in the *Calabria*. We are in a position to state that the *Calabria* was supplied with the usual medical and surgical equipment before leaving England, and there is no reason to suppose that it was removed from the ship on her arrival at Alexandria. If it was removed it would be desirable to know by whose orders, and what steps Surgeon-Major Spry took to have the necessary supplies put on board. Dr. Spry's experience has, we believe, been principally confined to service in London and at Windsor, and it is possible that he may miss those facilities for obtaining extra medicines, not included in the ordinary equipment, which he has enjoyed in these stations. But the equipment which has been found by experience to be sufficient for the general service ought to be enough also for "these costly troops." We have no doubt that Mr. Childers will cause a searching inquiry to be made into all the circumstances connected with the alleged deficiency with a view to ascertain to what extent it is true, and with whom the blame rests.

#### ELECTRICAL STIMULATION OF THE UTERUS.

THE influence of electricity on the uterus, whether empty or gravid, is a point on which authors have made various statements. This difference of opinion may be due to the circumstance that the conclusions have been drawn from the somewhat uncertain field of clinical observation. M. Dembo, in a note presented to the Académie des Sciences by M. Vulpian, has endeavoured to decide the question by experiments on animals. His observations at present relate only to the non-gravid condition. In the rabbit direct faradisation of the uterus or of one of its cornua causes a contraction at the point to which it is applied, and which extends for a distance of about twenty millimetres, but never reaches the other cornu. If one electrode is applied to each cornu, both can be made to contract in the neighbourhood of the poles, but not in the interval between them. Very different, however, is the effect when the application is made to the vagina. If both electrodes are applied to the vesical wall of the vagina, a manifest contraction is produced in both parts of the uterus, vermicular in character, passing from below upwards. If the application be made to the lateral portions of the vaginal wall, a contraction is produced only in the corresponding cornu. Local contractions on the corresponding side can be produced by placing the electrode on certain points in the broad ligament, but the contraction never extends to the whole uterus. It is impossible to produce contraction of the non-gravid uterus by faradisation applied through the abdominal wall. The excitability of the uterus of the rabbit was found to vary according to the age of the animal, and according to whether it had borne young or not. That of a young animal is so irritable that manifest contractions are excited by mere exposure to the air, but in old rabbits the uterus is much less susceptible. In some

dogs and cats no contraction of the empty uterus could be obtained by faradisation, in others slight contractions with distinct pallor were produced. Faradisation of the vaginal wall caused pallor of the mucous membrane, and also of the whole uterus, due apparently to contraction of the vessels, but no contraction of the substance of the uterus. Frankenhauser found that stimulation of the aortic plexus caused a manifest contraction of both cornua, and it is highly probable that an analogous nervous plexus is situated in the vesical wall of the vagina. The observations were made on animals under the influence of either chloral or curara.

#### THE ALEXANDER MEMORIAL PRIZE.

A MEETING of the Alexander Memorial Committee was held at the Army Medical Board on Saturday last to receive the report of the assessors appointed to examine the essays transmitted before the 31st December, 1881, in competition for the triennial prize. This consists of a gold medal and £50 in money, being part of the proceeds of the fund raised by subscription, chiefly among the officers of the department, as a tribute to the memory of Mr. Alexander, who died in 1859 while Director-General of the Army Medical Department. The prize is awarded triennially for the best essay on a subject selected by the committee of the fund, the competition being restricted to executive officers of the department on full pay. The selection is made from subjects included under military surgery, military medicine, and military hygiene alternately. On the present occasion the subject was "The Prevalence of Enteric Fever in the Army, its Etiology, Pathology, and Treatment, to be illustrated by the personal observation of the author." Seven essays were received in competition and referred to five assessors, selected by the committee, who reported as their unanimous opinion that the essay bearing the motto "*Palmam qui meruit ferat*" was entitled to the prize. On opening the accompanying note it was found that Surgeon-Major F. H. Welch, who has just returned to England from service in Madras, was the author of the essay. We have been requested to state that the other essays will be forwarded to any address the authors may desire if they will be good enough to communicate by letter, bearing as signature the motto of the essay, with the secretary of the committee, at 6, Whitehall-yard.

#### THE CURE OF HÆMORRHOIDS BY CARBOLIC ACID INJECTIONS.

AT a recent discussion at the New York Clinical Society on the Treatment of Hæmorrhoids, Dr. C. B. Kelsey referred to his experience with injections of carbolic acid. He uses a solution of one part of pure carbolic acid in six and a half parts each of water and glycerine, and of this he injects about five drops into each hæmorrhoidal tumour. For the operation no anæsthetic is required, and the subsequent pain is said to be very slight. In one case in which he used a solution of double strength each pile sloughed, and in another case, treated by one of his colleagues, Dr. Kelsey saw extensive ulceration caused, but this he attributes to want of skill in the manipulation. He has usually repeated the injections at an interval of about a week, so as to see the full effect of each injection before making another, and in this way the treatment may extend over months, but as it is painless and does not necessitate rest or even the abandonment of ordinary work, this is not a serious objection to the plan in many cases. This method of treatment, when carefully carried out, appears then to be safe, efficient, nearly, if not quite, painless, and not requiring rest or special nursing. It may be useful, therefore, where for any reason the ligature or clamp operation cannot be performed, and especially where it is important not to lay the patient up during treatment.

#### THE "EIRA" ARCTIC EXPEDITION.

BY the arrival of the search steamer, *Hope*, under Sir Allen Young, at Aberdeen, on Sunday last, all anxiety as to the safety of Mr. Leigh-Smith's expedition to the Arctic seas is set at rest. The whole party were found one day after the *Hope's* arrival at Matochhin Straits, Nova Zembla, on August 3rd, and have arrived, an unbroken company of twenty-five, in perfect health. The *Eira* left Peterhead on 14th June last year, and was abandoned on the 21st of the following August. The scientific results of the expedition are, therefore, likely to be of a meagre character, as the highest point reached was scarcely 80° N., and here, at Cape Flora, the vessel was nipped between the ice pack and the land floe, sinking two hours after, with the plants and fossils which had been collected, but not yet classified. This was on August 21st, and a hut was erected on the Cape, in which the whole party wintered, apparently with a well-provided larder, often added to by the skilful use of the gun. During the earlier winter the cold had not been severe, but in January, February, and March, it is stated to have been intense, sometimes as low as 80° of frost. On the 21st June of this year the whole party left Franz Josef Land in four boats, to make their way to Nova Zembla. After six weeks' heavy toil, including some hard work in dragging and rowing, they reached the Straits at the beginning of the present month, when they at once fell in with Sir Allen Young. Many of the points in Mr. W. H. Neale's medical report, published in another column, are important, but we must reserve the fuller consideration of them till next week.

#### SUDAMINA IN TYPHOID.

M. ALBERT ROBIN has examined the liquid of sudamina in a case of typhoid fever, in which the eruption was so abundant that the vesicles were confluent, and formed bullæ of considerable size, some of them being as much as a centimetre in diameter. More than three grammes of liquid were collected from them. It was transparent and colourless, but on standing, a deposit formed, consisting of whitish flocculi, and at the same time the liquid became opalescent. It had a slightly acid reaction, and a strong, unpleasant, odour. The microscope showed only a number of fine globules of fat and some epidermic cells. It contained neither albumen nor sugar, and was not rendered opaque by the addition of alcohol. No uric acid could be discovered in it by the murexide test. An analysis showed that it contained a considerable quantity of chlorides, but no trace of sulphates or phosphates: the proportion of water was 982, of solid matter 18, per 1000; the solids consisting of 14 parts of organic and 4 of inorganic substances. Hence the amount of organic material eliminated by the perspiration in typhoid must be regarded as considerable.

#### SMALL-POX AT WEDNESBURY.

SMALL-POX is somewhat widely prevalent at Wednesbury. According to a report by the medical officer of health two cases of the disease appeared in March last, and up to August 14th there had in all been 217 cases. Of this number 15 had died, 11 of the deaths having occurred in unvaccinated persons. On the whole the epidemic has hitherto been of a mild character, a circumstance which is locally regarded as a matter of gratification. In one sense this is right, but when we read of small-pox patients who, owing to the mildness of their attacks, cannot be induced to take to their beds, the dangerous aspect of the case also becomes apparent. These mild cases are a far greater source of danger to the public than severe cases would be, for the latter would necessarily be to some extent isolated in their own homes. As in so many other places, the provision of

proper means of isolation in Wednesbury has been delayed until it comes too late to prevent the epidemic, and it is only after five months of a small-pox prevalence that the decision has been arrived at to erect hospital tents or huts. The medical officer of health, speaking of an isolation hospital, has explained that in order that it may effect the intended object, it should “be ready beforehand to receive the early cases.” The same has often been said before, but the advice has been disregarded, and in a moment of panic temporary buildings are erected, which fail to comply with the needs of the districts for which they are provided.

#### TYPHOID FEVER IN PARIS.

THE last issued weekly return for Paris, relating to the seven days ending 16th inst., reports a marked increase in the mortality from typhoid fever in that city. The fatal cases of this disease, which had been 34, 31, and 47 in the three preceding weeks, rose to 106; this number included 69 of males and 37 of females. This marked disparity in the sex-proportion of the deceased typhoid fever patients in Paris has no parallel in London, and if constant in the former city should afford some clue to the true explanation of the continued fatality of the disease in the French capital. The figures in the Paris return under notice afford conclusive evidence of the suddenness of the present remarkable outbreak. It appears that on the 7th inst. 436 cases of typhoid fever were under treatment in the Paris hospitals, and that during the following seven days no fewer than 338 new cases were admitted; there were 98 cases discharged on recovery, and 39 deaths recorded during the week; so that 637 cases remained under treatment on the 13th instant, showing an increase of 201 during the week. Typhoid fever has been endemic in Paris in recent years, and in 1880 and 1881 the mortality from this disease was more than four times as great in that city as in London. During last week only 11 deaths from enteric or typhoid fever were registered in London, against the 106 in Paris. Judging from the French official returns, typhus fatality, however, is now unknown in Paris, although the disease is still far from extinct in London.

#### AN ACCIDENT OF LABOUR.

THE frequency with which the compression of the cranium, during the passage of the foetal head through a small pelvis, causes serious injury to the cerebral substance, is well known. It is not probable that the skilful use of forceps increases the amount of damage; it is possible, although difficult to prove, that thus the injury may sometimes be lessened, but whatever be the force or mechanism by which the foetal head passes through a narrow aperture, compression and damage there must be, in proportion to the contraction of the orifice. The fact of the injury to the cerebral tissue which results is strikingly illustrated by the discovery of Ruge that brain tissue may be found in the circulating blood in these cases, a fact which may also explain some other symptoms occasionally observed soon after birth in cases of difficult and instrumental labour. Ruge recorded three such cases, and a fourth has recently been placed on record by Dr. Paolo Negri of Milan. In his case, however, the foetal head was compressed in the uterus and not in the pelvis, the presentation being transverse. The woman was small of stature, only four feet six inches high, with old rickety deformities. Her first labour had to be terminated by embryotomy, in the second and third pregnancies labour was induced in the eighth month. In the fourth, she had gone to the full time and the arm presented. Several attempts at turning were made without success, the membranes having ruptured; ultimately version was effected under chloroform, but the child had been dead some

time. Its heart was carefully removed, the vessels having previously been tied. In the left auricle and left ventricle there was but little blood, but in the right auricle there was a quantity of liquid blood, mixed with numerous soft whitish fragments of tissue, similar in appearance to cerebral tissue. A drop of blood, mixed with a drop of a saline solution, showed under the microscope a considerable number of well-formed nerve cells, while minute capillaries were found in the whitish fragments.

#### “COUNTRY DOCTORS.”

OUR contemporary the *Globe* had recently a pleasant gossiping article on “Country Doctors,” wherein we find an attempt made to define the difference between country practice and town practice, the former being characterised as a “rough-and-ready” treatment of disease, while the latter is compared to the work of “the nineteenth century strategist,” who “has instruments and theories, inventions and methods, of which the other [the country practitioner] knows neither the use, nor often the existence.” “The city doctor,” we are told, “naturally devotes himself to the complications and the casuistries of disease. The country doctor brushes all these away, and fights with the few enemies he knows, and with whom he is accustomed to deal.” Of course it is recognised that this description applies only to the few country doctors of the “old type” now remaining. Railways and telegraphs and the periodical literature of the profession have almost improved the old type of practitioner off the face of the earth. In the broad lines of his reasoning our contemporary is right, and he argues the matter in a genial and appreciative spirit. Differences between the old way and the new do exist in medicine as in everything else; and it is well that, like old landmarks which are being removed in the course of modern improvements, these differences should be chronicled. By-and-by it will, probably, be found that in this, as in everything else, history repeats itself.

#### INDUCED PREDISPOSITION TO ANTHRAX.

THE temperature most favourable to the development of the bacteria of anthrax is that of the mammalia—i.e., a temperature of 37° or 38° C. Birds, and especially fowls, which have a higher temperature (about 42°) do not, under ordinary conditions, contract the disease. M. Pasteur, however, as is known, succeeded in communicating the disease to fowls, and in causing the bacteria to develop in their blood, by lowering the body-heat by means of the immersion of one foot for a considerable time in cold water. In the case of frogs, it was found by M. Gibier that at the ordinary temperature of water they are unaffected by a subcutaneous or intra-peritoneal injection of the liquids of anthrax, and it became important to ascertain whether, by raising their temperature to 37°, and thus rendering them for a time warm-blooded animals, the bacteria of anthrax would develop in their blood. Experiments directed to this end afford at least a partially affirmative answer. By compelling frogs to live in water at a temperature of from 35° to 37° C., M. Gibier succeeded in communicating the disease to them. The experiment does not always succeed, even when the conditions are the same. Of twenty animals, the disease was communicated to five only. The others died either as soon as they were immersed in warm water, or in the course of three or four days, without presenting evidence of infection. Two moreover resisted entirely. The blood of the other five, however, presented abundant bacteria, and these were also found in great numbers in the liver. A drop of blood taken from the heart of one and inoculated under the skin of a guinea-pig, killed it in forty-eight hours. The bacteria in the frog were remarkable for their length, which was far greater than that of the bacteria of the guinea-pigs. This

M. Gibier attributes to the slowness of the batrachian circulation, conjecturing that in the rapidly moving blood of the mammalia the rods may be broken. Some other points were also noted in the course of these experiments. It was observed that the frogs which proved susceptible had fasted for a longer or shorter time. Young, vigorous, newly captured frogs either resisted altogether, or died at the end of two or three days without any development of bacteria or increase in the size of the liver. Frogs which were suddenly removed from cold to hot water, without any gradual transition, as soon as possible after the inoculation, died more quickly from the disease than did those which had been acclimatised by degrees. Lastly, a curious fact was noted—that none of the frogs which had been previously inoculated in the cold water were infected by a previous inoculation in warm water. This may have been only an accidental coincidence, but it may possibly have been a vaccination phenomenon.

#### GENERAL HOSPITALS AND CASES OF INFECTIOUS DISEASE.

PENDING the provision of more perfect means for hastening the transmission of patients suffering from infectious disease, who present themselves at general hospitals, to the Metropolitan Asylums intended for such cases, house-surgeons and other authorities should take notice of the Article (4) of the Local Government Board's Order, wherein it is laid down that "if any person present himself at an asylum without the order and certificate required by Article 3, and the medical superintendent be satisfied that the person is suffering from fever or small-pox, and is in such a condition that a refusal to admit him without such order and certificate might be attended with dangerous results, the medical superintendent may admit such person, and the steward shall thereupon give notice in writing of such admission, accompanied by a written statement of the circumstances of the case, to the guardians of the union or parish in which the person last passed the night, if such union or parish be included in the metropolis, or if it be not included in the metropolis, then to the guardians of the union or parish in which the asylum is locally situated."

#### RUPTURE OF MEMBRANA TYMPANI, CAUSED BY DIVING.

DR. H. A. WILSON, of Philadelphia, has published in the *American Medical News* an account of two cases of rupture of the membrana tympani, caused by diving. In one case a man dived from a height of about twenty feet, and as he struck the water he heard a loud noise, which he likened to the firing of a cannon. Immediately afterwards he found that the hearing in his left ear was very imperfect, especially to high notes. A triangular rent in the lower anterior quadrant of the tympanic membrane was found. In the other case, a lad, in diving from a boat, heard something crack, and thought he must have struck the bottom; he then suffered from auditory vertigo, and complained of a whistling sound in his right ear when he blew his nose. A curved slit in the upper and posterior part of the membrane was seen through the otoscope. In each case Dr. Wilson carefully brought the torn edges into apposition, and fixed them by a thin layer of collodion painted on with a fine hair pencil. In each case bleeding had entirely ceased when the patient was seen, and there were no clots on the parts requiring removal. Dr. Wilson thinks that this accident may be more common than is generally supposed, and that some cases of deafness after diving, which are attributed to "water in the ear," are really the result of fissures in the drumhead. He explains the production of the injury by the sudden compression of the air in the auditory meatus

against a thin membrane insufficiently supported on the inner surface, and he accordingly suggests that, to prevent it, a full inspiration should be taken before diving, the mouth kept shut, and the soft palate raised to prevent escape of air through the nose. When a person has not sufficient control over the palate muscles to do this, holding the nose will serve the same purpose. The due compression of the air in the aural cavity is obtained by the contraction of the chest and the cheek muscles.

#### HEALTH MATTERS IN DUNDEE.

FROM action taken by the Police Commission at Dundee immediately after the death of Dr. Pirie, it was hoped that the sanitary supervision of that important town would be placed on a satisfactory footing. To state that during the past two months 700 cases of infectious disease have been reported to the authorities, that during July 67 cases ended fatally from the various zymotic diseases, that typhus fever is at present epidemic, and that by their recent local Act it is now compulsory upon medical men to report all infectious cases, is sufficient to indicate the importance and extent of the duties which must be performed by the medical officer. In the other three of the four largest Scotch towns, the medical officers of health are paid sufficient salaries to allow of their whole time being devoted to the duties of their office, and the result in each case has been most satisfactory both to the profession and the public. It is therefore disappointing to notice the action of the Dundee authorities, who are now advertising for candidates and offering £75 a year as a salary. This amounts to 10s. per thousand of the population; and this fact, as well as the feeble and antiquated arguments used to support the proposal, show that the recent liberal working of the Public Health Act, with all its beneficent results, is unknown or unappreciated by the authorities of Dundee. To the efficient management of sanitary matters in large towns nothing is more essential than the confidence and co-operation of the whole profession, and this is most likely to be obtained by the appointment of responsible men altogether independent of private practice. It is possible that a protest from the local Medical Association, backed by information easily available, might still be useful, as there is no reason to doubt that the authorities wish to serve the best interests of the town, if they did but know how.

#### THE HOURS OF LABOUR IN SHOPS.

A LEAGUE has been formed having for its object to reduce the hours of labour in shops. The patronage and support of distinguished persons have been secured. The movement has our warm sympathy on the score of health. It is injurious, to youths especially, to be kept standing in monotonous labour through many hours. At the same time we wish it were possible to devise some employment for the increasing leisure of the classes who do not naturally take great pleasure in reading, and who have few resources in themselves. A change from shop to music hall is not always a change for the better, though it may seem to provide relief.

#### THE PLAGUE AT PAKHOI, SOUTH CHINA.

MR. JOHN H. LOWNES, medical officer, Imperial Maritime Customs Service, Pakhoi, informs us that the outbreak of true bubonic plague which has been raging there since the end of March has almost entirely abated. The number of deaths during these last three months has been very great, the people dying on every side. The disease appears to have been confined to the natives. Medical treatment proved of little avail to check the scourge. The previous outbreak occurred in 1877.



## TWO PENETRATING WOUNDS.

THE *Indian Medical Gazette* of July 1st contains short accounts of two interesting cases. In one, which was under the care of Surgeon-Major R. de la Cour Corbett, a man thirty years of age, was struck by a Martini-Henry bullet, fired at a distance of 1950 yards. The ball entered on the right of and close to the fourth cervical vertebra, passed forwards, downwards, and to the left, and emerged between the second and third left costal cartilages. The man spat up about eight ounces of blood, but two hours later there was no blood in the sputum, although moist râles were heard over the upper part of the right lung. There was anæsthesia and analgesia of the right arm, which was cooler than the left, and bathed in clammy perspiration. No loss of motor power. The wounds were dressed with carbolic oil, two and a half per cent., and a mixture containing opium, ergot, and gallic acid was given. The wound healed without suppuration, and the man "was discharged well from hospital" ten days after the injury. The other case was that of a Hindoo child five years of age, under the care of Assistant-Surgeon Sasi Bhushan Kumar, who was gored by an ox five days before she came under treatment. An irregular wound was found about two inches below the left costal arch, through which about two feet of the omentum was protruding. The omentum, which was highly congested, was cut off beyond a ligature, and twelve days afterwards the child was discharged from the hospital perfectly cured. The previous treatment consisted in covering over the prolapsed omentum with a cloth moistened with mustard oil. The general treatment after excising the omentum consisted in "a few doses of calomel and soda" to move the bowels, and then "good food and tonics."

## DEATH IN THE CRICKET FIELD.

THE death of Mr. Carr, Captain of the Albemarle Cricket Club, after a very dashing and skilful innings on a very hot day, and just after receiving the plaudits of the spectators, excites many painful reflections—one of which is that if Mr. Carr had been content to forego cricket he would probably have been alive and well to-day. Another painful incident of the same sort has been reported since Mr. Carr's death. It is a pity that men who know they have weak spots will not preserve them; "lest," in the beautiful language of Scripture, "that which is lame be turned out of the way, but let it rather be healed." There are few perfectly sound men. Many who play the greatest rôles in the world are lives that no insurance office would take without an extra premium; but they contrive to go on by care as well as by strength. This category includes many with heart disease; for although the heart is liable to disease, it is also an organ capable of being rested, and which rewards its owner for consideration.

## LEGISLATION ON INFECTIOUS DISEASES IN GERMANY.

THE State authorities of Anhalt (Germany) have issued regulations enjoining the placing, as far as possible, in isolated rooms, of the bodies of persons who have died from cholera, small-pox, typhus, diphtheria, dysentery, scarlet fever, or measles. In the interval between death and interment, the necessary measures for disinfection have to be observed. No exhibition of such bodies is allowed; and the mourners and other persons attending the funeral are not permitted to assemble at the house where the death has taken place. Contraventions of these regulations make the offenders liable to a fine of thirty shillings, or to imprisonment.

## FEVER NURSES AND THE FEVER HOSPITAL.

THE Committee of Management of the London Fever Hospital announce that they have made arrangements to supply trained nurses to nurse at home any person suffering from infectious fever other than small-pox. The regulations seem to be satisfactory, excepting perhaps that concerning the fees. A fee of three guineas a week seems to be unnecessarily large. One of the regulations is to be specially noted, and runs as follows:—"With a view to preventing the infection of others, the nurse will be provided with a uniform which she will wear while in attendance on the patient. She will also have a second change of clothes for use out of doors, which on no account are to be taken into the sick room." There is no reason why both nurses and medical men in infected rooms should not wear a surplice of some kind—an ordinary night-dress does very well,—which can be doffed and put into a box provided for the purpose when leaving the room. The precautions taken against the conveyance of infection should be in excess of what is necessary. It is still painful to see even nurses of infectious cases comparatively insensible to the risks to be avoided.

## CHARGING FOR CERTIFICATES OF DEATH.

A JURY at Bethnal Green at an inquest on a child, two years and a half old, found that deceased died from sunstroke, but that the doctor's conduct was deserving of censure. The doctor had seen the child twice, once at his own surgery and again at home. When applied to for a certificate of death he was alleged to have demanded a payment of 2s., and on that not being forthcoming he said he would bring the case before the coroner, as the death was doubtful. The medical man strongly denied that he refused the certificate on that ground. One of the witnesses said she quite understood this money was demanded not for the certificate, but because the money due to the doctor was withheld. We cannot but think that the doctor's conduct in this case has been misunderstood; if so, an injustice has been done by the remarks of the coroner and the finding of the jury. Of course, a medical man has no right to make the giving of a certificate of death depend on his being paid for his attendance.

## DRUG FARMS.

DR. ATTFIELD'S address at Southampton on Tuesday contained a suggestion which we trust may bear fruit. He is of opinion that much good might be done by the establishment in this country of drug farms, where our chief medicinal plants might be systematically cultivated and collected. For the majority of vegetable drugs we have still to rely on the somewhat capricious kindness of unaided nature, and as regards quantity and quality, we are to a very great extent in the hands of ignorant and irresponsible collectors. Why should not drug farms be more generally established in Great Britain? Many food farms are being thrown out of cultivation, and there is no difficulty in procuring land. Would not farming other than food farming be likely to prove remunerative? Flower farming and fruit farming are among the most lucrative callings in this country.

## COMPULSORY VACCINATION IN SWITZERLAND.

AN intelligent writer in *The Times* writes from Lausanne to caution anti-vaccinationists against misconstruing the recent popular vote in Switzerland on the proposed law on epidemics. The vote is to be regarded as one against centralisation, and not against compulsory vaccination, which, the writer avers, will be equally compulsory under a cantonal law. The poor anti-vaccinationists get little comfort.

## TYPHUS PROSPECTS.

THE appearance of typhus as a cause of mortality in our large towns is a matter calling for the serious attention of sanitary authorities. It is now more than ten years since this disease was epidemic, and although much has been done during the interval in the removal of filthy and overcrowded tenements, yet we are painfully convinced that many appropriate typhus haunts remain in various parts of the kingdom, and that they can only slowly be got rid of. In the meantime we hear of this disease at Liverpool, at Manchester, at Gateshead, at Maryport, at Sunderland, and other places, and there is every reason to fear that as the winter advances many sanitary authorities may find themselves confronted with this fatal and infectious form of fever. Of all the specific fevers typhus is perhaps the one which most loudly calls for efficient measures of isolation. Associated as it is with that peculiar form of filth which is found in connexion with destitution and overcrowding, nearly all who are attacked by it need for their own sakes, and for the protection of the public, to be immediately removed from their homes to proper isolation hospitals. When an epidemic attacks a town, it too often transpires that the question of making provision for the isolation of infectious diseases has for some time been under consideration, but the intention has never been carried out, and the spread of infection cannot then be stayed by the isolation of the first patients attacked. The prospects of typhus, as the colder months advance, should, especially in our large and crowded centres of population, lead to immediate and decisive action in this matter of hospital provision.

## LONDON BAKEHOUSES.

ATTENTION has recently been directed to the condition of the London bakehouses, and not, as it would seem, without cause. The investigations set on foot in certain districts have led to the discovery of a very insanitary state of affairs. Bakehouses are almost invariably underground, and it is found that, in common with the majority of basements, they are more or less defiled by the impurities of the surrounding soil. The heat doubtless draws the foul gases and the moisture to the locality. Nor are the bakeries in London always conducted with due care and cleanliness. For example, one officer of health reports that he found an instance in which "a man suffering from fever had been sleeping for some nights on the flour sacks belonging to the bakehouse." This suggests disquieting thoughts. It is well that, every now and again, the old and, as it may be supposed, reformed, abuses of trade and social life should be subjected to renewed inquiry.

## SMALL-POX IN CAPE TOWN.

THE *Port Elizabeth Telegraph* properly devotes much of its space to information about small-pox in Cape Town, and the alarm occasioned by it. At a meeting of the Town Council, one councillor seemed to expect very beneficial influence from heavy showers of rain. We caution all authorities and all individuals against trusting in anything but vaccination of the children and revaccination of all who are not children. Isolation of the sick as soon as the disease is declared is very good; but the healthy can protect themselves only by vaccination, and by revaccination after childhood is over.

DR. R. W. BURNET, of Wimpole-street, left Liverpool on Thursday by the *City of Rome*, to join the party of Her Royal Highness the Princess Louise (the Marchioness of Lorne), in medical attendance, during their approaching tour. Dr. Burnet will reach the Falls of Niagara on Sept. 4th.

DRS. MORTON and DANA publish in the *New York Medical Record* (July 29th) a report of the Microscopical Appearance of Guiteau's Brain. They made numerous sections from various parts, and used several kinds of staining reagents. The most constant appearance consisted in the presence of rounded translucent bodies,  $\frac{1}{16}$  in. to  $\frac{1}{8}$  in. in diameter, which gave the aniline blue, but not the iodine, reaction of amyloid matter. They were not soluble in ether, nor stained by osmic acid, and were insoluble in acetic acid. The writers regarded them as post-mortem products, in spite of the aniline reaction. The cortex contained a few thickened bloodvessels, but no other changes were noted.

IN a paper on the Etiology of the Simple Round Ulcer of the Duodenum, Dr. Hiava, assistant in pathological anatomy at Prague, concludes that there are two kinds of ulcers, the acute and chronic. Acute ulcers are produced by an inflammatory or mycotic process, and often lead to perforation; but they frequently cicatrize or are converted into a chronic ulcer. An acute ulcer is sometimes formed from embolism. Chronic ulcers, firstly, may arise in an inflammatory process and be developed from acute; secondly, they may ensue upon local venous stasis; thirdly, they may be mechanically produced by injury of the mucous membrane (hæmorrhagic erosion), and perhaps through the action of the gastric juice.

FROM a study of several cases in an epidemic of measles in the Children's Asylum of the Philadelphia Hospital, Dr. John Keating (*Boston Medical and Surgical Journal*) declares that the presence of micrococci in the blood is very significant of the malignant type of the disease; that the micrococci may invade the corpuscles, both red and white, and thereby add another danger to life; and that the remedies indicated by their presence are alcohol, the vegetable acids, and bichloride of mercury. Acting upon the principle that alcohol checks the development of micrococci in culture-solutions, he avers to have saved some cases by the free administration of whisky.

THE address of Dr. Siemens, President of the British Association, at Southampton on Wednesday, dealt mainly with the subject with which his name is prominently associated. Whilst the great advantages of electric lighting were set forth, the merits of gas, both for illuminating and heating purposes, were fully acknowledged. The discourse illustrated conspicuously the benefits resulting from the union of science and practice, and was received with marked favour by the audience.

DR. HENRY MAC CORMAC has published a timely protest, penned with much vivacity and ingenuity, upon the Etiology of Tubercle, with comments on Dr. Robert Koch's Bacilli. The pamphlet is dedicated to Dr. Wilson Fox, and its aim is to show that the bacilli are themselves of secondary importance as compared with the real tubercle-generator—"rebreathed air."

THE Local Government Board inquiry into the alleged deaths from vaccination at Norwich was opened by Mr. J. J. Henley and Dr. Airey on Wednesday, continued on the following day, and was not concluded at the time of our going to press. We postpone consideration of the matter until the inquiry shall have terminated, and the whole of the facts have been brought out.

IT is stated that a vessel with two cases of Asiatic cholera on board has arrived at Foynes in the Shannon. The vessel has been placed in quarantine.

MR. THOMAS HOLMES, the vaccination officer of the Leeds Union, reports that out of 2793 births registered in the second half of 1881, only 1.1 per cent. still remain unaccounted for as regards vaccination. Mr. Holmes is a painstaking officer, and, setting aside a few members of the board of guardians who appear to have anti-vaccination sympathies, his labours are appreciated by those whom he serves.

THE officers of the Army Medical Department at Netley have issued invitations to a garden party to the members of the British Association attending the annual meeting now being held at Southampton.

"THE Medical History of Worcestershire" is the title of a pamphlet written by Mr. A. H. F. Cameron—no doubt in view of the late meeting of the British Medical Association. It is chiefly of local interest, for the author contents himself with very brief biographical sketches of the leading Worcester doctors of past days.

SMALL-POX is prevalent at Gateshead. Most of the persons attacked have been removed to a hospital for infectious disease, and the sanitary authorities are adopting measures to check the spread of the epidemic.

THE officers of the Army Medical Department have erected a handsome white marble cross in the cemetery at Lahore over the grave of the late Surgeon-Major Robert Murphy, who died at Fort Lahore on September 1st last year.

SURGEON-MAJOR SANDFORD MOORE has been appointed to succeed Surgeon-Major Notter as Assistant-Professor of Hygiene at the Royal Victoria Hospital, Netley.

## Pharmacology and Therapeutics.

### IODOFORM IN LUNG DISEASE.

PROFESSOR SEMMOLA of Naples has published an account of the treatment of caseous broncho-pneumonia by iodoform, and has added to it an urgent entreaty to practitioners in all countries to repeat his experiments, as he believes this to be one of the most important uses to which iodoform can be applied. During the last three years he has treated many cases in this manner, not only of broncho-pneumonia, but of bronchial catarrh, asthma, &c. Expectoration lessens, often very rapidly, and with it the cough and paroxysms of dyspnoea, perhaps partly in consequence of the local anæsthetic action of the drug. The secretion in the bronchial tubes, and in small cavities, is, he believes, disinfected. Pyrexia gradually lessens, and he thinks that the fall in the temperature is to be ascribed to this disinfection of the secretion and putrid material, which is being constantly absorbed from foci of softening. The local process seems to be favourably influenced, and in some cases a condition very near the normal seems to be regained, of course only in cases of broncho-pneumonia in the first stage. The dose employed varied between five and fifty centigrammes daily, according to the varying tolerance of the digestive and nervous system. It is best borne made up into pills, with extract of gentian or some other extract. Small doses answer best, which can be repeated as frequently as every one or two hours. Inhalations may also be employed, the iodoform being dissolved in turpentine, and this inhaled three or four times a day. Semmola disclaims any intention of bringing forward iodoform as a remedy for tuberculosis or all caseating affections of the lungs. Several cases, supposed to be tubercular, have, however, been recently published in which remarkable results have been said to follow

the administration of iodoform. Mook gave it in doses of one centigramme, and observed the signs of cavities gradually to disappear. Baeler observed what were believed to be the symptoms of tubercular meningitis to disappear under its use. In neither of these cases, however, does the diagnosis of tubercle appear to rest on any strong grounds.

### THE ACTION OF QUININE AND SALICYLIC ACID ON THE EAR.

In order to ascertain whether the noises in the ears produced by salicylic acid and by quinine are due to a congestion of the labyrinth, Dr. Kirchner has instituted some experiments in the pharmacological laboratory at Würzburg. The noise in the ears is sometimes accompanied by giddiness and deafness, which, usually ceasing when the medicine is discontinued, sometimes persists as a serious malady. Kirchner employed in his experiments rabbits, cats, dogs, and guinea-pigs. His conclusions are that both these agents cause hyperæmia of the tympanum, which may go on to hæmorrhage, and that the whole of the labyrinth participates in the congestion. It may become so intense that, if it lasts long, it will cause of necessity an alteration in the nerve filaments, and it may lead to exudation. This congestion he regards as produced by a vaso-motor mechanism. In this conclusion, however, another series of observations made by Weber-Liel and Guder does not agree. They observed carefully the symptoms produced in certain healthy individuals by a moderate dose (fifteen grains) of quinine, and noted, during two hours and a half, a gradual fall in the temperature of the external auditory meatus, corresponding to the diminution in the general temperature of the body. No hyperæmia could be detected in the meatus, the membrana tympani, or the handle of the malleus, either during this period or later. On the contrary, in five cases a slight hyperæmia which existed previously was found to disappear. The subjective noises in the ears came on at the end of an hour or an hour and a half, and continue for ten or twelve hours, while the deafness comes on one or two hours later than the tinnitus, and is greatest at the time that the general temperature of the body is lowest. Similar experiments were made with salicylic acid. Four or five grammes of salicylic acid caused a diminution in the temperature of the external auditory meatus, which falls in the course of two or three hours to 95°. No indication of congestion could be discovered, and, as in the case of quinine, previous hyperæmia became lessened. Noises in the ear came on later and lasted longer than in the case of quinine. The deafness is very marked, and continued in some instances for several days, and in some cases, in which there existed previous ear disease, the loss of hearing was more prolonged, enduring in one case for nine months. In more than half the cases giddiness came on a little after the subjective symptoms. Comparing the effects of salicylic acid and quinine, it appears that the former causes a less considerable depression of temperature and a more prolonged diminution in hearing. It is difficult, therefore, to ascribe the aural effects either to congestion or to anæmia, and if these observations are reliable, it would seem to be due to a primary nervous influence.

### SALICYLIC AND CARBOLIC ACIDS.

The comparative value of salicylic and carbolic acids given internally was the subject of a recent paper by M. Desplats of Lille. Each has an analogous action as a febrifuge, and the well-known effect of salicylate of soda in acute rheumatism can be produced, in some cases at least, by carbolic acid, and the rectal administration of either may be substituted for that by the mouth when there are difficulties in giving it by the latter. Urinary disturbances are unimportant and quickly cease if the dose is lessened. Albuminuria is rare, and passes off if the drug is omitted for a short time. M. Desplats mentions, for instance, a case of phthisis, in which, on account of high fever, two injections were given daily for two months, each containing half a gramme of carbolic acid, without any ill effect. In the discussion which followed at the Académie de Médecine, M. Dujardin-Beaumez expressed the opinion that the free use of carbolic acid in injections entailed a considerable risk of pulmonary congestion, and the opinion was corroborated by several other speakers.

### PEROXIDE OF HYDROGEN IN SURGERY.

The powerful germicidal properties of peroxide of hydrogen, the *eau oxygénée* of the French, have led MM. Péan and Baldy to test its practical value as a surgical dressing for

extensive wounds and ulcerations of various nature, as an injection into sinuses and cavities, such as the bladder, the nasal cavities, and also in the form of spray as a substitute for the carbolic acid spray in major operations, such as ovariectomy. It was applied by means of compresses covered with an impermeable material, to prevent evaporation. During the dressings a spray of it was employed. The preparation used was absolutely neutral in reaction, and contained four or six times its volume of oxygen; but for the injection of sinuses or closed cavities a weaker solution was employed, containing only one or two times its volume of oxygen. The results obtained from more than a hundred cases have been most satisfactory, in grave as well as in trifling cases. Under the treatment recent wounds made with the bistoury or thermo-cautery, old wounds even when covered with gangrenous tissue, complicated with lymphangitis, or erysipelas, rapidly assumed a healthy aspect, granulating freely with perfectly sweet creamy pus. Chronic ulcerations rapidly cicatrised, and amputation wounds presented a strong tendency to heal by first intention. The general condition of the patients presented at the same time a marked improvement. The results are stated to have been quite as satisfactory as those obtained with carbolic acid. It has the additional advantage of being free from any toxic property, from any unpleasant odour, and of causing no pain. The results were especially satisfactory in some cases of varicose ulceration of the legs, intra-articular abscesses, ozæna, and purulent cystitis. In some remarks on the occasion of M. Péan's communication to the Académie des Sciences, M. Paul Bert, to whose investigations the French are indebted for most of their knowledge of the subject, pointed out that in the surgical use of this substance its influence was exerted in two ways, first by killing the organisms, and secondly by continually liberating oxygen on the surface of the wound. He insisted on the care which must be taken to secure its purity, since most commercial specimens contain a considerable quantity of sulphuric acid.

#### SALICYLATED STARCH.

Kersch has recommended salicylated starch in the treatment of eczema. It is prepared by mixing starch gradually with salicylated alcohol of a strength of 2 per cent., allowing the starch to sink to the bottom, pouring off the supernatant liquid, squeezing the starch in muslin, and drying it at a temperature of 80° C. In treating eczema it is recommended that after the scales have been removed the patches should be dried with antiseptic cotton-wool, then moistened with a 2 per cent. solution of salicylic acid in alcohol, and afterwards covered with a thick layer of salicylated starch.

#### CONVALLARIA MAJALIS.

An old remedy in Russia for dropsy, the convallaria majalis, has been recently tried in France in the form of (1) an aqueous extract of the leaves, which appears to be a feeble preparation; (2) an extract of the flowers which has a more powerful action on animals than on man; and (3) an extract of the whole plant. M. Hardy, however, has obtained an alkaloid, convallarine, in an amorphous form, which seems to possess a potency comparable to that of digitaline. The dose of the extracts which has been employed is from one to two grammes of the extract of the flowers or the entire plant. In the tortoise a remarkable retardation of the heart is produced; its frequency falls in the course of a minute from 36 to 4. A very marked retardation of the pulse and respiration was caused in the dog by a subcutaneous injection of five centigrammes of the extract. M. Germain Sée has tried it in twenty cases of disease. In three it had no effect, but in the others its influence was remarkable. It has a powerful diuretic action, increasing the amount of urine to about three times its previous volume. The cases treated were three of mitral regurgitation, two of dilatation of the heart, simple hypertrophy, aortic regurgitation, simple anæmia, chronic pericarditis, and diabetes. Russian physicians believed that the agent was chiefly useful in nervous affections of the heart; but this is, in the opinion of M. Sée, an error. It has no action on the digestive organs, and is perfectly well borne. It rather increases than lessens the appetite, and facilitates the action of the bowels. The diminution in the heart's frequency, under normal conditions, amounts to 10 or 15 beats per minute. Irregularity, especially of nervous origin, is lessened. Sensations of pulsation in distal vessels—e.g., in the head—are removed by it. At the same time the force of the cardiac action is increased.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF INSPECTORS TO THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*Hull.*—Dr. Airy has prepared for the Local Government Board a very exhaustive report on the sanitary condition of the borough of Hull, the more immediate object of his inspection having been the serious mortality which has prevailed there from scarlet fever. A very complete general description of the borough is given, special prominence being accorded to its topographical features. The town lies on an alluvial flat, waterlogged to within a few feet of the surface; it is in many parts densely packed and overcrowded, and the sewage is dammed back in the outfall sewer for over seventeen out of every twenty-four hours. Considerable efforts are made to mitigate these local disadvantages. A dry system of excrement removal is in vogue, which appears, however, to require more careful scavenging, general refuse is regularly collected and then destroyed in one of Messrs. Bailey and Fryer's destructors, and the flushing of the sewers is effectually performed. The administration is, however, in several respects seriously lax. Notwithstanding the risk of the importation of infectious disease by water into this important seaport town, which has received in one year as many as 70,000 emigrants, there is no check upon vessels entering the town and no security whatever against the introduction of infection. With a population of 154,250, the medical officer of health is paid a sum which can only command a very small amount of his time, and which is wholly inadequate to the services required; and the fact that he is not independent of private practice is evidently a great hindrance to his receiving that co-operation from his colleagues which such an officer for a district like Hull must constantly stand in need of. The general death-rate for the borough is about 24.0 per 1000 of the inhabitants, and it is satisfactory to note that improvement in this respect has for some years been in progress, a fact which should encourage the authority to persevere in their efforts to remove the many sanitary defects still to be dealt with. But in 1881 the mortality was swelled to an alarming extent by deaths from scarlet fever. This disease, never wholly absent from the borough, slowly increased during the first half of the year. In July, however, a rapid extension took place. The infectious hospital, which then only contained twenty-one beds, was put in requisition, and, as it filled, two new wards were hurriedly erected. But, as Dr. Airy says, the disease was then beyond control, and it had to burn itself out. From the beginning of September up to the end of the year the fatal cases varied from 19 to 40 a week, and as many as 680 deaths from this one cause alone were registered for 1881, a total of 417 being recorded in the last quarter of the year. During the first three months of the present year some signs of abatement were observed, the fatal cases, however, numbered as many as 140. According to the Registrar-General's return for the second quarter a reduction to 63 scarlet fever deaths had taken place. But the disease, unfortunately, also spread to adjoining districts, and some report as to these is also given by Dr. Airy. Nothing short of a very perfect system of notification of infectious diseases, together with ample provision for the isolation of first attacks, can be expected to prevent epidemics of scarlet fever in our large towns. It is true that much may be done to stay their progress and to limit their extent by an energetic sanitary administration, yet so long as the disease is regarded with such apathy by a large proportion of the poor and ignorant who are often crowded together, and who do not deem it necessary to seek medical advice even when this can be gratuitously procured, any thought of its eradication must for the time be given up. Education must go hand in hand with an intelligent sanitary administration before any such result can be attained.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Huddersfield (Urban).*—Dr. Cameron's quarterly return for Huddersfield, relating to the three months ending June last, afforded fairly satisfactory evidence of the sanitary condition of that borough during the period under review. The

population of the borough is estimated at 83,271, or a few hundred less than the Registrar-General's estimate. The birth-rate and death-rate of the borough during the quarter are calculated at 29.5 and 20.8 per 1000 respectively. Huddersfield is one of those towns in which the notification of certain infectious diseases is compulsory; and Dr. Cameron, while he refers to the freedom of the town from the fatality of those diseases which are scheduled for notification, also calls attention to the considerable mortality caused during the quarter by measles and whooping-cough, of which notification is not required. It appears, however, from the Registrar General's quarterly return that, during the second quarter of this year, the fatality both of measles and whooping-cough in Huddersfield was below the average rate from those diseases that prevailed in the twenty-eight large towns dealt with in that return. Since the end of June, however, measles fatality has assumed exceptional proportions in Huddersfield, and twenty-nine more deaths from this cause were registered during the six weeks ending the 12th inst. The general ignorance that prevails among the lower classes of the dangers to be feared from neglected measles, renders it most desirable that this disease should not be omitted from the scheduled list for notification. The value of Dr. Cameron's excellent quarterly return would be enhanced by the addition to his first table of the borough statistics for a few preceding quarters. The headings of the columns showing infant mortality should, moreover, be more precise. We presume that the column headed "under five years" includes only the deaths of children aged four years and under five. We should, indeed, prefer to see a different classification of the ages of decedents, as it appears scarcely necessary to devote five columns to deaths of children under five years. The borough infectious diseases hospital was comparatively empty during the quarter, but twenty cases of admission were reported.

*East Cowick.*—An interesting report has been prepared by Dr. J. Mitchell Wilson on an epidemic of enteric fever in the little village of East Cowick in the Goole rural and sanitary district. The starting-point of the disease appears to have been an unrecognised attack of enteric fever, which led to the contamination of a public well by reason of soakage from a leaky drain belonging to the cottage where the case occurred. The well is a shallow one, standing midway between the cottage in question and a sewer ditch, and surface-drainage was found to make its way into it on all sides. Of the families using this water 72 per cent. were attacked with distinct enteric fever, and, including certain doubtful attacks, 85 per cent. were found to have suffered; whereas out of twenty-four families having a different supply, only three, or 12 per cent., suffered, and this notwithstanding the fact that numerous sources of infection existed by reason of the specifically contaminated privies and drains. Confirmatory evidence as to the pollution of the public well was afforded by chemical analysis of its contents, and it is satisfactory to note that amongst the remedial measures which have been carried out under Dr. Wilson's advice, is the provision of an ample water-supply which is in every way fitted for all household purposes. The report is well drawn up, and it is evidently based on a very careful and exhaustive inquiry.

#### MODEL BY-LAWS OF THE LOCAL GOVERNMENT BOARD.

With the issue of the 15th and 16th Series the code of model by-laws is completed. These last two series relate to mortuaries and the regulation of offensive trades.

*Mortuaries.*—The series relating to mortuaries is in itself very brief, containing as it does only six clauses dealing with the removal of bodies of persons who have died either of infectious or non-infectious diseases, with the decent behaviour of persons engaged in any duties in the mortuary, and with the penalties for offences against the by-laws. But the series, as issued by the Local Government Board, contains in addition a lengthened explanation of the application of the several sections of the Public Health Act with reference to mortuaries; a statement of the circumstances as to site and structure which should be held in view in the construction of such buildings; advice as to the administrative arrangements which are desirable; and, lastly, a plan of mortuary premises for a town of 10,000 inhabitants, embodying the principles laid down by the Board. The plan provides two main buildings, one being the caretaker's residence, the other the mortuary itself. In the latter is an apartment where the clothes of persons found dead can be seen by relatives or others who do not wish, except in case

of necessity, to see the dead bodies. One or more of the bodies can be fully viewed through a glass screen, fitted with blinds, an arrangement by which visitors and others need not enter the mortuary chamber itself or come in contact with infection. We note the absence of any post-mortem room on the mortuary premises. The reason of this is, doubtless, because, under section 143 of the Public Health Act, 1875, the power of local authorities to provide and maintain places where post-mortem examinations may be carried out is conditional on such places being elsewhere than at either a workhouse or a mortuary.

*Offensive Trades.*—This series contains a separate code of by-laws with respect to thirteen different trades—namely, the trade of a blood-boiler, of a blood-drier, of a bone-boiler, of a fell-monger, of a tanner, of a leather-dresser, of a soap-boiler, of a tallow-melter, of a fat-melter or fat-extractor, of a tripe-boiler, of a glue maker, of a size maker, and of a gut-scraper. A preliminary memorandum explains how far the provisions of the Public Health Act affect offensive trades, and it quotes a series of judicial decisions with regard to what does in reality constitute an offensive trade. From the cases cited it seems evident that no trade can be regarded as an offensive one within the meaning of the Act unless it be *ejusdem generis* with the six trades specified in section 112, and that in seeking to establish an analogy between any trade and those specified much importance will attach to the identity or similarity of the materials used in the process. The sanitary authority should also in all cases be prepared with evidence to show that the trade processes in question are as a matter of fact of a noxious character. With a view of aiding local authorities in their efforts to deal with such trades, Dr. Ballard's report on Effluvia Nuisances has been reprinted, and it can now be procured by all who are interested in the subject.

On consideration of the report of their inspector, Mr. Thornhill Harrison, the Local Government Board have resolved to form the Barking Town ward into a Local Government district under the provisions of the Public Health Act. Barking, therefore, will shortly be called upon to form a local board, and will be dis severed from the government of the Romford Rural Sanitary Authority.

Mr. De Pape, surveyor to the Tottenham Local Board, has published a letter in which he denies that the poisoning of fish in the river Lea had resulted from a discharge from the sewage works in the northern suburb.

#### VITAL STATISTICS.

##### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5779 births and 3800 deaths were registered in the week ending the 19th inst. The annual death-rate in these towns, which had slowly increased in the four preceding weeks from 19.0 to 21.2, further rose last week to 23.4. The lowest rates in these towns last week were 16.3 in Birkenhead, 17.0 in Wolverhampton, 17.1 in Brighton, and 17.5 in Derby. The rates in the other towns ranged upwards to 30.4 in Leeds, 30.6 in Salford, 30.7 in Sunderland, and 33.4 in Nottingham. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 930, showing a further increase of 238 upon recent weekly numbers; 660 resulted from diarrhoea, 89 from whooping-cough, 84 from scarlet fever, 69 from measles, 47 from "fever," 30 from diphtheria, and 11 from small-pox. The lowest death-rate from these diseases occurred last week in Derby and Birkenhead, and the highest in Preston, Hull, and Nottingham. Diarrhoea fatality showed a further general increase last week, and was most excessive in Leicester, Preston, Cardiff, and Nottingham. Whooping-cough caused the highest death-rates in Sunderland and Blackburn; scarlet fever in Portsmouth and Hull, measles in Huddersfield; and "fever" in Liverpool, Preston, and Portsmouth. Small-pox caused five deaths in London, three in Birmingham, and one each in Wolverhampton, Nottingham, and Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which in the sixteen preceding weeks had declined from 350 to 123, further fell to 111 on Saturday last; 18 new cases of small-pox were admitted to these hospitals during last week, against 16 and 19 in the two preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had increased in the



four preceding weeks from 157 to 223, declined again last week to 197. The causes of 129, or 3·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Plymouth, Nottingham, Birkenhead, and Cardiff; whereas the proportions of uncertified deaths were largest in Wolverhampton, Liverpool, Halifax, and Sunderland.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been 21·3 and 20·1 per 1000 in the two preceding weeks, was 20·7 in the week ending the 19th inst.; it was 2·7 below the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 131 last week, and showed a further increase upon recent weekly numbers; they included 62 from diarrhoea, 17 from diphtheria, 15 from "fever," 15 from whooping-cough, 14 from scarlet fever, 8 from measles, and not one from small-pox. The death-rate from these principal zymotic diseases averaged 5·6 per 1000, and was 0·5 below the mean rate from the same diseases in the large English towns. The 62 deaths attributed to diarrhoea showed a further slight increase upon recent weekly numbers, and were 23 above the number in the corresponding week of last year; the fatality of this disease was higher last week in the English than in the Scotch towns. Diarrhoea was most fatal last week in Glasgow, Edinburgh, and Paisley. The 17 deaths from diphtheria showed a further increase upon the numbers in recent weeks, and included 9 in Glasgow and 2 each in Edinburgh, Aberdeen, and Greenock; Dr. Littlejohn, however, reports but 1 in Edinburgh. The deaths referred to "fever," which had been 10 and 8 in the two previous weeks, rose to 15 last week, and included 7 in Glasgow, 3 in Dundee, and 2 both in Edinburgh and Perth; Dr. Littlejohn, however, reports but 1 in Edinburgh. Twelve of the 15 fatal cases of whooping-cough, and 8 of the 14 of scarlet fever, were returned in Glasgow. Scarlet fever caused 3 deaths in Edinburgh and 2 in Paisley. The 8 deaths from measles showed a decline from the numbers in recent weeks, and included 3 in Leith and 2 in Dundee. The deaths referred to acute diseases of the lungs in the eight towns, which had steadily declined from 95 to 71 in the five preceding weeks, were 73 last week, and 4 below those attributed to the same diseases in the corresponding week of last year.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 20·8, 22·9, and 23·5 in the three preceding weeks declined again to 20·1 in the week ending the 19th inst. During the first seven weeks of the current quarter the death-rate in the city has averaged 20·9 per 1000, against 18·6 in London and 18·1 in Edinburgh. The 134 deaths in Dublin last week showed a decline of 23 from the number in the previous week; they included 10 which were referred to diarrhoea, 2 to "fever," 2 to diphtheria, 1 to whooping-cough, and not one either from small-pox, measles, or scarlet fever. Thus 15 deaths resulted from these principal zymotic diseases, against 16 and 15 in the two previous weeks; these were equal to an annual rate of 2·2 per 1000, against 4·4 in London and 4·3 in Edinburgh. The fatal cases of diarrhoea, which had been 5, 6, and 9 in the three preceding weeks, further rose to 10 last week, and exceeded the number returned in any previous week of the year. The two deaths referred to "fever" (enteric, typhus, or simple), declined to 2 last week, from 7 and 6 in the two previous weeks. The 2 fatal cases of diphtheria exceeded the number returned in any week since the middle of May. The deaths both of infants and of elderly persons showed a considerable decline from recent weekly numbers. The causes of 19, or more than 14 per cent., of the deaths registered during the week were uncertified.

**SANITARY INSTITUTE OF GREAT BRITAIN.**—At the autumn Congress for 1882, to be held at Newcastle-upon-Tyne from the 26th to the 30th of September, the collection of sanitary apparatus and appliances in connexion with the Congress will be exhibited in the Tyne Brewery Buildings, Bath-lane, from September 26th to October 21st. The lectures and general meetings will be held in the Town Hall; the sectional meetings in the lecture room, Nelson-street.

## THE SERVICES.

### THE EXAMINATION FOR THE PUBLIC SERVICES.

The competitive examination for commissions in the Medical Service of the Army, Navy, and India commenced on Monday last, at Burlington House. For the Royal service 30 gentlemen entered their names for 10 appointments; 20 competitors for the Navy, 10 vacancies; 40 candidates for the Indian Medical Service, 8 vacancies.

Surgeon-Major D. Sinclair, Madras Medical Service, officiates as Inspector-General of Prisons in Burmah, vice Surgeon-Major Kelly.

Surgeon-Majors C. Harvey, Dallas, Edge, Beattie, Williamson, Carey, Surgeon Huey, Madras Sappers and Miners, and Surgeon Elmes, have embarked at Bombay for duty with the Indian contingent for Egypt.

Surgeon-Major Jazłowski, Surgeons Lane and Irvine, embarked on board H.M. ship *Malabar* on Saturday last, in charge of the troops proceeding to Egypt.

**ARMY MEDICAL DEPARTMENT.**—Surgeon-Major Alexander Robert Hudson, M.B., has been granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major Charles Henry Browne has been granted retired pay, with the honorary rank of Brigade-Surgeon.

**ARTILLERY VOLUNTEER CORPS.**—3rd Durham: Surgeon Joseph Frain is granted the honorary rank of Surgeon-Major.—8th Lancashire: Thomas Bushby, Gent., to be Acting Surgeon.

**RIFLE VOLUNTEERS.**—1st Durham: Joseph Whitfield Blandford, Gent., to be Acting Surgeon.—22nd Lancashire: Surgeon Thomas Fort, from 7th Lancashire Rifle Volunteer Corps, to be Surgeon.—3rd Monmouthshire: Octavius Edward Bulwer Marsh, Gent., to be Acting Surgeon.

**ADMIRALTY.**—The following appointments have been made:—Staff Surgeon William Roche to be Fleet Surgeon in Her Majesty's Fleet, with seniority of August 13th; Surgeon Francis Williamson has been placed on the Retired List of his rank from August 4th; Staff Surgeon George Kell, to the *Vernon*, vice Roche; Surgeon John Ottley, to the *Starling*; Staff Surgeon Anthony Gorham, to the *Hercules*, vice O'Callaghan, M.D.

## THE ARCTIC EXPEDITION IN THE "EIRA."

MR. W. H. NEALE, M.B., B.S., medical officer of the *Eira*, has favoured us with the following special medical report:—

I am afraid there is very little to say, in a medical point of view, with regard to the late Arctic expedition of Mr. Leigh-Smith, its great characteristic being the singular absence of disease amongst a crew of twenty-five men during a sojourn of fifteen months in the Arctic regions. Two men were under treatment the whole winter; both of them were invalids before the *Eira* sailed in 1881, and would not have been amongst the crew if they had been obliged to pass a medical inspection before signing articles. One man injured his right forearm in July, 1881, but neglected to dress it, or to mention the accident to anyone; he again injured it in September, 1881, and after suffering some days with it, he came to me and showed me a sorry sight: the whole of the forearm was covered with eczema, his shirt had become dried to the inflamed skin, and several small ulcers were developed. Another man had a small ulcer on the lower lip, which I noticed before we sailed, and tried to dissuade him from starting from Peterhead, but he said the lip had been bad for more than a year, and three months' cruise would do no harm. Fortunately it was not until the spring of 1882 that the growth began to increase to any extent, but during the last two months he became so much worse that I fear he is now beyond all medical or surgical treatment. A case of stricture in a man aged forty-six years gave me a little anxiety once or twice during the winter, as I had lost all my catheters, but fortunately he never had retention more than a few hours. I may here mention that the medicine chest was saved.

When we first began to eat the walrus and bear flesh nearly everyone had diarrhoea; some of the men became

very weak, and in one case the diarrhoea continued five or six days in spite of treatment, and reduced the man to such an extent that he lay down and made up his mind to die. After having lived on the meat for two or three weeks everyone began to recover, and soon all were as regular with regard to the bowels as if they had been enjoying the comforts at home. There was, however, a tendency to constipation, and in the spring many of the men had slight hæmorrhage; the fæces were always almost quite black. Small cuts and slight frost-bites were common; no frost-bites ever caused any serious injury, but a cut, however small, took weeks to heal unless the greatest care was taken to keep the frost away from it when out of doors.

Medical cases were very rare; one man had an attack of bronchitis, followed by pleurisy of the right side, but was only confined for three weeks to the house; another had bronchitis which kept him in bed about a fortnight.

Almost everyone was affected with snow blindness in the spring; no cases were severe. The conjunctivæ were inflamed, the eyes ran with water, there was the greatest intolerance to light, and, in the majority of cases, severe shooting pains over the frontal regions. A lotion of sulphate of zinc (one grain to one ounce) gave great relief in many cases where there was much inflammation. If great intolerance to light was the chief symptom, two or three drops of solution of atropine dropped into the eye once or twice a day soon restored the eyes to their normal state. In cases of severe shooting pains in the head, a few drops of diluted wine of opium always gave great relief. No case had to remain in the house more than forty-eight hours, and no one sustained any permanent injury to their sight.

Our hut was built of stone and turf; it was 38 ft. long, 12 ft. broad, and 4 ft. to 7 ft. high, the walls 3 ft. thick. Inside it was divided off into three compartments by means of canvas curtains; one part, 19 ft. long by 12 ft. broad, served as the forecabin; in this twenty men slept; the middle compartment, 10 ft. by 12 ft., was the kitchen, and the third compartment, 9 ft. by 12 ft., was reserved on one side for Mr. Leigh-Smith and myself. In this place all the wines, spirits, tea, &c., were kept, while on the other side the ice-master and two mates (our two invalids) had their beds. A porch (17 ft. long, 4 ft. high, and 3 ft. broad, with a single piece of canvas, at the inner end of which was our only door) was built, and the fireplace was erected opposite to it. The roof was made of sails. Ventilation was very free near the porch, but we had several ventilators in the roof, made of old provision tins, to which lids were fitted, so that they could be closed during heavy snow or excessive frost. The temperature inside the house varied from 35° to 45° F. during the day in the kitchen, but at night it was often four or five degrees below freezing point. The temperature of 20° F. was considered warm in our sleeping compartment. Many a time 0° F. was registered on the ground in the kitchen. Outside the thermometer could only register - 43° F., and the temperature was often below that for hours. Our clothing was scanty, consisting of woollen and flannel garments, no skins or furs of any kind were worn, and I do not think they are necessary, unless one is sledging or obliged to go out in all weathers to make observations. Washing was a luxury seldom indulged in during the winter, and a clean change of clothes once in three months was considered a great piece of extravagance. No trace of vermin could be seen on anyone, though I searched closely several times, especially in the spring, when nearly everyone complained of terrible irritation, particularly at night; it only lasted three or four days, and, I believe, was due to the fact that one of the bears we killed had a sore foot with a large suppurating gland in the axilla. The blood had been saved and mixed with our stock of blood before the sore was detected; being rather short of provisions the blood could not be thrown away, and we ate the flesh of the bear, bad leg included (unknown to myself). Our food consisted chiefly of bear and walrus meat, mixing some of the bear's blood with the soup when possible. The allowance of meat per day fluctuated from 25 lb. to 50 lb. for all hands, but the whole time we were able to have about 12 lb. of vegetables per day, divided amongst the three meals, and from October 1st to May 1st every man had, daily, a quarter of a pound of flour with his dinner, made into a "dough boy."

For the boat journey we saved 40 lb. of tinned meat (per man), and 35 lb. of tinned soups (per man), 3 cwt. of biscuit, and about 800 lb. of walrus meat, which was cooked and soldered up by our blacksmith in old provision tins. About 80 lb. of

tea were saved, enabling us to have tea night and morning till almost the day we were picked up. No lime-juice was saved. A few bottles of wine and brandy were secured, and kept for Mr. Leigh-Smith and invalids. All the rum was saved, and every man was allowed one-fifth of a gill per day until May 1st, 1882, when it was decided to keep the remaining eighteen gallons for the boats. One man was a teetotaler from January to June, and was quite as healthy as anyone else. Personally it made very little difference whether I took the allowance of "grog" or not. One of the sick men was also a teetotaler nearly all the time. During the boat journey the men preferred their grog when doing any hard work, a fact I could never agree to, but when wet and cold a glass of grog before going to sleep seemed to give warmth to the body and helped to send one to sleep. Whilst sailing, also, a glass of grog would give temporary warmth; but everyone acknowledged that a mug of hot tea was far better when it was fit weather to make a fire. I do not think that spirits or lime-juice is much use as anti-scorbutics; for if you live on the flesh of the country even, I believe, without vegetables, you will run very little risk of scurvy. There was not a sign of scurvy amongst us, not even an anæmic face.

I have brought home a sample of bear and walrus meat in a tin, which I intend to have analysed if it is still in good preservation; and then it will be a question as to how it will be best to preserve the meat of the country in such a form as to enable a sufficient supply to be taken on long sledge journeys; for as long as you have plenty of ventilation and plenty of meat, anyone can live out an Arctic winter without fear of scurvy, even if they lie for days in their beds, as our men were compelled to do in the winter when the weather was too bad to go outside (there being no room inside for more than six or seven to be up at one time).

## WILLS AND BEQUESTS.

THE will and codicil of William Cheyne Wilson, M.D., of 19, Tamar-terrace, Stoke, Devon, who died on May 6th last, were proved on the 1st inst. by Mr. David Wilson, the brother and sole executor, the value of the personal estate being over £1600. The testator leaves all his real and personal estate to his wife, Mrs. Sarah Wilson, but, in consequence of her death, his property becomes divisible between his children.

The will of Dr. John Cotton, Deputy Inspector-General, R.N., of the Royal Naval Hospital, Plymouth, who died on the 12th ult., was proved on the 7th inst. by Mr. George Mitchell, one of the executors, the value of the personal estate exceeding £7000. The testator gives to his wife, Mrs. Katherine Cotton, £200 and all his household furniture and effects; and the residue of his estate he leaves upon trust for his wife for life or widowhood, and on her death or marriage again for his daughters Marie and Katherine Lucy.

The will of Major Richard Culverwell, M.D., formerly of Arundel-street, Strand, but late of Springfield-road, St. John's-wood, who died on January 16th last, was proved on the 12th inst. by Mr. Charles Culverwell, the son and executor. The testator, in referring to certain arrangements as to his property, made by him in his lifetime, speaks of the love, kindness, and generosity towards him of his said son, "professionally known as Charles Wyndham, comedian." There are two or three legacies, and the residue of his property he divides between his four children.

The will of Thomas Oliver Duke, surgeon, of 87, High-street, Clapham, who died on June 5th last, was proved on the 4th inst. by Benjamin Duke and Edgar Duke, the sons of the deceased and acting executors, the value of the personal estate amounting to over £19,000. The provisions of the will are in favour of the testator's children; he leaves the goodwill of his practice to his sons Benjamin, Maurice Smet, and Edgar.

The will of Edward Doubleday, M.D., of Dovecote House, Long Clawson, Leicestershire, who died on June 10th last, was proved on the 16th inst. by Mr. Robert Bianchi and Mr. Edward Doubleday, the acting executors. There are numerous bequests to his own and his late wife's relatives and others, the principal legatees being his nieces, Mrs.

Catherine Bianchi and Miss Annie Croft Doubleday, and his two nephews, both named Edward Doubleday.

The following legacies have recently been left to hospitals and other medical charities:—Mr. Antonio Alexander Ralli, of 102, Westbourne-terrace, Hyde-park, and of 9, Gracechurch-street, £250 each to the Hospital of the Island of Scio, and the special hospital for the leprosy in the same island.—Mr. David Berlandina, formerly of 80, Old Broad-street, merchant, but late of Villa Abbo, Rue Cotta, Grimalli, Nice, twelve guineas each to the Hospital for Spanish and Portuguese Jews, Mile-end-road, and the London Hospital, Devonshire-square. Mr. Henry Howell, of Old-street, 100 guineas to the Royal Hospital for Diseases of the Chest, City-road.

## Correspondence.

"Andi alteram partem."

### THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—It appears from the resolution passed at the meeting of Fellows, held at Worcester on the 10th inst., that the annual meeting of the Association of Fellows is to "be held at and during the annual meeting of the British Medical Association." This implies that the Association of Fellows of the Royal College of Surgeons of England, like the New Sydenham Society, will become an appanage of the British Medical Association. As there are many Fellows of the College who deliberately stand aloof from the British Medical Association, and will continue to do so, unless the management be effectually reformed, the meetings of the Fellows' Association cannot be truly representative.

While I heartily approve of the formation of an Association of Fellows, I maintain that London is the most convenient place in which to hold its annual meetings, and the beginning of July the fittest time, when the Council elections take place. This arrangement possesses the further advantage that provincial Fellows would have an additional inducement to come to the metropolis to record their votes, thereby quickening their interest in the affairs of the College.

I am, Sir, yours, &c.,

Harley-street, Aug. 21st, 1882.

JOHN TWEEDY.

### WHAT HINDERS NOTIFICATION OF INFECTIOUS DISEASE.

To the Editor of THE LANCET.

SIR,—In replying to Dr. Jones's letter in THE LANCET of August 19th I distinctly state that I did not attack him through his official position, and therefore wish to avoid any personality or insinuation, my reason for writing to you being to show one unfortunate feature in the working of the Compulsory Notification of Infectious Diseases Act. June 20th was the first day that I or any of my colleagues became aware that the Blackpool Corporation would supply carbolic oil gratuitously when required. Neither were we aware that the medical attendant was expected to state the time for the cleansing and disinfecting of houses to the sanitary authority, knowing that we had no authority, and considering this an important part of the duties of the medical officer of health. I was once just in time to prevent a sanitary servant from burning sulphur in a house three days after the commencement of a case of measles complicated by pneumonia.

Isolation by accommodation in the sanatorium infers payment varying from half a guinea to a guinea per week for each person (patient or nurse) from the party responsible to the Corporation. But in this case the responsible party preferred nursing the child at home, where the isolation would have been nearly as complete; for I forbade anyone to be admitted into the house, and was "only glad to escape odium" by advising the father to continue to ply for hire, but live away from, and not come into, his own house. The wife told me that the inspector said that her husband might please himself whether he drove on the 18th or not,

but that she said that would not satisfy her, and he then gave his consent to the man driving again.

Regarding "a pure invention of somebody's," it is immaterial, so far as the principle is involved, whether a prescription, a written or a verbal order was given to the patient's mother for the carbolic oil. It actually was, I find, a verbal order; but I was misled by the inspector bringing me the prescription from the chemist, but was particularly careful to place in my last letter the words, "For scarlet fever patients only," to show that the prescription was a general one.

Regarding "MacDonald's just cause of complaint against me," I had to decide between his word and that of the mother, supported by her sister, &c., who could not have any motive for saying what was not true; and I still believe what they said and signed.

I agree that the Legislature would act wisely to insist that a medical officer of health should not be allowed to practise, but have a district large enough to provide sufficient work, sufficient pay, and security that he will not be thrown out of office because of personal spite or jealousy. Such legislation, if the Compulsory Notification Act ever becomes general, will prevent a vast amount of unpleasantness, misunderstanding, and unfairness such as we fancy we have experienced in Blackpool; and the Act will not have the hearty co-operation of general practitioners unless they be taken into confidence, and the householder be as liable to a heavy fine as they themselves for not reporting infectious disease existing in his or her house.

I am, Sir, yours truly,

Blackpool, Aug. 21st, 1882.

WM. B. RICHARDSON.

### "SCURVY."

To the Editor of THE LANCET.

SIR,—A propos the annotation appearing under the above heading in THE LANCET of June 24th, pp. 1048-9, I would beg permission to observe that almost every medical man in India will be able to endorse the views of Dr. Moore, to which you refer. Medical officers of native regiments notice almost daily in their hospital practice that—to use your writer's words—"insufficient diet will cause scurvy even if fresh vegetable material forms a part of the diet, though more rapidly if it is withheld." Indeed, so far as my humble experience as a regimental surgeon from observations on the same men goes, I am inclined to think that the meat-eating classes of our Sepoys—to wit, the Mahomedans, especially those from the Panjab—are comparatively seldom seen with the scorbutic taint; while, on the contrary, the subjects are, in the main, vegetable feeders who are their non-meat-eating comrades, the Hindus (Parboos from the North-West Provinces and Deccan Mahrattas), especially those whose daily food is barely sufficient either in quality or quantity. A sceptic may refuse to accept this view on the ostensible reason that though the food of the meat-eating classes be such, it may, perchance, contain vegetable ingredients as well as meat. To this I would submit the rejoinder that as a matter of fact, quite apart from all theory and hypothesis, the food of these meat-eating classes does not always contain much, or any, vegetables. In the case of the semi-savage hill tribes of Afghanistan and Baluchistan, their food contains a large amount of meat (mutton), and is altogether devoid of vegetables. The singular immunity from scurvy of these races has struck me as a remarkable physiological circumstance, which should make us pause before accepting the vegetable doctrine in relation to scurvy *et hoc genus omne*. Those of our medical brethren who have had opportunities of observation in those dismal and dreary wilds will agree with me when I say that there are other causes at work which go a long way to produce this diathesis, certainly quite irrespective of the question of the absence or insufficiency of the vegetable element in the food. Pressure on my time, and perhaps also the space in your columns, will not permit of my entering here at length into this important physiological question; but suffice it to remark in brief that these are:—

1. Monotony or sameness of the diet and manner of cooking and preparing it, without much change, or, indeed, any change whatsoever, as was the case with the "field ration" issued to the troops there. The Europeans got potato as the (sole) vegetable, sometimes bad, while the

natives got neither vegetables nor meat. Here I may simply refer to the case of the diet question of convicts of Indian prisons, which has recently excited considerable controversy both in the lay and in the medical press and in Parliament. I, in common with everybody else who has read and studied his report, am entirely in accord with Dr. Cunningham when he writes ("Seventeenth Annual Report of the Sanitary Commissioner with the Government of India," 1880) that there are other causes at work in prisons to account for ill-health, including scurvy, beside the "Conference" diet, to which all the blame appears to be attached by most reviewers of that publication. The excellent scientific report by Dr. Lewis ought to satisfy the critical analyst. In the case of the troops in Afghanistan, I believe the scorbutic taint existed largely in both Europeans and natives, though it was more marked in the latter.

2. *Ennui*, with absence of surroundings calculated to stimulate and cheer the mind, and the existence of almost everything likely to depress it to a degree, such as was the case there; prolonged stay in the same uninteresting places, with the same identical, forsooth dismal, scenes.

3. Harassing and arduous duties, or absolute idleness, under the above-mentioned circumstances.

The monograph by Dr. Robert Moodie, late of the Indian Medical Service, now practising at Stirling, is a most interesting contribution on the subject of scurvy, the outcome of observations by an accomplished physician who in the late Afghan war availed himself of the opportunities which presented themselves. To it I would beg to invite the attention of my professional brethren.

I am, Sir, yours truly,  
Ahmedabad, July 11th, 1882. JOHN C. LUCAS.

## SULPHIDE OF CALCIUM IN CANCER.

*To the Editor of THE LANCET.*

SIR,—The distressing and fatal nature of cancer in its various forms prevents my offering to the profession any apology for bringing before their notice the sulphide of calcium as a therapeutic agent in the treatment of the disease. In doing this, I wish to state that I do not claim for the remedy any completely curative power without operation; still, in several cases which have been treated by me without operation, the drug certainly seems to have had more effect than any other with which I am acquainted in retarding the growth of the malady.

I was first induced to try sulphide of calcium about three years ago, after having read Dr. Ringer's article on that remedy in his *Handbook of Therapeutics*.

The first case in which I tried the sulphide was that of E. S—, aged thirty-four years, the wife of an agricultural labourer. She had suffered from cancer of the breast for about twelve months, and persistently refused to undergo an operation until she saw death from the disease was inevitable. I undertook the operation at her own request, with the view of prolonging her life, and in favour of her infant child, but without any hope of her ultimate recovery. When admitted into our cottage hospital she was much emaciated, and the cancerous cachexia was decidedly marked. Nearly the entire breast was affected, the nipple retracted, and the skin adherent. The growth was very hard and nodular; superficial veins large and dark; glands in the axilla enlarged; and there appeared to be nothing wanting to complete a correct diagnosis of the disease, which was confirmed by four medical men. The entire breast was removed, under chloroform, the wound treated in the usual manner, and the patient made a rapid recovery. She gained flesh in a remarkable manner, and went out of the hospital quite well and strong, and remains so to this day. She has, since the operation, had another child. She was in hospital two months. I commenced to give her one grain of the sulphide daily on admission. In a few days this was increased to three grains a day, and continued for three months.

The second case was that of J. F—, aged thirty-five, unmarried. She had for some months a hard scirrhous lump under the right nipple, which was very painful, and greatly increased whilst she was nursing a brother through a severe attack of enteric fever. I will not enter into the details of the case further than to state that my diagnosis was confirmed by two or three medical men, one of whom is

a visiting surgeon of the Lincoln County Hospital, and he was present at the operation. This patient was kept under the sulphide of calcium treatment some months, and is quite well, without a trace of the disease being left.

The third case is that of E. N—, aged thirty-five years, a widow, a laundress, and mother of seven children. She had suffered for some months from a hard, painful, and increasing lump in the right breast; had been losing flesh for twelve months, and was much exhausted. Her mother's sister had died from cancer. I amputated the breast at the cottage hospital under chloroform. The patient bled very profusely, and was taken from the table very much blanched. Her recovery was remarkable; she gained flesh and strength very quickly, and in a manner which surprised me, and she has since married, and expresses herself quite well. She left the hospital in December last. She was kept for four months under the sulphide treatment. I may say that the diagnosis of this case was confirmed by three other qualified men.

I publish these cases in the hope that the remedy which certainly appears to have been of service in my hands may be of still greater benefit in the hands of others.

I am, Sir, yours truly,  
EDWIN W. BARTON, M.D. Brus., L.R.C.P. Lond.  
Market Rasen, Aug. 21st, 1882.

## FAT EMBOLISM IN DIABETES.

*To the Editor of THE LANCET.*

SIR,—May I crave space to correct your brief notice of my remarks in the discussion on diabetes in the Pathological Section at Worcester? You report me to have said that I had found very few fat emboli in my cases of diabetic coma. What I did say was that I had found no true fat emboli in a case of diabetic coma in which the blood was extremely fatty; and I referred to the paper by Dr. Barling and myself in the July number of the *Journal of Anatomy and Physiology*, in which we showed that the fat merely collected in globules of less size than the lumen of the vessels, and lay embedded in the post-mortem thrombi. I also drew attention to the frequency of fat emboli in fractures, and to the absence of symptoms in these cases, unless the emboli were extremely numerous. I am, Sir, yours faithfully,  
Birmingham, Aug. 19th, 1882. ROBERT SAUNDY, M.D.

## COTTAGE HOSPITALS.

*To the Editor of THE LANCET.*

SIR,—You suggested in an article some time ago that it was desirable that each Cottage Hospital committee should contribute in its corporate capacity a small sum, in no case exceeding £5, to the Napper Testimonial Fund. Some of the hospitals appear to take up this suggestion warmly, but I regret to say that as a matter of fact not a single cottage hospital in its corporate capacity, of the whole of the three hundred and twenty at present existing in this country, has sent one penny to the Napper Fund. I have taken a considerable interest in cottage hospitals, and have done my best to promote their efficiency and success. For this reason, perhaps, I not unnaturally feel zealous for the honour of these useful institutions, and I desire to ask the members of the medical staff of cottage hospitals throughout the country to bring the subject of the Napper Testimonial before an early meeting of their committee with the view of ascertaining if any, and what, contribution shall be given to it. Personally it is not the amount which I shall value, and a subscription of even five shillings would be regarded by me with satisfaction as evidence that great public services rendered by an exceptionally able and good man were not forgotten by those who have most benefited by them. I urge the medical men in question, and I earnestly beg of all of them with whom I am personally acquainted to remove this slur from the escutcheon of cottage hospitals by showing at once that in the case of those which are best managed, at any rate, gratitude is not a lively expectation of favours to come. Let each member of the medical profession resident in the country ask himself what he owes to Mr. Napper, whose foresight originated, and whose invariable readiness to give substantial help and information secured the success, of the majority at any rate, of the cottage hospitals which are scattered throughout the country to-day. It is, of course, a

matter within the discretion of each committee to decide whether the subscription to the Napper Testimonial Fund shall be contributed out of the funds of the hospital or the private purses of its staff and the committee. For my part, I believe it will be best that each member of the staff and committee of every cottage hospital shall be asked to subscribe 1s., and that the total sum so raised should be sent to the Treasurer of the Napper Testimonial Fund, Mr. Malcolm Morris, F.R.C.S., 63, Montague-square, Hyde-park, as the contribution of the — Cottage Hospital. If the testimonial fund is closed without the receipt of a single contribution from any cottage hospital in this country, I am bound to state that in my opinion such a result will redound to the discredit of every cottage hospital in the country.

I am, Sir, your obedient servant,

HENRY C. BURDETT.

Gloucester-road, Regent's-park, N.W., Aug. 23rd, 1882.

## SCOTTISH NOTES.

(From our Correspondent.)

PROSECUTIONS for the sale of unsound meat are rare in Scotland, and a case tried in Aberdeen a few days ago excited some interest. Dr. Robertson stated that the animal suffered from tubercular disease, and was unfit for food, while for the defence the disease was stated to be "inberries," which was common in healthy animals. The court accepted the medical evidence. A good deal of uncertainty is felt in carrying out the law on this important subject, and the sanitary inspectors and veterinary surgeons (often unqualified), who are generally first consulted, seem to give very conflicting decisions. It is not uncommon to find the fore-quarters of an animal which has suffered from tuberculosis condemned, while the hind-quarters are sent for sale. The difference between local and general disease seems hazy to the inspector, and it would be but fair, alike to the public and the owners of suspected animals, that only properly qualified veterinary surgeons or medical men should have the decision placed in their hands.

A gentleman has just died at Innerleithen from the results of a peculiar accident. It appears that two months ago, while lying upon his back, he had fallen asleep by the river side where he had been fishing. On awaking he found that the gold plate, with five teeth attached, had slipped from the upper jaw into the throat. Unsuccessful efforts were made at extraction, and the plate was then pushed downwards to avoid suffocation. He was under observation for some weeks at the Edinburgh Royal Infirmary, but lately returned home, not having got rid of the intruder. The ultimate cause of death appears to have been blood-poisoning, but a medical record of the case would be interesting.

From various quarters lately I have noticed a corroboration of what might be called THE LANCET views with regard to the proper treatment of the insane. Passing over the powerful arguments of Professor Gairdner last week in Glasgow, I notice in some asylum literature the rise of opinions in favour of such increased liberty and early removal from asylum influences as must be satisfactory to you. The Fife and Kinross Asylum seems to offer a good example of what a careful weeding process may effect, as Dr. Turnbull has been able there to relieve the overcrowding, which was rapidly determining the necessity for further extension, and during the year to reduce the number of inmates by thirty, the total number remaining being 345. From the statistics given by Dr. Sibbald, Commissioner in Lunacy, it appears that great disparity exists in different counties in the amount of accommodation provided for pauper lunatics; and as the general cry is for more room, doubtless directors of asylums will pay due heed to the method of overcoming the difficulty which is now suggested by the action of Dr. Turnbull. The annual report of Murray's Royal Asylum, presented by Dr. Urquhart, also gives ample evidence of thoughtful and judicious management. He is anxious to get patients at as early a stage as possible, and his statistics of cases so received are very encouraging. He states that "every year leads us further from the ideal madhouse, and nearer the ideal hospital," protests against

the silting up of asylums by chronic and incurable cases, and states that "the asylum is not always the best place for the unrecovered patient." Over fifty per cent. of the patients are on parole, many of them without the walls, several are allowed to visit their friends in different parts of the country, and seaside residence is allowed to those thought likely to be benefited. Dr. Urquhart has still a favourable word, in suitable cases, for the almost obsolete weapon, the box-bed.

A medical student named W. B. Austin was last week remitted from one of our police courts on a charge of having administered noxious drugs to a servant girl for the purpose of procuring abortion.

The Gilchrist trustees have arranged with the following well-known gentlemen to deliver a course of lectures in various towns in Scotland during next winter:—Dr. Carpenter, Mr. W. L. Carpenter, Mr. W. M. Dollinger, Dr. Martin Duncan, Mr. R. A. Proctor, Professor Balfour Stewart, Professor Williamson, and Dr. Andrew Wilson.

## PARIS.

(From our Paris Correspondent.)

It is well known that the digestion of different kinds of meat is the more easily effected the longer the time that transpires after the death of the animal. The explanation given is, that by keeping the muscular fibres become gradually dissociated; they soften, become less compact, and consequently are more soluble in the gastric juice. According to physiologists, however, it is not considered advisable to wait until decomposition sets in, because in addition to its losing a great part of its nutritive qualities, the meat becomes so nauseous that no amount of cooking, or the addition of condiments, will much improve it. M.M. Pasteur and Lemaire, in an interesting paper lately submitted by them to the Academy of Sciences, stated that meat too far advanced, or what is termed "faisandée," is most unwholesome, and it is a mistake committed daily by sportsmen to wait until the game gets into this condition, for it is then simply unfit to be eaten. The above-named biologists have shown that tainted meat contains animalcules, which do the work of transformation and destruction; and as it is difficult to ascertain exactly the extent of putrefaction that the meat has undergone one is liable to consume it just at the moment when it should be rejected. M. Pasteur and other micrographers are of opinion that these animalcules, of which there are no less than thirty species, are of the same nature as those that are found in living animals suffering from virulent maladies, such as charbon, &c.

M. Jules Guérin, who is approaching his eightieth year, is publishing the most important part of his literary works, extending over a period of more than half a century. It is appearing in periodical numbers, the fourth of which has just come out, and contains a complete study of congenital deformities in the fœtus and children, which is a continuation of his researches on the congenital deformities in monsters. A great portion of the present number is devoted to numerous observations in support of the author's theory as to the causes of deformities existing before and after birth, as, according to M. Jules Guérin, the causes which were in operation before birth may be found after it, and they produce identical effects in both cases. It is known that there exists a difference of opinion among teratologists as to the causes of congenital monstrosities and deformities, some of them being founded on the organic or pathological condition of the parents acting on the child, and thus giving rise to hereditary abnormalities, to diseased varieties, and to the degradation of the descendants. They are also attributed to an unknown organic arrangement of the elements of conception. The effects of the imagination of the mother on the different accidents that occur during pregnancy are also mentioned in classical works, but this latter theory is, of course, now no longer accepted by teratologists. Finally, organic or structural abnormalities of the embryo have been ascribed to arrest of development, either primary or secondary, and it is to these causes that M. Jules Guérin attributes the greater part of congenital monstrosities and deformities. In fact, M. Guérin thinks

<sup>1</sup> Two hundred and forty-seven of Dr. Turnbull's patients are industrially employed,—a very satisfactory proportion.



that all these deformities may be attributed to the operation of the same causes.

Dr. Debove is persevering in his praiseworthy efforts to feed patients who cannot or will not eat, such as insane patients, or those who have gastric troubles. He had already designed various means to carry out his object, not only in the way of instruments, but to have the food to be administered in the most concentrated form. At a recent meeting of the Société Médicale des Hôpitaux, Dr. Debove submitted a special œsophageal sound, which patients may introduce, and thus feed themselves with any appropriate nourishment. Physicians have doubtless met in their practice patients subjected to a milk diet who get tired of it after a time. To obviate this inconvenience, Dr. Debove employs the powder of milk which he obtains by desiccation, having previously removed the cream, which is difficult to digest. He administers the powder in a little warm milk; and he stated at the meeting that he has employed it with great success in the treatment of simple ulcer of the stomach. Each packet of the powder contains 120 grammes, which are equivalent to one litre of fresh milk. Dr. Dujardin-Beaumetz has used Dr. Debove's milk-powder mixed with the powder of meat, both being dissolved in ordinary milk, and he has thus kept up for some time the strength of several of his phthisical patients.

Dr. Quesneville has succeeded in preserving water potable by adding to it three centigrammes of salicylic acid to the litre. He related at the Société d'Hygiène that he had thus preserved a bottle of water for more than three years. It may be of some importance to know this at the present moment, as it may be found useful for the Egyptian expedition, where a dearth of water is apprehended.

Paris, Aug. 22nd, 1882.

## Medical News.

UNIVERSITY OF LONDON. — The following candidates have passed the recent Honours Examinations:—

### ANATOMY.

#### FIRST CLASS.

- \* Anderson, G. Elliott Caldwell, Guy's Hospital.
- † Innes, Chas. Barclay, St. Bartholomew's Hospital.
- Woolbert, Henry Robert, University College.

#### SECOND CLASS.

- Robinson, Hy. Betham, St. Thomas's Hospital.
- Brock, Jas. Harry Ernest, University College.

#### THIRD CLASS.

- Flemming, Percy, University College.
- Carr, John Walter, University College.
- Watson, Wm. Ivens Baswell, Guy's Hospital.
- Cooper, Henry Chas. Evans, Guy's Hospital.

### MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY.

#### FIRST CLASS.

- \* Carr, John Walter, University College.
- Eq. † Innes, Chas. Barclay, St. Bartholomew's Hospital.
- Woolbert, Henry Robert, University College.
- Flemming, Percy, University College.

#### SECOND CLASS.

- Whitcombe, Philip Percival, St. Mary's Hospital.

#### THIRD CLASS.

- Brock, Jas. Harry Ernest, University College.
- Eq. † Havman, William Speed, King's College.
- Randell, Reginald Maurice H., Guy's Hospital.

### ORGANIC CHEMISTRY.

#### FIRST CLASS.

- \* Innes, Chas. Barclay, St. Bartholomew's Hospital.
- † Spong, Chas. Stuart, B.Sc., Guy's Hospital.
- † Dutt, Upendra Krishna, B.Sc., St. Mary's Hospital.
- Anderson, G. Elliott Caldwell, Guy's Hospital.

#### SECOND CLASS.

- Elliott, John, B.Sc., Owens Coll. and St. Barth. Hosp.
- Brock, Jas. Harry Ernest, University College.

### PHYSIOLOGY AND HISTOLOGY.

#### THIRD CLASS.

- Anderson, G. Elliott Caldwell, Guy's Hospital.
- Tratman, Frank, Bristol Medical School.
- Vernon, John Jas. Dean, Guy's Hospital.
- Eq. † Cooper, Henry Chas. Evans, Guy's Hospital.
- Randell, Reginald Maurice H., Guy's Hospital.
- Spong, Chas. Stuart, Guy's Hospital.
- Bowes, William Henry, Guy's Hospital.

- \* Exhibition and Gold Medal.
- † Gold Medal.

- ‡ Obtained the number of marks qualifying for a Medal.

UNIVERSITY OF ABERDEEN. — The following are lists of candidates who have received the Degrees specified:—

### DOCTOR OF MEDICINE.

- Ackroyd, George, Streatham.
- Atherstone, Edwin, London.
- Blomfield, Arthur Geo., Devon and Exeter Hospital.
- Boswell, Alexander, Ashbourne, Derbyshire.
- Brodie, William Hampden, Aberdeen.
- Burgess, Peter, Ballindalloch.
- Campbell, Colin M'Iver, Durham County Asylum.
- Clark, William, Orroroo, South Australia.
- Davison, Rashell Thomas, Battle, Sussex.
- Davy, John, Halifax.
- Durno, John, Kemnay.
- Elliott, Frederick Hawes, Andover, Hants.
- Hall, John George, Aberdeen.
- Harris, John, Newcastle, New South Wales.
- Liebstein, Herman John, London.
- Lyon, Adam Corbet, Rillington, Yorkshire.
- Macdonald, Coll. Reginald, Beith, Ayrshire.
- Macdonald, William, Inverness.
- \* MacWilliam, John Alexander, London Temperance Hospital.
- M'Connell, James Frederick Parry, Calcutta.
- Mukhopadhyay, Satish Chandra, Calcutta.
- Philip, James Allan, Mavisbank, Polton.
- Preston, Henry Tolver, Scanningley, Leeds.
- Purkiss, Arthur, West Brixton, London.
- Reid, William, Aberdeen.
- Spence, John Shepherd, Ballater.
- Thompson, Lavington Gray, Tasmania.
- Thomson, John, Kendal.
- Watson, John Coatsworth, Sunderland.
- Watt, Joseph, Kinnaird, Huntly.
- Webb, William Edward, Burnley, Lancashire.
- Welford, Charles Henry, Sunderland.

### BACHELOR OF MEDICINE AND MASTER IN SURGERY.

- Anderson, Thom's Cochrane, Murnoch, Banffshire.
- Barrett, John, Peninsular and Oriental Service.
- Blunt, Henry Brine.
- § Bremner, James, Grange, Keith.
- § Brito, Philip Sebastian, Ceylon.
- Collie, John William, Aberdeen.
- Collie, Robert John, Aberdeen.
- § Cran, Alexander, Cabrach, Banffshire.
- Cunningham, Albert George, Bristol.
- Davidson, James M'Kenzie, St. Domingo, Buenos Ayres.
- Duncan, Alexander, Torphins, Aberdeenshire.
- Eddie, Arthur William, Aberdeen.
- † Griffith, Thomas Wardrop, Aberdeen.
- Haig-Brown, Clarence Wm., Godalming, Surrey.
- Henderson, David, Watten.
- Hodgson, Joseph Willoughby, Brighton.
- Holmes, William Reid, Aberdeen.
- Jenkyns, John, Aberdeen.
- ‡ Knight, George David, Skene, Aberdeenshire.
- Le Motte, George Herbert, Guernsey.
- Lunan, William Smith, Aberdeen.
- Macdonell, James Alexander, Duftown.
- Mackie, Alfred Alexander, Aberdeen.
- Maxwell, Charles Mayne, Hobart, Tasmania.
- Masson, John, Banchoory-Ternan.
- M'Arthur, James Irvine, New Deer.
- § M'Kinnon, David Reid, Aberdeen.
- M'Lean, Alexander, Cull, Aberdeenshire.
- Middleton, James, Auchindoir.
- Morrison, Arthur Andrew, Aberdeen.
- Nicoll, James Robert, Rhynie.
- Petrie, James, Rhynie.
- Phillips, Henry Astley, London.
- Rennie, Arthur, Chatham, Canada West.
- Rattray, John Moysey, Aberdeen.
- Reid, Donald.
- Reid, John, Portsoy.
- Rigby, Charles Samuel Alfred, Preston.
- Robinson, Frederick William, Huddersfield.
- Ross, William Pyle, Aberdeen.
- Russell, Alexander Wilson, Insch.
- Sarkies, Carrapiet John, Calcutta.
- Scott, Benjamin, Aberdeen.
- Sinclair, William, Nigg.
- § Taylor, John, Stonehaven.
- Thomson, Thomas Pickthorn, Gartly.
- Walker, John, St. Vincent, West Indies.
- Weir, Richard Rose, Elgin.
- Will, John Kennedy, Cullen.
- § Wilson, James, Rhynie.
- Wilson, John Henry, Warwick.
- Woodman, John Dover, Wing, Bucks.
- Wright, Martensz James, Colombo.

- \* Highly commended for Thesis.

- † Received highest Academical Honours, and awarded the John Murray Medal and Scholarship.

- ‡ Received highest Academical Honours.

- § Honourably distinguished.

At the same time the following were certified as having passed all the examinations, but did not graduate:—

- Brown, Henry Herbert. | Huison, Francis Joseph.
- Leslie, John Tasman Waddell.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 17th:—

Corner, Mitthaw Cursham, Mile-end-road.  
Denning, Arthur, Newhall-street, Birmingham.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Francis Henry Butler, St. Mary's Hospital; Samuel Brookfield, Newcastle-on-Tyne; George Sidney Gent, University College Hospital.

The following gentlemen passed the Primary Professional Examination on the 10th inst.:—

Charles G. Grimmer, St. Bartholomew's Hospital.

**HENRY SLADE, M.R.C.S.**, retired fleet surgeon, is reported to have committed suicide at Bodmin by severing some of the arteries in his right thigh.

In the year ending March 31st the Excise duty on medicine vendors was net £4688 15s., in addition to the stamp duty on patent medicines of £144,883 9s. 6d.

**MR. THOMAS SOUTHEE**, who on his resignation some short while ago had held the office of Secretary to the Kent and Canterbury Hospital for half a century, has been presented with a purse containing £230.

A FINE of £20 was imposed at the Mansion House last week on the London, Tilbury, and Southend Railway Company, for neglecting to properly cleanse certain trucks which had been used for the conveyance of cattle.

A CONVALESCENT HOSPITAL for Bolton is to be erected at Bromley Cross, Turton. In 1870 Mr. Stephen Blair, of the Mill Hill Bleachworks, left £20,000 for the purpose, with certain conditions which the trustees have now been enabled to fulfil.

THE Parisians have a readier method of dealing with milk-adulterators than that which obtains in this country. A posse of police lately waited the arrival of the morning's milk at Batignolles station in Paris, and after witnessing from behind a loopholed wall the interesting process of "watering," pounced upon the delinquents, whom, with their deteriorated wares, and a quantity of bicarbonate of lime, they carried off in triumph.

A CENTENARIAN.—A lady died last week at Golden Island, near Athlone, at the alleged age of 107 years. It is stated that she enjoyed good health, considering her age, until three years ago, when she became prostrate physically and mentally. During this time she was attacked with fits of sleeplessness, followed by sleep which lasted for three days and three nights. These attacks came on at tolerably regular intervals.

## Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

**ANDERSON, JAS. WALLACE, M.D., C.M.Glas., F.F.P.S.**, has been appointed Dispensary Physician to the Royal Infirmary, Glasgow.

**BLACK, DONALD CAMPBELL, M.D.Glas., L.R.C.S.Ed.**, has been appointed Extra Dispensary Physician to the Glasgow Royal Infirmary.

**BROCK, WILLIAM JOHN, M.B., C.M.Ed.**, has been appointed Extra Dispensary Physician to the Glasgow Royal Infirmary.

**BROWN, WILLIAM H. JONAS, M.B.Glas., L.R.C.P.Ed., L.R.C.S.Ed.**, has been appointed Medical Officer of Health for the Alnwick and Cunnongate Urban Sanitary District, vice McEwen, resigned.

**BRUCE, ROBERT CATHCART, M.B., C.M.Ed.**, has been appointed Medical Officer for the Swinefleet District of the Goole Union, vice East, resigned.

**BRYDEN, ROBERT THOMAS, L.R.C.P.Ed., L.R.C.S.Ed.**, has been re-appointed Medical Officer of Health for the Windhill Urban Sanitary District.

**CHEESEWRIGHT, JOHN FRANCIS, M.R.C.S.**, has been appointed Surgeon to the Rawmarsh, Dalton, and Thrybergh Division of the West Riding Police Force.

**COSGRAVE, E. MACDOWEL, M.D., L.K.Q.C.P.I.**, has been appointed Physician to Simpson's Hospital, Dublin, vice James Duncan, M.D., resigned.

**DOUGALL, JOHN, M.D., C.M.Glas., F.F.P.S.**, has been appointed Dispensary Physician to the Royal Infirmary, Glasgow.

**EDWARDS, OCTAVIUS, L.R.C.P.Lond., M.R.C.S.**, has been appointed Medical Officer for the Leominster District and the Workhouse of the Leominster Union.

**FRASER, ROBERT MCLEAN, L.R.C.P.Ed., L.F.P.S.Glas.**, has been appointed Medical Officer for the North and Central Districts of the Darlington Union.

**HOLLIES, GEORGE, L.R.C.P.Ed., L.R.C.S.Ed., L.S.A.Lond.**, has been appointed Medical Officer for the Southern District of the Warrington Union, Salop.

**LACY, ALEX. GAIRDNER, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond.**, has been appointed Medical Officer for the Sunninghill District of the Windsor Union.

**LAMBERT, JOHN, jun., M.R.C.S., L.S.A.Lond.**, has been reappointed Medical Officer of Health for the Fareley Urban Sanitary District.

**LANGDON, J. WINKLEY, M.R.C.S., L.S.A.Lond.**, has been appointed Ophthalmic and Aural Surgeon to the Preston and County of Lancaster Royal Infirmary.

**LYS, FRANCIS DANIEL, M.R.C.S., L.S.A.Lond.**, has been appointed Medical Officer of Health for the Wareham and Purbeck Rural Sanitary District, vice Stainthorpe.

**MACGREGOR, ALEX. GIBSON, M.D., C.M.Aber.**, has been appointed Medical Officer of Health for the Wilsden Urban Sanitary District.

**MANSON, RICHARD TAYLOR, L.R.C.P.Ed., M.R.C.S.**, has been appointed Medical Officer for the West and North-West Districts of the Darlington Union.

**MIDDLEMISS, GEORGE, L.R.C.P.Ed., L.F.P.S.Glas.**, has been appointed Medical Officer for the South and East Districts of the Darlington Union.

**MILES, G. E., M.R.C.S.**, has been appointed Resident Medical Officer to the Northumberland House Asylum, N.

**PRATT, FREDERICK, M.R.C.S., L.S.A.Lond.**, has been appointed Medical Officer for the Northam District of the Bideford Union.

**RAWSON, EDWIN ELSWORTH, L.R.C.P.Ed., M.R.C.S., L.S.A.Lond.**, has been reappointed Medical Officer of Health for the Clayton Urban Sanitary District.

**RUNNALS, HARRY BOYLE, M.R.C.S., L.S.A.Lond.**, has been appointed Medical Officer for the Fifth District of St. Germans Union.

**SHAW, WILLIAM JOHN, M.B., C.M.Glas.**, has been appointed Extra Dispensary Surgeon to the Glasgow Royal Infirmary.

**WATTS, THOMAS F., M.B., C.M.Ed.**, has been appointed Medical Officer to Her Majesty's Convict Prison, Dartmoor.

## Births, Marriages, and Deaths.

### BIRTHS.

**ALLSHORN.**—On the 15th inst., at Dalston-lane, the wife of Adolph H. Allshorn, M.D.Ed., of a son.

**DUKE.**—On the 16th inst., at Cavendish-terrace, Clapham-common, the wife of Benjamin Duke, M.R.C.S., of a son.

**ENGLISH.**—On the 21st inst., at Fulham-road, S.W., the wife of T. Johnston English, M.D., of a son.

**FENN.**—On the 19th inst., at Portland-terrace, Richmond, the wife of Edward L. Fenn, M.D., of a son.

**FITZPATRICK.**—On the 12th ult., at Coimbatore, Madras Presidency, the wife of Surgeon-Major Fitzpatrick, of a daughter.

**KAY.**—On the 12th inst., at Bentley, Hants, the wife of W. Kay, Surgeon, of a daughter.

**KERR.**—On the 19th inst., at Grove-road, Regent's-park, N.W., the wife of Norman Kerr, M.D., F.L.S., of a daughter.

**LAWTON.**—On the 22nd inst., at High-street, Poole, the wife of Herbert A. Lawton, L.R.C.P.Lond., M.R.C.S., of a son.

**LEE.**—On the 17th inst., at Gwendwr-road, West Kensington, the wife of Dr. Lee, of a daughter.

**NICHOLLS.**—On the 9th ult., at Dominica, West Indies, the wife of H. A. Alford Nicholls, M.D., of a son.

### MARRIAGE.

**HALL—CAREY.**—On the 17th inst., at Spiddal Church, co. Galway, Henry George Hall, Surgeon-Major, Madras Medical Service, to Clara Sophia, eldest daughter of the late Dr. Samuel Orby Carey, of Glenelg, Adelaide, South Australia.

### DEATHS.

**DEAN.**—On the 14th inst., at his residence, Butler-street, Oldham-road, after a short illness, Octavius Dean, M.R.C.S., L.S.A.Lond., aged 48.

**EARLE.**—On the 15th inst., at Baroda, Bombay, Joseph Herbert Earle, Surgeon, Indian Medical Department, eldest son of Joseph Earle, M.R.C.S., of Brentwood, Essex, aged 28.

**JOHNSON.**—On the 17th inst., Richard Locke Johnson, M.D., M.R.C.S., of Bury-place, Bloomsbury-square.

**PAUL.**—On the 18th inst., at Torriano-cottages, Camden-road, N.W., Andrew Paul, A.B., M.B. Trin. Coll. Dub., in his 79th year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### THE STUDENTS' NUMBER OF THE LANCET

will be published on Saturday, September 9th. Those gentlemen holding official situations connected with Medical Institutions in the United Kingdom, who have not yet forwarded the necessary information to our Office for publication in that number, are earnestly requested to send it *without the delay of a single post*. It will be esteemed as a favour if the needed alterations be made on the slip forwarded from this Office, so that risk of error may be avoided in the course of perusing bulky prospectuses.

MEMORIAL BRASS TO SURGEON LONDON, A.M.D.,  
AT ST. BARTHOLOMEW'S HOSPITAL.

The following subscriptions, in addition to those acknowledged in THE LANCET of Oct. 22nd, 1881, and June 3rd, 1882, have been received:—

H. Bott, Esq., Brentford..	..	..	£0 10 6
A. Bowby, Esq., London ..	..	..	0 10 6
E. J. Burgess, Esq., Brentwood ..	..	..	0 10 6
C. S. W. Cobbold, Esq., M.D., Colney Hatch	..	..	0 10 6
C. E. Harrison, Esq., M.B., Grenadier Guards	..	..	0 10 6
Luther Holden, Esq., Ipswich ..	..	..	0 10 6
J. Mills, Esq., London ..	..	..	0 10 6
Norman Moore, Esq., M.D., London ..	..	..	0 10 6
C. Parnell, Esq., Forest-hill ..	..	..	0 10 6
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A. F. Stevens, Esq., M.D., London ..	..	..	0 10 6
H. Taylor, Esq., M.B., London ..	..	..	0 10 6
R. Wharry, Esq., M.D., London ..	..	..	0 10 6
Andrew Duncan, Esq., M.D., Bengal Army..	..	..	0 10 0
H. Smith, Esq., M.B., London ..	..	..	0 5 0
W. L. Webber, Esq., London ..	..	..	0 5 0

C. E. HARRISON, M.B., NORMAN MOORE, M.D.  
JOSEPH MILLS, W. E. STEAVENSON, M.B.

August 22nd, 1882.

The memorial brass is now in its place in the Hospital Church of St. Bartholomew-the-Less.

*Dr. Bonnejoy (Lausanne).*—Our correspondent should address his remonstrances to the French *savant* who has suggested the system.

*Dr. Saundby.*—Next week if possible.

### MONSTROSITIES IN THE PUBLIC STREETS.

To the Editor of THE LANCET.

SIR,—The Act which your correspondent seeks is the Vagrancy Act, 5th Geo. IV., c. 83. This is still in force, and enacts the penalties to be extended to vagrants. Among these are included those who seek alms in the public streets by the exhibition of wounds or other deformities. I wrote to the Home Secretary this spring, pointing out the increasing number of these deformities in the streets of London, and in a second letter quoted the clauses of the Act which applies to them. My two letters brought the usual official reply that the matter should have attention. I cannot, as a non-professional man, speak of the effect upon the system, but I can testify to the distress which I have seen to follow from the sudden coming in contact with these poor creatures. I hope this matter will not be allowed to drop until some means be found of removing the evil to which you have called attention.

I am, Sir, your obedient servant,  
Hyde-park-street, W. August 22nd, 1882. GEO. CAWSTON.

### VACCINATION IN THE GERMAN ARMY.

ACCORDING to Professor Vogt, of Berne, the average number of deaths per annum from small-pox in the Prussian army during the last fifty-one years was nineteen. This number he considers to be sixty per cent. in excess of the mortality from that cause amongst the remainder of the population within the same period. He adduces this fact as a proof of the inefficiency of vaccination, but the *Gesundheit* remarks that the circumstance may be attributed to the injurious effects of the greater exertion of soldiers and to the inferior quality of their food as compared with that of the civil population, while the less careful treatment sometimes accorded them during sickness would not be devoid of influence upon their general health, the combination of these causes preventing the benefits of vaccination from being felt in the same measure as is shown in the remainder of the population. The same journal remarks that the excessive mortality from small-pox which was recorded during the Franco-German war is no definite proof of the inefficiency of vaccination, though the causes already named may have impeded its salutary action. The deaths in the German army during the campaign from small-pox were 143, or three times the normal rate, comparing the number of men engaged with that of the population of Berlin. The statistics of mortality from this cause amongst the French prisoners in Germany are of a similar character, and are treated in a like manner by the *Gesundheit*.

*Still an Old Subscriber.*—1. D traps in connexion with waterclosets are objectionable for several reasons. Their construction is such that they are necessarily calculated to favour the retention of solid excreta and other filth; the angles of the lead-work of which they are made soon become permanently filled in with a coating of offensive matter, and their shape is such that they are almost incapable of being efficiently flushed. In short, the D trap is little better than a small cess-pool in which filth is certain to accumulate; besides which, as a special form of trap, it is absolutely unnecessary. On the other hand, a simple syphon-bend answers all the purposes of an efficient trap, and it avoids nearly all, if not all, the sources of offensiveness attaching to the D trap.—2. We know of no work dealing with the subject precisely from the point of view named, but Willan's Handbook of Hygiene contains the materials required.

*M.R.C.S.*—Mr. Thomas resided in Leicester-place, Leicester-square. He was elected a Member of the Council in 1813, Court of Examiners in 1826, and twice filled the office of President of the Royal College of Surgeons of England. He died at Belmont, near Torquay, June 26th, 1846, aged seventy-eight.

*Omega* had better apply to the Secretary of the Brussels Graduates' Association, Dr. Pocock, 20, Golborne-road, W.

### "THE CAUSE OR CAUSES OF ACUTE TONSILLITIS."

To the Editor of THE LANCET.

SIR,—As the subject of quinsy is being ventilated in your journal, I thought it might be interesting to mention the facts of a case which has just been under my treatment. It was that of a man aged fifty-seven, who says he has been subject to quinsy since he was twenty. He has had quite twenty attacks, but has not had one for ten years till now. The cause of it this time seems difficult to arrive at, for he was on the sick funds of his club when the attack came on for some symptoms of apoplexy, and, beyond the anxiety brought about by his illness, there were no other causes likely to produce quinsy. His meals were regular to the minute, and he underwent no sort of exertion. As regards the treatment, I had a good opportunity of trying the salicylate of soda, which I gave in large doses at the commencement of the attack, but with no apparent benefit, as the disease ran its course to suppuration, when I opened it with a bistoury, and he got well rapidly. My reasons for sending this case are—1st, because of the man's age, fifty-seven; 2nd, because of the failure of the salicylate of soda; and, thirdly, because of the absence of the causes lately given in your journal as the most frequent in this disease; and to add that of predisposition as certainly one of the most important.—I am, Sir, faithfully yours,  
Pill, August 11th, 1882. A. H. BOYS, L.R.C.P. Ed.

To the Editor of THE LANCET.

SIR,—I omitted to mention in my last communication that I have often found quinsy associated with masturbation, and if, as I imagine, it is brought about by extra waste of nervous or muscular tissue, the co-existence of the two may be something more than accidental. I do not believe that quinsy is the direct result of cold, because, if it were, laryngitis would be a much more common accompaniment than it now is. As regards its being the result of general cold, I can most certainly say in my own case that since I have wrapped up less I have been a far less frequent sufferer. I have never in my life had a marked attack of rheumatism, and think this evidence will be corroborated by the greater part of those who are or have been afflicted with quinsy.

I am, Sir, your obedient servant,  
Kingston-on-Thames, August 23rd, 1882. F. P. ATKINSON.

P.S.—If "Tyro" will only put upon trial the treatment I suggested in THE LANCET some three or four months ago, I can promise him he will be perfectly well in four days, and that without fail on every occasion.

## THE CHEMICAL INGREDIENTS OF CIGAR-SMOKE.

IN the chemical laboratory of the Bremen Sanitary Administration various experiments have lately been made for the elucidation of the above subject. According to the results obtained, some of the ingredients of tobacco-smoke are productive of poisonous effects, such as carbonic oxide, sulphide of hydrogen, &c., besides nicotine. The last-named substance is the one from which injurious effects from the use of tobacco arise, as the other substances named are of a very fugitive nature, and exist in but limited quantities in tobacco-smoke. According to the theory propounded in the statement in question, the quantity of nicotine destroyed during smoking is but small, hence it accumulates in the unconsumed end, which contains a proportion of nicotine in inverse ratio to its own size, as the longer a cigar is smoked the greater is the quantity of nicotine in the remaining part.

**An Intending Competitor.**—The triennial prize given by the Royal College of Surgeons must be sent in on or before Saturday, the 30th of December; the subject of it is "The Relations between the Radicles of the Lymphatic System and Capillary Vessels." The subject for the Jacksonian Prize, to be awarded at the same time, is "Wounds and other Injuries of Nerves, their Symptoms, Pathology, and Treatment."

**An American Correspondent.**—We believe that Dr. Guy's paper will be published in the September number of the Statistical Society's journal, which may be procured at Messrs. Harrison's, Pall-mall.

## VENESECTON: WHY IS IT SO RARELY PRACTISED?

To the Editor of THE LANCET.

SIR,—I have lately read with great interest Dr. Wenwick's cases of cardiac disease, published in THE LANCET a fortnight since, where bleeding was so very beneficial, and I think many young medical men must wonder why venesection is so rarely practised at the present day when fifty years ago it was one of the commonest operations performed. Now, why is this? Why has the brandy-bottle taken the place of the lancet in the treatment of many diseases? Is it because our forefathers used the lancet too freely, and in some cases with fatal results (as the writings of Marshall Hall only too plainly show), or has the type of disease changed during the last half century? I strongly believe that diseases are changing in character, and that bleeding is not often required; yet I decidedly think there are cases at the present day where venesection, if practised, would be very beneficial. Because bleeding has been abused ought we to run to the opposite extreme, which I am afraid we are doing, and ignore it altogether?

I will now give a short account of a case where venesection acted, I believe, like magic.

A M.R.C.S., aged twenty-three, short and thin, during the summer of 18—, caught scarlet fever, which was followed during the desquamative stage by dropsy and other symptoms of Bright's disease. When the dropsy had been present about a fortnight, symptoms of uræmia set in, as very severe frontal headache, vomiting, scanty urine, &c. These symptoms were quickly followed by blindness, muscular twitchings (which were localised to the left shoulder for some time), and epileptiform convulsions. After three or four strong convulsive fits the patient was bled to two pints, mustard poultices were applied to the calves of the legs, ice to the head, and a purgative &c. mixture taken. A short time after the bleeding the patient had another convulsive fit, but it was not so strong as the previous ones, and, with the exception of slight muscular twitchings, which lasted a few hours, there were no more bad symptoms. The patient's sight gradually returned, so that in two days it was perfect, and in a week he was well enough to leave his bed. In conclusion, Sir, I may state that the patient was your obedient servant,  
J. J. REYNOLDS, L.R.C.P. Lond., &c.  
Stoke-by-Clare, August 18th, 1882.

**Mr. Chas. Wills.**—The observations of Koch and his assistants on the value and action of disinfectants were published in the "Mittheilungen aus der Kaiserlichen Gesundheitsamt," Berlin, in October, 1881. The book (price 16s.) can be procured through Messrs. Williams and Norgate.

**Mr. Richardson (Appleby Magna).**—Next week.

**Beta.**—If our correspondent will tell us his charges we will give our opinion as to their reasonableness.

**J. H. W.**—The paper is marked for early insertion.

## "DISINFECTION."

To the Editor of THE LANCET.

SIR,—My attention has been drawn to the letter of your correspondent on the above subject, signed Charles Wills, and your remarks in reply to his questions. Having given this matter much consideration, I write to say that I shall be very pleased to give anyone connected with the medical profession an opportunity of trying any experiment they may think desirable in connexion with this important matter in my high pressure steam apparatus if they will only write to the subjoined address and make an appointment.—I am, Sir, yours truly,  
WASHINGTON LYON.

Clifton House, 85, Asylum-road, Peckham, London, S.E.,  
August 19th, 1882.

## ANCIENT SKULLS.

SOME recent explorations in the Trans-Caucasian district have resulted in the discovery of human remains, which Dr. Virchow, of Berlin, considers to afford proofs of the existence of a race of human beings such as the Makrekephall, described by Hippocrates. These large heads would seem to have been produced by the application during infancy of bandages so as to cause the head to grow in a long high form. At a recent meeting of the Berlin Anthropological Society, Dr. Virchow exhibited two of the skulls which had been found as described above.

**Dr. Philip Foster (Leeds).**—Rain water and the very pure water collected on rocky watersheds act continuously on lead. The dissolved oxygen oxidises the lead, and the oxide is distinctly soluble in water. The presence of chlorides or nitrates, particularly of ammonium nitrate, increases this action. On the other hand, the presence of carbonates, sulphates, or phosphates prevents the action from being continuous. Oxide is at first formed, but this is instantly converted into the insoluble carbonate, sulphate, or phosphate of lead, the insoluble compound protecting the lead from further action.

**Mr. J. H. G. Drummond.**—The questions are too wide to be answered here. The better plan would be to obtain prospectuses from some of the nursing institutions, of which there are many in the metropolis. Mr. Hew's Classified Directory (published by Longmans) gives a list of them.

**P. C. S.**—The Animal Vaccine Establishment, Lamb's Conduit-street, W.C.

## "BICYCLE-RIDING."

To the Editor of THE LANCET.

SIR,—In answer to the query of "F.R.C.S." on the above subject, I beg to say that I have had for some four or five years past a large acquaintance among bicyclists of all ages and ranks, and as yet without hearing of a single case of hernia caused by, or even indirectly associated with, bicycle-riding. As a wheelman who has ridden many thousands of miles, I can safely say that there is no action connected with either mounting, riding, or dismounting that will cause the contraction of the abdominal muscles and depression of the diaphragm which are necessary to the production of a hernia. This conclusion I have come to after a careful analysis of the muscular actions attending the propulsion of the machine, and even were I myself ruptured I should have no hesitation as to the continuance of my use of this economical and always ready steed. At the present time I know a man in whom there is so little power of resistance in the abdominal rings that he is nearly always obliged to support himself there when coughing, and yet he tells me that when riding, even fast or up hill, he never has his attention called in the slightest degree to his "weak spot." I should like to point out that I do not wish my opinions to be taken as extending to the tricycle, since the conditions which attend the rider of that machine are widely different in some important points, as I soon found out on the only occasion I have ridden one.—I am, Sir, yours obediently,  
Birmingham, August 20th, 1882. W. G. CRESWELL, L.R.C.P. Ed.

**J. M.**—We think the inquest was justifiable.

**Capt. Lyell and Mr. Smart.**—We do not know M. Regnard's address, and are not aware that the dried blood is to be obtained commercially. Our correspondents had better prepare it for themselves.

**A Reader.**—Physician.

**F.R.C.S. (Liverpool).**—From the last calendar of the Royal College of Surgeons, it appears there are 1210 Fellows of the College, of which number 573 obtained the distinction by examination. The Association will meet next year in Liverpool.

## EXAMINATION MARKS IN SCOTLAND.

To the Editor of THE LANCET.

SIR,—In answer to your Scotch correspondent's query in your last issue, the percentage of marks required for a pass in the degree examinations is 50; from 60 to 75 confers distinction; above 75 high distinction. In the years 1879–1880 no men obtained high, and only three distinction. In 1880–81 three obtained high, and six distinction. In the class-lists the percentage till recently was the same as the above first-class certificates, being those above 75, and second-class those above 60; but in 1881 Dr. Stirling, Professor of Institutes of Medicine, who is an Edinburgh man, assimilated his own class-list to that of his alma mater, and gave second-class certificates to those who made above 50 per cent. But the professional standard still remains unaltered. A couple of other Edinburgh men, who are professors also, this year gave certificates to those who had made above 50 per cent.; hence in anatomy, which includes men of three years, there are a large number of men in the list. As an example of the number of men who obtain certificates, I take the years I have previously mentioned—viz., 1879–80 and 1880–81:—Materia medica, 11; medical jurisprudence, 4; medicine, 3; surgery, 11. 1880–81: materia medica, 7; medical jurisprudence, 18; medicine, 8; surgery, 10. In Edinburgh the percentage for a pass is 40, while above 50 gives honours. I am, Sir, yours sincerely,  
Kent, August 21st, 1882. MEDICUS.

## LAWN TENNIS ARM.

FOR this affection a correspondent recommends the use of pure chaulmugra oil, carefully rubbed into the arm night and morning. This oil, he states, is now generally used by men after their first day's hunting, and also by bicyclists after their first day's long ride, because they find that it entirely prevents any irritation on the skin or stiffness if it is well rubbed in before they retire to bed.

**ERRATUM.**—The presentation of plate at Richmond, Yorks, was made to Mr. Richard Bowes, not John Bowes, as stated last week.

**COMMUNICATIONS** not noticed in our present number will receive attention in our next.

**COMMUNICATIONS, LETTERS, &c.**, have been received from—Professor Gamgee; Professor Atfield; Professor Struthers, Aberdeen; Dr. E. Long Fox, Avening; Mr. Tothill, Colombo; Mr. Willey, Birmingham; Mr. Christy, London; Mr. Richardson, Blackpool; Dr. Steavenson, London; Dr. Neale, London; Mr. W. E. Lloyd, Bristol; Mr. Limont, Newcastle-on-Tyne; Dr. Barton, Market Rasen; Mr. Scott, London; Mr. Jackman; Surgeon-Major Boileau, Oberdale; Dr. Gould, New York; Mr. Warner, Sheffield; Dr. Rockliffe; Herr A. Beck, London; Mr. Martin; Dr. Saundby, Birmingham; Mr. Cresswell, Birmingham; Dr. Sharkey, London; Mr. Reynolds, Stoke-by-Clare; Dr. Bonnejoy, Lausanne; Mr. Jebb, London; Mr. Edmunds, Chesterfield; Mr. Kidd, Dundee; Messrs. Brady and Martin, Newcastle-on-Tyne; Dr. Rayner, Hanwell; Mr. Irving, Grantham; Mr. Hodges, Leicester; Mr. Proctor, Bournemouth; Mr. Shadgett, Gloucester; Dr. Mears, Newcastle-on-Tyne; Mr. Mathews, Old Swindon; Messrs. Fannin and Co., Dublin; Messrs. Coxeter and Son; Mr. Cawston, London; Mr. Marous Beck, London; Messrs. Morrison and Co., London; Mrs. Baines, London; Messrs. Wentworth and Co.; Mr. Abbott; Mr. Malins, Birmingham; Mr. H. C. Burdett, London; Mr. Drummond, Higher Broughton; Mr. Grewcock, Ropsley; Dr. Atkinson, Kingston; Dr. Gibson, Newcastle-on-Tyne; Mr. Goddard; L.R.C.P.L., Berners-street; The Director-General of the Army Medical Department; A Disgraced M.R.C.S.; A Puzzled Resident; A Reader; A Father; Drachm; Beta; &c., &c.

**LETTERS**, each with enclosure, are also acknowledged from—Mr. Evans, Beckington; Mr. Blakeney, Birmingham; Mr. Patterson, Leeds; Mr. May, Morton Hampstead; Mr. Gray, Rugeley; Mr. Fushbrooke, Birmingham; Mr. Goodwin, Maidstone; Mr. Williams, Abertillery; Mr. Huggins, London; Mr. Bushell, Cardiff; Mr. Lloyd, Liverpool; Mr. Tenley, Whitby; Dr. Skerritt, Bristol; Mr. Booth, Widnes; Mr. Chavasse, Birmingham; Mr. Brook, Hull; Mr. Hitchins, Wood Green; Mr. Bennett, Ipswich; Mr. Adams, Spennymoor; Dr. Adams, Marlock; Mr. Coombs, Bedford; Messrs. Deighton and Co., Cambs; Mr. Walker, Hanley; Messrs. White and Co., Havant; Mr. Erdley, Tunstall; Mr. Carter, Clevedon; Messrs. Exley and Son, Leeds; Mr. Bryan, Hornsey; Messrs. Burgess and Co., Holborn; R. W.; Nemo, Barmouth; F. F.; A. B. J., Bury; Veritas; C. C. B.; L.S.A.; Bromagrove; L.R.C.P., Dewsbury; Asalan; Surgeon, Poplar; M.P., Grantham; X. Y. Z.; Nurse, Southend; M.B.; R. E.; Q. A. W., North Finchley; Fide; Medicus, Wakefield; Delta, Camden-town; Medicus, Rusbon; H. W.; L.R.C.P., Llandudno; Kappa, Smithfield; N. C. H.; Medicus, Portland-street; L. E. S.; Medicus, Preston; Medicus, Cannon-street; Omicron; Junius; Ledo; New North-road; Yorkshire; Principal, Seaford; Medicus, Great Marlow; C. B. T., Manchester; Alpha; &c., &c.

*Eastern Morning News, Wynberg Times, Tunbridge Wells Gazette, Port Elizabeth Telegraph, Church of England Temperance Chronicle, Leeds Mercury, Perthshire Constitutional, &c.*, have been received.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, August 24th, 1882.

Date	Barometer reduced to Sea Level and 32° F.	Direction of Wind	Dry Bulb	Wet Bulb	Solar Radiation in Vacuum	Max. Temp. Shade	Min. Temp.	Rain fall	Remarks at 8.30 A.M.
Aug. 18	30.01	S.W.	63	60	94	73	53	..	Hazy
" 19	29.97	W	67	63	115	72	57	..	Cloudy
" 20	30.11	S.W.	62	57	110	72	50	..	Cloudy
" 21	29.79	W.	60	55	108	63	54	.02	Overcast
" 22	29.91	W.	59	53	105	67	50	..	Cloudy
" 23	29.25	W.	58	54	95	62	54	.10	Cloudy
" 24	29.60	W.	53	53	104	62	47	..	Bright

## Medical Diary for the ensuing Week.

## Monday, August 28

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10 A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

## Tuesday, August 29.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

## Wednesday, August 30.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

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Address  
ON THEGROWTH OF OUR KNOWLEDGE OF THE  
FUNCTION OF SECRETION.DELIVERED ON AUGUST 24TH, 1882, IN THE BIOLOGICAL  
SECTION OF THE  
BRITISH ASSOCIATION.

By ARTHUR GAMGEE, M.D., F.R.S.,

BRACKENBURY PROFESSOR OF PHYSIOLOGY IN OWENS COLLEGE,  
MANCHESTER, PRESIDENT OF THE SECTION.

(Concluded from page 503.)

## THE INVESTIGATIONS AND THEORIES OF BOWMAN.

AT the time when Goodsir was engaged in his investigations and speculations relating to cells, Mr. Bowman was making researches which were to give him a lasting place among the great histologists of the century.

His investigation on the structure of the kidney,<sup>1</sup> which was published in the "Philosophical Transactions" for the year 1842, surpassed in completeness as an anatomical study, no less than by the deep insight into the nature of the function discharged by the organ, any investigation of like kind which had preceded it. It not only led to a more complete knowledge of the structure of the kidney than was possessed of that of any other gland, but to far-seeing generalisations concerning the structure of mucous membranes, and of secreting organs generally, which found expression in a masterly article on mucous membranes, published in the year 1847, in the "Cyclopædia of Anatomy and Physiology."

Time will not permit of my giving a complete analysis of the (to use a German expression) epoch-making research upon the kidney; but let me remind you that it led to a complete understanding of the relations of the Malpighian bodies to the urinary tubules; to a description which, so far as it went, was perfectly accurate of the tubules themselves, though the scheme upon which these tubes are arranged has, since Bowman's time, thanks to the labours of Henle, Ludwig, and Schweigger-Seidel, been proved to be more complicated than he had imagined, and to a knowledge of the distribution of bloodvessels, not only in the kidney of man and other mammalia, but also in that of certain reptiles.

His study of the structure of the tubuli uriniferi had led Mr. Bowman to discover that in these a layer of epithelial cells lies upon a structureless membrane, to which he gave the name of the basement membrane,<sup>2</sup> and which intervenes between the epithelium and the blood capillaries, whence the materials of secretion are primarily derived. His examination of the mucous membranes of the body led Bowman to the conclusion that the relationship so easily observed in the case of the kidney between cells, basement membrane, and bloodvessels, is one which holds true, not only in the case of that organ, but in that of many other epithelial structures.

"In the mucous tissue," said Mr. Bowman,<sup>3</sup> "there are two structures which require to be separately described—viz., the basement membrane and the epithelium. The basement membrane is a simple homogeneous expansion, transparent, colourless, and of extreme tenuity, situated on its parenchymal surface and giving it shape and strength. This serves as a foundation on which the epithelium rests. The epithelium is a pavement composed of nucleated particles adhering together, and of various size, form, and number. The following general observations on these elementary parts will receive illustration as we advance. Neither the one nor the other is peculiar to the mucous tissue in the sense either of being invariably present in it, or of not being found elsewhere. There are certain situations of the mucous system where no basement membrane can be detected, and others from which the epithelium is absent. Both, however, are never absent together. Again, a structure apparently iden-

tical with the basement membrane is met with in numerous textures besides the mucous, and all internal cavities, whether serous, synovial, or vascular, or of anomalous kind (as those of the thymus and thyroid body), are lined by an epithelium."

As a result of his anatomical studies on the kidney, Mr. Bowman was led to frame a theory of renal secretion which, though opposed for a time by a master mind, has, by the progress of research, received complete confirmation, and which was based in no small degree upon the new views of the function of epithelial cells in glands. The Malpighian body, Bowman showed, is the dilated commencement of a convoluted tubule, and, like it, presents a delicate, structureless, basement membrane. Into the Malpighian body projects a tuft of capillary vessels, continuous, on the one hand, with an afferent vessel derived from a branch of the renal artery, on the other, with an efferent vessel of smaller size than the afferent; both afferent and efferent vessels piercing the capsule of the Malpighian body; after leaving the glomerulus, the efferent vessel breaks up into a series of capillaries, which are distributed to the walls of the convoluted tubes. The tuft of bloodvessels projecting into the Malpighian body, Bowman described as being perfectly bare, that is to say, not covered by a basement membrane, or by a layer of epithelium cells. This part of his description has not been confirmed by recent work, the more delicate methods of modern histology allowing of a ready demonstration of a layer of cells of extreme tenuity covering the glomerulus.

The basement membrane of the convoluted tube was described as lined by a nucleated epithelium of a finely granular opaque aspect; the neck of the tube, where it joins the Malpighian capsule, and the contiguous portions of the capsule were described as covered by a layer of cells, differing altogether from the first, being much more transparent, and possessing in certain animals vibratile cilia. In some cases the whole interior of the capsule was lined by epithelium cells of great delicacy and tenuity; in others, these cells could not be traced over more than a third of the capsule. Basing himself upon the altogether exceptional arrangement of the bloodvessels of the glomerulus, Bowman advanced the theory that this is a structure destined to separate from the blood its watery portion. The epithelium of the convoluted tubes, on the other hand, which Bowman pointed out to be "eminently allied to the best marked examples of glandular epithelium," he believed to be concerned in the separation of the characteristic solid matters of the renal secretion.

I shall for the present conclude my remarks upon Mr. Bowman's investigations and theoretical views by stating that, by his investigations of the blood-supply to the kidney of the boa constrictor, he gave the strongest proof which could be derived from anatomical evidence of the correctness of his views, and furnished great part of the knowledge required for the subsequent researches which Nussbaum made on the secretion of the newt's kidney, and which afforded the most conclusive experimental evidence in favour of the theory which Bowman had advanced.

## THE DISCOVERIES OF CARL LUDWIG.

If to Johannes Müller we must ascribe the greatest share of merit as a discoverer of the general affinities relationships, and functions of glands, it appears unquestionable that to Carl Ludwig belongs the credit of having, above all others, brought the light of experimental physiology to bear upon the subject of secretion.

Ludwig is one of the most eminent of the physiologists who have endeavoured, as far as possible, to apply the conceptions derived from a study of physical and chemical processes in general, to the elucidation of the functions of the organism. More than anyone else has he successfully adapted the methods of research of the chemist and of the physicist to the investigation of the problems which lay before him. Above all others he is to be spoken of as the great teacher amongst all of the great teachers of physiology which this century has produced. If we try to find one who, from the fertility of his mind and the influence which he had upon men of ability, affected the progress of his science, in like manner to Ludwig, we revert to the name of Liebig, and when I say that physiology owes as much to Ludwig as chemistry to Liebig, I shall, I feel sure, be doing but scant justice to the great man who at Marburg, at Vienna, and at Leipzig has won for himself the right to be called at once the greatest physiologist and the greatest teacher of physiology of his time.

1. *Ludwig's Discovery of Secreting Nerves*.—It was in the year 1851 that Ludwig first announced to the scientific

<sup>1</sup> W. Bowman, On the Structure and Use of the Malpighian Bodies of the Kidney, with Observations on the Circulation through that Gland, *Philosophical Transactions* for the year 1842, Part I., p. 57.

<sup>2</sup> *Op. cit.* p. 58.

<sup>3</sup> Article Mucous Membrane, in *Todd's Cyclopædia*, p. 436. No. 3079.

world<sup>4</sup> the fact that the secretion of the salivary glands is under the influence of the nervous system. C. G. Mitscherlich, as Ludwig points out, had surmised that the secretion of saliva only occurs as the result of a stimulation of certain nerves—i.e., the nerves of taste and the nerves supplying the muscles of mastication. No attempt had, however, been made, before Ludwig's, to ascertain experimentally whether the stimulation of nerves supplying glands influenced directly their secretion. As a subject of study Ludwig chose the submaxillary gland. He found that on stimulating by a succession of induction shocks the nerve twigs proceeding from the lingual branch of the fifth nerve, which accompany Wharton's duct to the gland, secretion of saliva occurred so long as the excitability of the nerves persisted.

In experiments performed in conjunction with his pupil Rahn, Ludwig found that secretion occurs on direct stimulation of the glandular nerves, even when the circulation has been arrested for a time, as, for instance, when the contractions of the heart are inhibited for some time.

2. *Ludwig's Discovery that Secretion is not a Process directly dependent upon the Arterial Pressure.*—In the paper which I have already quoted, Ludwig published the results of the following experiments. A mercurial gauge was placed in communication with the duct of the submaxillary gland, the height of the mercury in the gauge being recorded (by means of a float to which was attached a writing point) upon the travelling surface of the kymographion, the instrument which Ludwig had contrived for permanently recording the amount and variations of the blood pressure in arteries and veins. At the same time, another gauge placed in communication with the carotid artery, or one of its branches in close proximity to the gland, recorded the height of the blood pressure on the same travelling surface. On stimulating the secretory nerves, Ludwig found that saliva was poured out long after the pressure exerted by it upon the interior of the gland (as measured by the height to which the mercury was raised in the gland-duct manometer) exceeded the pressure of blood in the arteries. Thus, in his first recorded experiment, the mean pressure of blood in the carotid artery amounted to 108.5 millimetres of mercury, whilst during a stimulation of the nerve filaments going to the gland, the pressure in the gland-duct manometer rose to between 190.7 and 196.5 millimetres—i.e., indicated that the pressure exerted by the fluid, secreted under the influence of nerve stimulation, exceeded the arterial pressure by an amount corresponding to a column of mercury about three and a half inches high. It is obvious that the experiment at once and conclusively proved that the secretion of a watery liquid like the saliva may be brought about by a process altogether different from a process of filtration; for in filtration the passage of liquid through the minute pores of the filter necessarily depends upon a difference in pressure on the two sides of the filter, the movement of liquid being from the side of greater to that of lesser pressure.

In this brief sketch I have only time to refer to the most salient of the early discoveries of Ludwig on secretion, and must pass over without comment the first experiments by which he showed the influence exerted by variations in the strength of the stimulus of a secretory nerve upon the amount and chemical composition of the secreted liquid.

3. *Ludwig's Discovery that during Secretion Heat is evolved in Glands.*—Pursuing his researches on the salivary glands, Ludwig some years later,<sup>5</sup> in conjunction with his pupil Spiess, discovered that when a gland is thrown into action by stimulation of its nerves, heat is evolved. In the case of the submaxillary gland, for instance, he found that the saliva which was secreted might have a temperature nearly three degrees Fahr. (1.5° C.) above that of the blood going to the gland. Important as was this result because of the light which it threw upon the source of animal heat, its value as bearing upon the nature of the process of secretion was even greater. From the fact that the saliva is a liquid containing but three or four or five parts of solid matters to one thousand of water, it would scarcely have been surmised, upon a merely physical hypothesis, that its production would have been attended by any considerable evolution of heat. The evolution of heat is indeed one of the strongest proofs we have that the act of secretion is the result of the living

activity of those ultimate units of the glands, the gland cells; but to this I shall revert hereafter.

#### THE RESEARCHES OF SCHIFF, ECKHARDT, AND CLAUDE BERNARD, ON THE SECRETORY NERVES OF THE SALIVARY GLANDS.

The study of the innervation of the salivary glands which had been commenced by Ludwig and Rahn was continued with great success by other observers, and particularly by Claude Bernard and Eckhardt. The first of these observers proved the correctness of Schiff's supposition that the abundant secretion which followed the stimulation of fibres of the fifth cranial nerve was in reality due to the presence of fibres of the chorda tympani mixed with them. It was Eckhardt, however, and afterwards Claude Bernard, who established the remarkable fact that, in the case of the submaxillary gland, and, as has since been shown, of some other glands also, the gland is under the direct control of two orders of nerve fibres. The first are contained in branches of cranial nerves, and in the case of the submaxillary gland are derived from the facial nerve, and, when stimulated, lead to an abundant secretion of watery saliva, relatively rich in saline and poor in organic constituents; the second are contained in the so-called sympathetic nerve trunks distributed to the gland; and these, when stimulated, occasion an exceedingly scanty flow of very concentrated and highly viscid saliva, containing a relatively large quantity of organic constituents, particularly of mucin.

Claude Bernard now pointed out that stimulation of the above-mentioned nerves leads to changes in the circulation of blood through the gland, in addition to the changes in the amount and quality of the fluid secreted by it.

Thus stimulation of the cerebral fibres supplying the chorda tympani was found to produce a great dilatation of the arteries of the gland; so that the amount of blood passing through it was very largely increased, that passing out through the venous trunks of the gland presenting a florid arterial colour instead of the brown venous hue observed when the gland was not secreting. Stimulation of the sympathetic fibres, on the other hand, caused a great contraction of the glandular arteries, consequently a diminution of the flow of blood through the gland and into the veins; the blood presenting under these circumstances an intensely venous hue.

The facts just referred to appeared reconcilable at first with the view that the secretion of saliva, as a result of nerve stimulation, was primarily dependent upon changes in the circulation of blood through the gland; though, upon reflection, the surmise was negatived by some of the facts discovered long before by Ludwig, and particularly by that, already referred to, of glandular secretion following stimulation of glandular nerves, even where the circulation has been stopped, as by cardiac inhibition.

Bernard's experiments had unquestionably established that in addition to nerves which, when stimulated, occasioned the contraction of arteries—the "vaso-motor," or, as we now sometimes call them, the "vaso-constrictor" nerves—there are others which when stimulated occasion, on the contrary, the dilatation of arteries—the so-called "vaso-inhibitory" or "vaso-dilator" nerves. That it was not stimulation of the vaso-dilator nerves, which, by increasing the amount and the pressure of the blood flowing through the capillaries, occasioned the secretion of saliva, was shown by several experiments, but especially by an observation of Kewchell. This observer found that the alkaloid of the deadly nightshade—viz., atropia,—when introduced into the system, exerts such an action, that on stimulating the chorda tympani no secretion of saliva follows; whilst, on the other hand, dilatation of the arteries is produced exactly as under normal circumstances. Other drugs have since been discovered which exert a similar action to that of atropia in paralyzing secretory nerves, whilst some are now known which antagonize the action of atropia, and restore the suspended activity of the secretory nerves. From these studies has unquestionably resulted a knowledge of the conclusion that, although the process of secretion is favorably influenced by the vascular dilatation which follows the state of activity of the vaso-dilator nerves, the actual process of secretion is not due to them, but, so far as it is controlled by the nervous system, is directly under the influence of certain nerves which may be termed secretory.

<sup>4</sup> Ludwig, Neue Versuche über die Bethülfe der Nerven zur Speichelsabsonderung, Henle und Pfeiffer's Zeitschrift, New Series, vol. i. 1851, p. 255.

<sup>5</sup> Ludwig u. Spiess, Sitzungsber. d. Wiener Akad., Mathem. u. Naturwissenschaftl. Classe, vol. xxv. (1868), p. 548.

DISCOVERIES WHICH SHOW THAT SECRETION, THOUGH INFLUENCED BY, IS NOT NECESSARILY DEPENDENT UPON, STIMULATION OF NERVES GOING TO A GLAND.

A knowledge of the facts which I have brought before you hitherto would of itself lead you to suppose that glandular secretion is a process which is in abeyance except under the influence of stimulation of nerves which throw the gland into activity, in the same manner as the quiescent muscle passes into activity normally, only when its motor nerves are stimulated. But this supposition, though it may be in some measure true in the case of certain glands, is not borne out by a study of secreting glands in general—a study which teaches us that whilst the activity of the gland cells may be, and often is, remarkably under the control of the nervous system, it is by no means necessarily dependent upon it. The activity of the gland depends upon the activity of its individual units, the gland cells; and these units may discharge their function so long as they continue to live and are supplied with the nutriment, mineral, organic, and gaseous, which they require.

Leaving aside, at least for the present, any reference to the arguments which may be derived by analogy from a study of cell life in general, I would call your attention to the physiological facts which prove the truth of the proposition just enunciated. The first of these facts was discovered by Claude Bernard—to wit, that when all the nerves supplying the salivary glands are divided, there is at first a temporary cessation of secretion, soon followed, however, by an abundant flow of very watery, so-called paralytic saliva.

This result is fully confirmed by similar observations made in the case of other secreting organs, and which establish very fully the greater or less independence of the secreting elements from the control of the nervous system; though unquestionably, in a normal state of the organism of higher animals, the nervous system is continually intervening, both directly by its influence on gland cells, and indirectly by the changes which it produces in the circulation, so as to control the operations of gland cells, and especially to bring them into relation with, and subordinate them to, the work of complex processes of the organism.

What the exact relations of nerve fibres to gland cells may be is yet a matter involved in great doubt. The discovery made by Pflüger of the terminations of nerve fibres in the secreting cells of the salivary glands has not been confirmed by any observer in any vertebrate. Kupfer has, however, unquestionably done so in the case of *Blatta orientalis*, and although as yet objective proof is wanting, we cannot entertain any reasonable doubts that a connexion between the ultimate fibrillæ of nerves and secreting cells actually exists.

#### THE IMMEDIATE SOURCE OF THE NUTRIMENT CONSUMED BY THE GLAND CELL.

In the original scheme of a secreting gland, developed first of all by Bowman, then adopted by Goodsir, Carpenter,<sup>6</sup> and many other writers, the essential structural elements taken into account were the following:—(1) Epithelial cells lining the secreting cavity of the gland; (2) subepithelial tissue, usually presenting superficially the form of a basement membrane, upon which the cells were placed; and (3) a capillary network in closer relation to the basement membrane, or more superficial part of the subepithelial tissue. In harmony with this scheme, the glandular elements were always spoken of as drawing their supply from the blood in the capillaries. The one element which was wanting in that scheme, and which we are able to fit into it, thanks again to the labours of the great physiologist of Leipzig, is the relation of so-called lymph spaces to the other elements. As was first shown by the researches of Ludwig and his school, amongst the modes of origin of the peripheral lymphatics, the most numerous are to be found in connective tissue, and nowhere more abundantly than in the connective tissue of glands, which is everywhere interpenetrated by irregular spaces containing lymph, whence spring the minutest lymphatics. If we consider, then, the immediate environment of the secreting cell, we find that in close proximity to it is the lymph, which is a transudation from the blood, and upon which the gland cells are directly dependent for all the matters which they require. For a certain time, then, the gland cell will be independent of the supply of blood—that is so long as the lymph surrounding it contains a sufficient quantity of essential matters, of which oxygen is one of the

chief, to support its life, or until it becomes so charged with waste products derived from cell-life—e.g.,  $\text{CO}_2$ , as to interfere with the functions of the latter. It certainly appears that, at least in the majority of cases, it is the secreting cell which modifies, in the first instance, the composition of the lymph which bathes the tissues in proximity to it, rather than the composition of the lymph which modifies the activity of the gland cell. There are some cases, nevertheless, in which it would appear that the presence of certain constituents in the lymph is the direct cause of the activity or increased activity of the cells.

#### SECRETING CELLS PRESENT DIFFERENT APPEARANCES, CORRESPONDING TO DIFFERENT STATES OF FUNCTIONAL ACTIVITY.—THE RESEARCHES OF HEIDENHAIN.

Amongst the physiologists of Europe who have most enriched science by their researches during the last thirty years is unquestionably Professor Heidenhain of Breslau, who has exhibited his mastery of the physical side of physiology by his classical research on the relations between the heat evolved in and the work done by muscle, and as a biologist able to use in the best manner all the resources of modern histology in the elucidation of bodily function, by the researches to which I wish now to direct your attention.

The glands imbedded in, or the ducts of which open upon the surface of the mucous membrane of, the alimentary canal, for the most part are characterised by periods of more or less complete cessation of activity, as judged by the diminution, or absolute cessation, of the secretion which they prepare. This is true of the salivary glands and of the liver, but particularly true of the gastric glands and the pancreas.

Certain of these glands—i.e., the salivary glands in some animals, and the stomach and pancreas in all in which they exist—have the task of preparing juices which contain certain so-called unformed or unorganised ferments or “enzymes,” upon which the properties of the secretions in great measure depend. Heidenhain in a long series of investigations, which have been taken part in by certain other scientific men, as by Ebstein and Grützner, by Kühne and Lea, and particularly by Mr. Langley of Trinity College, Cambridge, has shown that the secreting cells of a particular gland, as for instance of the submaxillary gland, of the gastric glands, and of the pancreas, exhibit differences in size, differences in the form and appearance of the nucleus, and differences in the cell contents, corresponding to varied states of functional activity.

Time will not permit my mentioning in detail the results of these observations, from which, however, certain general conclusions appear derivable. Thus, a gland cell at rest is usually larger than a similar cell which has been engaged in the process of secretion; from its behaviour to reagents, it usually appears to contain within itself an abundant store of the body or bodies which are chiefly characteristic of the secretion, or closely related antecedents of these, and the amount of undifferentiated protoplasm surrounding the nucleus appears to be at a minimum. On the other hand, the gland cells, which have been secreting for a greater or less period, often, though not invariably, present a diminution in their size, a diminution in the amount of the characteristic bodies previously referred to, and an increase in the protoplasmic constituents of the cell. All facts, histological as well as physiological, seem to point to the following conclusion: that during rest, the cell forms, at the expense of, or as the product of the differentiation of, the cell protoplasm, the bodies characteristic of the secretion; that whilst secretion is going on these leave the gland cell; and that, at the same time, the protoplasmic constituents of the latter increase at the expense of the lymph, to be converted secondarily, either at a later period in that particular act of secretion, or in the succeeding period of inactivity, into specific constituents. The researches of Heidenhain have been conducted upon the glands after these had undergone processes of hardening and staining, the appearances observed indicating changes which though not identical with, at least corresponded to various conditions of the gland. Kühne and Lea and Langley have, however, studied glands in a living condition, and though the appearances were not identical with those observed by Heidenhain, they entirely confirm these.

I have not time to do more than refer to the fact that in some at least, though probably in all of the cells of glands which produce secretions containing ferments, there are formed at first bodies to which the generic term of

<sup>6</sup> Carpenter, in his admirable article on Secretion in Todd's Cyclo-pædia

"zymogens" may be applied — i. e., *ferment generators*, from which a ferment is afterwards set free.

In connexion with this part of my subject I may refer to the view, which was at one time held by some, that in secreting glands the gland cell having produced the matter of the secretion was thrown off, discharging its contents into the secretion. This process, when it does occur, must be looked upon as exceptional, and as it were accidental.

Amongst the most striking examples of the success with which physiological experiment and subsequent histological research have been pursued in combination so as to throw light upon the functions of particular cells, I may refer first to the observations of Heidenhain, secondly to those of Nussbaum on the excretion of colouring matters, artificially introduced into the blood, by the secreting epithelial cells of the renal tubules. I have previously referred to the theory of Bowman, according to which the watery and saline constituents of the renal secretion were supposed to be separated by the so-called "glomeruli," whilst the organic solids of the secretion were supposed to be separated by the epithelium lining the convoluted tubes.

To this theory was opposed that of Ludwig, according to which the whole of the constituents, watery, saline, and organic, were supposed to be poured out of the vessels of the glomerulus, the amount of water, however, being far in excess of that contained in the liquids when it reaches the pelvis of the kidney. Ludwig supposed that as the secretion passed over the surface of the epithelium lining the complex tubules, processes of diffusion occurred between it, on the one hand, and the lymph bathing the tissues lying outside of the basement membrane of the tubules on the other, the direction of the current of water being from without inwards. The anatomical evidence adduced by Bowman was of itself well-nigh sufficient to prove the accuracy of his views, which have however been placed beyond all dispute by the following observations: Heidenhain introduced into the blood a solution of sulphindigotate of sodium, usually some time after having divided the spinal cord in the cervical region. On killing the animal some time afterwards and subjecting the kidney to careful examination, it was found that the colouring matter had been accumulated by the epithelium of the convoluted tubules from the lymph bathing the tissues, and which contained so little colouring matter as to appear colourless. If a sufficient time had elapsed after the injection, the colouring matter was found in the form of granules or minute crystals lying on the inner side of the cell in the lumen of the tubules.

Bowman, as I have already mentioned, had in the case of the boa constrictor studied in detail the blood-supply to the organ, which, as Jacobson had shown, differs in fishes, birds, and reptiles, from the mode of arrangement prevailing in mammals. Bowman had shown that in the boa the glomeruli derived their blood exclusively from the renal artery, and the convoluted tubes exclusively from the common iliac vein. Nussbaum gave absolute completeness to the proof of Bowman's theory by the following remarkable experiment. Experimenting on the newt, in which the blood-supply of the kidney is similar to that of the boa, he found that, when he tied the renal artery, he arrested almost entirely the secretion of water in the kidney, but that the excretion of urea and other solid matters, and amongst others of the colouring matter already used by Heidenhain—viz., indigo, carmine—continued. Ligation of the renal branches of the common iliac vein stopped the secretion of organic solids without impeding that of water.

#### THE MOST RECENT THEORIES ADVANCED IN EXPLANATION OF THE PHENOMENA OF GLANDULAR SECRETION.

Having brought before you the most salient facts with which we are acquainted which appear to throw the most light upon the general physiology of glandular secretion, I wish to speak of the theoretical views which have been advanced in explanation of a large number of the facts.

In the first place, I have to confess that our ignorance is absolute as to the cause of the specific endowment of different secreting cells, in virtue of which they produce new bodies at the expense of certain of the materials supplied to them by the lymph, or separate particular constituents from the lymph, to the exclusion of others which are equally abundant in the liquid. We express the full measure of our ignorance when we state that the difference in function of different gland cells is due to differences in endowment of the protoplasm of the cell, which in no case is explained by any objective characters of the cell.

The phenomena of the secretion of water, which forms so large a part of every secretion, have given rise, however, to numerous speculations. The primitive view that the glands are organs in which is strained off from the blood water holding certain substances in solution is held, in a modified manner, by some even now, and appears, indeed, at first sight, to be borne out by certain facts. Thus within wide limits the amount of water secreted by the kidney depends upon the pressure of blood in the glomeruli. Any circumstances which will lead to an increase of pressure in these vessels (as increase of blood-pressure generally, division of renal nerves, division of the splanchnics, especially when combined with stimulation of the spinal cord), by dilating the branches of the renal artery, will lead to this result. At first this would seem to show that the process of separation of water, in the kidney at least, is but a process of filtration, though a remembrance of the famous experiment of Ludwig, referred to at an earlier period, on the relation between the pressure of secretion of saliva and that of the blood in the arteries, would impose caution in drawing the conclusion. What are the facts, then, relating to the blood pressure in vessels in other organs of the body, and the transudation of liquid from them?

If an increased arterial pressure led *ipso facto* to an increased transudation through the capillary walls, it would follow that the amount of lymph and the pressure of the lymph stream would rise with the rise of the arterial pressure, but direct experiments on this matter have led to an opposite conclusion. The experiments of Paschutin and Emminghaus, carried out under Ludwig's direction, have shown that when the arterial pressure in the extremities is increased, there is no corresponding increase in the lymph produced. Again, when the chorda tympani is stimulated in an animal into whose blood atropia has been introduced, the vascular dilatation which is produced, and which is then unaccompanied by secretion, does not lead to an increased production of lymph, which would make itself evident by the gland becoming oedematous. How, then, are we to account for the flow of water through a gland? By ascribing it to an influence which is exerted by the gland cell, in the first place, upon the liquid which environs it—viz., the lymph. And accordingly, even in the case of the glomeruli of the kidney, we conclude that the water is separated as a direct result of the activity of the layer of transparent epithelium cells which cover them. Hering has advanced a strictly physical theory, which would account for the mode in which certain cells exert this influence, by supposing that there is produced within them bodies which, like mucin, have a great affinity for water, and which then pass into the secretion; and which therefore lead to a current of water passing through the cell; but the theory is one which cannot be admitted, because, as Heidenhain points out, the passage of water through a gland occurs in cases where there is no constituent in the cells at all resembling mucin in its affinities or behaviour towards water. I feel inclined to say that the speculations, necessarily indefinite though they are, of Heidenhain afford the best explanation of the phenomena. Heidenhain starts from the fundamental fact that during secretion only as much water passes out of the bloodvessels of the gland as appears in its secretion, seeing that, however long the process of secretion may continue, the gland never becomes oedematous, nor does the current of lymph from it increase.

The volume of liquid filtered through the blood capillaries adjusts itself exactly to the volume of liquid separated by the cells. This equality in the amount of liquid secreted and filtered appears only explicable on the supposition that the act of secretion is the cause of the current of water—in other words, that the water which the cells lose in the formation of the secretion generates changes in them which can only be compensated for by an abstraction of water from the immediate environment.

Within certain limits, Heidenhain continues, we may form purely physical conceptions of the process. We may conceive, for instance, the whole protoplasm of the cell to have a certain affinity for water. The cells at their contact with the basement membrane may be supposed to be able to abstract water from it; the loss which the membrane sustains will be made up by the lymph, and this again will influence the blood in the capillaries.

The passage of water into the cells will go on until a period of equilibrium is attained; but at that time the current of water from the capillaries through the lymph to the cells will cease. We may conceive further, reasons Heidenhain,

that the passage of water out of the cell is hindered by such obstacles to the process of filtration as are represented by resistance opposed to it by the superficial border layer of protoplasm. If we now conceive that, for example, as a result of nerve stimulation, the gland cells pour out water, the condition of equilibrium which existed between cell, basement membrane, lymph, and capillary will be disturbed, and a current of liquid set in from the last to the first, and continue as long as the activity of the cells continues.

It is not difficult, moreover, Heidenhain remarks, to form physical conceptions of the processes whereby water may be separated from the cell itself. It is conceivable, for instance, that the protoplasm of the cell may contract after the manner which occurs in many infusoria, and which in them leads to the accumulation of water in droplets, forming vacuoles, except that in the case of the secreting cells the water is poured out on the outside, and not on the inside, of the cells. Or, again, it is possible that on the gland cell passing into the condition of activity an increased production of  $\text{CO}_2$  may occur, leading to an increased diffusion of water outwards.

So far, I have quoted Professor Heidenhain, for the most part, in his own words. Let me add, however, that the two hypotheses which he advances as possible explanations of the mechanism of secretion of water by the cell rest upon the most probable grounds, as upon the presence of the intracellular protoplasmic network which has been so beautifully demonstrated by recent researches, and especially by those of Professor Klein; or, again, upon the fact, proved by the analyses of Professor Pflüger of the gases of the saliva, that there is during secretion great production of  $\text{CO}_2$ , as shown by the amount of this gas in the saliva being much greater than in the blood, and upon the fact of the remarkable diffusibility of acid solutions.

Reasoning upon a large number of facts, which I have not time to refer to, Professor Heidenhain has come to the conclusion that, quite apart from the nerves which control the vascular supply to a gland, there exist two distinct sets of nerve-fibres in relation to the glandular elements. The first of these, which he terms "secretory," when stimulated lead to the secretion of water and saline constituents; the second, which he terms "trophic," influence the transformations of the protoplasm of the cell, and thus affect the organic constituents of the secretion.

I do not wish to pronounce a definite opinion concerning this hypothesis, but would remark that the nomenclature proposed by Heidenhain appears to me to be an unfortunate one, especially because it attaches a new meaning to a word which had previously been used by physiologists in a different sense. I refer to the adjective *trophic*, which has always implied "governing nutrition." It appears to me almost inconceivable that if there exist two sets of secretory nerves, the action of each should not profoundly affect the nutrition of the cell protoplasm, though, of course, it is conceivable that they should do so in very different manners.

#### GENERAL CONCLUSIONS.

The complicated studies, of which I have attempted to give you a brief sketch, have led to our forming certain clear general conceptions in reference to the process of secretion. They have brought into greater prominence the dignity, if I may use the expression, of the individual cell. The process of secretion appears as the result of the combined work of a large number of these units. Each, after the manner of an independent organism, uses oxygen, forms  $\text{CO}_2$ , evolves heat, and derives its nutriment from the medium in which it lives, and performs chemical operations of which the results only are imperfectly known to us, and which depend upon peculiar endowments of the cell protoplasm, of which the causes are hidden from us. So long as the protoplasm is living, the gland cell retains its power of discharging its functions, and in many cases does so, so long as the intercellular liquid furnishes it with the materials required. In some cases, however, the gland cells are specially sensitive to a variation in the composition of the nutrient liquid, certain constituents of which appear to stimulate the protoplasm to increased activity. In the higher animals the cells, particularly in certain glands, are in relation to nerves which, when stimulated, affect in a remarkable manner the transformations of their protoplasm, leading to an increased consumption of oxygen, an increased production of carbonic acid, an increased evolution of heat, and an increased production of those matters which the cell eliminates and which constitute its secretion.

This historical survey of the growth of our knowledge of the process of secretion exhibits the characteristic features of biological advancement. Comparative anatomy has been the foundation of, observation of facts and physical experiment, the road to physiological research. At various stages the value of hypotheses has been well illustrated, and whenever they have had to make way for the broader and truer interpretations suggested by the accumulation of facts and greater precision of observation, it has been demonstrated that the process of observation is not one of simple sight, but of complex ratiocination.

#### ABSTRACT OF A

#### Lecture

ON

### OIL OF EUCALYPTUS IN MIDWIFERY PRACTICE.

*Delivered at the Glasgow Maternity Hospital, July 3rd, 1882,*

By SAMUEL SLOAN, M.D., F.F.P.S.G.,

OBSTETRIC PHYSICIAN AND LECTURER ON CLINICAL OBSTETRICS AT THE HOSPITAL.

[AFTER some remarks on the nature of "puerperal fever," the symptoms of a typical case of acute puerperal septicæmia were given, and also of a case of puerperal pyæmia; and the relationship of these diseases to surgical fever was shown. These being diseases associated with putrefaction, the importance of thorough cleanliness during labour and throughout the puerperal condition was insisted upon. The following were noticed as amongst the predisposing causes of septicæmic poisoning: 1. The readiness with which the lochial discharge decomposes. 2. The natural condition of the generative tract after parturition. 3. The various lacerations—perineal, vaginal, and cervical—either at the os or in the cavity. 4. The intense prostration of the nervous system, so marked in many of the single women in maternity hospital practice—so great as sometimes to amount to mental collapse: this condition vastly increasing the tendency to absorption of the discharges. The dangers of infection were also dwelt on.]

To wait for the appearance of symptoms of mischief is sometimes a fatal mistake, as the system may be overpowered by the disease before there is any warning of danger. It is therefore of the utmost importance in the employment of antiseptics in midwifery practice to use them from the very first, since the blood may be poisoned within twenty-four hours after the completion of labour. The advantage of retaining for several days after parturition an efficient contraction of the uterus is obvious, and for this purpose I give, as a matter of routine, a mixture like the following, which I find also very serviceable as a preventive of after-pains:—Solution of muriate of morphia, one drachm and a half; tincture of nux vomica, half a drachm; liquid extract of ergot, two drachms; tincture of orange, three drachms; water to two ounces. One drachm in a little water every four or six hours. That injections of water mixed either with carbolic acid or Condy's fluid are valuable cannot be denied; that in cases of excessively fetid lochia, with general febrile disturbance, they may act like a charm I have often found. These latter are cases, however, in which the blood seems to be charged with only the chemical products of decomposition; and it must be admitted that in cases of genuine septicæmia the employment of injections is often of no avail. Of course, if used from the first day, they will go far towards preventing or diminishing septic mischief. They are, however, irksome to the patient, whilst in the hands of an unskilful nurse they may be a positive danger.

That a midwifery case cannot be conducted throughout on absolutely antiseptic principles will be readily admitted by those of you who are familiar with antisepticism as carried out in surgical practice. We should, however, endeavour to come as near to this standard as is possible to us as obstetricians. That vaginal or even uterine injections of



antiseptic fluid every few hours come near to complete antisepticism is absurd. In order to act efficiently on the lochial discharge we ought to attack it with the antiseptic as it pours from the os uteri, and to keep up this action continuously. What antiseptic will best suit for this purpose? Carbolic acid, which has proved so great a gain to the surgeon and in a diminished degree to the obstetrician, has the following objections:—1st. In the quantities required it would be poisonous. 2nd. It would cause severe irritation, and thus prevent the healing of lacerations. 3rd. It would coagulate the lochial discharge, causing its retention even within the uterus. 4th. To many patients it has a decidedly sickening odour.

Now, when at the meeting of the Clinical Society of London on the 13th of May, 1881, Mr. Lister recommended oil of eucalyptus as a substitute for carbolic acid where the latter was inadmissible, it occurred to me that this substitute might be more extensively employed in obstetric practice than had been considered safe with carbolic acid. Since then I have put it to the test, and its advantages I have found to be the following:—1st. It is non-poisonous. 2nd. In the quantity and strength required it is unirritating. 3rd. It does not coagulate the lochia, which, by separating the lips of the vulva, can be seen to flow out in a liquid stream. 4th. Its odour is, with rare exceptions, a pleasant one. 5th. It seems to act as a uterine stimulant, causing and assisting to maintain uterine contraction. Formed into a pessary of a suitable shape and size it is easily applied to the neighbourhood of the os, and retained there. To secure this, the pessary must be broad and short, must melt slowly but completely, and must contain a large percentage of the antiseptic oil. These requisites I have found the following formula to supply:—Oil of eucalyptus, six drachms; white wax, four drachms; cocoa butter, four drachms; mix and divide into twelve pessaries. One of these must be applied night and morning immediately after the usual sponging, and, though the napkins are frequently changed, the odour will be quite perceptible on the one removed prior to the next sponging twelve hours later. In cases of miscarriage, or when the lochia has diminished materially in quantity—say, six days after confinement—I have found the above strength produce irritation, and the following will then be found preferable:—Oil of eucalyptus, four drachms; white wax, 160 gr.; cocoa butter, four drachms; divide this mixture into twelve pessaries, and label them No. 2. These also may be used at first night and morning, and afterwards at night only. I show you these pessaries; they are made by first melting together the wax and cocoa butter in a vessel resting in hot water; the oil of eucalyptus is then mixed with this, and the fluid poured into the ordinary two-drachm pessary mould, each cavity being somewhat more than half filled. I have never been able to satisfy myself that the eucalyptus was absorbed into the system to any material extent. This is probable, however, and, in one case, seemed to be proved. This was a case of severely ruptured perineum, which was stitched and united throughout. The pessaries had been continued for sixteen days, when an erythematous rash appeared over the whole body, disappearing immediately on the cessation of the eucalyptic treatment. Though uncertain as to the fact of a material absorption of the oil into the system, I am persuaded that the oil does not remain at the os, but freely passes into the cavity of the uterus. For it is admitted that the uterus for several days after labour is naturally in an alternate state of contraction and relaxation, and whilst during contraction it will empty itself, during relaxation again whatever is lying at the os or upper part of the vagina will be sucked into the vacuum produced. The eucalyptus will therefore find its way quite into the uterine cavity. When I said that, with rare exceptions, the odour is agreeable, I referred to a decomposition of the eucalyptus oil which sometimes takes place, giving the napkin a semi-fetid odour. That this does not arise from a change in the lochia I have proved by simply omitting the next pessary when due; I then found that the lochia was absolutely sweet.

When I began a year ago to use this antiseptic in hospital practice, I ordered the pessaries to be used only for those patients who, from the nature of their labour or other cause, were likely to give trouble; and to those patients whose lochia had become offensive or whose recoveries were interrupted. In the case of the former the pessaries were begun immediately after labour; in the latter on the appearance of bad symptoms. In the former the result was invariably

satisfactory; in the latter the treatment was a recognised aid to other measures. It was soon noticed, however, that the cases in which the labour was easy and natural gave afterwards considerable anxiety, usually from unrecognised mental distress, perhaps increased by the receipt of unwelcome news. I soon therefore saw the necessity for beginning the antiseptic pessaries immediately after labour in the case of all the patients. The consequence was that whereas offensive lochial discharge had been no rarity—and when once this appeared in one patient it rapidly spread to others—fetid lochia was almost entirely banished; the only case of undoubtedly putrid lochia having arisen from extensive superficial gangrene of the vagina, after a severe labour completed by the forceps. This woman, moreover, made a rapid and complete recovery. In some of the cases an offensive odour was suspected, but this had generally vanished when the next napkin was removed; or, if it persisted, was found to have arisen from the fact that the pessaries had been for a considerable time in the hospital, having thus lost part of their volatile oil. They ought therefore to be made as far as possible just as they are required, since they will change after a few days. During this period one of the patients had severe ascites, from which she died. There had been a history of disease, the exact nature of which could not be ascertained, but hepatic disease was supposed to be the cause of the ascites. About seventy ounces of fluid were removed by tapping. This fluid was absolutely sweet when removed, and it remained so for days after, making it exceedingly probable that there was no septic element in the peritoneal condition.

In private practice, where the class of patients is of a more hopeful nature, I have restricted the use of the pessaries to the cases requiring special treatment from the beginning of the puerperal state. Amongst these were the following:—A case of inversion which I was not called to till several hours after its occurrence; a case of premature labour following acute bronchitis in which the patient was almost in a state of collapse; a case of subacute phthisis; cases requiring operative treatment and with dangerous complications. These cases all did extremely well. In only one of them—the case of phthisis—was there at any time an offensive discharge, and this was in the second week, and forty-eight hours after the last pessary had been introduced. I should mention that it is now the practice at this hospital, as a special precaution, to use carbolic vaginal injections night and morning just before the introduction of the medicated pessary. In my private practice, however, the usual night and morning carbolic sponging alone preceded the use of the eucalyptus.

Regarding the use of eucalyptus as a curative in pyæmia, I have fortunately only one case to bring before you. In relating it I shall confine myself to the main points of the case.

Mary Anne M— was admitted and delivered on November 22nd, 1881. Her labour was easy and normal. Beyond a "scared" look, and the fact that this was her third (?) illegitimate child, the case presented nothing unusual. The temperature rose, however, on the fourth day, and continued high. For some time there was nothing to account for the fever, there being no abdominal distension or tenderness till later on, and the discharge remaining sweet throughout the entire illness. No pessaries were used till the fever had set in. The patient steadily becoming worse, was, at an early stage of her illness, removed to another ward, which was set apart for herself and her nurse. It was not till the third week that the true nature of the disease was apparent. At this time several parts of the limbs became swollen, whilst later on a large fluctuating swelling appeared on the back of the chest. The treatment consisted at first mainly of large doses of quinine with aconite and a liberal amount of stimulants. Later on eucalyptus was given internally by the mouth and by the rectum. By the twentieth day it was perfectly evident that the patient was sinking, and that a few hours would see the end. Determined not to leave anything undone, I now ordered hypodermic injections every hour of a mixture composed of oil of eucalyptus, five minims, and olive oil, twenty minims. I had found that one part of eucalyptus to two parts of olive oil could be borne without irritation by a granulating perineum, and I thought one to four a safe strength to start with for hypodermic injection. This producing little or no irritation, the quantity was gradually increased to eight minims of eucalyptus to sixteen of olive oil. It was soon evident that the patient was

rallying; but as she improved, the irritation produced by the injections became so great that the resulting swellings could not be distinguished from those arising from the disease. The injections were now diminished in frequency, and finally, on the fourth day, abandoned. Soon the patient began again steadily to lose ground, rallying again on the resumption of the hypodermic injections. For a considerable time she seemed to hang between life and death, but under the generous care of the matron and the house-surgeon she gradually improved, leaving at last for the Town's Hospital with abscess of the left knee only, all the other swellings having slowly disappeared. There the knee was opened, and the case made most satisfactory progress. The woman called on me a few weeks ago. Her general health was then excellent, and beyond a slight limp she bore no traces of her illness.

From one case it would be unwise to draw positive conclusions as to the benefit of the eucalyptus used hypodermically as a cure for pyæmia, but I think I am justified in recommending that, under similar circumstances, it should be tried.

## A CASE OF MEGRIM, WITH PARALYSIS OF THE THIRD NERVE.

By R. SAUNDBY, M.D. EDIN., M.R.C.P. LOND.,  
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THE following case is, I believe, in many respects quite unique. Megrim accompanied by various motor disturbances has been recorded by Abercrombie and others; but these, while supporting the view that the pathological condition about to be described is rightly attributed to this peculiar class of neurosis, differ from it in many important particulars. As the ocular symptoms were most interesting, I sent the case several times to Mr. Eales, and his notes have enabled me to make it far more complete than I could have done without his assistance, and I take this opportunity of thanking him for the time and care he has so kindly given to its investigation.

Maria S—, aged nineteen, single, of no occupation, was admitted as an out-patient to the General Hospital on Jan. 15th, 1880, complaining of biliousness and drooping of the left eyelid. She stated that she had been ill five days, her illness having begun with sickness and pain in the left eye; the eyelid began to droop on Tuesday. She cannot account in any way for this attack. Her previous general health had been good; she had scarlatina when four years old, but has had no other illness except attacks similar to the present one, which have come at intervals of six or nine months ever since she was twelve years old. On each occasion the symptoms have been the same, sickness, pain over the left eye, and ptosis. She is usually very drowsy during these attacks. She was a well-developed girl, of fair complexion, with no abnormal symptoms or signs in the thorax. Her tongue was clean, but she said it had been very dirty. The vomiting had stopped that day. Her bowels were regular. Menstruation was regular and normal. Urine normal. She cannot sleep at present on account of the pain over the left eye. She was giddy yesterday; the pain is better to-day. Hearing and taste normal. Has never had any fits.

*Examination of eyes.*—Right eye:  $V = \frac{1}{2}$ . On ophthalmoscopic examination, a suspicious-looking hazy band was seen running across an artery and vein above the disc; the inner margin of the disc was not clearly defined. The vessels, especially the arteries, were large. —Left eye: Ptosis; complete paralysis of upper, lower, and internal recti. Pupil dilated more than the other, but not completely. Incomplete paralysis of sphincter and dilator muscles of iris. Paralysis of accommodation. On ophthalmoscopic examination the outer side of the disc was not very distinct.  $V = \frac{1}{2}$  unaided;  $= \frac{1}{2}$  with perforated disc. Astigmatic: vision not improved by  $-70$  or  $+70$ . Her father and mother are both living. Father healthy; mother not well, but no definite disease. Has two brothers and one sister, all in good health; one brother died at the age of five of scarlatina. The patient was ordered a mixture containing rhubarb and soda, and two days later reappeared, feeling much better; the ptosis was less marked, there was no pain,

and she could eat well. Eyes, under atropine: Ptosis perceptibly less, but still present.

*Movements of eyes.*—Upwards, nil; inwards, nearly complete; downwards, good; outwards, good. In convergence inward movement was good, but still some slight insufficiency. Ophthalmoscopic appearances: Fundus normal; disc oval.  $V = \frac{1}{2}$  with perforated disc.

Jan. 21st: Feels well; ptosis about the same. She was ordered a tonic mixture containing mineral acid and strychnia. Eyes same as last note. There was no change noted till the following date.

Feb. 6th: With back to light both pupils the same size. Facing light, right pupil contracts more than left. Left pupil, moreover, is oval from above downwards; it contracts to light and on convergence, but more slowly and less completely than right. All the movements of the eyeball are perfect except upwards, the eye not passing above the horizontal plane. No ptosis now.—26th: Ptosis has disappeared almost entirely, but is evident at times. She has occasional headache, sickness, and giddiness, with pain over the left eye.

March 5th: As the ptosis did not disappear entirely, the following mixture was prescribed: Ten grains of iodide of potassium, five grains of bromide of potassium, one ounce of the decoction of sarsaparilla, to be taken three times a day.

April 12th: She had had a bad attack of pain and sickness again three days previously.

I had lost sight of her altogether for two years, when, on April 25th of the present year, she returned, with all her old symptoms fully developed. There was very marked ptosis of the left eyelid, and paralysis of all the muscles supplied by the third nerve; the pupil was dilated. The attack began a month ago with headache (pain in the left temple), sickness, furred tongue, and constipation, which continued for three days, when the eye began to droop. The pain and sickness have gone off, the tongue is clean, and the bowels are acting naturally. The patient says she has had "bilious attacks," since she was here, but has not had any drooping of the eyelid; with the exception of the "bilious attacks," which have been as frequent as every month, her health has been fairly good.

*Examination of eyes.*—Left eye: complete paralysis of all branches of the third nerve; ptosis; upper, lower, and inner recti, and also lower oblique, paralysed; external rectus and superior oblique intact; eye looks partially down and out by means of superior oblique, and rotates round antero-posterior axis at the same time. This rotatory movement ceases when the eye no longer looks downwards and outwards. The left pupil does not dilate more than the right in dull light, but does not contract, or only very slightly, on sudden exposure to full light. Paralysis of accommodation also.  $V = \frac{1}{2}$  only. Ophthalmoscopic examination shows inner side of disc indistinct.

May 10th: Eye better; slight recovery of power in the rectus internus and levator palpebrarum. Upper and lower recti still quite paralysed; also paralysis of pupil and accommodation.—23rd: Ptosis almost gone; upper rectus quite paralysed; lower rectus beginning to recover; inner rectus considerably better; pupil still a little larger than the other.

July 7th: Paralysis of superior rectus complete. Movements downwards and inwards good, but not so great in the other eye; slight ptosis still. Right pupil larger than left, but in bright light right pupil smaller than left; left pupil contracts slightly in convergence. Patient sees double only when she looks upwards.

The main points about this case are the attacks of megrim, coming on at intervals, accompanied by paralysis of the muscles supplied by the left third nerve; some atony of the fibres supplied by the sympathetic, as seen by the failure of the pupil to dilate in a dim light in spite of the paralysis of the sphincter; and, in addition, the permanence of (1) complete paralysis of the superior rectus, (2) a slight degree of ptosis, (3) more or less amblyopia of the eye affected. I think the description of the attacks, the history of their recurrence over so long a period as seven years without any particular affection of the general health, and the absence of any reasonable suspicion of syphilis, together with the failure of iodide of potassium to modify the symptoms, justify the conclusion I have formed, in no hasty manner, that this is a case of true megrim associated with paralysis of the third nerve. Dr. Wilks<sup>1</sup> mentions megrim among the causes of paralysis of the third nerve, though he does not

<sup>1</sup> Diseases of the Nervous System, p. 436.

include the symptom in his description of this form of headache, and Horner<sup>2</sup> has specially described a form of ptosis in megrim which he attributes to paralysis of the non-striped muscular fibres of Müller, which are distributed in the orbicularis palpebrarum, and are supplied by the sympathetic. Eulenburg<sup>3</sup> and Rosenthal<sup>4</sup> mention the symptom, but merely refer to Horner's paper. That such a condition is rare is proved by the absence of all mention of it in Dr. Living's<sup>5</sup> well-known monograph on megrim, and in Galewowski's<sup>6</sup> more recent paper on the ophthalmic phenomena of megrim.

On the other hand, it is well known that megrim does give rise to a great variety of peculiar nervous phenomena, among which are temporary, partial, or complete blindness, hemiopia, luminous spectra, numbness and tingling of the fingers, mouth, lips, and tongue; cramps, transient hemiplegia, loss of taste, smell, and hearing, loss of speech, partial loss of consciousness, confusion of ideas, mental incapacity, giddiness, and vertigo. These conditions are not certainly more easy to accept as the results of a purely functional disturbance of the nervous system than those I have described, with this exception, that certain of the phenomena in my case are permanent. The amblyopia can be satisfactorily explained by the astigmatism, which is mixed, but which can be so far corrected that with prisms and a perforated disc the patient can read  $\frac{3}{8}$ , so that the notion of its being due to any retinal condition may, I think, be dismissed in spite of the dubious nature of some of the notes of the ophthalmoscopic appearances.

It is not so easy to explain the permanent and complete paralysis of the superior rectus or the persistent although very slight degree of ptosis; nor do I feel able to make any suggestions at present which can throw any light upon this singular condition.

## A CONGENITAL ANOMALY OF THE CONJUNCTIVA, HITHERTO UNREPORTED.

By J. F. STREATFEILD, F.R.C.S., &c.

At the Moorfields Eye Hospital, on the 11th of May this year, I saw among others in the crowd of out-patients, a lad who had evidently some conjunctival redness of both eyes, which on examination proved to be nothing but a slight catarrhal ophthalmia. To determine this point, and suspecting it might be a case of granular lids, I looked under the upper lid, and also specially, as usual, to the outer angle of the lower lid on its inner surface. For this purpose I made traction on the skin downwards, and then also somewhat outwards. As I was thus pulling the outer canthus away from the eyeball, and everting the lid, a conjunctival fold came into view, which evidently limited and abbreviated somewhat the normal amount of separation to be effected between the eyelids and the eyeball, the palpebral and ocular conjunctiva, at this part. Then, with another finger, I also lifted the upper lid at the outer angle, and the fold I had observed came very prominently into view. It extended exactly horizontally from just behind and within the outer canthus, to nearly the outer margin of the cornea. It would not allow the lids to be lifted so far as they may be usually away from the eyeball, but the normal movements of the eyes when the lids were *in situ* were not by it interfered with. Being stretched, by lifting the two lids as I have described, the little straight fold was seen to be semi-transparent, and, seeming to consist only of the folded normal conjunctiva, it reminded me of the little vertical fold of mucous membrane under the tongue of infants to which one's attention is so often directed, when, as their mothers and nurses say or suppose, the child is "tongue-tied." In each palpebral aperture this abnormal frænum existed, and was altogether quite symmetrical. There were no other oculo-palpebral prominent folds, nothing like symblepharon in either eye. The patient knew nothing of the anomaly I am describing; he had had nothing the matter with his eyes but the present insignificant conjunctival inflammation. Symblepharon as a congenital affection

has been reported, but the present case cannot possibly, I think, come under this category, because—(1) the conjunctiva was only shortened, or of little extent, directly outwards in either eye, as a little fold forwards and horizontally, instead of a backward and vertical fold. It was not thickened, or otherwise changed in appearance, as are the folds in the reported cases of congenital symblepharon, which seem to have been the result of intra-uterine inflammation, nor did the eyes themselves and the eyelids, excepting as regards these purely conjunctival fræna, show any structural abnormality, any inflammatory results, fetal or otherwise, or any ill-development—if I may assume that these fræna were evidences of ill-development of the conjunctival sacs; because (2) these fræna in my case were only just at the outer angle—i.e., where any symblepharon is not very likely to occur; and also because (3) of the exact symmetry that existed. It was, I think, a partial malformation. I find no notice of any such congenital anomaly in Professor Manz's chapter (vi.) in Graefe and Saemisch's Handbook, or in other books. These fræna may perhaps be explained by a consideration of the development of the eyelids; an upper, lower, and inner lid are formed, of which the latter, although in the human subject it is quite rudimentary, yet it must not now be forgotten, for in the novel and possibly unique case I am recording, the forward folds of conjunctiva were only at the outer canthus and exactly horizontal—that is to say, where without the rudimentary inner third lid, the two greater eyelids come close together into contact, being formed by two, an upper and a lower, infoldings of the integument. If such infoldings above and below, as two pockets, are likely, as I suppose, to leave between the two a tegumentary ridge or outfold, I will venture to guess that I have in the present case found a congenital abnormality not so very rare as hitherto undetected. We constantly open eyelids and look up and down under the two lids, but we do not specially observe if the two lids together are perfectly and normally separable from the eyeball at their junction at the outer angle. Is the common congenital abnormality called epicanthus a (displaced) development of the third eyelid of the lower animals? Is the plica semilunaris in such cases absent? I have not myself observed that it is.

## ON THE VARIETY AND DIFFERENTIAL DIAGNOSIS OF VENEREAL SORES.

By J. CARTER BATTERSBY, M.B., B.Ch. T.C.D.,  
SURGEON, ARMY MEDICAL DEPARTMENT.

As the result of recent research in this country and abroad, and from individual observation, it would appear that two distinct classes of venereal sores exist—namely, first, those that are accompanied with and followed by constitutional symptoms; and, secondly, those that are not. The former have been designated hard or specific, and the latter soft or non-specific. It is, I think, a pity that these terms should have gained such universal acceptance, as they are not only partly erroneous, but liable to lead the inexperienced into much difficulty, and not unfrequently into errors of diagnosis and prognosis. It would be preferable (in the absence of less misleading names) to use the simple and intelligible terms, syphilitic and non-syphilitic, according as the local lesion with its accompanying symptoms presents the characters of a sore from which the constitution will become affected with syphilis or otherwise. As to the duality of the poison, we meet with many eminent surgeons who distinctly affirm that there is but one venereal poison capable of producing venereal sores, and that all such sores are syphilitic. That the constitution does escape contamination in certain cases, is ascribed to the early treatment and administration of mercury, &c.

There was a time when the physician drew no line of demarcation between typhus and typhoid fever, but at the present day there are few who will doubt that the one is as distinct from the other as variola is from varicella. Nor do we now believe that the poison of typhus can produce typhoid, or that of variola varicella. Each is perfectly distinct, has its own period of incubation, its own peculiar symptoms, and individual specific poison. By an analogous mode of reasoning, drawn from the result of practical ob-

<sup>2</sup> Ueber eine Form von Ptosis, Monatsbl. f. Augenheilkunde, 1869, vii.

<sup>3</sup> Ziemssen's Cyclopaedia, vol. xiv. <sup>4</sup> Diseases of the Nervous System.

<sup>5</sup> On Megrim and Sick-headache, 1873.

<sup>6</sup> Arch. Gén. de Méd., June and July, 1878.

servation and inquiry, we are, I think, rationally bound to admit that two distinct classes of venereal sores exist, that each has its own peculiar period of incubation, its own symptoms, and its own specific poison. Is the poison, we may ask, which produces a syphilitic sore and infects the system with syphilis capable of microscopic examination or chemical analysis, and if so, does any perceptible organic difference exist between it and the peculiar specific poison which can only produce a mere local ulcer or ulcers, and which as such are never followed by constitutional symptoms? No solution to the above problem has as yet been satisfactorily determined.

In describing the local lesion or primary syphilitic sore which is always followed by constitutional symptoms, I have usually seen the following three varieties:—

1. *A sore or sores characterised by induration or hardness from the beginning and throughout its entire course.* This first variety may appear as (a) a "cupped-shaped" cartilaginous cavity of variable size, and situated on an indurated base, or (b) it may be seen as a superficial excoriation or elevated elliptical nodule of an ash-grey or livid colour, and generally situated on the corona glandis. Sometimes this first variety appears as (c) an induration beneath the true skin.

2. The second variety (*soft in its early stage, but subsequently becoming indurated*) is seen as a sore or sores which in their early stage simulate the non-syphilitic ulcer or ulcers, but subsequently become indurated and followed by constitutional symptoms. It is exceedingly difficult to diagnose this second variety in its early stage, as I believe it is invariably complicated by the existence of non-syphilitic sores, one or more of which after a variable time may assume the characters of the true syphilitic ulcer or ulcers. The question may arise as to how this peculiar change in the non-syphilitic ulcer takes place, and an explanation be called for. I believe it is due to the existence of a double poison manifesting itself in the one individual, contracted either at the same time (as we know that both classes of venereal sore may exist in the same person) or at different intervals. The period of incubation of non-syphilitic sores being much shorter than that of the syphilitic, they first appear, and whilst being treated the incubative stage of the true syphilitic sore is accomplished, and the lesion becomes manifest. The last case which came under my observation of this second variety of syphilitic sore is worthy of record, as it clearly illustrates the difficulty that attends our early diagnosis.

A corporal in the 4th Dragoon Guards was admitted to hospital under my care suffering from what appeared to be two ordinary non-syphilitic ulcers, situated on the upper surface of the glans immediately in front of the corona. The ulcers were shallow, and had all the characters of the so-called "soft sores." After three weeks from admission to hospital both ulcers became elevated and livid, and presented the appearance of "cupped-shaped" cartilaginous cavities situated on indurated bases; subsequently unmistakable secondary symptoms followed.

3. The third variety of syphilitic sore—namely, *that which is soft from the beginning and throughout its entire course, but followed at a given period by secondary symptoms*—I have usually seen on the external integument situated on the dorsum or side of the penis. When this sore comes under our observation it is generally of two or three days' duration, is circular in form, about the size of a sixpence, edges irregular and sharp, surface presenting a finely granular appearance of a yellow-pink colour, and having a thin ichorous discharge. There is no induration accompanying this sore, either in its early stage or after it has healed, and it is invariably followed by constitutional symptoms. Again, it is our lot to see a sore situated probably on the side of the corona and glans, which rapidly spreads in circumference and depth; the edges seemingly raised, the surface deep and irregular, of a dark or livid colour, and discharging a thin watery fluid. I have been unable to detect any induration about this sore, and have seen it followed by severe secondary symptoms.

Having described and attempted a classification of those ulcers and lesions which I have seen followed by constitutional symptoms, I shall endeavour, under the head of Class II., to point out the non-syphilitic sores which, as such, are never followed by secondary symptoms.

1. *A sore or sores, having a great tendency to multiply, often numbering as many as twenty, and generally situated in the hollow between the glans and the prepuce, on the*

corona glandis, prepuce, frænum, glans, in the meatus, urethra, or on the external skin. These ulcers are first noticed from twenty-four to forty-eight hours after coitus; in some cases, however, they may not appear until the fourth or fifth day. There is generally a good deal of heat and itching about the parts, the ulcers, as a rule, being round or elliptical in shape, and of variable size, very shallow, edges sharp, surface yellowish-pink colour, discharging pus, and surrounded by a narrow red areola. There is no induration from the beginning or throughout the entire course of these ulcers, unless, as sometimes happens, induration occurs as the result of certain local applications.

2. A sloughing sore which may begin as such, or appear so shortly after the ordinary sores are discovered.

3. Gangrenous ulceration or sloughing phagedæna is, fortunately, of rare occurrence; when it does take place the greater portion of the organ may be destroyed. It would appear that an elongated prepuce predisposes to this formidable affection, the upper portion of which first becomes affected. It is, I think, well to give a very guarded prognosis in all cases of sloughing or phagedænic sores. The ordinary non-syphilitic ulcers must not be confounded with herpes or aphthæ of the glands and prepuce, or with what sometimes occurs, a ruptured frænum, the result of mechanical violence. These, as a rule, occur after connexion, have no specific characters, and are unaccompanied by glandular or other complications.

The following table, giving the differential diagnosis between syphilitic and non-syphilitic ulcers, may be useful in helping to form an early and correct opinion of venereal sores.

#### *Syphilitic Ulcers or Lesions.*

1. Incubation ten days to eight weeks.

2. Collateral symptoms: Probable congestion of soft palate and tonsils, slight induration of lymphatic glands in groin, drowsiness, headache, and depression of spirits.

3. Primary lesion or lesions assume some of the varieties described under Class I.

4. Thin ichorous discharge.

5. Generally single.

6. Glands in groin enlarge, but seldom suppurate.

7. Fever present after a short time.

8. Ratio to non-syphilitic ulcers 1:4.

9. Constitutional symptoms invariably follow.

10. Can only have one attack, unless, as in certain rare cases of small-pox, the system, after the lapse of many years, becomes liable to a second seizure.

11. Prognosis unfavourable; must be guarded, and given in accordance with the severity or otherwise of the secondary symptoms.

#### *Non-syphilitic Ulcers.*

1. Incubation twenty-four hours to five days.

2. Collateral symptoms: Probable enlargement and swelling of one lymphatic gland in groin.

3. Ulcer or ulcers assume the characters described under Class II.

4. Discharge always pus.

5. Seldom seen as a single ulcer, and have great tendency to multiply.

6. An isolated gland becomes swollen, and frequently suppurates.

7. Fever absent, unless due to suppuration.

8. Ratio to syphilitic ulcers 4:1.

9. Constitutional symptoms never follow.

10. May suffer repeatedly from such sores.

11. Prognosis (as to the liability of the system becoming affected) always favourable.

AN appeal has been put forth for funds to provide proper medical aid for the sick of Northern India, who, it seems, are deplorably victimised by the ignorant hakims. The services of Dr. Sen, a graduate of the Calcutta University, have been secured by the Cambridge Mission, and to sustain him in the work subscriptions will be received by Mr. Egerton Hubbard, of Cadogan-place, S. W.

A NEW hospital for the isolation and treatment of infectious diseases was opened near Sittingbourne on Tuesday. It has been built at a cost of £5000, and is the first building of the kind erected in Kent, though others are in course of construction, or are contemplated, at Chatham, Maidstone, and Faversham.

## SOME MEDICAL AND SURGICAL USES OF BELLADONNA OR ITS ALKALOID.

By J. H. WHELAN, M.D., M.Ch.

I MAY be excused for making a few remarks on some of the actions of this important medicament without touching on its important effects on the cord, salivary and sweat glands, splanchnics, oculo-motor and sympathetic of the eye, &c. It was called "belladonna" by the Spiniards on account of its being used by the Spanish beauties to dilate their pupils, thus enhancing their personal appearance at the expense of dim vision, fashion ever requiring sacrifices. But while opium may be called the *prima donna* of drugs, belladonna vies with it, and may be called *bella donna* on its own merits with justice. It is well known to physiologists that belladonna and its alkaloid have the power of doing away with the inhibitory action of the vagus on the heart. Physicians and surgeons seem to overlook the fact that syncopic attacks are in the main caused by reflex cardio-inhibition. Every medical man knows that Mr. Schäfer, of University College, has recommended the use of atropine *sub cute* before chloroform inhalation, in order to do away with the effects of the vagus stimulation supposed to be caused by this anæsthetic. Yet how very few use it! I do not know of an Irish hospital wherein the practice has been adopted. We must conclude that the surgeons are sceptical of its good effects. Without going deeply into physiology, let me briefly summarise the evidence of cardio-inhibition, its causes, and the effects of atropine.

1. If we send an interrupted current into the exposed vagus of an animal, after an initial latent period (which is 16 second in the rabbit according to Donders), the heart stops beating and remains in diastole.

2. If we give a dose of atropine before applying the electrodes no such thing takes place.

3. The application of muscarin or pilocarpine seems to produce profound cardiac inhibition, which a small dosage of atropine removes.

4. Nicotine slows the heart considerably, but its effect passes speedily off, the heart assuming its normal rhythm. Stimulation of the vagus has then no effect, but the dosage of muscarine at once produces a standstill. It would seem from this that nicotine paralyses the cardio-inhibitory vagal fibres after an initial stimulation, while atropine, which will remove the effects of the muscarine, has an effect to boot on the heart itself—Bidder's ganglia, or whatever it may be.

5. We may stop the beating of a frog's heart by exposing its mesentery, and slapping it with a scalpel laid on the flat, by crushing one of its limbs, or in other ways, all by causing a reflex action.

What do all these, the results of vivisectional experiments, teach us? They teach us what Schäfer told us long ago, that the hypodermic use of atropine before chloroform inhalation may ward off death itself. But I for one do not believe in Schäfer's idea that chloroform stimulates the vagal inhibitory fibres, but incline to the belief that chloroform weakens the heart's action, that it lessens all protoplasmic activity; that when the shock comes in the cutting, &c., of the operation, we have a reflex cardio-inhibition over which the heart is unable to mount in its weakened condition. We need, in truth, have no operation at all, and this is a point to which I would call special attention. In the administration of the drug when the patient is struggling under its influence, an action in the intellectual centres, the supervention of fright, terror, or any strong impulse may cause a like effect, and death. Should the latter supervene we are treated to the oft-told tale of the failure of the heart's action. Evidently these things may occur under all anæsthetics, and are more potent in those that are of a depressing nature *per se*. They are not specific to chloroform. A dose of atropine would in all cases be a useful preventive, and perhaps, if adopted in future, save some of our species temporarily from the jaws of our grim-visaged foe.

Turning for a moment from Surgery to her kindred sister, Medicine, there are many cases in which belladonna or its alkaloid would prove useful. In some extreme cases of hysteria or allied disorders we have patients going from one faint into another, frequent syncopic attacks. In the allied abnormal condition of pregnancy, that called by old authors

hypothæmia, we have the same condition. In both this drug ought to prove extremely useful. In the former we have impulses originating probably in the higher centres, causing frequent inhibitions; in the latter the less noble organ, the uterus, takes the place of the brain. In certain apparently asthenic inflammations, particularly in peritonitis, a very weak pulse is a common thing. One would imagine that this, which is fast, could in no way be connected with the so-called cardio-inhibitory mechanism, but it is just possible that it might. The inhibitory fibres, being acted on slowly and gradually, become in part exhausted, while the "accelerator" nerves might develop into action. Be this as it may, I once saw a very interesting case under Surgeon Hamilton in the Co. Meath Infirmary. A man was brought in suffering from slight localised abdominal tenderness and obstinate constipation. The pain increased and the pulse became extremely weak and fast, while the constipation increased after the trial of numerous expedients. Surgeon Hamilton ordered him a grain of extract of belladonna every hour. By the time he had taken his second dose the pulse had improved wonderfully, and assumed the normal type in all its characters. The patient ultimately got worse and the pain increased, when he was put on full doses of opium. He died and the autopsy revealed a perforating ulcer of the pylorus. It is difficult with our present knowledge to interpret this case aright. By what means did the improvement of the pulse occur? Was it by the removal of the cardio-inhibitory action developed reflectorally from the inflamed peritoneum? Some no doubt would refer the action to an influence by which the arterioles were contracted *à la* Burdon-Sanderson's theory of digitalis. But leaving this rather difficult problem, I think we have in the deadly nightshade a means by which we can prevent persons from fainting, so that it is just probable, in the future of society, when a young lady feels inclined to faint, instead of running for the brandy bottle recourse will be had to an atropine parvule.

By the introduction of the nozzle of the hypodermic syringe the surgeon may remove the effects of the shocks of gigantic wounds of railway accidents, of common wounds on the battlefield, for the primary shock of the latter sweeps away nearly as many men as their secondary consequences. I had once in the days of my studentship to open a small onychial gathering in a girl's finger. She was of an extremely nervous and erotic constitution, but withal strong and well made. About a year or so before she had been an inmate, for over four months, of a public institution—an inveterate case of hysteria. Immediately after the opening of the minute abscess she fainted three times. Some time afterwards I had to remove the stump of a tooth for her; on this occasion she fainted twice. Less than a month afterwards I had to attempt the removal of another. This latter was the most painful and longest ordeal to her, as owing to the friability of the stump it was extremely hard to be got at. I gave her, twenty minutes before using the instrument, twenty-five minims of tincture of belladonna. She did not faint nor manifest any signs of weakness—a result which must, I think, be attributed to the narcotic. If then, as it seems likely, we are in possession of a drug which will prevent cardio-inhibition, cases of "death from shock" ought to fade from the death register of surgical practice. It is perhaps right to state that Kinger and others consider that the paralyzing action of atropine on the vagus is no longer tenable, though their ideas for thinking so do not seem clear.

Belladonna is sometimes serviceable in annoying nocturnal emissions. It will be found very useful indeed if the emissions be accompanied with erections, but perfectly useless if they be not so accompanied. This is in keeping with Nicolski's results, that atropine paralyses the "dilator" fibres of the nervi erigentes, while muscarine produces erection apparently by stimulating the local dilator mechanism, thus resembling what appertains to the heart. When therefore we have a case of excessive nocturnal emissions with erections, minute doses of belladonna and bromide of potassium will speedily effect a cure when exhibited at bedtime.

Dr. Gentilhomme of Reims, I see by the late journals, has employed a pill containing one-hundredth of a grain of sulphate of atropine in a patient suffering from coryza, and very subject to it, with very excellent results. Fifteen minutes after the first administration all sneezing had ceased, the secretion stopped, and respiration became normal. Eventually the attacks diminished, and finally disappeared under its influence. If Gentilhomme's conclusions turn out



correct, there will be a very decided improvement made in the treatment of catarrh. Dr. G. Johnson's treatment by full doses of opium invariably gives rise to unpleasant sequential symptoms, while Jukes Styrap's frequent minute doses with antimony are very depressing, to which I can bear personal testimony.

Loughrea.

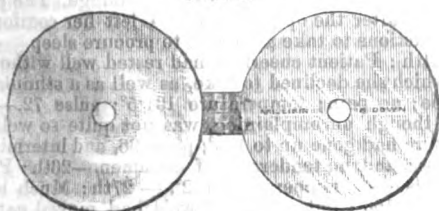
### A WAISTCOAT-POCKET AURAL REFLECTOR AND SET OF SPECULA.

By E. CRESSWELL BABER, M.B. LOND.,

SURGEON TO THE BRIGHTON AND SUSSEX THROAT AND EAR DISPENSARY.

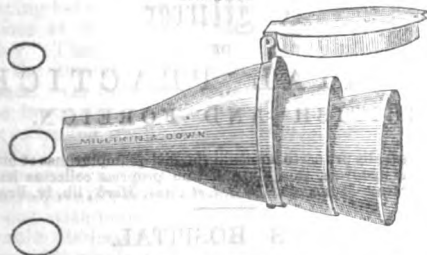
IN comparison with some more favourably situated organs, such as the eye and the skin, the ear is placed at a disadvantage, inasmuch as it usually requires for the diagnosis even of its more common diseases the use of certain instruments. It is therefore of importance that these instruments should be made as simple and portable as possible. A great step in advance in this direction was undoubtedly made when von Tröltsch introduced into general use the aural speculum and concave reflector, by means of which an ear can be inspected either with day light or artificial light. Under my direction Messrs. Millikin and Down of St. Thomas's-street, Borough, have modified these so as to render them still more portable. The reflector (Fig. 1, reduced in size) consists of two circular mirrors, each

FIG. 1.



2½ inch (about 6½ centimetres) in diameter, and firmly jointed together at the edge, so that when folded their reflecting surfaces come into contact. One mirror is made of glass and is concave, having a focal length of 5½ inches; the other is nickel-plated and plane. Both have a central circular aperture. With the concave mirror the ear may be examined either with ordinary daylight or with artificial light, whilst with the plane mirror sunlight may be reflected into the ear. The focal length of the concave mirror is purposely made rather long in order that it may also serve for an examination of the nasal cavities from the front, and for throwing light into the fauces in inspecting that region. With this reflector and a bent hairpin to draw out the ala of the nose a very fair inspection of the nasal cavities can be made. The nest of specula (Fig. 2, natural size) con-

FIG. 2.



sists of three, made of silver, fitting accurately one into the other. They are shorter than those in common use (measuring 3 centimetres—1½ in.—in length), and are made as light as possible. The smaller ends of the specula measure respectively about 6 by 7, 5 by 6, and 4 by 5 millimetres in diameter. The largest speculum, measuring at its broad end 17 by 18 millimetres in diameter, is fitted with a cap, which is preferably jointed on to the flatter side of the speculum, and not to the end of the oval, as shown in the figure. The shortness of the specula does not interfere, I have found, in any way with their practical utility,

although, of course, they afford less leverage for moving them in the ear than the ordinary specula. With these two small instruments in his pocket, the practitioner can, at a moment's notice, inspect an auditory canal and gain important information as to the state of a patient's ear. Others, no doubt, like myself, have frequently been requested to look at So-and-so's ear, as he or she was suffering from earache or deafness. Instead of deferring one's examination to a future period, with these instruments at hand the auditory canal can be immediately examined, and the case prescribed for on rational principles. If, for instance, the meatus be occluded with cerumen, instillations of a solution of bicarbonate of soda can be ordered, which will facilitate its removal with the syringe at the next visit; if the meatus be filled with pus, directions can be given to syringe the ear with warm water; if the meatus be clear, and the membrane shows signs of acute inflammation, or of inflammation in the drum cavity, the immediate application of a leech in front of the tragus will probably be of great benefit, and any other instruments likely to be required, such as the Politzer bag or paracentesis needle, can be brought at a subsequent visit. Without multiplying instances, it is self-evident that, especially in acute cases, such as are met with in general practice, the earlier a case is examined the more successful and satisfactory the treatment is likely to be.

### AN EVACUATOR FOR THE BLADDER.

By JOHN H. MORGAN, F.R.C.S. ENG.,

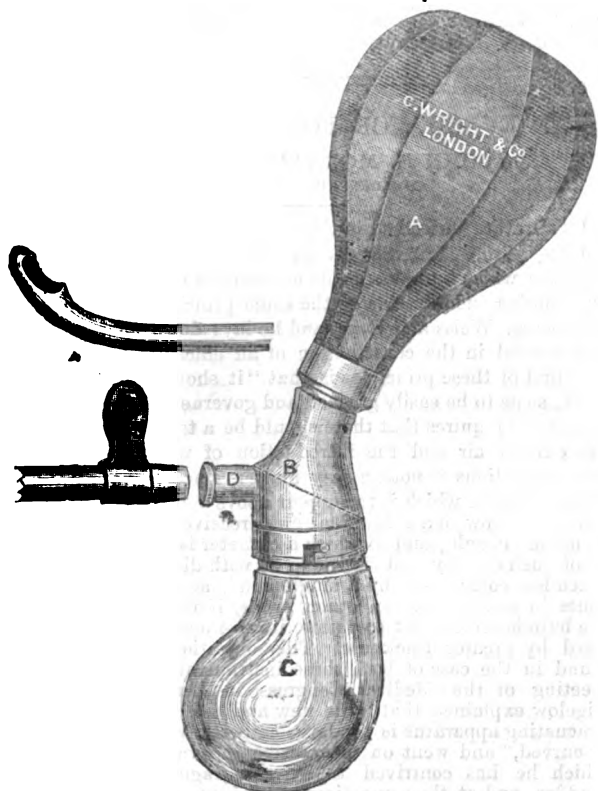
CHARGING-CROSS HOSPITAL.

IN a lecture published in the number of THE LANCET for January 7th, 1882, Sir Henry Thompson describes an aspirator which had been made according to his own design, and another modification of the same principles carried out by Messrs. Weiss and Sons, and he lays down some points as essential in the construction of an efficient instrument. The first of these principles is that "it should be light and small, so as to be easily grasped and governed by one hand"; the second requires that there should be a tap at the top for the exit of air and the introduction of water. To fulfil these conditions is not an easy matter, since any apparatus of india-rubber which is to support above a heavy tap and be attached below to a cylindrical glass receiver in which fragments are caught, and to which a catheter is attached, must be of such density and size as to be with difficulty grasped, much less compressed by a single hand, at all events many times in succession. In other words, if the continuity of the bulb is broken at two points, its resiliency must be supplied by greater thickness. This objection is practically found in the case of both these instruments. At the late meeting of the Medical Congress in London, Professor Bigelow explained that "the new and essential part of the evacuating apparatus is the large catheter, whether straight or curved," and went on to describe the various apparatus which he has contrived to extract fragments from the bladder, and at the same time to prevent the possibility of their return. These instruments were figured and described in the Transactions, but that Professor Bigelow is hardly yet satisfied is shown by the fact that at a recent meeting of the New York Academy of Medicine he exhibited the evacuator which he has "finally settled down upon as being the best," adding that the ball-valve and strainer which formed part of his former instrument were a "little complicated" and "apt to clog."

Adhering to the principles laid down by these two eminent lithotritists, I have been at some pains to contrive an apparatus which should at once be effective in action, but of simpler construction than those hitherto invented. The result of my efforts is an instrument which is figured below. It consists of an india-rubber bulb (A) of moderate resiliency, and capable of containing about twelve ounces of water. This is of the shape of an inverted pear, and its narrow portion is fixed to a metal ring, which can be attached to or removed from the central portion of the apparatus by means of a screw. This is only required for convenience of carriage or for the purpose of cleaning the apparatus. In order to allow a better view of the glass-receiver, the bulb is attached at an angle slanting backwards to the rest of the apparatus, which hangs perpendicularly. The central portion is of metal,

and forms one with the bulb above, and is attached by a bayonet-joint to the glass receiver below. In front projects a short tube (D), into which the catheter—the largest of Bigelow's sizes—fits when the instrument is in use, but which can accommodate catheters of a smaller calibre. Running diagonally downwards in the interior of this portion of the apparatus, and fixed above, just at the entrance of the passage of the tube (D), is a perforated metal disc, which is placed in such a position that anything carried through the tube (D) must directly impinge upon it, and be thrown downwards. The glass-receiver (C) is made to fit closely to the central portion, and is shaped like the handle of a pistol, with two objects—partly because by this curve an interruption is made of any current of water carrying with it fragments of detritus, and partly because in the forefront of this transparent bowl the size and quantity of the fragments can be seen and estimated by the operator.

In order to fill the apparatus, the receiver (C) must be detached and filled, and the air driven out of the upper portion under water. The two pieces being filled, must be fixed under water, which can be done in a large basin or bucket, and for security the forefinger should be placed over



the mouth of the tube (D), to prevent the escape of any water, although if the instrument is held by the solid portion and inclined slightly backwards, the pressure of the atmosphere is sufficient for this purpose. The india-rubber bulb must not, of course, be touched until the tube (D) has been adjusted to the catheter. It will then be found that the weight of the upper and lower portions is so evenly balanced (when full) as to make all manipulation easy, and entirely under the control of one hand, so that water can be injected into the bladder and withdrawn as rapidly or slowly as is wished, and the position and direction of the catheter altered.

In using this, and all other instruments for a similar purpose, it is well, after forcing water into the bladder, to pause for a second or two before relaxing the pressure on the bulb. By so doing the fragments which have been set in commotion can settle at the bottom of the bladder, and thus come nearer the eye of the catheter, and are withdrawn by the returning current of water. In this apparatus the fragments striking against the metal disc are at once thrown down into the glass receiver, where they remain undisturbed in any position of the instrument. The apparatus has already been used and approved by several London surgeons.

Chapel-street, Park-lane, W.

## STRANGULATED HERNIA OF FIVE DAYS' DURATION IN A WOMAN AGED EIGHTY-FIVE; OPERATION; RECOVERY.

By C. A. OWENS, M.D. BRUX, L.R.C.S.I.

ON Sept. 23rd, 1879, I was called to see M. S—, an old woman, aged eighty-five, who was suffering from sickness and constipation. I found that these symptoms had been present for 120 hours, and were due to the presence of a right strangulated femoral hernia. There was a tense, hard, painless tumour in the corresponding region; she had the usual anxious expression of countenance; pulse 75; temperature 101°. The vomiting was not stercoraceous. Having tried the taxis carefully, but without success, I applied an ice-bag to the tumour, and tilted up the foot of the bed, which proceeding had enabled me to succeed in reducing a hernia under similar circumstances. Later in the day I again visited the patient, and finding reduction impossible, I administered chloroform to her with the understanding that if taxis then failed I should proceed to operate without further delay. Taxis not succeeding under chloroform, I operated in the usual way, being obliged to open the sac, and relieving the stricture by slightly nicking Gimbernat's ligament. The bowel was congested, but retained its natural lustre, and was returned into the abdominal cavity without any difficulty. The wound was closed by sutures, and dressed with a pad of lint supported by a spica bandage. The patient rallied well after the operation, and I left her comfortable, with instructions to take an opiate to procure sleep.

Sept. 24th: Patient cheerful; had rested well without the opiate, which she declined to take, as well as a stimulant in any shape; no pain; temperature 101.5°; pulse 72.—25th: Patient, though uncomplaining, was not quite so well; her temperature had gone up to 103°; pulse 96, and intermittent; no sickness and no tenderness of abdomen.—26th: Patient better; pulse 96; temperature 102°.—27th: Much better; temperature 100°; pulse 112. Bowels had moved naturally without medicine. The patient continued to improve.

On Oct. 1st I removed the dressing, and found the wound entirely healed; sutures removed. From this date the patient advanced rapidly to perfect recovery without any untoward symptom.

*Remarks.*—This case is worthy of notice on account of the very advanced age of the patient (eighty-five) and the length of time the hernia was strangulated. No credit can be given to opium, as she took none either before or after the operation; nor to stimulants for the same reason, the patient having a decided aversion to their use. She was out in the fields gleaming in three weeks, and is alive and well now at the advanced age of eighty-eight. I was assisted by my partner, Mr. Barton, during the operation.

Long Stratton, Norfolk.

## A Mirror OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## GUYS' HOSPITAL.

EPITHELIOMA OCCURRING IN AN ULCER AND IN AN OLD CICATRIX.

(Under the care of Mr. BRYANT.)

THE two following cases are interesting examples of the occurrence of epithelial cancer in old cicatrices. In the first case the ulcer was of about twenty years' standing, while in the second the epithelioma attacked a cicatrix nearly forty years old. These growths mostly affect ulcers on the lower limbs, but in the second of the subjoined cases the scar was in the axilla. Though the epithelioma usually begins as a

papillary enlargement, it sooner or later involves the adjoining textures, and may finally completely penetrate the bone, as in Case 1.

CASE 1. *Epithelioma in an old Ulcer of the Leg; Amputation at Knee-joint; Abscess in Stump; Necrosis; Relieved.* (From notes by Mr. Kendall.)—John G—, aged sixty-two, a cabman, was admitted on April 20th, 1881, into Job ward. He had had syphilis, but he did not know how many years ago, and had otherwise had good health. In the year 1861 he struck his left leg and an ulcer formed, and about 1877 he struck his right leg. In the year 1878 he was in the Plumstead Infirmary, where his legs were poulticed and lotions were applied, resulting in a perfect cure of the right leg. The ulcer of the left leg healed up to the size of a shilling. Both legs got worse after his discharge from the infirmary. About six months before admission into Guy's a quantity of black blood ran from the ulcer in the left leg. He had been in great pain all along. Dr. O'Connor of Greenwich had cauterised his ulcer and cut it.

On admission there was on the left tibia a large growth occupying the lower half of the bone and measuring about six inches from above downwards, and five inches from side to side, and being about three-quarters of an inch above the surface. The inner three-fourths of the ulcer were occupied by the growth, and the outer one-fourth was comparatively healthy; the patient had also a tense hard translucent swelling of the scrotum. Urine had an acid reaction, with specific gravity 1008, and was free from albumen and sugar.

On April 24th, under an anæsthetic, and after an Esmarch's bandage had been applied, an incision was made about an inch below the tubercle of the tibia round the leg. The skin was dissected back as far as the lower portion of the patella. The leg was flexed and the joint opened by cutting through the ligamentum patellæ. The joint was then cut from behind, while the limb was extended. The crucial ligaments were then divided, and the leg was removed. As there was considerable difficulty in twisting the end of the femoral artery, on account of its giving off a kind of axis, a catgut ligature was used. The other vessels were all twisted. The hooded flaps were brought together by silk sutures. Accurate juxtaposition could not be obtained, and so two "ears" of skin were left at the upper part of the wound. A drainage-tube was introduced, and the wound dressed with terebene and put upon a splint. Temperature after operation 98°. An injection of morphia was given.

The tibia was occupied by an epithelioma. At the upper part the medullary cavity, just above the tumour, was filled with new bone, but above this the medulla was normal, and the margin abrupt. Before making the section the bone was continuous across the growth, but it broke during the sawing with very little force. The surface of the bone near the growth was rough and "carious" from new deposit at the posterior surface. The bone abutting on the growth was also eaten out and rough.

On May 2nd the dressings were removed from the stump. The outer ear of the skin was sloughing. There was an offensive discharge, and the patient complained of tenderness on the outer side of the femur. On the 7th there was some gaping between the flaps. A week later the cartilage at the base of the internal condyle had turned black, and was dying. There was a fissure in the centre of the upper part of the tongue, with hard edges having a greyish appearance. On the 23rd a fluctuating swelling had formed over the lower third of the femur on the outer side. The swelling extended about three-fourths of the way round the femur, which bone was denuded of all tissue, except the periosteum and some granulations. The swelling was opened, and a large quantity of pus came away. The cavity was well washed out with iodine lotion. On the 27th there was still considerable discharge from the abscess. The urine was tested; specific gravity 1024, acid, no albumen or sugar.

On June 6th the femur was found to be necrosed for nearly three-fourths of its length. Eight days later there was still a considerable discharge, and a small abscess near the end of the stump was opened.

On July 25th the wounds were healing but slowly. There was a chocolate-coloured discharge from the stump.

On Sept. 5th six skin grafts were applied to the stump wound. On the 12th two small fragments of necrosed bone were removed from the stump.

On Dec. 2nd the left leg had broken down in two places about the size of half-a-crown. There was one ulcer about the size of half-a-crown on the right leg. On the 5th the

patient went out. The sinuses were unhealed, and the parts of the femur were necrosed and in position.

From April 24th to June 21st the temperature ranged mostly from 98° to 100°; once (June 20th) it rose to 102°8', but fell to normal on the same evening. After June 21st it rarely exceeded the normal, and then only to a slight degree.

CASE 2. *Epithelioma of Axilla arising from Scar; Excision; Acute Mania; Relieved.* (From notes by Mr. Manley.)—Eliza H—, aged forty-seven, was admitted on Oct. 11th, 1881, into Lydia ward. She was married, and had had three children. Thirty-nine years ago she was badly burned over the right breast and shoulder. The cicatrization was almost complete, except at a small surface near the anterior fold of the axilla. This remained about the same size until four years ago, when it began to increase in size and to discharge. Seven months before admission it was about the size of a penny, and had extended so that there was a large ulcer occupying irregularly the interior and exterior folds of the axilla. Its edges were hard, everted, and infiltrated, and slightly covered with thin adhesive pus. The base was hard and irregularly granulated. The axillary glands could not be reached, but there were no enlarged glands in the neck. The nipple was destroyed when she was burned; but she stated that milk had oozed from a small hole whenever she had suckled.

On Oct. 25th, under anæsthetics, the growth was dissected away, commencing in the centre of the axilla and extending round the thoracic portion. In dissecting away in the latter part the breast tissue was cut into, and a quantity of creamy pus exuded. Five or six small vessels were twisted during the operation. The growth was removed whole, the disease not having penetrated beneath the fascia. A few cuts having been made in the edges of the wound with a view to remedying the contractions of the old cicatrix, the wound was dressed with eucalyptus gauze. On the morning of the 31st, though the wound was progressing favourably, the patient became delirious, and morphia injections were given by force; and in the evening the patient tried to hang herself.

On Nov. 24th, the wound gave no trouble; but the patient seemed bent on suicide, and was discharged.

The temperature was for the most part about normal throughout. On the evening of Oct. 29th, it attained its maximum of 100°8' F.

#### QUEEN'S HOSPITAL, BIRMINGHAM.

BURN OF ABDOMEN, SCROTUM, AND PENIS, CAUSING PHIMOSIS; CIRCUMCISION.

(Under the care of Mr. WEST.)

EDWARD L—, a stout, single man, aged fifty-three, was admitted, on Jan. 15th, 1882, with deep black eschars over the lower part of the abdomen from the umbilicus downwards, and extending to the scrotum, penis, and both the thighs nearly as low as the knees. While in a state of extreme intoxication on the night of Dec. 30th, 1881, he fell down, and supposes that in his fall a box of fuses which he had in his trousers pocket became ignited and set fire to his clothes. He laid out in a yard all night; and it was only the following morning, on coming to his senses and witnessing the burnt state of his clothes, that he was aware of the serious accident that had befallen him. Carron oil was used to the burns, and gradually the sloughs cleared off; but in the process of cicatrization, phimosis occurred to such an extent that he could scarcely pass his water. To remedy this condition, Mr. West performed partial circumcision after Denmarquay's method on March 3rd. The three silver sutures used to retain the skin and mucous membrane in position were removed on the 10th, and union was perfect by the 14th, a fair amount of preputial covering of the glans being preserved.

The case is of some medico-legal interest, as showing what a grave injury may be inflicted on a man while under the influence of drink without his being aware of it, and of surgical interest, as exhibiting an uncommon cause for the production of phimosis.

SPINAL CARIES; PSOAS ABSCESS; INCISION WITH ANTI-SEPTIC DRESSING AND A SAYRE'S CASE.

(Under the care of Mr. WEST.)

Eileen T—, aged twenty-six, single, servant, a tall well-made, muscular girl, was admitted on December 28th, 1881, under Dr. Sawyer, and transferred to Mr. West's care

on January 7th, 1882. On December 21st, 1881, she started to walk from London to Coventry. On the third day (December 23rd), when about eighty miles from London, she found the road flooded from the recent rains; she went through the water, which was nearly up to her knees; she was in it two or three minutes. When about eighty-six miles from London she found another part of the road in the same condition; this was, as she states, a quarter of a mile long; she says she was in this fifteen minutes. The water was half way up her thighs. She went through both these floods in one day, and her clothes dried on her on both occasions. She complained of the cold from that time and of rheumatic pains in her knees; and on arriving at Coventry, went to bed and remained there till she was brought over to Birmingham. On admission her left thigh was flexed on the abdomen and could not be straightened; she complained of pain in the left lumbar region when pressure or when a hot sponge was applied. A blister was placed over the loins, and iodide of potassium and bicarbonate of potash were given.

January 16th: Extension to limb reaching beyond the knee, with a weight of 21 lb., was applied, and salicylate of soda in ten-grain doses was ordered.

February 15th: The left thigh being much swollen, was punctured by Mr. West and found to contain pus just below Poupert's ligament, to the outside of the vessels.—18th: She was put under chloroform, and the cavity was freely opened below and to the outer side of the anterior superior spine, antiseptic dressing being employed. Over a pint of pus was evacuated.

March 16th: The antiseptic dressing was discontinued. Discharge greatly lessened, and the hardness above Poupert's ligament was much diminished. The circumference of the left thigh was nearly normal.—31st: A Sayre's plaster-of-Paris case was put on, and the patient was allowed to walk about.

On April 28th she left the hospital cured, and without any evidence of angular curvature of the spine.

In this case, cold and exposure had probably set up mischief of an inflammatory kind in the lumbar vertebrae; pus formed and came down the thigh in the sheath of the *pectus* muscle, and was eventually got rid of by free incision. Antiseptic dressing caused this treatment to be carried out without the production of any constitutional excitement, and the immovable plaster-of-Paris jacket enabled the patient to leave her bed and get about in a very short time.

### ST. ALBANS HOSPITAL.

#### SIMPLE DISLOCATION OF THE ASTRAGALUS FORWARDS AND OUTWARDS; REDUCTION.

(Under the care of Mr. RIDGWAY LLOYD.)

On July 27th, 1882, J. S.—, aged forty-three, carpenter, whilst crossing the permanent way of the Midland Railway at St. Albans, slipped upon the metals, twisting his right foot inwards. He was at once removed to the hospital.

On examination it was found that the right foot was considerably inverted, the inner malleolus being so deeply buried in the sole as to be almost indistinguishable, whilst the outer one was exceedingly prominent; neither malleolus, however, was fractured. In front of the outer ankle was a prominence caused by the dislocated astragalus, which was subcutaneous and somewhat movable.

Chloroform having been administered, reduction was readily effected, the bone slipping into its place with an audible snap. The leg was put up on a Neville's splint for a few days, and at the end of nine days from the date of the accident the patient left the hospital, being then able to walk fairly well with the aid of a stick.

Remarks by Mr. LLOYD.—Mr. Bryant, in his "Practice of Surgery," vol. ii., p. 367, remarks that some cases of sub-astragaloid dislocation have been mistaken for dislocation of the astragalus, but the case recorded above certainly belongs, in my opinion, to the latter class, and this view is confirmed by my colleague, Mr. F. R. Webster, who saw the patient with me, and kindly gave me his assistance.

ROYAL COLLEGE OF SURGEONS.—The Library and Museum of this Institution will be closed this day (Friday) for one month; in the case of the latter the time will probably be extended owing to the extensive painting and repairs going on.

## Medical Societies.

### CAMBRIDGE MEDICAL SOCIETY.

At the meeting on August 4th, Professor Humphry, F.R.S., President, in the chair,

Dr. BACON brought forward a case of Hæmorrhage into the Arachnoid Cavity in the person of a woman eighty-seven years of age, and exhibited the specimen. The patient was suffering from senile dementia, but was quiet and apparently in good health. One day she became faint and was helped to a sofa, but had no fall or injury. She became rapidly unconscious, and was at once seen by the medical officer. She never recovered consciousness, had contracted pupils, and died thirty hours afterwards. At the necropsy, the brain weighed from forty-one to forty-two ounces. Over the left hemisphere of the brain, on removing the dura mater, was found a layer of coagulated blood, in a semi-organised condition. There was a similar layer of currant-jelly appearance over the left half of the base of the skull, and extending over the right orbital plate. The cerebrum itself was apparently healthy, and the ventricles contained only a small amount of serum. No ruptured vessel could be discovered, and there was no fracture of the skull or sign of external injury. Dr. Bacon considered that there had been a former hæmorrhage, and that the recent one had proved fatal in accordance with the symptoms related. He mentioned the following cases in connexion with the subject as illustrative:—In Vol. X. of the *Journal of Mental Science* (1865) Dr. J. W. Ogle published two cases of arachnoid cysts occurring in general paralysis, one of which was contributed by him (Dr. Bacon), and remarks on the comparative rarity of such cases. In vol. xi. of the same journal will be found an interesting paper on the same subject by Dr. S. Wilks of Guy's Hospital. Dr. Wilks there approves the theory propounded by Mr. P. Hewett in vol. xxviii. of the *Medico-Chirurgical Transactions*, that these cysts proceed from a "chronic change in a previously effused blood," but in all the cases he gives the symptoms were of some duration.—Dr. PAGET had seen a case of a similar nature in which the symptoms lasted a few days.

Mr. WHERRY related a case of Gall-stones discharged through an Abscess in the Right Groin in a woman under his care. The patient had an obscure swelling in the right inguinal region. An exploratory puncture discovered pus too thick to flow through the cannula, but a free incision let out thick pus and over a hundred gall-stones. The finger passed into the wound in the direction of the gall-bladder. A large drainage-tube was then tied in the opening, through which gall-stones still pass. There was no bile and no faecal odour. The patient had for several years been subject to attacks like ague. A year ago she first noticed in the right side of the abdomen a swelling, which enlarged painlessly until it could not be spanned by her hand. Her bowels were regular, and she had no jaundice. Two months later the swelling appeared, from her description, to burst inside her, and she was immediately seized with violent cramp-like pains in the right lumbar and iliac regions. The swelling diminished, and she had now attacks of vomiting of dark fluid every five minutes for five days, and during this time she ate nothing; but when the vomiting ceased she had a ravenous appetite, and was able to walk about. Altogether she had five similar attacks of vomiting, lasting from three to five days each, followed by several weeks of health. Mr. Wherry mentioned a case of three fistulae from the gall-bladder, which led respectively to the duodenum, colon, and skin. A biliary fistula has been known to communicate through the open urachus with the urinary bladder. Gall-stones are reported to have been found in the right bronchus and in the portal vein. Cases of biliary fistulae opening externally are said by Murchison to occur usually in women, and to be caused by gall-stones, and even when connected with cancer either worms or gall-stones are also found.—In reply to Professor Humphry and Dr. Paget, Mr. WHERRY said that he thought there must have been an abscess near the fundus of the gall-bladder into which the gall-stones were discharged after adhesions in the neighbourhood; that as there was no jaundice and no pain the inflammation was limited to the gall-bladder and cystic duct. No bile came through the external wound, and the patient had a prospect of complete recovery. Columbus

mentions that in the case of St. Ignatius Loyola a gall-stone was found in the portal vein, and an undoubted case has been recorded lately.—Dr. PAGET mentioned the case of a lady he had seen some years ago in a desperate state of illness, when there was great pain and tension of abdomen, and when an incision was made no less than 160 gall-stones escaped, though not all at once. In this case the patient recovered and lived for years. He referred also to another case in which the patient passed a big stone but died from cancer of the liver.

Mr. SHEILD related the case of a lad who had recently been treated in the hospital for Tetanus and recovered as follows:—A healthy country lad, aged seventeen, was admitted on the 30th May. He was suffering from an extensive lacerated contused wound on the flexor aspect of the left forearm, the result of the explosion of a gun. The wound was treated by poultices and carbolic oil, and all went well until June 17th, when symptoms of tetanus set in, with slight stiffness about the muscles of the jaws and of the neck. On June 19th these symptoms had become more pronounced, well-marked trismus was present, with epigastric pains. By June 23rd the disease was fully developed, severe spasms, especially of the muscles of the back, were constantly present, the tongue was foul and the breath offensive, the bowels were constipated, and the pulse quick, while the temperature was high and the urine scanty and high coloured. Excessive sweating was also present, so that an eczematous condition of the cutaneous surface was produced. On July 10th the disease was on the wane. Gradually the spasms grew less severe, the bowels acted naturally, and the appetite improved, while the patient was walking about the ward, with his wound nearly healed, and all tetanic symptoms were gone. The treatment adopted consisted chiefly of generous diet and good nursing. Hypodermic injections of morphia were administered every evening, when the anguish was severe, and caused relief and some snatches of sleep. The bowels were relieved by enemata, and during their peristaltic action the patient seemed to have his sufferings increased, but after the evacuation the pains were alleviated. He smoked tobacco twice, and this gave him some relief from the accumulation of mucus in the fauces.—Professor HUMPHRY had seen a great many cases of tetanus, and had arrived at certain conclusions respecting it. First, that it is a passing malady depending probably, like small-pox, scarlet fever, &c., upon some blood-poisoning, like them being amenable to no known curative treatment, but running a certain course and subsiding, provided it did not kill the patient in its course; that, like them, it is fatal in proportion to the acuteness and severity of its onset. Of the rapidly progressing cases very few survive, whereas in those which come on more tardily, and more particularly in those in which the patient continues to be able to take food, a favourable result may, by good management, not unfrequently be obtained. Secondly, that the disease is attended with much wasting and exhaustion, sometimes with high temperature, and that the most important feature in treatment is to give nourishment, which must generally be in a fluid form, milk, eggs, beef-tea, wine, &c., as much as the patient can take. While food can be swallowed there is hope. It must be urged upon the patient, who is often reluctant to take it, and no other treatment should be allowed to interfere with this. Sedatives, such as morphia hypodermically injected, tobacco, &c., come in as adjuncts more severe cases, but are better abstained from unless the case is severe; and reliance should be placed solely on the feeding, with attention to the bowels, it being generally necessary to give aperients. He had kept patients persistently under the influence of chloroform without any benefit. The maintenance of strength by nourishment, so as to enable the patient to tide over the attack, is the great thing to be aimed at.

Dr. INGLE exhibited a specimen of Cystic Disease of the Chorion. The fœtus in this case was probably eight weeks old, though stated to be five months. There was considerable hæmorrhage between the expulsion of the fœtus and that of the placenta. Dr. Ingle observed that in such cases the diseased state of the chorion may cause the death of the fœtus, though the ovum may be retained for some time longer. The special feature in this case was the abrupt termination of the cord at the amnion, while at another point of this membrane the vessels passed through to the chorion, and this point seemed to be the spot where the placenta originated.

## HEALTH OF THE ARMY.

## No. III.

THE Appendix to the Army Medical Department Reports, containing the professional papers, has just been issued, and is of special interest. The first paper is, as usual, the report on the progress of hygiene during the year 1880, by Professor De Chaumont. On the present occasion this is confined to a notice of the work of Societies, papers, reports, &c., but nothing is said of the legislation on the subject of public health, nor of the special work done at Netley, an omission which is to be regretted. Dr. De Chaumont, in his report, has given a translation of an important paper read before the Medical Society of Munich in April, 1880, by Pettenkofer, "On Cholera and its Relations to the Parasitic Theory," as being "the latest utterances of so distinguished an etiologist, and also because there is much in it that will be both interesting and profitable to medical officers of the public services." He has also brought to notice the facts connected with two outbreaks of typhoid fever—at Pemberton and Orrell in Lancashire, and Ystalyfera in Glamorganshire—with special reference to the question of the influence of the water-supply as the medium of conveyance of the disease. From the surgical division of Netley Hospital we have a list of operations performed during the year, with short abstracts of some of the more important cases, by Surgeon-Major Tobin. We observe with much satisfaction that a valuable paper has been contributed from the medical division by Brigade Surgeon Veale, the Assistant Professor of Medicine, "On Palpitation of the Heart in Soldiers." It would have added to the value of the paper if Dr. Veale had compiled from the records of the hospital a table showing the number of men sent home annually from foreign stations on account of this affection, and the proportion of these discharged as unfit for service. Perhaps he may be able to do so in the next volume, and also to trace whether any change has taken place in the way of increase or decrease contemporaneously with the changes in the organisation of the army. Dr. Veale has examined carefully a hundred patients who had been invalided for palpitation, taken, without special selection, from those who arrived at Netley during the last two years, "noting the antecedents both remote and immediate, the general symptoms, the physical signs, and the probable causes of the disorder, and concluding each examination with such a statement of the actual condition of the heart as a consideration of all the circumstances seemed to warrant." Upon the results of these examinations he has based his paper. We regret to observe that he has not given any of the sphygmographic tracings in these cases, nor do we find any reference to the evidence afforded by them beyond this, that "as a general rule the pulse was weak and of low tension, giving to the sphygmographic tracing a rather high percussion stroke and increased diastolicity." He has tabulated the antecedents of the men as to previous occupation, age, service—at home, within the tropics, and in subtropical climates,—arms of the service, locality where developed, alcoholic drinks, use of tobacco, diseases, and other immediate antecedents, such as marching on active service, overstrain from other causes, and fright. The value, however, of the information, on some of these points at least, is greatly diminished by the absence of any data as to the numbers living among whom the cases were developed. After giving an account of the physical signs, Dr. Veale observes under the head of diagnosis, "The conclusions arrived at with regard to these cases were that there was abnormality at the mitral orifice *without* marked hypertrophy or dilatation, in three instances; that there was abnormality of the mitral orifice, *with* ventricular dilatation, and either with or without compensating hypertrophy in six cases; that there was dilatation without compensating hypertrophy in 48 cases, in two of which there was probably dilatation or aneurism of the arch of the aorta; that there was dilatation with hypertrophy in 19 cases; and that in 24 cases there was no positive evidence from auscultation or percussion *per se* of either dilatation or hypertrophy." He subsequently remarks—"The facts seem rather to indicate that palpitation in soldiers is generally a result and sign of a dilating process which has begun, and is progressing, either subsequently to hypertrophy or independently of and without it, or without a sufficiency of it. Very few, if any, of the cases



answer to the description of the neural form of palpitation, with the exception, perhaps, of those which are induced by excessive smoking. The patients are often not anemic, they eat well, and appear to digest well, yet, on the least exertion, such as running or mounting stairs, the heart beats with extraordinary rapidity." It is this latter circumstance which renders the discharge of the men from the service a matter of imperative necessity. "A few of these patients, after prolonged rest and judicious treatment, may, perhaps, be sent back to the ranks, but they seldom recover thoroughly." Dr. Veale has given a summary of the ascertained or most probable causes of palpitation in the cases he has examined. Of these malarial fever ranks highest, followed by intemperance, heat of climate, marching on active service, exertion generally, excessive smoking, hardships on active service, and several minor causes. He does not consider that the pressure of the valise or of the belts now occupies a prominent place, as it formerly did, although it may still contribute. He speaks very decidedly of the injurious effect of excessive smoking, although he hardly assigns to it as high a place among the causes as we should be inclined to give it, especially when combined with drinking. But it is a cause which it would be extremely difficult to abate, though probably something might be done in the way of issuing less "villanous stuff" to the soldiers than they are in the habit of smoking. "The soldier loves his pipe, and its value as a 'carebreaker' may be, and I daresay is, very great; much caution would therefore be needed in any attempt to curtail this luxury, but in the meantime it would certainly be good economy on the part of Government to insist that such a deleterious substance as the 'twist' or 'stick' tobacco should never be sold in canteens, or issued to the troops on board ship, or in the field." If anyone doubts the injurious influence of this tobacco on the heart's action we recommend him to test it by taking the sphygmograph tracings of even an habitual smoker before and after indulging in a pipe of it. Dr. Veale discusses at some length what he terms "the extraordinary but very general delusion respecting the advantages of flannel underclothing," and he considers the use of it in the tropics to contribute to cardiac disease. We are not disposed to accept his views in opposition to those of almost every medical officer of experience in the Service, and we fail to find in his remarks anything which would lead us to change our opinion on this subject. With the exception of this "delusion," the paper is one which, though on some points defective, is well deserving of study. We trust that Dr. Veale will continue his observations on the subject, and that on a future occasion he may be able to supply the information now wanting.

Dr. Aitken has furnished some brief observations on a case of fractured femur and embolus, which we hope are but the commencement of a series of papers turning to account the great opportunities offered by Netley for pathological investigation.

We have been much disappointed to find that the promised general medical history of the two Afghan campaigns of 1878-79-80 has not been included in this volume. Dr. Crawford's special report on the hospital organisation of these wars, which we noticed when it was sent home as an official memorandum from India, is reprinted; but this does not profess to be a history of the medical and surgical occurrences of the campaign. Dr. Marston's valuable remarks on enteric fever in India are also reproduced; but, as we have already fully noticed both of these papers, it appears unnecessary again to comment upon them. (See THE LANCET of Sept. 24th and Dec. 3rd, 1881.)

There is an interesting report of the Medical Transactions for Natal and the Transvaal during the Boer rebellion of 1880-81, by Deputy Surgeon-General Holloway, C.B., covering the period from Dec. 16th, 1880, when the Boers proclaimed the republic, till March 12th, 1881. There are also reports by the medical officers in charge of the various stations where our troops were besieged, and one by Surgeon-Major Babington of the action at Amajuba Hill, where he was senior medical officer. We cannot enter into the details of these various reports, but will merely note one or two points. At Amajuba Hill the force engaged consisted of 25 officers and 403 non-commissioned officers and men. Of these 3 of the former and 83 of the latter were killed, and 10 and 130 respectively were wounded. During the whole of the Boer war 15 officers and 283 men were killed, and 52 officers and 511 men wounded; of the latter, 10 officers and 69 men, including those of the Naval Brigade, died of

their wounds. The details of the strength are not given sufficiently to enable us to state accurately the proportion of the loss in each class. The wounds admitted into the hospital of the Natal Field Force were classified as follows:—Upper extremities, 113; lower, 108; chest, 28; back and spine, 18; abdomen, 13; face, 9; head, 8; neck, 4; direct injury of large arteries, 2; with direct penetration or perforation of large joints, 9. Of the chest-wounds 8 died, and of those of the abdomen 7; 6 primary and 29 secondary amputations were performed, with 8 deaths. A detailed account is given in a tabular form of the capital operations, and the nature of the injury for which each was performed. Mr. Holloway speaks in the highest terms of the manner in which the medical officers discharged their duties. It is satisfactory to know also that "at no time was there a want of any medical or surgical appliance experienced during the campaign." Dr. Babington has given a report of the circumstances under which the two lamented officers, Surgeon-Major Cornish and Surgeon Landon, were mortally wounded when fearlessly doing their duty.

We have hitherto confined our notice of the volume to the portion relating to the sickness and mortality, but there are other points of importance treated in it. The returns of vaccination among the recruits inspected by military medical officers show that 924 per 1000 bore marks of vaccination, 28 marks of small-pox, and 48 no satisfactory mark of either. In 558 primary vaccinations the proportion furnishing a perfect vesicle was 50 per cent., a modified pustule 27 per cent., and a failure 23 per cent. In 22,721 cases of revaccination the results per 1000 were 417 perfect, 338 modified, and 245 failures. The proportion of failures on revaccination by means of preserved lymph was double that done from arm to arm. Throughout the army at home and abroad there were only 20 cases of small-pox and three deaths in the year.

There were 46,108 recruits inspected for the army in 1880, and the proportion of these rejected as unfit for service was 374 per 1000 on primary and 34 on secondary inspection, making a total of 408. This is considerably above the average, but has probably been the result of an abundant supply of candidates, which has enabled the medical officers to carry out the regulations more strictly. As in former years, the ratio of rejections by army medical officers has been much higher than that by civil practitioners. Upwards of one fourth of the rejections was on account of the recruits being "under chest measurement," amounting to 111 per 1000 examined; the causes next in frequency were defective vision, which gave rise to 48, and "under weight, muscular tenuity and debility" to 30 rejections per 1000. There is one unsatisfactory point in the recruiting returns of the year as compared with those of 1879—an increase in the proportion of recruits under nineteen years of age, in those under 5 ft. 4 in., and in those under 120 lb. in weight, but these are still considerably below the average of the five years 1860-64 (*cite* THE LANCET, Oct. 15th, 1881). The state of education among the recruits examined by military medical officers was: Unable to read, 139 per 1000; able to read but not write, 94; able to read and write, 767. There is no information available respecting those inspected by civil practitioners. There is, fortunately, now in the army an effective staff of regimental schoolmasters to make good the deficiencies in the education of the young soldier.

We cannot close this notice of the departmental volume without expressing our gratification at finding a deficiency to which we alluded last year remedied, and that all the branches of the Netley school are represented this year by papers from either the professors or assistant professors. It would indeed be far from creditable if the great opportunities of acquiring and disseminating special knowledge were not turned to account by men of the high standing and acknowledged reputation of those who constitute the staff of that valuable national institution.

THE sum of £150 is offered to the Rational Dress Society, to defray the expenses of an Exhibition of Rational Dress to be held in London during the coming winter. A Prize of £30 will be given for the dress which best accords with the following requirements:—1. Freedom of movement. 2. Absence of pressure over any part of the body. 3. No more weight than is necessary for warmth, and both weight and warmth evenly distributed. 4. Beauty and grace, combined with comfort and convenience. 5. Not departing too conspicuously from women's ordinary dress.

# THE LANCET.

LONDON: SATURDAY, SEPTEMBER 2, 1882.

LAST week we published the medical report on the health of the crew engaged in the late Arctic Expedition of Mr. LEIGH-SMITH, for which we were indebted to the courtesy of Mr. W. H. NEALE, M.B., M.S., medical officer of the *Eira*. We were, however, prevented at the time from giving the interesting details the full consideration that they deserve; the most remarkable feature being the singular absence of disease amongst a crew of twenty-five men during a sojourn of fifteen months in arctic regions, exposed to great hardships and anxiety. This circumstance reflects the highest credit on the medical officer of the expedition, for it is undoubtedly to his attention to the hygienic and sanitary arrangements during the period the crew were cast on Franz Joseph Land that this satisfactory result must be attributed. It is another instance proving the truth of the observation made as long ago as the time of Captain COOK, that only by an unremitting attention to food, cleanliness, and ventilation, and an early administration of antiscorbutic provisions and of medicines, together with attention to the personal habits of the crew, is it possible to preserve the health and lives of seafaring people on long voyages. It is, as VANCOUVER well remarked, to the attention paid to these principles that Great Britain is in great measure indebted for her present exalted position amongst the nations, and the extension of her commerce through every sea. Unfortunately, however, from time to time expeditions, military as well as naval, have been undertaken without a due regard to the principles enunciated by the great circumnavigator, and these have always ended in failure, more or less disastrous.

Mr. NEALE notices the interesting fact that when the men first began to eat the walrus and bear flesh nearly everyone suffered from diarrhoea, and some of them became very weak. FRANKLIN, in his "Narrative of a Journey to the Polar Shores in 1821-22," frequently records the fact that after obtaining supplies of fresh meat the crew were inconvenienced by bowel attacks, the first alvine discharges being accompanied with excessive pain. On one occasion the men were much more languid and disinclined for exertion than they had been on their previous short commons. FRANKLIN attributes these attacks to the men eating too heartily after having been on a very restricted diet for a long period. This, however, was not the case with the crew of the *Eira*, as they never seem to have suffered actual deprivation. It is therefore a question of interest to determine whether this diarrhoea was the result of passing from salt and tinned provisions to an abundant supply of fresh and recently killed food; or whether walrus and bear flesh, like pork, has a tendency to produce diarrhoea when too freely ingested.

The most interesting of Mr. NEALE's observations, however, is that which relates to the absence of any symptoms of scurvy among the men—a fact which has led him to express the opinion that if men live on the flesh of animals in-

digenous to the country, even without vegetables, they will run very little risk of scurvy, so that under such circumstances lime-juice is not of much use. Curiously enough, while Mr. NEALE is detailing his experience with regard to the prophylactic value of fresh meat against scurvy in the arctic region, Dr. LUCAS writes to us from India, stating that the meat-eating tribes of the north-west provinces are comparatively free from scurvy, whilst the vegetable-feeding tribes are not unfrequently attacked with the disease. This experience of both arctic and tropical observers, which does not stand alone, is so entirely distinct from European experience that some solution of the apparent paradox is required. In a letter which we publish in another column, a correspondent points out that the statements of Mr. NEALE and Dr. LUCAS need not be considered as in any way upsetting our established views with regard to the disease, since, as he urges, meat is probably a scorbutic and an antiscorbutic article of diet according to the period of time that elapses from the time of slaughter to the period of cooking. Fresh muscle, as is well known, has an alkaline reaction, due to the presence of the neutral sodium phosphate; after rigor mortis has passed off the reaction becomes acid, due to the development of lactic acid,—the neutral phosphate is thus converted into acid sodium phosphate. In hot countries the meat is eaten so freshly killed that lactic acid is not developed; in arctic regions the cold stops its formation; in European countries, where meat is usually hung, there is ample time for its generation. Thus in tropical and arctic regions the muscle plasma is alkaline when cooked, in European countries acid. If therefore it be true that scurvy is produced by a diminution of the alkalinity of the blood—a view originally put forward by GARROD and subsequently confirmed and extended by Dr. RALFE,—then we can conceive how fresh meat may be antiscorbutic, whilst hung meat will have an opposite quality. Lastly, Mr. NEALE is to be thanked for his suggestion of the use of blood as an antiscorbutic. If its employment on future occasions should further prove its prophylactic value with regard to scurvy, we shall expect to see it extensively used by our mercantile marine, whilst under any circumstances it introduces to the notice of travellers and voyagers a food at once portable, nutritious, and wholesome.

THE events now occurring in Egypt make any facts bearing upon the health of troops in that country interesting, and a notice of some of the special features of the climate and its influence upon military surgery made by so acute an observer as Baron LARREY may be considered timely. His *Mémoire* refers to NAPOLEON'S campaigns in the years 1798 to 1801, and is full of interesting facts and observations. He had at first to meet with difficulties with which our own military surgeons are not unfamiliar, for when he arrived in Alexandria in 1798 he was unprovided with all necessary stores, the ship in which all that he had carefully collected was contained having been seized by the English in its passage. While waiting at Alexandria the French soldiers suffered greatly from the stings of scorpions, which LARREY speaks of as more alarming than really dangerous; he easily cured them by bathing the part with sea-water or with acid or alkaline lotions.

During a five days' march across the desert to Damanhour, without provisions and without water, the army suffered

terribly, and many died. LARREY specially comments on the absence of all pain in the fatal cases, and the calm that came over them before death; stimulants appeared to be of great benefit to those suffering from extreme exhaustion. Egyptian ophthalmia seems to have been the first affection to arrest LARREY'S special notice. He describes the course and symptoms of the malady fully and carefully. He attributes the disease to the combined effects of bright sunlight, dust in the air, sudden changes in temperature, especially cold damp nights succeeding to hot dry days, the suppression of sweating, alcoholic and sexual excesses, and the sudden suppression of diarrhoea or gonorrhoea. Fair men were found to be more subject to it than were the dark. The treatment he adopted was to commence with bleeding and leeching, and anodyne fomentations, followed by astringent lotions, such as solutions of sulphate of copper, bichloride of mercury, and acetate of lead. The prophylactic measures he recommends are: the avoidance of direct sunlight on the eyes, which should also be protected from dust; to keep the whole body covered at night, with a bandage over the eyes; to avoid damp and marshy places; and to keep up the cutaneous transpiration by baths and exercise. He further recommends taking coffee, the avoidance of spirituous liquors and indigestible food, and states that the eyes and head should be frequently bathed with warm water and vinegar.

After the battle of Sedment LARREY had many cases of tetanus, some of which he quotes. He observed that it most often occurred under sudden and extreme changes of temperature, and in damp situations near the Nile or the sea. Men of a nervous irritable temperament were especially subject to it. The treatment he found most useful consisted in the internal administration of opium, camphor, and nitre, in almond emulsion; externally, the application of blisters to the wound to excite free suppuration; the division, above the wound, of the trunks of all the nerves implicated in the injury or operation; and especially amputation, when the wound was situated on a limb. He asserts that emulsions are swallowed more easily than anything else by patients suffering from tetanus.

In 1799 the plague broke out and made great ravages amongst the troops. LARREY resorted to prompt measures for isolation and disinfection, and obtained satisfactory results. He issued a circular to the army surgeons in which he recommends the treatment he had found most successful—viz., to apply wet cups to the back of the neck and follow them by an emetic, to open and keep open the bowels, and to give bitter infusions and decoctions. Locally, for abscesses he advised poultices, rubefacients, and caustics, and free incisions when pus had formed. When carbuncles formed it was necessary to make deep incisions and remove the sloughs as completely as possible. The great safeguards against the disease he stated to be cleanliness, frequent cold ablutions, and washing of the clothes. He especially condemned as very dangerous the practice of sleeping in pits dug in the earth. The disease prevailed only when the wind blew from the south.

On the return of the army to Egypt after the campaign in Syria a new enemy was met with in the form of a variety of leech that abounded in pools of fresh potable water. These leeches, a few millimetres long, the size of horsehair and

black in colour, by attaching themselves to the pharynx caused great annoyance; when fully distended with blood they attained the size of a common leech. The symptoms produced by these parasites were pricking pain, cough, bloody expectoration, dysphagia, and dyspnoea. At times they were seen attached to the pillars of the fauces, or even lower down the pharynx, but a rather favourite site appears to have been the top of the pharynx behind the soft palate. They were detached by gargles or injections of salt or acid water, or by forceps.

After the battle of Heliopolis and the siege of Cairo in 1800 there was an outbreak of yellow fever among the wounded soldiers, which proved very fatal. It occurred during the prevalence of the hot south wind in the day followed by damp cold nights, and seized mainly upon the less robust of the troops. The wounds of these patients so often and so early became gangrenous that LARREY for a time suspected that the Turks were using poisoned bullets. The prevalence of hepatitis and abscess in the liver likewise arrested LARREY'S attention, and in his article on this subject he especially insists on the great value of free incision into the abscesses when well declared, and he gives some cases showing the excellent results of this practice. Another interesting observation of LARREY'S is the occurrence of atrophy of the testicles in many of the soldiers of the army of Egypt in the year 1799, who noticed after their return to France a gradual painless wasting of these glands, accompanied when both glands were involved by the loss of all sexual desire and power. This occurred quite apart from any previous venereal disease. In most cases only one testicle was affected. This atrophy was accompanied by other signs of disease—wasting and debility of the lower limbs, failure of digestive power, discolouration of the face, thinning of the beard, and intellectual derangement. LARREY attributes the atrophy to the effects of great heat combined with fatigue and privations, and especially to the use of eau de vie prepared from dates, to which the fruits of Solanaceae were added. When the atrophy was only commencing it might be prevented by vapour baths, dry frictions, stomachics, and good food. Leprosy and elephantiasis are well described, and the differences between the two are clearly pointed out. LARREY was greatly interested in elephantiasis scroti, and demonstrated the fact that amputation was the sole surgical resource. He calls the affection sarcocoele, and gives as its causes sitting occupations, the wearing of loose Egyptian trousers, and "degenerated" syphilis. In regard to syphilis, he states that he found the disease to be mild and very easily cured in Egypt, but all forms of inunction were harmful; and if patients returned to France with the disease still uncured it became very intractable. It is interesting to note that while at Cairo, being greatly impressed with the ravages of the disease, he appealed to the Commander-in-Chief to establish a civil hospital in which all prostitutes found to be infected were detained till cured, and all discovered to be pregnant were also detained to prevent their procuring abortion. A strict inspection of the men was also made, and all affected with venereal diseases were kept in hospital. These measures were crowned with complete success.

Wounds were found to heal with great rapidity, and many cases of very severe injury in which recovery ensued testify

to the general salubrity of the climate. This was especially the case during the prevalence of the north winds, and was so marked that LARREY frequently mentions the fact. It was observed that gunshot wounds of the arm, causing fracture of the humerus, were nearly all followed by false joint. In cases of penetrating wounds of the lung he departed from the practice usual at that time, and closed the external wound, laid the patient on the injured side, and enjoined strict rest, and his results were very good.

LARREY observed with interest that although dogs abounded in the Egyptian cities, there was no hydrophobia among them. Camels, however, suffered from a form of madness during the time of rut, and bites from them in this state were dangerous, but the disease was not contagious. The symptoms were the escape of an abundant thick saliva, constant bellowing, horror of water, wasting, fever, falling off of the hair, and bad temper, which showed itself by their pursuing men and other animals. If excited, the symptoms increased, and often ended fatally. Horses were subject to ophthalmia like the men, but this could be prevented by shutting up the stables during the cold damp nights.

The last scourge of the troops was scurvy, which broke out in 1801, and, owing to its being thought to be contagious, produced great alarm. This mistake LARREY quickly corrected in a circular, addressed to the military surgeons, in which he points out that the disease was caused by the want of fresh meat and vegetables, the predisposing cause being a nearly constant humidity of the air after the overflow of Lake Madjeh. Over 3500 cases of scurvy were received into the hospitals at Alexandria, of whom 272 died, exclusive of six or seven who lost their lives while returning to France. During the prevalence of scurvy there was hardly any plague, and the Egyptians had observed that when small-pox was epidemic there were very few cases of plague.

IN a recent article in the *Globe* it is stated that "the Army Medical Department can hardly be in a satisfactory condition, as far as numbers are concerned, when a little war like the present drives the authorities into employing civil practitioners at the cost of 17s. a day. And yet this is the present condition of affairs at most of our military centres. What would be the state of things, we wonder, if a second corps d'armée had suddenly to take the field?"

It can hardly be supposed that a department like the Army Medical Service ought in time of peace to be kept up to a war establishment. The country would not care to incur the very heavy expense involved in such a proceeding unless upon the plea of urgent and imperative necessity, and it would certainly be an act of most unnecessary extravagance. One of the objects which the Government had in view in the recent reorganisation of the department was to have a corps of efficient, well educated medical officers employed in taking care of the soldiers in time of peace, under such conditions that they could be mobilised at once if their services were required in the field. And the events connected with the present campaign have most fully justified the steps then taken. On the outbreak of hostilities a sufficient number of medical officers for the force employed was at once available, and there was neither delay nor difficulty in despatching them to the field when their services were

required. As a matter of course, their place at home must be supplied, but this also had been foreseen. It was considered by those most competent to judge that it was of the greatest importance to send well-qualified officers, having practical experience of soldiers, to the front, and to supply their place at home, temporarily at least, by obtaining the services of civilian practitioners. To what extent it has been necessary to do this we are not aware, but if a second corps d'armée were, as our contemporary has suggested, suddenly called to take the field, we have no doubt the Army Medical Department would be able to supply the requisite number of surgeons, and would replace them in charge of the troops at home by the aid of the civil branch of the profession. If this has been done "at the cost of 17s. a day" for each officer removed, we can only say it has been a very satisfactory arrangement for the country. Were a higher rate of remuneration necessary, and at some of the larger stations where there is a considerable body of troops it probably would be required, we still think it would be much more economical than keeping up in times of peace an establishment sufficient to meet the possible demands of war, and more judicious than maintaining permanently a large number of half-employed officers, who would be undergoing a progressive deterioration in their professional knowledge from want of opportunity of keeping it up, and in their moral and social habits as a consequence of their enforced idleness. The arrangements of the medical service have up to this point been very satisfactory, and we have little fear that they will continue to be so, even though it may involve a considerable outlay. If we are to go to war we must be prepared for a liberal expenditure of money, and surely that which is incurred to keep our soldiers efficient in the field, and to afford them prompt and skilled assistance when wounded or struck down by disease, is the least likely to be grudged by the country.

THE sad fatalities which have attended the boating and bathing season this year have attracted attention to the best means of restoring animation to those apparently drowned. Considerable improvement has been made upon the rough-and-ready method in vogue in the Royal Navy at the end of the last century, which consisted in rolling the body to and fro over a cask, tying it by the legs with the head downwards, and the employment of other rough methods with the object of disgorging the water. LIND, who was physician to Haslar Hospital in 1774, endeavoured to introduce a more humane, and certainly a more scientific one, since he directs that air moderately heated should be pumped into the lungs by means of bellows; whilst a "gentle alternate pressure and dilatation of the ribs, with a corresponding alternate compression of the contents of the belly upwards, imitate as nearly as possible the act of respiration in the living body." To MARSHALL HALL, however, belongs the undoubted credit of devising and successfully introducing a method of treatment for restoring the apparently drowned at once practical and scientific. Dr. SILVESTER improved upon this by adopting the plan of alternately raising and depressing the arms, by which a greater amount of air is admitted into the thorax. Lastly, Dr. HOWARD, of New York, has introduced a system which has recently been investigated and reported on by the Royal Medical and

Chirurgical Society on behalf of the Royal Humane Society. Dr. HOWARD'S method, in its essential details, resembles that proposed by LIND, in the alternate compression and dilatation of the ribs, &c. No doubt, in skilful and well-trained hands, Dr. HOWARD'S method proves a most successful agent in the recovery of the apparently drowned, but it requires some skill to direct efficiently and effectually the alternate movements of the chest walls, whilst rough and unskilful operators might cause injury to the abdominal viscera. SILVESTER'S method is free from these objections; it is easily practised, and there is no manipulation of the body. In the experiments of the committee of the Royal Medical and Chirurgical Society it was shown that more air passed through the lungs by simply raising and depressing the arms (SILVESTER'S method) than by the compression of the lower part of the thorax (HOWARD'S method). Nevertheless we think a combination of the two methods would give the best results. HOWARD'S plan of emptying the stomach, and perhaps the lungs, of water is the best yet devised, whilst gentle alternate compression and relaxation of the lower end of the thorax is a valuable supplement to the effect obtained by the alternate elevation and depression of the arms. In no case, however, should that procedure be omitted. One point, however, with regard to the restoration of the apparently drowned should not be forgotten—namely, that the asphyxia will very often recur if the patient after apparent recovery is allowed to get up and walk home too soon after his return to animation. In dealing with the question of the preservation of life from drowning, the old adage, "prevention is better than cure," occurs to us with its usual force. We are unable to quote offhand the statistics which show how many lives would have been spared had the victims of the fatality been able to swim—we believe it has been stated at more than one-half,—whilst a considerable number of those unable to swim would have been able to save themselves had they had appliances within reach. Considerable attention has of late years been paid to the construction of life-saving garments, and these can now be fitted for ladies' jackets, capes, and corsets, for gentlemen's vests, pea-jackets, and oilskins. For ladies in the habit of boating WENTWORTH'S sleeved corset might be recommended not only as a useful article for the purpose for which it is designed, but also as "æsthetic" in appearance. The use of a preserving article of dress may turn the scale in favour of life in many a shipwreck or collision; since it often happens that if persons can keep afloat only a few minutes they will be rescued, whilst those who may be cast on shore after shipwreck will certainly be less likely to receive injury from the violence of the waves if the abdominal and thoracic cavities are encased in the elastic armour these belts afford.

To take a tracing from the radial artery with the sphygmograph is not always a very simple matter, but its difficulties are far slighter than are those which present themselves when the tracing is to be interpreted. Up to a certain point the task is easy and the conclusions open to little doubt; beyond this, however, there is much uncertainty regarding the precise significance of the lines and curves which constitute the self-written record of the labouring heart. Even some of the fundamental principles are still undecided, and

the positive assertions of one authority are met by the contradictions, equally positive, of another. Under these circumstances, it is worth while to direct attention to an original study of sphygmographic principles which has been made by a German physician, Dr. GRASHEY, and described by him in a volume published at Leipzig. His conclusions are not in the main new, but they corroborate and extend previous results, and have in some instances been reached by methods more exact than those employed by some of his predecessors in the same work.

Commencing his investigation with an inquiry into the accuracy of MAREY'S sphygmograph and its modifications, which still, in spite of the energy of inventors, constitute our most trustworthy instruments, he soon arrived at the conclusion that, while slow movements are recorded with accuracy, quick movements are registered in exaggerated extent. He has determined at what point the inaccuracy commences. As long as the maximum rapidity of movement of the writing lever is under 90 millimetres per second the register is accurate; but when the rapidity exceeds 120 millimetres per second the record shows a movement too extensive: the writing lever rises from the fulcrum, which it should follow accurately, and then falls again, so that we have a rise and fall, instead of a slighter rise followed by a horizontal line, the fall and the corresponding part of the rise being purely artificial. Artificial oscillations may thus have their origin in the instrument; but they may also be produced by an elastic tube if this is used to convey the impulse from the source to the register, and GRASHEY has determined the point at which the recoil of the tube introduces an artificial element in the resulting tracing. It is met with when the movement of the wall of the tube has a rapidity of seventy-three millimetres per second. These artificial oscillations modify the tracing at the upper end of the up-stroke of the lever, and not in the course of the up-stroke; and, similarly, other oscillations of like origin occur at the end of the down-stroke, but not in its course.

These facts having been ascertained, GRASHEY next investigated the simple wave-movements of elastic tubes. The method adopted by LANDOIS for the production of these movements consisted in the sudden constriction of the vessel at one spot, but this involves a source of error, since the wave thus produced, positive or negative, is preceded by a slighter wave of the opposite character. GRASHEY, to obviate these, produced a positive wave by opening a stopcock, and a negative one by suddenly allowing water to escape from the open mouth of a tube in connexion with that to which the sphygmograph was applied, or by the sudden interruption of a current flowing continuously through the tube. Care has to be taken to avoid the complicating effect of reflected waves, which, if the tube be short, may pass through it more than once. From his experiments on this subject he arrived at the following conclusion. In a completely closed tube, a primary wave is transformed into a reflected wave of the same character. In a completely open tube, the reflected wave is of the opposite character to the primary wave. In tubes which are partially open, each primary wave is transformed into two reflected waves of opposite characters. If a second tube is attached to the primary tube, each being filled with water, and a wave is sent from one to the other, a part of the primary wave is reflected from the junction as a wave



of the same character, provided, with equal extensibility, the area of the second tube is smaller than the first, or provided, with equality of area, the extensibility of the second tube is less. If, on the other hand, the second tube is wider, but of the same distensibility as the first, the primary wave passes on, but causes a reflected wave of opposite character from the point of junction, and this wave is so much the larger the more the second tube exceeds the first in area and extensibility. The laws which regulate the movement of waves upon the free surface of water, as regards intersection, intensification, and diminution, obtain equally for waves within a tube. Moreover, a wave set up in a ramifying tube passes into all its divisions.

Applying these considerations to the physiological phenomena of the circulation, GRASHEY points out that each systolic positive wave will be followed by two negative waves. One of these, the "first diastolic depression," is that which occurs at the termination of the flow of blood from the ventricle into the aorta. This really occurs during the systolic interval, since the flow of blood ceases some time before the relaxation of the ventricle. The second diastolic wave coincides with the end of the systole. If, however, as is sometimes the case, the systole is imperfect, and the ventricle is not completely emptied, the cessation of flow occurs at the same time as the end of the systole, and these two negative waves will coincide. The second diastolic depression is, of course, immediately followed by the positive wave, which is produced by the closure of the aortic valves, and to which is usually ascribed the rise which interrupts the down-stroke of the tracing. These four waves pass centrifugally along the vessels, and at each division will give rise to reflected waves, of the same or of opposite character, according to the laws already mentioned. The resulting "interference waves" have, according to GRASHEY, an important influence on the phenomena of dicrotism. Other things being equal, the dicrotic wave will be highest when the ventricular systole is short and imperfect, and the cessation of the flow of blood coincides in time with the cessation of the ventricular pressure, and the wave will be least when the interval between the two events is greatest. Moreover, heterogeneous reflected waves will increase the degree of dicrotism, and homogeneous reflected waves will lessen it. But heterogenous reflected waves tend to occur if the arterial twigs are dilated and extensible, in consequence of the lessened vascular tone, which entails a fall in the blood pressure, as in fever. Hence it is intelligible how a short primary wave, diminished tension, with normal elasticity of the vascular wall, increase the amount of dicrotism.

WITH a view to increased efficiency in the sanitary administration of the Province of Ontario, a Provincial Board of Health has been established. The Act constituting the Board provides that it shall consist of seven members, including the secretary, and in view of the fact that the Board is to take cognisance of the interests of health and life among the people of the province, it is enacted that at least four members of the Board shall be duly registered medical practitioners, and that the secretary shall be the chief health officer of the province. The Board is required to make a full and complete use of the collected records of deaths and of sickness among the people, to make sanitary investiga-

tions into the causes of disease, and the origin and prevention of epidemics, to advise the Government in regard to public health, and as to the best methods of improving health by means of such works as drainage, water-supply, the removal of excreta, heating and ventilation of dwellings, &c. Where necessary the Board is authorised to make special investigations on oath, and it is also required to keep an adequate supply of vaccine matter. Under the same Act municipalities and local boards of health may provide means for the isolation of the infectious sick, and provision is made for the removal of patients to the hospitals so provided. In this respect the Act is in advance of our Public Health Act, for it distinctly enacts that the health authority, or their officers, may isolate any person suffering from a disease dangerous to public health, and this without the qualification which in our own Act has so often proved a source of hindrance—namely, that the patient must be without proper lodging and accommodation. The Ontario Act in this respect recognises the importance of protecting the health of the public, whilst the English Public Health Act, as generally construed, deals rather with the necessities of the patient. The Provincial Government have also settled the question of the compulsory notification of infectious disease in a manner which would certainly not have gained favour in the mother country. Not only is every householder obliged to give notice to the local board of health, or to the health officers of the district, when any member of his family is found to be suffering from a disease dangerous to the public health, but any physician called in to such a case is bound immediately to give a similar notice. Failure to report is punishable by a fine, and no fee for notification is provided for.

The new Provincial Board of Health has already shown itself in earnest. It has issued a series of notices to municipalities and public bodies calling attention to its own and to their powers in health matters. It has circulated amongst school teachers, ministers of religion, and others very valuable advice on the prevention of epidemic disease, and it has asked for information from the various authorities as to the existence within their respective districts of by-laws as to the construction and position of wells, privies, waterclosets, drains, &c., as to scavenging and other matters. So desirous is the Board of acquiring all available information as to disease prevalence, that it has prepared a series of cards on which medical practitioners are asked week by week to fill in the sickness records of their practices together with certain other information. This information, like that relating to infectious disease, will, it is evidently expected, be given without any fee, and we are bound to confess that in this respect the Board is expecting too much of the medical profession. That the information asked for is wanted in the interests of public health we do not for one moment doubt; indeed the lack of proper sickness returns is now universally recognised as a serious want in connexion with sanitary administration. But a public want should be met out of the public funds, and it is clearly unreasonable to ask that members of a busy profession should at the sacrifice of much valuable time, and without any fee or reward, supply a public body with information which will need to be carefully compiled. In England, medical officers holding Poor-law appointments are required, in virtue of their official

position, to supply such information, but it has never been so much as suggested that a similar demand should be made of private practitioners. Indeed we know of no other profession to whom any such request would be made. One other very important initial step has been taken by the Provincial Board. It has deputed Dr. COVERTON to visit this and other European countries with a view of learning the experience of the older established State Boards of Health. Dr. COVERTON has spent some time in this country; he will attend the International Congress of Hygiene at Geneva in his official capacity, and it is evident that he will carry back with him abundant materials for aiding his Board to arrive at decisions with regard to their future course of action. It would be well if our own Central Health Authority were in this respect to follow in the wake of the new Canadian Board. The experience of other countries, and especially that of some of the National Boards of Health of the United States, would, if it were acquired and properly compiled by skilled officers with a view to its being made use of in this country, afford in many respects most valuable aid to efficient sanitary administration.

## Annotations.

"Ne quid nimis."

### HEALTH OF H.R.H. THE DUKE OF ALBANY.

IT is with great regret we hear of the illness of His Royal Highness the Duke of Albany. Prince Leopold is known to suffer from constitutional weakness, with liability to hæmorrhage—hæmatophilia. Of this malady he has recently had an attack. Hæmatophilia ten years ago had no place in the College of Physicians' "Nomenclature of Diseases." The malady is interesting for several features other than the tendency to spontaneous hæmorrhage, or to bleeding from slight traumatic causes; such, for example, as the great proclivity to painful swelling of the joints, dependent or not upon injury, the fact of the morbid condition being in many cases congenital, and its hereditary transmission, to males especially. All these points have been fully dealt with by writers, but it may be useful to say a few words about them again here. The joint affection was well illustrated in a case communicated to the Clinical Society by Sir William Jenner during his presidency. (THE LANCET, November 18th, 1876, vol. ii., p. 716.) Sir William, in the course of his remarks on the case, spoke of the joint affection in hæmatophilia as being of three varieties—viz., a spontaneous swelling, with tenderness and but little effusion; large effusion, with or without hæmorrhage; and serous effusion simply, this last being the rarest. The occurrence of blood in the cavity of the joint does not appear always to be related to traumatism, but the great liability to severe joint affection following slight injuries accords with the similar proneness to cutaneous hæmorrhage. As to the nature of this remarkable condition, everything points to its being dependent on some congenital defect in the vascular system, not necessarily inherited, but at the same time most liable to be transmitted by inheritance when once it appears. Such observations as have been made on the blood do not show much marked alteration in its constitution. Sir Wm. Jenner, speaking on the occasion to which we refer, seems to have thought the blood was slow in coagulating, but this alone cannot explain the liability to hæmorrhage. Another fact, also alluded to by Sir Wm. Jenner, is that the bleedings occur often when the patient is most healthy; and he believed that in these sub-

jects blood is formed rapidly, and there is a tendency to plethora of the smaller vessels. The most important fact of all, however, is that which concerns heredity in this disease. In its proneness to be transmitted by inheritance hæmatophilia occupies a foremost place, and this fact of itself seems to show that its nature is rather a defect or abnormality in development than an actual morbid process.

It may be hoped that the present indisposition of the Duke of Albany is not of serious character, and that His Royal Highness will make a good recovery; but it is abundantly evident that the avoidance of any considerable exertion must be continued for some time to come, and the Duke will need to regard himself as an invalid. Since his marriage His Royal Highness has made a laudable and highly appreciated effort to assume a full share of those toils of State which, in England, have for many years devolved on the younger members of the Royal family. Treading in the footsteps of his illustrious and lamented father, Prince Leopold has striven to fill the place the untimely death of the Prince Consort left vacant in the patronage and encouragement of science, art, and literature; a place and work of light and leading which Prince Albert created for himself, and by which he conferred inestimable benefits on important, perhaps the most important, classes in this country. The Heir Apparent has done much to carry on the truly philanthropic enterprise originated by his Royal father, but, looking to the arduous task which circumstances have combined to thrust on the Prince of Wales, it was impossible that his Royal Highness should make a specialty, such as the late Prince Consort made, of the encouragement of art and letters. The Duke of Albany, whose personal tastes are of a scholastic character, has with marked and admirable energy devoted himself principally to this work. The state of his Royal Highness's health clearly necessitates more than ordinary caution in the expenditure of strength. The care which the Duke of Albany is receiving from those about him is likely to carry him safely through the present trouble, and such self-restraint as he must be enjoined to practise rigorously in the future will, it is hoped, be successful in preserving a life which, like that of every other member of the reigning family, is dear to the heart of a loyal people.

### THE LIFE RISKS OF NON-COMBATANTS.

IF medical officers in the army are "non-combatants," and, therefore, not entitled to the honours of the service, they are evidently exposed to its most deadly risks. During the last engagement in the campaign now in progress, at Kassassin, only one officer was killed, and in this single casualty the medical profession has lost a member. Surgeon-Major Shaw, of the Army Medical Department, is the victim. We have no particulars at the time of writing, but it is manifest that this "non-combatant" was at the front, and in danger. It is a spirit unworthy of the British army and discreditable to gentlemen, that denies the medical officer his due rank, but it is some grim consolation to know that by the appearance of names like the present in the list of killed, the truth must in process of time be made plain to the nation—which, after all, is the true source and fountain of honour, let us disguise the fact as we may. As a matter of experience, the medical officer is, in a double sense, combatant. He fights the worst foe of men in campaigning—disease; and while it may be only occasionally he has to contend with the enemy on the field of battle, he is daily exposed to the same life risks as those who desire to monopolise the credit and privilege of combatant rank; and let us boldly assert that without the excitement of the same of war, which enables these officers to play the part of heroes, the medical officer is their peer in personal courage as he is their equal in the chances of injury and of death.

## THE ILLNESS OF THE PRIMATE.

THE condition of the Archbishop of Canterbury excites grave apprehension on the part of his friends. It appears that his Grace has been failing in health for some months past. He had an attack of bronchitis of a gouty character in the autumn of last year, and, as our readers will remember, he sought rest in the neighbourhood of Bordighera in the spring. He returned after Easter somewhat better for the change, and devoted himself as usual to the duties of his office without thought for his own weakness. The gouty condition, however, developed itself in different parts of the body. Thrombi formed in the veins of the leg, and evidence of valvular insufficiency presented itself. On August 7th he was able to visit Osborn, where the Royal Princes on the following day underwent the ceremony of confirmation at his hands, and on the 9th he returned to Addington Park. He had a slight rigor on the 11th, and when visited by his medical attendant was found to have a rise of temperature, increased frequency of respiration, and a pulse of 96. There was slight pain in the left side with dullness on percussion over a large portion of the base of the left lung, and indistinct bronchial breathing, but without crepitation. On the right side the breath sounds were rougher than natural. The pain in the side ceased the next day. On the 16th there was a repetition of the rigor, followed by pyrexia and the development of minute crepitation on the base of the right lung. On the following day the respiration was 40; temperature 101.5°; pulse 96. The cough was scarcely felt and the slight expectoration of glairy mucus tinged with blood, which began on the 11th, ceased on the 19th, and has not since been at all troublesome. He was visited on the 25th by Sir W. Jenner. During the last few days the breathing has continued to vary between 36 and 40, the pulse between 88 and 108. The temperature, sometimes normal in the morning, has risen every day to 100° or 101°. The Archbishop is drowsy and sleeps much, whilst the mucous membrane of the throat is dry and sore. Food of a light, nutritious, but unstimulating character is eaten regularly and in good quantity. There have been occasional tremors in the arm which was paralysed fourteen years ago, but no cerebral disturbance. The diagnosis is thrombosis in the left lung to a considerable extent, with slight pneumonia on the right side, congestion of kidney of a gouty character, with increase in the hypertrophy of the heart, following an attack of pericarditis many years ago, when he was headmaster of Rugby School. The energy which his Grace has evinced during the time he has been Primate, notwithstanding his bodily ailments, cannot but be regarded as remarkable.

## MURDER BY POISONING.

ATTENTION is directed to a little village in Hungary, where, until recently, as alleged, a gipsy woman, now seventy years of age, has for a long time carried on a prosperous trade as poisoner. Upwards of a hundred husbands or lovers are said to have been "done to death" under the directions and with the aid of this malevolent hag. By the treachery of her daughter the culprit has at length been brought to justice. The medical aspect of this case has not yet assumed a form which would justify us in making it the subject of professional remark. The most we know of the affair, and that solely from common report, is that the poison employed has, thus far at least, eluded the measures taken for its discovery. "Even now that the bodies of some of her victims have been exhumed, they show no signs of poisoning, though the stomachs are eaten away." It is stated that the destroyer of life "excited no suspicion because the drugs she administered acted slowly, though surely, and in their effects simulated the symptoms of disease." This is the hideous and

significant feature of the case, giving ground for more than common dread lest the black art of the Eastern poisoner should find its way into Western Europe. It is an unexplained but most happy circumstance that, although European communities are every now and again demoralised by the revelation of some atrocious case of poisoning, that mode of murder has not, and let us hope never will, become naturalised amongst us. The hideous and manifold possibilities of death being brought about by means which cannot be detected by the victim or those around him are enough to scare any community. It is well that we in England have no ground for serious alarm in regard to this crime of secret poisoning. At the same time, it is wise to be ever on the alert. It may be doubted whether, with all the perfection of our vaunted system of Registration, we are as secure as we might be if only more attention were bestowed on *all* cases of chronic or slow disease of anomalous character. It is in connexion with maladies of this nature danger lurks. It cannot be disguised that there are deadly substances capable of inducing changes of tissue that must end in the death of the organism into which they are introduced. Against the administration of these "poisons" there is practically no safeguard. The scrutiny to which mysterious maladies are subjected cannot be too close, and it would tend to the triumph of justice over skilled crime, if attention were less exclusively directed to the recognition of those known mineral and vegetable drugs which are classed as poisons. It is not desirable to say more than this; but so much may and ought to be said in the interests of public prudence and the security of human life.

## THE ANTIQUITY OF MAN.

THE present condition of our knowledge in regard to the antiquity of the human race was interestingly summarised by Professor Boyd Dawkins in his address to the Anthropological Section of the British Association. He referred to the rudely chipped flints left by the early hunters in the gravel beds of Hampshire and Wiltshire, when Southampton Water had not yet come into existence, and its site was traversed by the elephant and the reindeer; when the Isle of Wight was still a part of the mainland, and the river-drift hunter could walk across from Portsmouth to Cowes with no obstacles beyond those offered by rivers and morasses. He pointed out that the most striking feature of the Tertiary period is the gradual and orderly succession of higher types of the mammalia, which, indeed, is so well defined that he has used it as a basis for the classification of this period. Professor Dawkins' own observations, combined with those of Prestwich and others, show clearly that the placental mammals become more and more specialised as we approach the frontier of history. The living Orders appear in the Eocene, the living genera in the Miocene, a few living species in the Pliocene, and the remainder in the Pleistocene. He traced the evolution of living forms in the ascending order in point of time, commencing with the historic period, our knowledge of which was based on documents, refuse heaps, and tombs. This period was preceded by the prehistoric, in which domestic animals and cultivated fruits appear. Man was then numerous; he could spin, weave, make pottery, and mine. He could obtain iron and make bronze; and left as traces of his existence camps, habitations, tombs, and refuse heaps. Before this, in the Pleistocene period, man appeared as the palæolithic hunter, and some knowledge of him could be gained from refuse heaps and contents of caves. In the age immediately preceding the Pliocene, the living species of placental mammals appeared; there were apes and simiads in Southern Europe. In the Miocene apes and simiads existed in Europe and North America. In the Eocene the placental mammals now on earth were represented by allied forms belonging to existing orders and families. Thus it appears that the orders,

families, genera, and species of mammals, when traced forward in time, fall into the shape of a genealogical tree with its trunk hidden in the secondary period, and its branches represented by the living species passing upwards from the Pliocene, a tree of life with living mammalia for its fruit and foliage. The hiatuses or intervals might be filled up with extinct species. The marsupials began their specialisation in the secondary period, and already in the Eocene period had arrived at the stage which is represented by a living genus, the *Didelphys* or opossum. It will be seen that Prof. Dawkins does not claim for man a higher antiquity than the Pleistocene period, which is equivalent to the Quaternary of the French and the Post-pliocene of the early works of Lyell, and he considers that the views of Capellini and Whitney, referring man to the Pliocene period, rest on unsatisfactory evidence. He enumerates the animals that made their appearance with man, such as the mole and shrew amongst Insectivora; the mouse, beaver, hare, and marmot amongst Rodentia; the cat, wolf, and fox amongst Carnivora, with many other animals of active habits; animals inhabiting the cold climate of mountains, and certain animals like the porcupine, hyena, lion, and panther, now only found in warm climates; and, lastly, certain extinct animals like the mammoth, woolly rhinoceros, and cave bear. He described the buried forest of Cromer and the adjoining seaboard which belonged to the Pleistocene period as composed of Scotch firs and yews, with the spruce, the oak, the birch, and the alder, and showed that whilst the absence of the reindeer was significant, the presence of many species of mammals indicated that at this time Britain was united to the Continent. Though no trace of man has as yet been discovered in these primeval forests, his hour had come and rudely chipped implements of the river-drift hunter began to make their appearance in the late Pleistocene river deposits in Southern and Eastern England, and no difference can be detected in the *hâches* found in the caves of Cresswell in Derbyshire, and those of Thebes, of Palestine, and of France. This similarity, Professor Dawkins thinks, points not so much to the identity of the races of men that lived in these widely separated regions, as to a primeval condition of savagery from which mankind has emerged in the long ages which separate it from our own time.

#### SANITARY DEFECTS OF LONDON FLATS.

THE enormous rents paid by the occupiers of fashionable flats would, it might be imagined, suffice to ensure the use of the most recent improvements in sanitary appliances. Such, however, we regret to note, is not the case. In some cases the old and universally condemned container closet is still employed, and evidences of thorough ventilation in the drain-pipes are wanting. Defects of this description are more serious in flats than in ordinary houses, as the ventilation of the inhabited rooms is not so good. The houses are better built, the doors and windows close with more accuracy, and thus exclude accidental currents. Then to eight families there is but one front and back staircase and street door. Those constant and sweeping draughts of air due to the simultaneous opening of area and back-yard doors do not exist in these flats. Altogether therefore there is less accidental ventilation. The inhabitants of flats must rely for the renewal of air almost exclusively on the opening of the windows, and these, being of the ordinary type, are not easily managed in cold weather, and are consequently opened less frequently than is compatible with the removal of vitiated air. Further, the servants' bedrooms in some apartments have no windows at all, and in others are dependent for their ventilation on a window situated over the kitchen-sink, by the side of the kitchen-closet, and facing the bedroom door. The servants' quarters

are dark and unwholesome, so that altogether there is every reason to fear the advent of sewer-gas in these apartments would be more dangerous than usual. Fortunately the families who live in these flats do not often have children with them, so that the injurious effect of this state of affairs is less noticeable. Yet as the tendency is evidently to substitute flats for private houses, a natural consequence of the growth of London and the increased cost of land, we would urge that such sanitary defects should at once be remedied. The expense and trouble would be but slight, and in any case the enormous sum charged for the small accommodation given justifies the tenants in expecting that no pains will be spared to protect their health against the dangers of sewer-gas and difficult ventilation.

#### CIGARETTE SMOKING.

SCARCELY less injurious, in a subtle and generally unrecognised way, than the habit of taking "nips" of alcohol between meals, is the growing practice of smoking cigarettes incessantly. We have not a word to say against smoking at suitable times and in moderation, nor do our remarks at this moment apply to the use of cigars or pipes. It is against the habit of smoking cigarettes in large quantities, with the belief that these miniature doses of nicotine are innocuous, we desire to enter a protest. The truth is that, perhaps owing to the way the tobacco-leaf is shredded, coupled with the fact that it is brought into more direct relation with the mouth and air-passages than when it is smoked in a pipe or cigar, the effects produced on the nervous system by a free consumption of cigarettes are more marked and characteristic than those recognisable after recourse to other modes of smoking. A pulse-tracing made after the subject has smoked say a dozen cigarettes will, as a rule, be flatter and more indicative of depression than one taken after the smoking of cigars. It is no uncommon practice for young men who smoke cigarettes habitually to consume from eight to twelve in an hour, and to keep this up for four or five hours daily. The total quantity of tobacco used may not seem large, but beyond question the volume of smoke to which the breath organs of the smoker are exposed, and the characteristics of that smoke as regards the proportion of nicotine introduced into the system, combine to place the organism very fully under the influence of the tobacco. A considerable number of cases have been brought under our notice during the last few months, in which youths and young men who have not yet completed the full term of physical development have had their health seriously impaired by the practice of almost incessantly smoking cigarettes. It is well that the facts should be known, as the impression evidently prevails that any number of these little "whiffs" must needs be perfectly innocuous, whereas they often do infinite harm.

#### MORTALITY STATISTICS OF WATERING-PLACES.

AT this time of the year the competition between watering-places for the favour of the public takes various forms, and it speaks well for the growing intelligence of the visitors of seaside and holiday resorts that the local authorities of these resorts have recently shown so keen a susceptibility in the matter of death-rates. This anxiety to be able to provide a low death-rate is undoubtedly useful in exciting a local interest in sanitary conditions, upon which rates of mortality are more or less dependent. There is, however, a growing tendency to attach too much importance to death-rates for short periods of time in watering-places of small populations. The annual death-rate during three months in a population of a few thousand is of little real value as a test of sanitary condition, although it may be satisfactory to an intending visitor to know that the population among which he intends

temporarily to reside is not suffering from a high death-rate, or from a large proportion of zymotic fatality. One of the evils of this death-rate competition is a general tendency among sanitary authorities of watering-places to *correct* their death-rates, either by deducting the deaths of visitors, or by adding to the estimated population on the ground of the influx of visitors. Such corrections are of very doubtful expediency, as the means for making such corrections are of uncertain trustworthiness. It may be interesting to a watering-place like Scarborough to take, as it is proposed to do, a summer census, but much care should be exercised in applying such numbers to the calculation of a local death-rate. Summer visitors to Scarborough and similar watering-places rarely contribute to the local death-rate, whatever may be the effect of visitors upon the death-rates of such places as Hastings, Ventnor, and Bournemouth, which are favourite resorts of invalids.

#### PERMANGANATE OF POTASH IN SNAKE-BITE.

THE statements of De Lacerda on the treatment of snake-bite by permanganate of potash have led Mr. Vincent Richards, formerly a member of the Indian Snake-poison Commission, to undertake a series of researches on the efficacy of the treatment in cobra poisoning. The details of the experiments, which have been lately published, do not corroborate the assertions of the Brazilian physician. Nevertheless, they show that the permanganate, while it does not possess all the power which has been claimed for it, is far from useless, and the results cannot be regarded as a refutation of De Lacerda's statements, since the snake poison investigated was not the same. The cobra virus is certainly destroyed by contact with the permanganate out of the body. In dogs, no appreciable symptoms followed the hypodermic or intravenous injection of a watery solution of from two to seven centigrammes of cobra poison, when previously mixed with from one to three decigrammes of permanganate of potash; although, under ordinary circumstances, such a quantity of the virus is more than sufficient to produce fatal results. When a similar dose of the poison was injected beneath the skin of a dog, and immediately, or at an interval of not more than four minutes, a watery solution of from one to six decigrammes of permanganate of potash was injected into the same part, no appreciable symptoms of cobra poisoning could be observed. If, however, glycerine was used to dissolve the cobra poison instead of water, the permanganate appeared to have no influence on the intensity of the virus. It will be remembered that De Lacerda claimed that permanganate is perfectly effectual, even after the constitutional effects of the poison have commenced. Mr. Richards does not find this to be true of the cobra poison. When symptoms had developed, the injection of the permanganate—hypodermic or intravenous, or both—failed to exercise any influence on the symptoms. Moreover, it possesses no prophylactic powers, since death followed the hypodermic injection of three and a half centigrammes of cobra poison, in watery solution, in the case of a dog, beneath the skin of which eight decigrammes of permanganate had been injected a few hours previously. Thus it appears to be absolutely necessary that the permanganate, to be effectual, should come into actual contact with the cobra poison. The permanganate cannot therefore be regarded as an antidote in the proper sense of the word. It is, nevertheless, an agent of considerable value. Up to the present time, the only really effectual means of treating cobra poison has been the ligature followed by amputation. But in the permanganate we have the means of neutralising the poison while it is in the tissues, although we cannot influence it after it has got into the blood. In the tissues, it is necessary that the permanganate should come

into actual and complete contact with the cobra poison. Sloughing is an almost invariable consequence of the injection. Two experiments may be mentioned which clearly illustrate the value of this treatment. The poison was removed from the glands of a cobra, and one-half was injected into a dog weighing fifty pounds, and the other half into another dog weighing only thirty-two pounds. No remedy was applied to the former, and the animal died in six hours and three-quarters. In the second dog, permanganate was injected five minutes after the introduction of the poison, and although the animal was smaller and less strong than the other, it exhibited no symptoms. Again, two dogs were injected, each with two centigrammes of cobra poison. To one a supposed antidote, which had been received from Africa, was administered almost immediately after the injection, but the animal died in less than six hours. In the other case, five minutes after the injection, a catgut ligature was applied, and thirteen minutes later (eighteen minutes after the injection) a solution of permanganate was sent into the part, and the animal showed no symptoms of poisoning. Failure is generally due to a defective application of the ligature, or insufficient injection. Sometimes, however, the intervals are too long; or the dose of poison too large. The best result was obtained in a case in which a quantity of poison was injected into a dog sufficient to kill it in five or six hours, and the ligature was applied five minutes after, followed by the injection of the permanganate of potash twenty minutes later—twenty-five minutes after the injection of the poison. The animal did not exhibit a single symptom of snake-bite. It sometimes happens, from the ligature or the injection being insufficient, that some of the poison will be absorbed, and serious symptoms occur, from which the animal may or may not recover, but which are less rapid than without the injection. A series of experiments made to determine the best strength and quantity of the permanganate solution showed that while a 2 per cent. solution may answer, it is safer to employ a 5 per cent. solution. This must be thoroughly injected, two or three drachms being sent into the part, which should be well pressed with the fingers. This is the estimate for the usual quantity injected by the cobra in its bite, a quantity which usually causes the death of a man in five or six hours. A tight ligature should of course be applied immediately after the bite, and should not be removed until some minutes after the injection. Mr. Richards throws out the suggestion that the injection of the permanganate deserves a trial in bites of rabid animals, the virus of which would probably be destroyed by it. The suggestion certainly deserves attention at the hands of those who are engaged in experiments upon the subject.

#### THE DISINFECTING OF DUSTBINS.

DURING hot weather it is more especially necessary to watch that the removal of dust does not occasion a dangerous nuisance. Theoretically the dustbin of each private house should not contain any organic matter liable to rapid decomposition. Vegetable refuse, even fish-bones, should be burnt behind the kitchen fire, and the dustbin, holding only dust, would not, particularly if emptied at short and regular intervals, give rise to any inconvenience. Practically, however, vegetable and animal matter, together with a considerable amount of moisture, are not only often thrown in the ash receptacles, but kept there many days and even weeks beyond the prescribed limit of time. When finally the emptying takes place there is an upheaval of fermenting and rotten matter, that throws off gases of a highly dangerous character. In a street near Covent-garden, we recently witnessed an operation of this nature. The stench in its foulness was beyond description, and travelled a distance of more than fifty yards up the street and reached the top floors of the houses. On



inquiry it was found that no effort whatever was made to abate this nuisance; and therefore we would urge that, in future, scavengers should always carry with them a quantity of disinfectants. If dustbins are badly kept the disinfectant should during the emptying be mingled with the contents in sufficient quantities to prevent a nuisance; and in such cases it would be only fair to charge the inhabitants of the house with the extra cost their carelessness had necessitated. It should be remembered also that the unpleasantness and risk are not limited to the house whence the filth is removed. The scavengers have to travel sometimes several miles with their heavy carts jolting their foul contents, and emitting poisonous exhalations through thickly populated streets. Then when finally the dustyard is reached, the danger is not over. Here a number of poor women sift the dust carefully, to extract therefrom anything that may have some value, such as small coal, paper, old shoes, and even a stray spoon. Again we urge that all these operations should not be allowed unless their danger is mitigated by the extensive use of disinfectants; while, on the other hand, stronger pressure should be brought to bear on householders who allow their dustbins to become a nucleus of disease.

#### PORK-MEASLE IN MAN.

M. TROISIER exhibited lately to the members of the Paris Hospital Medical Society a man thirty-six years old, a Parisian, who for a year past had noticed small swellings arise on the cheek, arms, legs, and abdominal wall. These swellings proved to be due to cysticerci, and, curiously enough, the patient had passed a *tania solium* whilst bearing these larvæ in his body. M. Troisier suggested two hypothetical explanations of the coincidence: either that the man had swallowed the ova of his own tapeworm, or that tapeworm and cysticerci were derived from the same external source. He asked what treatment should be followed to rid the patient of his disease. No one could dream of removing them one by one, but some such simple method as puncture with the hypodermic syringe might suffice to kill them. Many similar cases are referred to by Lancereaux in his work on Pathological Anatomy, although they are not so frequent as the occurrence of solitary cysticerci in organs. Lancereaux gives a figure showing numerous subcutaneous cysts in a woman, and among other facts quotes the statement of Rudolphin to the effect that in his time at Berlin cysticerci were found in one out of every fifty post-mortem examinations, occurring most often in the gluteal, psoas, iliacus, and vasti muscles, and more rarely in the brain. Bonhomme, in one case, calculated that there were as many as two thousand lodged in the subcutaneous, subfacial, and intermuscular connective tissue.

#### UNCERTIFIED DEATHS AT LEEDS.

THE *Leeds Mercury* of Aug. 24th reports some very important observations of the Borough Coroner on the number of uncertified deaths in Leeds which have to be submitted to investigation by a coroner. The coroner regards this as a very serious matter, for which he blames the system of cheap dispensaries. Last week five cases came from one surgery. It was not right, the coroner said, for a medical man to open a number of branches and fill them with unqualified assistants who could not certify. We regret that the coroner should have the trouble of investigating the cases that end fatally under such a system. But he must be comforted by reflecting that he is exposing a great evil, which has been lately more thoroughly exposed in London. The poor are partly themselves to blame. They are thoughtless about the remuneration of medical men, and think to get medical attendance for grave illnesses for sums they would be ashamed to give their publicans for a week's beer.

#### SCOTTISH UNIVERSITY COMMISSION.

DURING the earlier part of the past session of Parliament high hopes were indulged by those interested in the Scottish Universities that a strong Executive Commission would be named having power, not only to supplement the inquiries of the late Commission, but to order such reforms as are now necessary. The Universities of Edinburgh, St. Andrews, and Aberdeen have shown a strong desire for immediate action; indeed, without this the very existence of St. Andrews, the oldest of the northern Universities, as an efficient teaching body, seems questionable. Glasgow opposes the action of her sister Universities, and would prefer that such changes as are necessary should be instituted by her own authorities. As regards the curricula, perhaps the most important change sought is that by which several routes would be allowed towards graduation in Arts. This would materially affect the medical curriculum also, as the M.A. who chose to graduate in natural science would not require a second examination in those subjects prior to graduation in medicine, and this change will probably raise the whole question as to the position which chemistry, zoology, and botany should occupy in medical education. A large body of opinion in Scotland supports the proposal to place these subjects in the preliminary examination, while perhaps a more influential section would wish to see other subjects added to that examination, or the present subjects made so severe as to give a better guarantee of a good general education, and that the first professional examination should be in pure science, including physics, afterwards leaving the four years for purely medical study. It is just possible that the year's delay may be most useful, so far as medical education is concerned, as the present period of change brings daily into greater prominence the practical and demonstrative element in teaching. The necessity of arranging for the appointment and remuneration of a sufficient number of assistants to the professors will be more fully recognised as the new system becomes more permanent, and other questions which we hear mooted, such as the status of extra-mural lecturers and their more full recognition by the University authorities, will have time for consideration by the interested parties, and perhaps for informal debate by opposing interests. The Government are pledged to take early action, and next session is almost certain to see the appointment of a strong Commission.

#### VINDICATION OF MEDICAL MEN IN SOUTH AFRICA.

THE *Port Elizabeth Telegraph* does a service to the public, more even than to the profession, in holding up to contempt the finding of a court in which Dr. Sharpe, of Jagersfontein, was the plaintiff against one Salmon, a druggist, who declared that three grains and a half of chlorate of potash was a poisonous dose and the cause of the death of a child. The court found that Salmon had not spoken in malice and, secondly, that the doctor, being in arrear with his licence fee for that year, had no *locus standi* in courts of justice. This is a most unjust and inadequate verdict on a charge the most absurd that was ever made by a chemist. The sooner some pharmaceutical society is established to test the knowledge of chemists the better.

#### THE VACCINATION INQUIRY AT NORWICH.

THE investigation by Mr. Henley and Dr. Airy into the deaths at Norwich, alleged to have resulted from vaccination, is not yet concluded. We must therefore defer remarks on the case, save the expression of the hope that the protracted nature of the inquiry may be taken as a guarantee that it will be full and complete.

## MATTERS AT THE CAPE.

THE *Port Elizabeth Telegraph* seems to take a sensible view of the advantages of medical coronerships, and supports various towns in the eastern province which are agitating for properly constituted Coroners' Courts. We cannot imagine a more important object than this for such towns. The question of small-pox, also, is a burning one in the colony. If wisdom is displayed by the authorities and the population, it should be possible to restrict its ravages. The *Times* reports the spread of the disease in Cape Town. The immediate revaccination of every person above seven years of age in an infected house, the vaccination of all unvaccinated persons, and the revaccination of all unrevaccinated adults, would make short work of the epidemic. Practitioners will doubtless make every effort to practise vaccination from arm to arm in well-selected cases, so that by its thoroughness it may be appreciated by the community, which never appreciates vaccination excepting when face to face with small-pox. The *Telegraph* touches on another question not without interest in a medical respect. It alleges that farmers are neglecting the cultivation of sheep under the temptation of the high price of ostrich feathers. More attention, too, is paid to the wool than to the weight of the carcase of the sheep. Under these circumstances, the price of the daily joint of the working man is assuming such proportions as will render butchers' meat as great a luxury to him in South African colonies as to the Dorsetshire labourer. The sooner this is realised the better.

## STRANGULATED HERNIA: WOUND OF INTESTINE.

A WOMAN, aged thirty-five, who had for many years had a right inguinal hernia only imperfectly kept up with trusses, and who three months previously had had an abscess over the hernial sac, was admitted into the Necker Hospital under M. Trélat with all the symptoms of strangulation of the hernia. As taxis had already been tried, M. Trélat had her at once anaesthetised, and, after a further attempt at taxis, operated. On opening the sac he found the intestine bound to the sac by old adhesions. He proceeded to dissect through these adhesions, and while so doing the gut ruptured. The dissection was proceeded with, and then the wound in the intestine was closed with seven interrupted sutures, and, after careful cleansing of the parts, the gut was returned, the sac excised, and the wound closed by deep and superficial sutures. Next day the patient passed a motion. The wound healed by first intention, the drainage-tube was removed on the fourth day, and the patient recovered without any complication. This case is very encouraging, for the congested state of the intestinal walls was not favourable to rapid healing of a wound in it or to tolerance of sutures.

## THE SANITARY STATE OF MARLOW.

DURING the recent proceedings of the Wycombe rural sanitary authority the condition of Marlow came under consideration. A number of conditions, which may be summed up in the words of one of the speakers as "dirt, filth, and overcrowding," were specified, and one member of the authority pointed out that visitors to this favourite riverside town had grounds for reporting in a public paper that the sewage of the place was running down the streets. The inspector of nuisances warned the authority that if they once touched the question of drainage it would be a very serious thing, and when the chairman inquired where the overflow from a large cesspool went to, he first supplied an answer to his own question by explaining that it went into some one's well, and then elicited a further explanation from the inspector of nuisances to the effect

that the town lies on a gravelly soil which is practically honeycombed with wells and cesspools. Under these circumstances it would be exceedingly unwise for the sanitary authority to postpone for any length of time the adoption of necessary remedial measures.

## SEWAGE RESERVOIRS ON THE THAMES.

THE Metropolitan Board of Works have shown wisdom as well as good taste in their decision to defer the extension of their sewage reservoirs at Barking and Crossness until the Royal Commission now sitting has finished its labours. The Commission has adjourned until October 24th, and in the meantime an immense mass of evidence, practical and scientific, is accumulating. London owes so much to the Metropolitan Board that it is regrettable to find that body on the present occasion in opposition to what we take to be the general feeling of Londoners.

## HOSPITAL SATURDAY.

THE present Saturday (September 2nd) is the day for taking up the Hospital Saturday Fund. We heartily wish it success. It is essentially an appeal to the working classes of the metropolis on behalf of institutions in which, on the occurrence of grave accident or disease, they are treated by the best physicians and surgeons in London. Hitherto the result has not been at all adequate to the means of those to whom the appeal is made.

## SPONTANEOUS EXPULSION OF A VESICAL CALCULUS.

M. MOUCHET recently showed to the Société de Chirurgie of Paris a phosphatic calculus measuring 7 cm. by 6 cm. by 5 cm. This calculus had been lodged for a long time at the neck of the bladder of a woman, seventy-two years of age, and had been mistaken for a malignant tumour. During a severe attack of pain it was expelled into the vagina. The patient recovered with only a small urethro-vaginal fistula.

DR. BLAXALL, R.N., Medical Inspector to the Local Government Board, is actively pursuing his inquiry as to the sanitary circumstances and surroundings of emigrants passing through this country to their several ports of departure for America and elsewhere. The question of infectious disease amongst them, either when the symptoms are already manifested or during the period of latency, is engaging special attention with a view to the adoption of remedial measures to stay the spread of infection by isolation and otherwise. Captain Wilson, representing the Board of Trade, is associated with Dr. Blaxall in the inquiry, and the two commissioners have recently been engaged in eliciting the facts relating to the port of Liverpool.

MEDICAL practitioners in England complain, and justly, of the inadequate remuneration they often receive for the inconvenience to which they are put and the time lost in giving evidence at inquests. But their brethren at the antipodes are in worse case, since it appears they are compelled in some instances to travel 200 miles on horseback to bear sworn testimony to the cause of death, receiving as fees for the journey and full professional expenses the sum of £7 13s.!

ASSISTANT-SURGEON C. CRANE, U.S.A., so long and ably connected with the office of the Surgeon-General, at Washington, D.C., and occupying for many years the position of Assistant-Surgeon-General, has been appointed by the President, Surgeon-General to the United States Army, in succession to Dr. J. K. Barnes.

WE have received from Mr. Stanford, of Charing-cross, two maps, one showing the Nile Delta, with plans of Port Said, Ismailia, Suez, and Cairo, also the Canal and Cape Route to India, Australia, &c.; the other presenting on a large scale the seat of military operations in Lower Egypt. Both maps are characterised by the excellence for which the productions of the above firm are distinguished.

CHOLERA is reported to be increasing at Manilla, Luzon, one of the Philippine Isles. The Spanish Government have adopted stringent precautions against importation of the disease. The epidemic is raging also in Japan. Despatches received at Madrid state that of 775 cases at Yokohama, 572 proved fatal.

THE typhoid epidemic at Bangor exhibits at present but faint indications of abatement. Attention has been directed to the water-supply, and the water of the river has been temporarily diverted from the filter bed of the reservoir. All the schools continue closed.

DR. A. W. SMYTH has received from President Arthur the appointment of Superintendent of the New Orleans Mint. This selection would seem to imply that Dr. Smyth has obtained as a politician a distinction second only to that he is acknowledged to have gained as a surgeon.

WE have information as to the prevalence of diphtheria in and about Midhurst in Sussex. According to the last quarterly return of the Registrar-General, two fatal cases were recorded in the Midhurst subdistrict during the quarter ending June 30th.

THE French Minister of Agriculture has placed at the disposal of M. Pasteur a further sum of fifty thousand francs, for the purpose of continuing his researches in connexion with the contagious diseases of animals.

MR. HENRY BUTLER, F.R.C.S. Eng., and E. L. CROWTHER, M.D. Aber., L.R.C.P. Ed., have been re-elected Members of Parliament, Hobart, Tasmania.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Kensington.*—According to Dr. Dudfield's annual report for 1881 the death-rate for the parish was only 16·6 per 1000 living. This is the lowest rate recorded, but the parish was less favourably distinguished by having also an exceptionally low birth-rate—namely, 26·9 per 1000, or 7·8 per 1000 below that of the metropolis generally, and this notwithstanding the fact that there was a high marriage-rate, which reached 21·6 per 1000, as opposed to 18 per 1000 in the metropolis generally. The deaths under one year of age amounted to 14·6 per cent. on the registered births, as compared with 15·6 per cent. in the 19 large towns and cities. The year 1881 was memorable in Kensington, as in the metropolis generally, for the epidemic of small-pox which, commencing towards the end of 1880, continued with varying severity throughout the year. In all, 369 cases were heard of in Kensington. Of this number 300 were treated in hospital with a mortality of 14 per cent., and 69 remained at home with a mortality of 19 per cent. Concealed cases may, however, vitiate the value of the rate as regards the home cases. Most of the patients who went to hospital

were removed to the Fulham Hospital, which received 1914 cases, Kensington contributing 275 patients. The history of the legal proceedings, which ended in the issue by the Court of Common Pleas of an order limiting the use of the hospital to patients residing within a radius of one mile of the building, is entered into; and the circumstances which led to Dr. Thorne Thorne's and Mr. Power's report on infectious hospitals, and on the influence of the Fulham Hospital, are also referred to; the delay in the issue of those reports being explained as due to the circumstance that they are in the hands of the Royal Commission on Infectious Hospitals. Pending the distribution of the Commissioner's report, Dr. Dudfield defers the discussion of several points relating to the late epidemic. He, however, adverts to the fact that during its progress the rest of the kingdom remained all but free from small-pox, whereas during former epidemics many of the large towns suffered even more severely than the metropolis; and he attributes the marked decline in small-pox mortality in the nineteen large towns coming next to London to the fact that since 1875 they have been in charge of medical officers of health, and that there has in each of them been a unity of sanitary administration; whereas, on the other hand, London, with its divided sanitary control, retains an unenviable pre-eminence as regards this mortality. Dr. Dudfield has all along been an ardent advocate for the compulsory notification of infectious diseases, and he would welcome a general statute dealing with this subject, whether the duty of notifying devolved on the medical practitioner or on the householder. He, however, personally favours the former alternative, and feels convinced that, whatever is done as a first step, the intimation must in the long run be made by members of the medical profession. As to this subject, the terms of the special report of the Committee of the House of Commons appointed to deal with private Bills affecting police and sanitary regulations are extensively quoted and commented on. Many other subjects, including a general review of the various sanitary circumstances of London, such as its water-supply, &c., which affect Kensington, as also an account of the action taken to prevent the spread of disease and to secure the abatement of nuisances, are dealt with in Dr. Dudfield's report, which forms a comprehensive summary of all the conditions affecting health in the district which is under his control as medical officer of health.

*Worley.*—Dr. Samuel Drew, in retiring from the post of medical officer of health to the No. 1 District of the Worley Union, points out to the rural sanitary authority that whereas in the two years following on his appointment in 1873 the death-rate amounted to 24 per 1000 persons living, it had during the past two years only reached 17 per 1000. This diminution in the death-rate, which led to an annual saving of 119 lives in the district, was, in his opinion, in great part due to the sanitary improvements which had been adopted, and to the effective administration which had been carried out.

*Glasgow.*—Mr. Kenneth Macleod, the Sanitary Inspector for the City of Glasgow, presents a separate report, which gives evidence of the excellent sanitary work which is carried on under Dr. Russell's supervision. From this report it appears that when any drain nuisance is suspected the smoke test is applied to the drains of the house in question, and a report of all the leakages and defects which are detected is presented to the house-owner, together with details as to the remedial measures which are necessary. All this is done without any charge, and it is not surprising to find that the public are rapidly learning to appreciate the action of the sanitary authority in this respect. With a view to the more effectual arrest of infectious diseases a special washhouse for infected linen and other articles was established in the city in 1864. In 1871 more commodious premises were procured, but the rapidly increasing demand on its limited resources has led to a determination to erect new buildings on a much larger scale. In 1865 the total number of articles disinfected and washed amounted to 29,489, whereas in 1881 the number had reached 206,953. And it is shown that this large increase is by no means due to an increase in the number of fever patients, but rather to the fact that the work of cleansing and disinfecting is so well carried out that the public forward to the establishment many articles with which they formerly did not trust the authority. Thus in the first year of its history the washhouse received at the rate of four articles from each fever patient for whose purposes the establishment was used; whereas in 1880 the rate had increased to thirty articles per

patient. The health committee, being desirous, above all things, to protect the citizens from the risk of infection, carry out all this work free of cost to the sick whose articles are dealt with.

*Dublin.*—During the four weeks ending August 1st, the deaths within the metropolitan registration area were in the ratio of 19·17 per 1000. The death-rate during July was 1·22 lower than it was in the preceding month; while the mortality caused by diarrhoea and dysentery was somewhat, but not excessively, high. There were very few cases of any of the other zymotic diseases. If last month is contrasted with the corresponding period during the last ten years, it will be found that the zymotic death-rate was little more than one-third of the average rate. A very large amount of fish in a state of semi-decomposition was detected during the month and destroyed.

#### ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD FOR IRELAND.

We learn from this report, which is of a highly interesting character, that the average daily number of persons receiving relief in workhouses during the year was 52,772, and out-door relief 60,196, which, compared with similar returns for the previous year (53,796 and 60,833) show a decrease of 1024 and 687 respectively. During the year 56,027 persons were under treatment in the workhouses for various affections, including 7222 cases of fever, or other contagious disease, with a mortality of 11,860. A decrease of 6604 took place in the total number admitted sick to workhouses during the year, also in the number of fever cases, and in the mortality of those admitted. Last year 632,493 new cases were attended by dispensary medical officers, which included 187,562 visiting tickets, and 113,557 people were vaccinated or revaccinated during the same period, being a decrease of 34,271 as contrasted with the previous year. Sixty-four deaths took place in workhouses from small-pox; and there was a considerable decline in the number of fever cases attended by dispensary medical officers, the numbers being 9713, against 11,211 in 1880. The total expenditure of poor-rates for all purposes—viz., relief, medical relief, burial grounds, registration of births, deaths, and marriages, sanitary measures, expenses under Superannuation Act, &c., was £1,251,617, being an increase in the total expenditure of £64,369. The current sanitary expenditure for the year was £48,918, against £51,927 in the year preceding.

#### VITAL STATISTICS.

##### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5600 births and 3680 deaths were registered during the week ending the 26th ult. The annual death-rate in these towns, which had slowly increased in the five preceding weeks from 19·0 to 23·4, declined again last week to 22·7. The lowest rates in these towns were 13·7 in Derby, 16·4 in Bristol, 18·2 in Halifax, and 18·8 in London. The rates in the other towns ranged upwards to 29·5 in Birmingham, 31·3 in Wolverhampton, 32·0 in Salford, and 34·5 in Hull. The deaths referred to the principal zymotic diseases in the twenty-eight towns further rose last week to 1058, and showed a further increase of 68 upon recent weekly numbers; 751 resulted from diarrhoea, 95 from whooping-cough, 75 from scarlet fever, 53 from "fever," 50 from measles, 31 from diphtheria, and only 3 from small-pox. The lowest death-rates from these diseases last week occurred in Derby and Bristol, and the highest in Nottingham and Hull. Diarrhoea showed a further general increase of mortality, and caused the highest death-rates in Wolverhampton, Nottingham, and Hull; whooping-cough caused the highest death-rates in Oldham and Plymouth; scarlet fever in Salford, Oldham, and Plymouth; measles in Huddersfield; and "fever" in Blackburn and Preston. The 31 deaths from diphtheria in the twenty-eight towns included 18 in London, 3 in Birmingham, and two both in Manchester and Leeds. Of the three deaths from small-pox, two occurred in Newcastle-upon-Tyne and one in London. The number of small-pox patients in the metropolitan asylum hospitals, which had declined in the seventeen preceding weeks from 350 to 111, were 114 on Saturday last; and 32 new cases of small-pox were admitted to these hospitals during last week, against 19 and 18 in the two preceding weeks. The deaths referred to diseases of the respiratory organs in

London, which had been 223 and 197 in the two preceding weeks, were 199 last week, and exceeded the weekly average by 41. The causes of 83, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Birmingham, Nottingham, Derby, and Blackburn; whereas the proportions of uncertified deaths were largest in Wolverhampton, Bolton, and Cardiff.

##### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been 20·1 and 20·7 in the two preceding weeks, was 20·0 in the week ending the 26th ult.; it was 2·7 below the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 136 last week, and showed a slight further increase upon recent weekly numbers; they included 81 from diarrhoea, 12 from scarlet fever, 12 from diphtheria, 12 from "fever," 11 from whooping-cough, 8 from measles, and not one from small-pox. The death-rate from these principal zymotic diseases averaged 5·8 per 1000, and was 0·7 below the mean rate from the same diseases in the twenty-eight large English towns. The 81 deaths attributed to diarrhoea showed a further considerable increase upon recent weekly numbers, and were more than three times as numerous as in the corresponding week of last year, when only 25 were recorded; the fatality of this disease was considerably higher last week in the English than in the Scotch towns. Diarrhoea was most fatal last week in Greenock, Edinburgh, and Dundee. The 12 deaths from scarlet fever showed a slight decline from the numbers returned in recent weeks, and included 5 in Glasgow and 3 in Paisley. The fatal cases of diphtheria, which had been 10, 13, and 17 in the three preceding weeks, declined last week to 12, and included 9 in Glasgow and 2 in Greenock. The deaths referred to "fever," which in the two previous weeks had been 8 and 15, also declined to 12, of which 5 were returned in Glasgow, and 2 both in Paisley and Perth. The 11 deaths from whooping-cough were 4 less than those returned in the preceding week, and included 5 in Glasgow and 3 in Aberdeen. The 8 fatal cases of measles corresponded with the number in the previous week; 4 were returned in Dundee, 2 in Glasgow, and 2 in Leith. The deaths referred to acute diseases of the lungs in the eight towns, which had been 71 and 73 in the two preceding weeks, declined to 60 last week, and exceeded by 8 the number attributed to the same diseases in the corresponding week of last year.

##### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 23·5 and 20·1 per 1000 in the two preceding weeks, rose again to 23·6 in the week ending the 26th ult. During the first eight weeks of the current quarter the death-rate in the city averaged 21·3 per 1000, against 18·6 in London and 17·9 in Edinburgh. The 159 deaths in Dublin last week showed an increase of 25 upon the low number in the previous week; they included 16 which were referred to diarrhoea, 6 to "fever," 4 to whooping-cough, 1 to scarlet fever, and not one either to small-pox, measles, or diphtheria. Thus 27 deaths resulted from these principal zymotic diseases, against 15 in each of the two previous weeks; these were equal to an annual rate of 4·4 per 1000, while the rate from the same diseases was 4·0 in London and 4·5 in Edinburgh. The fatal cases of diarrhoea, which had slowly increased from 5 to 10 in the four preceding weeks, further rose to 16 last week, and exceeded the number returned in any previous week of the year. The six deaths referred to "fever" (enteric, typhus, or simple), showed an increase of four upon the number in the previous week. The deaths from whooping-cough, which had been but three since the end of March, rose to four last week. The deaths both of infants and of elderly persons showed a considerable increase upon the numbers in the previous week. The causes of 22, or nearly 14 per cent., of the deaths registered during the week were uncertified.

##### THE DECLINE OF THE BIRTH-RATE IN FRANCE.

A recent number of the Journal of the French Statistical Society contains an article calling attention to the serious aspect of the vital statistics of France. The official statistics

for the year 1880 have not long been issued, and they afford good ground for the grave consideration of patriotic Frenchmen. The marriage-rate, which was equal to 8.85 per 1000 of the population in 1873, has since steadily declined, and was but 7.47 in 1880. This decrease is partly attributed to the effect of the Franco-German war, which caused an increase of the marriage-rate in 1873-5, in reaction from the reduction of the rate while the war lasted; moreover, the loss of young men during the war is still said to affect the marriage-rate. Partly, probably, in sympathy with the steady decline in the marriage-rate, the birth-rate has shown a coincident decrease. The birth-rate in France, which in 1873 did not exceed 26.1 per 1000, has since further declined, and in 1880 it was but 24.7. If we exclude 1871, when the direct effect of the war caused the rate to fall exceptionally low, the proportion of births to the population has not been so low as it was in 1880. The Journal of the Statistical Society pertinently remarks that in no other European State that publishes such statistics is the birth-rate so low as in France, and that the rate in the German Empire in 1880 averaged no less than 39.1, or 60 per cent. higher than the French rate. The French death-rate shows no decline to balance the decrease of births in the population. The rate in 1880 was 23.0 per 1000, and slightly higher than in any year since 1875; the mean rate in the two periods of four years ending 1876 and 1880 was almost identical. It is pointed out, however, that the French death-rate compares favourably with that prevailing in any other European nation, except in England and in the northern Scandinavian countries. This fact is in error partly attributed by the Statistical Society's Journal to the low birth-rate in France. In English populations, however, a low birth-rate is evidence of an age-distribution of the population which produces an abnormally high death-rate. The small proportion of young adults in the French population, and the relatively larger proportion of elderly persons, partly account for the excess in the death-rate. As the inevitable result of the decrease in the birth-rate, and the steadily maintained death-rate, the natural increase of the population by excess of births over deaths, which was 172,946 in 1874, fell to 61,846, or considerably less than half, in 1880. The natural increase of population, according to the figures in 1880, would have caused the population to double itself in 145 years. In accordance with the figures in 1880, however, it would take no fewer than 433 years for the French population to double itself. This want of elasticity in the French population is more remarkable when compared with the rapid increase in England and Germany.

#### TYPHOID IN PARIS.

At the meeting on August 11th of the Paris Hospitals Medical Society, M. Decestral read the report upon prevalent diseases for the second quarter of the year. It showed a much higher mortality than in the corresponding period of previous years. Typhoid fever and diphtheria have prevailed to an extreme degree, and pulmonary diseases have been most numerous and severe. In the hospitals there were 378 cases of diphtheria, as against 267 (in 1881); in the town 728 instead of 523, the mortality reaching the enormous figure of 70 per cent. In the month of June typhoid fever showed a marked increase—viz., 452 cases admitted into the hospitals; in the town 192 deaths, instead of 97 in the previous year. M. Dujardin-Beaumetz declared that he had never seen so much typhoid fever as at present. In the St. Antoine Hospital there were thirty cases in one ward. M.M. Montard Martin and Troisième stated that the pressure was so great at the Hôtel Dieu that an annex had just been opened to receive patients. Later accounts from Paris fully bear out these statements, especially as regards typhoid fever, which is remarkably prevalent.

#### THE SERVICES.

Surgeon-Major Alfred Clarke has been appointed to the medical charge of the Royal Military College, Sandhurst, vice Deputy Surgeon-General Thomas Frazer, M.D. retired. Surgeon-Major William Johnston succeeds Dr. Clarke as Staff Officer of the Army Hospital Corps and Assistant in the Sanitary branch of the War Office, Whitehall-yard.

Surgeon-Major W. Wilson, M.D., has embarked on board the P. & O. steamer *Siam*, in medical charge of the troops

proceeding to Egypt. The *Siam* left the Albert Dock on the 30th ult.

Surgeon-Major Wm. Sly has left England for Gibraltar.

Surgeon-Major Barker has been ordered from Dover to Aldershot to organise the 3rd Bearer Company for service, if required, in Egypt.

Surgeon-Major Melladew, Royal Horse Guards, has been detailed to accompany the detachment of Household Cavalry leaving the Albert Docks on Saturday in the *Persian Monarch* for Ismailia.

Surgeon-Major T. Wood proceeds to Egypt in medical charge of the troops in H.M.S. *Tyne*.

Surgeon-Major W. K. Cumming, Army Medical Department, has been granted leave of absence from India, pending retirement from the service.

Surgeon-Major John Berry White, Indian Medical Department, has retired from the service.

The Queen has approved the retirement of Surgeon-Major Thomas Miller, M.D., and Surgeon-Major Malcolm Munro Mackenzie, of the Bombay Army.

ARMY MEDICAL DEPARTMENT.—The undermentioned Surgeons on probation to be Surgeons:—Sinclair Westcott, Hayward Reader Whitehead, Bruce Morland Skinner, Charles Richard Bartlett, John Dennis Thorpe Reckitt, Thomas Alfred Parry Marsh, Roger Kirkpatrick, M.B., Alexander Charles Archibald Alexander, Harry Strickland McGill, Augustus Alexander Pechell, M.B., Charles Robert Tyrrell, James Hickman, Wilfred Burrell Thomson, Herbert Edward Deane.

BREVET.—Surgeon-Major Edric Selous, of the Bengal Army, to be Brigade-Surgeon.

RIFLE VOLUNTEERS.—1st Cambridgeshire: Surgeon Alfred Nicholas Jones is granted the honorary rank of Surgeon-Major.—1st Durham: Honorary Assistant-Surgeon Samuel Winn Broadbent to be Surgeon.—1st Kent: Surgeon Blackall Marsack resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement.—3rd Monmouthshire: Acting Surgeon Charles Bent Ball, M.D., resigns his appointment.

ADMIRALTY.—The following appointments have been made:—Surgeon William Edw. Bennett, to the *Audacious*; Surgeon Edmund D. Maddick, additional, to the *Duke of Wellington*; Staff Surgeon Richard S. P. Griffiths, to the *Bernarda*, Dockyard, vice Power; Staff Surgeon William T. Power, to the *Cronos*, vice Griffiths; and Surgeon John Price, to the *Indus*, vice Twigg; Fleet Surgeon John Breaky, to the *Duncan* (additional); Fleet Surgeon Thomas Smith Burnett, to the *Audacious*; Fleet Surgeon Stephen Sweetnam, to the *Valiant*, vice Thomas S. Burnett.

#### ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FROM the annual statement of the receipts and expenditure of this College during the official year from midsummer-day, 1881, to midsummer-day, 1882, it appears that the income of the College from all sources amounted to £18,578 2s. 11d., of which sum £15,653 3s. was received by examination fees alone—viz.: preliminary examination, £996; primary and pass examination membership, £13,191 3s.; primary and pass examination fellowship, £1172; dental examination, £294. Rent of chambers and house property in Lincoln's-inn-fields produced £1523 14s. 6d.; dividends on stock, £1097 4s.; incidental receipts, £129 15s. 2d.; and receipts from trust funds, £174 6s. 3d. Total, £18,578 2s. 11d. The expenditure over the same period, including an investment of £1073 15s., was £17,272 2s. 5d., and may be divided as follows:—"Fees to members of Council, £213 3s.; College of Preceptors preliminary examination, £315 9s. 6d.; Board of Examiners in anatomy and physiology, Court of Examiners, and working expenses at membership and fellowship examinations, £6432 6s.; examiners in medicine, £292 4s.; examiners in midwifery, £96 16s.; examiners in dental surgery, £95 17s.; diploma stamps, £390. College department: salaries and wages, stationery, printing, advertisements, postage-stamps, fuel and light, &c., £2916 17s. 3d. Museum department: salaries, wages, and pensions, lectures, specimens, spirit, glasses and bottle, &c., £2135 6s. Library department: salary and wages, purchases, and



binding books, &c., £771 9s. Taxes, rates, and insurance of College buildings, £1135 10s. 8d.; alterations, repairs, and painting, £559 16s. 7d. Extraordinary expenditure: conversazione to the members of the International Medical Congress, £278 10s. 8d. Trust funds, £118 5s. 5d.; investment, £1073 15s.; miscellaneous items, £445 16s. 4d. Total, £17,272 2s. 5d.

## NOTES ON SOME KNOWN MINERAL SPRINGS IN MADAGASCAR.

MR. G. W. PARKER, L.R.C.P. Lond., M.R.C.S., Physician and Surgeon to the Queen of Madagascar, has favoured us with the following particulars of the mineral springs of the island.

Since extinct volcanoes are very numerous in some parts of the island of Madagascar we should naturally expect to find springs, either hot or cold, which might be useful in the cure of diseases. And such is the case, although the capabilities of this large island, in this respect, are almost unexplored; for there are several places where hot springs issue from the ground—some comparatively near to the east coast, others near to the edge of the central highlands, while there is one district near the extinct volcanic mass called “Ankaratra” where carbonic acid gas issues freely out of the soil. These mineral waters may be classed under the following heads, adopting Dr. Tanner’s classification:—

CLASS 1. *Ferruginous waters*.—I do not know of any springs belonging to this class of which the water has been analysed by Europeans, or which are drunk by the natives, but I have noticed in the iron districts many springs which deposited what appeared to be a ferruginous sediment.

CLASS 2. *Sulphurous waters*.—I believe some springs of this class exist in the iron district of Vonizongo (near the London Missionary Society’s station), about one day’s journey from Antananarivo.<sup>1</sup> The natives declare that there are two or three springs (thermal?) here, the waters of which have a strong odour of sulphuretted hydrogen. A few years ago there was a great rage for these Vonizongo springs, the natives making a “rush” thither in large numbers in order both to drink their waters and to bathe in them.

CLASS 3. *Acidulous waters*.—In the district of “Antsirabé” (near the Norwegian Mission station) are a number of springs of this class, between 400 and 500, it is said. The earliest notice of these springs is in Ellis’s “History of Madagascar,” where the writer calls attention to the simple carbonic acid gas springs, some being dry holes in the soil, marked by the carcasses of grasshoppers and other small creatures which, accidentally falling in, have been suffocated; others being springs of sparkling water, apparently “boiling,” as the Malagasy say, yet sensibly cold to the hand, and by no means unpalatable when drunk. Since the settlement of missionaries in this district a closer examination has resulted in the discovery of thermal springs also. A mound of calcareous tufa, several feet in height, has been gradually formed by the chalky sediment around one of these springs; but this mound can no longer increase in height, because the resident missionary has tapped it in order to lead the water to a bathing-shed near to his house. One or two other bath-houses have been built near this by the Queen’s order. A qualitative analysis I made of water from four springs in different parts of this district showed the presence of calcium, magnesium, sodium, potassium, chlorine, iodine, sulphates, carbonates, and free carbonic acid gas; in temperature, according to a Norwegian missionary, they range from 105° to 110° F.; and as regards the quantity of solids left on evaporating twenty ounces of water from each spring, they gave a result of twenty-eight, thirty-eight, forty, and forty-two grains respectively. An analysis of a spring at the spot would somewhat alter these results, perhaps, as much carbonic acid gas must have been lost by escaping through the cork, as well as by unskilful bottling. The waters of these springs are now being freely used (with good results) by the European doctors in Imerina for cases of gout, rheumatism, syphilitic affections (extremely common in Madagascar), uric acid diathesis, and some other affections;

cases of syphilitic paralysis most especially are benefited by the use of these waters.

CLASS 4. *Iodo-bromated*.—The Antsirabé springs just mentioned are the only waters of this class as yet known to exist in Madagascar. The constitution of them all is very similar, and they are particularly valuable for the iodine which they contain in an easily appreciable quantity; but they do not contain bromine, so far as the means of analysis at my disposal could show.

CLASS 5. *Muriated lithia waters*.—I do not know of any springs of this class in Madagascar. Besides the above-mentioned springs, which are sufficiently known to be classifiable, I have heard of other thermal springs. On my return to England I brought with me two bottles of water (temperature unknown) for analysis, one being taken from a hot spring in the forest, near the town of Ambohimanga (the capital of the forest tribe called “Tanala”), this bottle unfortunately burst on its way to England; the other from a hot spring on the western border of the province of Imerina. Mr. Hailes, of the Pharmaceutical Society, has kindly analysed the water contained in the second bottle, and his statement is as follows:—“The result of my qualitative analysis tends to prove that the sample is a perfectly normal one, that it contains nothing more than an ordinary spring water would. There is a trace of organic matter, which, however, may be due to the bottle being badly corked. The mineral constituents, which amount to only 27·80 grains per gallon, consist of silica, magnesia, iron, alumina, and chlorine, in small quantities, and lime and sulphuric acid to a somewhat larger extent. The water is absolutely free from carbonates, nitrates, sulphides, sulphites, phosphates, and borates. Owing to the small quantity, I have been unable to push the inquiry as far as I should like.”

In connexion with these hot springs in the west of Imerina, I have heard (from a good authority) that many years ago a number of Malagasy, including high officials of the Hava Government, made a pilgrimage to these springs, but, as they never thought of building bath-houses and tanks, their only resource was to sit on low seats with their feet in the hot mud for hours at a time. One of these pilgrims was a young officer, now healthy and strong, then a lad afflicted with paraplegia (syphilitic?), who was put through a course of hot baths by the following simple process: After being stripped, two men took him by the wrists and ankles and dipped him, bathing-woman fashion, into the hot mud.

If the spring water analysed by Mr. Hailes cannot be accredited with these cures, some more alkaline, perhaps iodo-bromated, springs may be discovered at some future time in their neighbourhood.

## NOTES ON SOME OF THE HOSPITALS IN THE CITY OF NEW YORK.

(From a Correspondent.)

DURING the last few years several entirely new hospitals have been erected here, in most of which the leading principles obtaining in hospital construction during later years have been carefully observed, while in the larger and more recent structures there are evidences of rivalry, on points partly experimental, which is as useful as it is commendable.

*The Segregation Plan*.—This principle in a general way prevails in each, so far as the wings are concerned, but in a manner particularly complete has it been carried out in some of them in the case of one or more surgical wards. Even Bellevue, the oldest of the hospitals, never to be outdone in enterprise, has erected in the garden a one-storey ward for surgical patients, and called the Sturges’ Pavilion, and a very pretty ward it is. One feature in it it would be well to notice is the entire absence not only of curtains of any kind but of beds and mattresses. For both of these the substitute is a single sheet of wire matting. This is so well stretched by the four iron bed-posts as not to unduly dip, while the texture of the matting is such that when covered with a double blanket its firmness is not less than its softness. In this ward are two admirable English open fireplaces; their respective chimneys are built, however, so as exactly to obstruct the traffic and view in the middle of the central and only aisle. At one end of this building are

<sup>1</sup> All travelling in Madagascar being on foot, a “day’s journey” averages from twenty-five to thirty miles, rarely more.

single wards intended for the segregation especially of puerperal patients. This pavilion is beyond the main hospital out in the garden, having a separate kitchen, ridge ventilation, and every special appliance to secure sanific conditions. Strange to say, however, I found at the time of my visit not one patient in it, and this for a reason much stranger still,—septicæmia had occurred in it to such an extent that it had been necessary for some time past to discontinue the use of the ward altogether. A pavilion ward, which in every particular is as a surgical ward unequalled in New York, and unsurpassed anywhere, is to be found at the Roosevelt Hospital. This also is of one storey, and in height, width, light, and decoration is perfection. Though completely removed from the main building so far as necessities of excommunication can require, the central kitchens, laundry, heating shafts, and ventilating shafts of the entire establishment are in direct communication with it; all the benefits with none of the evils of a large and well-appointed hospital are thus secured in this ward in an exceptional degree. In the ventilation of this ward one point upon which I have always insisted is carried out. While in summer it can be made direct and intermediate by window and by double ridge, in winter all the fresh air is warm air, yet pure, the exit being by aspiration through a superheated shaft. This principle applied to each basin in the waterclosets secures an absence of odour it would be difficult to surpass. At the Woman's Hospital alone, however, have wards been erected as in Boston, with the express purpose of being burnt down or otherwise completely destroyed within a limited period. In the garden of this hospital there have been erected, some distance apart, several two-roomed wooden cottages. One room is the kitchen, the other an operating and bed-room. In these cottages exclusively the ovariectomies of this hospital are performed. Each cottage is occupied by one patient only at a time, and she stays undisturbed in the room where she was operated upon until it is unquestionably safe and expedient for her to be transferred to a general ward. On the slightest suspicion of contamination of one of these cottages it can be burnt without any loss to be mentioned, or it can be wheeled away intact, and be sold at half its cost for other uses. These truly cottage hospitals, and they alone, amongst public institutions, secure a segregation which is absolute. They imply, of course, special nurses and other extra expenses, which, if the principle be groundless, are unwarrantable. If, however, but in a fractional part the principle be correct, he would be a most unchristian economist who should denounce the extra cost per life as extravagance or waste.

*A Hospital Solarium.*—As yet to the New York Hospital alone, of all the other hospitals in this city, and I believe in this country, belongs the credit of this bright redeeming feature in the always sad and depressing life of the hospital patient. This hospital has not only set the first example of having all its cooking and laundry work done at the top of the house; but beyond all sight, sound, or smell of anything disagreeable it has utilised a part of its roof as a solarium. This solarium, which is directly accessible by the lifts, is a large greenhouse, which combines the farther attractions of an aquarium, herbarium, aviary, museum, art gallery, library, reading room, and drawing room. In accordance with the prime objects in its construction, it secures, all day long, all the sunshine the sun pleases to give, minus the external cold; in summer all the breeze which only such an elevation can receive, while at all times the bay, the harbour, the Hudson river, and the mountains beyond present at one view a scene most bright, varied, and exhilarating. The Bigelow post-mortem table is another point in this hospital not unworthy of notice. This table, like most others of its class, dips towards a centre grating, but by elaborate arrangements beneath this grating and within its central and single leg, are found not only provision for drainage, but for ventilation. On the principle of aspiration, a continual air current downwards through the table leg is said to be obtained of sufficient volume and force to carry away without all offensive emanation during autopsies. I have had no opportunity of personally observing its efficacy, but with this and with the original table of my friend, Dr. Bigelow, in Boston, considerable satisfaction is expressed. For convenience for the operator and thoroughness of drainage, a rim at its edge, and convergent groovings of its surface, after the manner of the corresponding table in the Allgemeine Krankenhaus in Vienna, would seem to me not undesirable. This New York hospital is exactly the antithesis in architectural design

of the new handsome wide-spreading hospital at Chicago. Here in this bijou establishment can be seen in fewer minutes than in any other I know a larger number of the best points in modern hospital construction.

The Manhattan Eye and Ear Hospital is a crowning monument to its originator, Dr. C. R. Agnew, and to his present colleagues. It is situated in a neighbourhood as fashionable as is that of St. George's in London, and in the descriptive account is announced the very sensible, but very un-American, fact that in addition to all the usual appliances for heating and ventilation nearly every ward and room has a fireplace in it, in which particular this hospital is different from and beyond any other I know of in this city.

## Correspondence.

"Audi alteram partem."

### THE "EIRA" ARCTIC EXPEDITION.

To the Editor of THE LANCET.

SIR,—It has been suggested by Dr. Buzzard and others that it would be interesting to know what kind of vegetables were saved from the *Eira*, and in what manner they were preserved and cooked.

1st. *Potatoes*.—Of these we had 150 tins, each containing 6 lb. of whole potatoes, which had been peeled, then half boiled and put into tins; these potatoes were out up in small pieces and boiled with the meat for three or four hours. Messrs. Ritchie and Co., of Peterhead, had preserved them by Mr. Leigh-Smith's special instructions.

2nd. *Carrots*.—Also preserved in 6 lb. tins, and partly boiled. We used them in the same manner as the potatoes, and saved about 180 tins.

3rd. *Edward's Dried Potatoes*.—Of these we had about 150 lb. We used them twice a week, putting, as a rule, 2 lb. into the dinner pot. These thickened the soup wonderfully.

4th. *Dutch Vegetables*.—Of these I cannot speak too highly. We, unfortunately, only saved thirty tins, containing about 10 lb. in each; some were potatoes and carrots, others potatoes and beans, others potatoes and peas. The Dutch preserve every kind of vegetable in these long tins, always mixing a good quantity of fat with them.

5th.—We had several small 1 lb. tins of peas, beans, turnips, macedoine of vegetables, &c., which were used occasionally when a little extra was wanted to celebrate any special occasion.—I am, Sir, yours truly,

W. H. NEALE, M.B., B.S.

Boundary-road, South Hampstead, N.W.

### SCURVY.

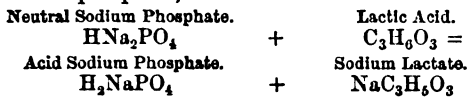
To the Editor of THE LANCET.

SIR,—I was struck by two independent observations which occurred in your columns last week with regard to the etiology of scurvy, both tending to controvert the [generally received opinion that the exclusive cause of that disease is the prolonged and complete withdrawal of succulent vegetables from the dietary of those affected.

Thus Mr. Neale, of the *Eira* Arctic Expedition, says: "I do not think that spirit or limejuice is of much use as an antiscorbutic; for if you live on the flesh of the country, even, I believe, without vegetables, you will run very little risk of scurvy." Dr. Lucas writes: "In the case of the semi-savage hill tribes of Afghanistan and Beluchistan their food contains a large amount of meat, and is altogether devoid of vegetables. The singular immunity from scurvy of these races has struck me as a remarkable physiological circumstance, which should make us pause before accepting the vegetable doctrine in relation to scurvy." These observations do not stand alone. Arctic voyagers have long pointed out the antiscorbutic properties of fresh meat, and Baron Larrey, with regard to hot climates, arrived at the same conclusion in the Egyptian expedition under Bonaparte, at the end of last century.

The question now arises, How is it that tropical and arctic experience is at variance with that acquired in Europe? The only explanation that occurs to me is the different circumstances under which the meat is eaten. As is well known, the reaction of freshly killed meat is alkaline,

from the presence of neutral sodium phosphate; after rigor mortis has passed off it gradually becomes acid, owing to the formation of lactic acid, which converts the neutral into acid sodium phosphate, thus:—



Now, in hot climates meat has to be eaten so freshly killed that no time is allowed for the development of the lactic acid; in arctic regions the freezing arrests its formation. The muscle plasma therefore remains alkaline. In Europe meat is invariably hung, lactic acid is developed freely, and the muscle plasma is consequently acid. If therefore scurvy is, as I have endeavoured to show ("Inquiry into General Pathology of Scurvy"), due to diminished alkalinity of the blood, it can be easily understood that meat may be antiscorbutic when fresh killed or frozen immediately after killing, but which may become scorbutic when these alkaline salts have been converted into acid ones by lactic acid decomposition.

In conclusion, Mr. Neale is to be congratulated on his valuable and practical suggestion as to the use of the blood of the animals killed for food as a prophylactic in scurvy. The blood being so rich in alkaline salts no better natural antiscorbutic can be employed, if the view be accepted that scurvy depends upon a diminished alkalinity of that fluid.

I am, Sir, yours truly,

CHARLES HENRY RALFE.

Queen Anne-street, Aug. 28th, 1882.

## THE "RESPIRATOR" IN SYPHILIS.

To the Editor of THE LANCET.

SIR,—The treatment of syphilitic ulcers of the tongue, mouth, and fauces by respiration of iodine and carbolic acid, &c., has proved so successful in numerous instances which have come under my notice of late, that I am desirous of giving it publicity in your columns. For the past two years this form of syphilis has been peculiarly prevalent in this Command, and as usual proved so tedious of cure, and so liable to recur under the ordinary treatment, constitutional and local, generally adopted, that I decided this year to test the efficacy of the "respirator," and I was gratified to find that the results, in all instances, were most satisfactory. The period of trial is as yet too brief to furnish reliable evidence of the constitutional and permanent effects of this treatment; but certain it is that locally its action is most prompt and palpable, all ulcers assuming a healthy appearance generally in forty-eight hours, and wholly disappearing in ten or twelve days. Immediate relief is also afforded from any panic or discomfort previously caused by the disease. After free purgation the only treatment needed is the use of the "respirator" for four hours daily, two morning and evening, after breakfast and tea. The solution I generally use is Coghill's combination of iodine, carbolic acid, and creasote, and I prefer oakum as the material for its retention. The form of "respirator" I have adopted is one I have devised myself, and is furnished with a detachable perforated diaphragm, which admits of its being thoroughly cleansed and purified for use in different cases.

I am, Sir, yours, &c.,

W. S. OLIVER, M.D., Surgeon-Major.

Halifax, N.S., August 10th, 1882.

P.S.—In 1875 I suggested that this method of the administration of medicinal antiseptic agents should be applied to the treatment of cholera, instead of endeavouring to affect the system through the deranged gastro-intestinal channel, and I still feel strongly impressed that if tried it will be found one of the most efficient means at our disposal of administering medicine in this disease.

## CUPAR FIFE.

To the Editor of THE LANCET.

SIR,—My attention has been called to a paragraph in your Scottish Notes of last week in which it is stated that Cupar is afflicted with an epidemic of typhoid fever. That is not the case; but we have an epidemic of scarlatina. Perhaps you will kindly correct this, and oblige, yours truly,

WILLIAM WHITELAW, M.D.,

Medical Officer of Health, Cupar Fife.

August 23rd, 1882.

## SCOTTISH NOTES.

(From our Correspondent.)

DR. PIRRIE, the venerable Professor of Surgery at Aberdeen, has resigned his chair on the ground of advanced years and declining health. At the meeting of the University Court held last week permission was given, and, after the members had individually expressed their high sense of the distinguished services of Dr. Pirrie, it was agreed to recommend that an increase of the usual retiring allowance should be granted. Dr. Pirrie has served the University in the capacity of Professor for the long period of fifty-two years; for nine years as Lecturer on Anatomy and Physiology, and since then in the now vacated chair. Notwithstanding this long record of work, it is questionable if the duties of his chair have ever been more efficiently performed than during the past few sessions; the unfortunate illness which is the immediate cause of retirement having developed itself since April last. The fine form, the ever vivacious countenance, the sympathy, and the enthusiasm of the Professor will be missed by succeeding generations of students at Aberdeen, except as an ever-living tradition; while the place of one of the most impressive lecturers who ever addressed an audience of students will be difficult, if not at present impossible, to fill. After a double course of surgery under Dr. Pirrie, the man who did not know his subject well was an incorrigible dunce or careless idler. Even his most conspicuous fault, repetition through the want of manuscript, was helpful. We may well hope that, as he is now relieved of the duties of the chair, he may be long spared to benefit the profession and the public in his extended sphere of consulting practice.

There is as yet no certainty as to the candidates for the vacancy in Aberdeen. Locally, of course, Dr. Alex. Ogston's name is prominent in the matter, and much sympathy is felt for him in the illness which has necessitated his absence from home at the present juncture. I am not at liberty to say more than that another distinguished investigator and practical surgeon, who has also considerable experience as a teacher, may soon appear as a candidate. Many of the chairs in Scotland have within the past few years been filled by the appointment of men eminent enough as scientific plodders who have not distinguished themselves in the lecture-room or as practical teachers, and in this case I sincerely trust that the eminent teacher now retired may have as a successor one who has the necessary aptitude for exposition. The patronage is in the hands of the Crown.

Dr. Whitelaw, in dealing with an epidemic of scarlet fever at present co-existent with that of typhoid at Cupar, adopts a simple method, which may with advantage be copied by other authorities. The Sanitary Committee did not deem it necessary that the schools should be closed, but that parents should be advised not to send children to school if any member of the family were affected. It is well known that this recommendation is often a dead letter, and Dr. Whitelaw has now had lists of the affected houses forwarded to the authorities of each school, while parents are warned that should they persist in endangering others by sending to school those children who have been exposed to the infection, they are liable to punishment under the Public Health Act. It is also considered of importance that parents on the list should not send their children to school until they have obtained a medical certificate that there is no risk involved. Ten out of forty-two cases of scarlet fever have proved fatal: a decidedly heavy mortality. The epidemic is abating.

At the advanced age of eighty-five years Aberdeen has lost her oldest practitioner, and one known to several generations of medical students. Though holding many appointments, it is as dispensing physician that Dr. John Paterson will be best known. For a period of years, differently defined even by himself, but reaching far back, he held office at the General Dispensary, and students delighted to spend an hour with him more on account of his genial and facetious style, both to pupils and patients, than from respect for his diagnostic powers. Belonging absolutely and unchangeably to the old school, his diagnosis of the fevers, of pneumonia, or of incipient phthisis, was somewhat mixed, but in his superintendence of midwifery cases he was a safe and instructive guide. During his earlier years he did good work in epidemics of cholera and other diseases affecting the

poor, and till the last he was emphatically the poor man's friend. Aberdeen graduates, wherever found, will have pleasant recollections of Dr. Paterson.

At a meeting of the Council of the Dundee University College held last week, Mr. W. Petersen, M.A. Ed., B.A. Oxon., and late scholar of Corpus Christi, was appointed Principal of the College. The various professors will shortly be selected, and work may be expected to commence forthwith. The Council hope to make such arrangement, either with St. Andrews or other university, as will allow of students proceeding to their degrees in the various faculties; but at first the teaching will be confined to science subjects and those necessary in the Arts course. Many are sanguine enough to believe that through this college, favourably situated as it is for practical work, the medical teaching in St. Andrews may ultimately be placed on a footing of equality with the other Scotch Universities, and it is just possible that the science and medical work might be done entirely in Dundee. The newly appointed professor at St. Andrews has a good field for his energies here, and I have reason to think he is not averse to such advantages as combination affords.

Two of the ruffians who recently decoyed and attacked Dr. Whitelaw of Kirkintilloch were brought before Lord Mure at the Stirling Circuit Court, and on Monday were sentenced to penal servitude—the man for eight, and the woman for five years.

### IRELAND.

(From our own Correspondent.)

THE Chair of Natural History in the Queen's College, Cork, is now vacant in consequence of the death of Professor Leith Adams. The appointment is in the hands of His Excellency the Lord-Lieutenant, and the candidate selected will enter upon his duties about the middle of October.

A Belfast paper states that the Government are contemplating the abolition of the Queen's Colleges in Ireland, and that inquiries are being made as to whether the several professors will be willing to compound for a fixed sum, should the institutions to which they belong be closed. I believe the statement to be entirely unfounded, and probably only due to the wish of that section of the Irish people who have always regarded the Queen's Colleges in Ireland with ill-concealed hostility.

The first Matriculation Examination of the Royal University of Ireland was held last December, when 728 candidates sent in their names, but only 614 came forward for examination, and of these 506 were successful. A second matriculation examination takes place this month, and about 600 candidates are expected to present themselves. There has been a fee of £1 charged for the first university examination in medicine of the new University, but as no charge was made for a similar examination in the Queen's University, a legal opinion was obtained, and I believe I am correct in stating that those students of the Queen's University who paid this fee will have the amount refunded. There has been as yet no allocation of the Medical Fellowships, if we except those for chemistry.

Dr. John MacMunn, late resident medical superintendent of Sligo District Lunatic Asylum, who died last April, has left a sum of £200 to the Royal Medical Benevolent Fund Society of Ireland, and £1000 divided among several Irish medical charities.

The outbreak of small-pox in Clonmel is abating, as only one case of the disease was admitted to hospital during last week.

In the case of Hynes, hanged at Cork last week for murder, Dr. Moriarty, the medical officer of the prison, who witnessed the execution, stated that the heart did not cease to beat for thirteen minutes after the drop fell, and that the pulse in the right hand did not cease for five minutes. The neck was dislocated between the fourth and fifth cervical vertebrae, and the spinal cord ruptured.

Dr. MacCabe, Local Government Board Inspector, in his recent half-yearly report on the condition of the South Dublin Union, remarks, that although the workhouse has recently been somewhat relieved of overcrowding in the female infirm department by the transfer of nearly 200 women of this class to Kilmainham sheds, yet he looks forward with great apprehension

to the pressure which appears likely to be made upon the accommodation of the workhouse during the approaching winter. Even at midsummer the workhouse is very full, the male able-bodied department unduly so, and the female able-bodied wards overcrowded. The hospital departments he considers satisfactory, and a desirable improvement has been effected in the reduction in the use of stimulants. Considering the liberal dietary in vogue at this workhouse, the sum total for stimulants appears most startling.

### NEW YORK.

(From our Correspondent.)

#### THE HOSPITAL SUNDAY MOVEMENT.

THE last number of THE LANCET to arrive here contains your editorial remarks on the result of your Hospital Sunday collection. It may therefore be an appropriate moment for me to offer your readers a *résumé* of what has been done in regard to this movement in the United States. I presume the movement must have had long precedence in England, for the first attempt at such an organisation was made in New York in the autumn of 1874, when the Board of Managers of St. Luke's Hospital issued an appeal to the various episcopal churches of New York City for a collection on behalf of their own work, to be made on the last Sunday of the year. This appeal was so favourably received, that from that time to the present the collection has been regularly made.

The friendly interest manifested by the press in this collection, and the reported success of the General Hospital Sunday movement in Liverpool and London, caused the managers of St. Luke's Hospital to believe that the cause of general charity to the sick would be promoted by an appeal to all classes of citizens, in behalf of all the charitable hospitals in the city; and on the 25th of November, 1878, a paper was read by the Rev. George Stuart Baker, the Superintendent of St. Luke's Hospital, before the Board of Managers, in which a scheme for such a general collection was elaborated, and afterwards put in practice. The result, so far, has been as follows—viz. :—

Total collection for 1879.....	\$26,455 07
" " 1880.....	44,371 97
" " 1881.....	42,535 45

This amount has to be credited to New York City alone, as Brooklyn and the adjoining cities did not participate in the movement.

An examination of the amounts contributed by the various denominations shows in striking contrast the manner in which each creed sympathised in the movement. The Roman Catholic Church, the richest religious organisation in New York, contributed nothing. The Episcopal Church headed the list last year with \$17,768; the Presbyterians next with \$2521; then the Hebrews with \$1368; and the Dutch Reformed with \$1071. The powerful organisation of the Baptists gave only \$299, and the Methodists must have ignored the movement, giving only \$157.

The total amount last year was divided between twenty-one city hospitals. The New York Hospital, the Roosevelt Hospital, and the Nursery and Child's Hospital waived their claim to a share; the first two being wealthy corporations, and the latter not requiring aid to accomplish their work.

Last year a four-page pamphlet was prepared, presenting in a tabulated statement the work done at all the hospitals, giving their total receipts and expenses, and the number of patients treated free of charge; also a variety of interesting and important statistics, most useful for distribution before the collection, showing the actual financial condition of the hospitals and their need of public support. If I extract one item, it will show the value of such a report: "The actual number of days of hospital care of adult patients entirely free in the seventeen hospitals during the year was 243,680. These, at the average cost of \$1 15 per day, show \$285,982 expended in the free care of the sick. Of this sum, only \$88,735 was received by these hospitals as income from their invested funds, and they were dependent for the balance on benevolent contributions and appropriations made by the Government of the city."

Last year a Hospital Saturday was organised, being the

last Saturday in the year, the day previous to Hospital Sunday. Your London rules for Hospital Saturday could not be applied here, so an attempt has been made to reach the general public by means of trades and various business pursuits, such auxiliary associations having a common form of constitution and by-laws. This system is too new to be properly developed, but worked well from the start. These auxiliary trade associations have the right to claim a certain amount of medical relief in proportion to their contribution.

The press of New York City has contributed valuable aid to this movement by editorial and other notices, which have placed the object of the Association prominently before the public. The distribution of 50,000 of the printed statement's I have referred to is believed to have done much to increase the fund, presenting such an array of facts, in a form to be grasped without effort by the reader, that no one who reads it could fail to appreciate the force of the appeal.

I had a long talk to-day with the Rev. George S. Baker at St. Luke's Hospital, and feel pleasure in presenting here his suggestion that the Secretary of the Hospital Sunday Movement in London should put himself in communication with those who have enlisted their energies in the same direction on this side. Doubtless the same methods are not applicable for both countries, but a comparison of the working of the systems, and the various rules and regulations which each has adopted, cannot fail to lead to good results, and something may be learned each year by the other's experiences. Mr. Baker will reciprocate any courtesies which the London Secretary of the movement will extend; and will send copies of all printed matter issued by the Association. Mr. Baker says that he has received some of the printed documents of the London Society, but only at second hand, by the thoughtfulness of a friend, and not from the Society itself. Anything sent to me, addressed THE LANCET Post-office Box, 3230, New York, will be sent to the proper quarters; or the Rev. George S. Baker can be addressed at St. Luke's Hospital, West 54th Street, New York City.

I send by this mail to the office of THE LANCET, London, the following printed pamphlets, for the use of the secretary of the London movement, if deemed acceptable:—

1. Statement and Appeal of the Hospital Saturday and Sunday Association for the Year 1881.
2. History of the Hospital Saturday and Sunday Movement in New York City.
3. Report of the New York Hospital Saturday and Sunday Collection for 1880.
4. Report of the New York Hospital Saturday and Sunday Collection for 1881.
5. Constitution and By-laws of the Hospital Saturday and Sunday Association of New York City.
6. Constitution and By-laws of the Hospital Saturday and Sunday Auxiliary Associations, &c. &c.

It may be noticed that the movement has been thus far chiefly confined to New York City, the only exception I know of being the State of Maine, which has observed a Hospital Sunday since 1876. But the New York Executive Committee has addressed to the Mayors of twenty-three large cities a letter in the name of the Association, giving them a history of the movement, the result of the collections so far, and asking them to inaugurate similar movements in their respective localities. The replies received were very satisfactory, and steps have been already taken in some of these cities to follow the lead New York has set; and it is hoped that the Hospital Sunday movement may become a national institution.

In conclusion, I may state that the city government of New York City annually makes an appropriation of its funds for charitable institutions. Might not the rich corporations of London do something of this kind, sending on the 1st of January of each year a cheque for a stated amount to each of the London Hospitals requiring financial help?

August 14th, 1882.

A FINE incident is told of the first bearer company of the Army Hospital Corps in the late engagement at Kassassin. They were, during the recent engagement, by some movement of the troops, isolated. The medical officer in charge refused to allow the interruption in his duty of dressing the wounds which a change of position would have caused, and his forty men filled their haversacks with sand, so as to make a rough shelter, took the rifles of the wounded, and defended their charge until the arrival of the cavalry put an end to the enemy's attack.

## Medical News.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 24th:—

Maye, John, Kingsbridge, Devon.  
 White, Thomas Harry, Silver-street, Lincoln.  
 Wilson, Mervyn Sappings, Birchington-road, Kilburn.  
 Worthington, Sidney, Enfield, Middlesex.  
 Young, Charles Stewart, Royal Infirmary, Glasgow.

The following gentleman also on the same day passed the Primary Professional Examination:—

London, John E., King's College.

At the recent examination for the Prizes in Materia Medica and Pharmaceutical Chemistry given annually to medical students by the Society of Apothecaries, the successful candidates were—

1st.—John Barker Smith, St. Thomas's Hospital. Gold Medal.  
 2nd.—Thomas Henry Williams, Middlesex Hospital. Silver Medal and Books.

**UNIVERSITY OF GLASGOW.**—In the list published on Aug. 12th of gentlemen who passed the examination for the M.D. and C.M. degrees, the name "John Gopp" should have been printed John Goff.

**VACCINATION GRANT.**—Michael Whitmarsh, M.D., M.R.C.P., of Hounslow, has received the Government grant for efficient vaccination (fourth time).

AN apthous disease, designated by the report "red thrush," is raging in an epidemic form at Malmö, Sweden. The mortality appears to be about 7-30 per cent.

THE Canterbury Board of Guardians are taking steps for the erection of a larger and more commodious infirmary than the one at present in use.

A HOUSE-TO-HOUSE collection was made on Saturday, August 19th, at Hastings, on behalf of the West Kent General and County Ophthalmic Hospital. The sum realised was about four guineas.

**CRIMINAL LUNATICS.**—In the year ending the 29th of September the number charged and detained as criminal lunatics in England and Wales was 827—656 males and 216 females.

A CORRESPONDENT of the "City Press" directs attention to the filthy state of Fleur-de-Lis Court, Fetter-lane. Complaints on the matter have, it appears, unavailingly been made to the City authorities.

AT the annual meeting of the governors of the Stratford-on-Avon Infirmary, held recently, the honorary physician, Dr. Kingsley, announced a donation of £6000 and a site for the proposed new building, the bequest of a gentleman whose name was not given.

THE committee of the North-west London Hospital for Sick Children are in treaty for the purchase of two nearly completed semi-detached houses in Ball-street, Edgware-road, for the purpose of converting them into a hospital for the treatment of children's diseases.

By the will of the Marquis of Conyngham, lately deceased, it appears he has not forgotten his medical attendant's, having bequeathed to "his friend," Mr. Edgecombe Venning, F.R.C.S., of Sloane-street, £200; and a like sum to his resident medical attendant, Mr. Robert Hippisley Cox, M.R.C.S. The will was sworn under £118,000.

AN inquest was held this week by Mr. Langham, at the board-room, Mount-street, Grosvenor-square, on the body of Mr. G. H. Ross, L.R.C.P.L., who died in the infirmary, to which he was removed in a comatose state. The post-mortem examination revealed the presence of compression of the brain due to fracture of the skull. A verdict of "Accidental death" was returned.

**MARGATE SEA-BATHING INFIRMARY.**—On Monday Sir Erasmus Wilson, at a meeting of the Governors of this Infirmary, handed over the key of the new wing of the building, to be named the Erasmus Wilson Wing, which has been built by him at an estimated cost of over £30,000. The wing includes two large day-rooms, and four dormitories, each to contain 16 beds, with a swimming-bath capable of containing 15,000 gallons of sea-water.



## BOOKS ETC. RECEIVED.

- CHURCHILL, J. & A., London.  
On the Climate and Fevers of India: The Croonian Lectures delivered at the Royal College of Physicians, 1832. By Sir Joseph Fayrer, K.C.S.I. &c. pp. 278.  
St. Thomas's Hospital Reports. New Series. Edited by Dr. Robert Cory and Mr. Francis Mason. pp. 419.
- JOHNSTON, W. & A. K., Edinburgh.  
The Botanical Atlas. By D. McAlpine, F.G.S. Part 5.
- KEGAN PAUL, TRENCH, & Co., London.  
The Concepts and Theories of Modern Physics. By J. B. Stallo. pp. 313.
- LEWIS, H. K., London.  
A Practical Treatise on Electro-Diagnosis in Diseases of the Nervous System. By A. Hughes Bennett, M.D. pp. 176, with Illustrations.
- NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE, Adam-street, London.  
A Manual for the Congress, with a Narrative of Past Labours and Results. By J. L. Clifford-Smith, Secretary. pp. 190, with Portraits.
- NEW SYDENHAM SOCIETY, London.  
A Treatise on the Diagnosis and Treatment of Diseases of the Chest. Part I.: Diseases of the Lung and Windpipe. By Wm. Stokes, M.D. &c. With Memoir by Dr. Acland. Edited for the New Sydenham Society by Alfred Hudson, M.D. pp. 593.
- TREAT, E. B., New York.  
The Illustrated Quarterly of Medicine and Surgery. Vol. I., No. 3. Edited by Profs. G. H. Fox and F. R. Sturgis.
- VAN VOORST, J., London.  
Questions in Pure Mathematics, proposed at the B.A. and B.Sc. Pass and Honours Examinations at the University of London. With Complete Solutions. By J. E. A. Steggall, M.A. pp. 245.
- There is Dust in John's Eyes; by Joseph Allen, F.S.S.—Little Angels; by A. Pott.—Officieller Katalog f. die Allgemeine Deutsche Anstellung aufs dem Gebiete der Hygiene, Gesundheitspflege u. Gesundheitstechnik u. des Rettungswesens; Berlin.—The Improved District Railway Map. (Adams & Sons, Fleet-street.)—Hereditary Syphilitic Eruptions of the Skin in Early Life; by James Startin.—Report of the Census of Berar, 1881; by E. J. Kitts, B.C.S.—New Commercial Plants and Drugs, No. 6; by Thos. Christy, F.L.S.—Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1881; by the Medical and Surgical Registrars.—Catalogue of Surgical and Physiological Instruments and Appliances, with Notes on New Remedies. (Brady & Martin, Newcastle-on-Tyne.)—Lock Hospitals and Lock Wards in General Hospitals; by F. W. Lowndes, M.R.C.S. (Churchills).—Transactions of the Indiana State Medical Society, 1882.—Festschrift zur Feier des 300 Jährigen Bestehens der Julius-Maximilians Universität zu Würzburg.—Transactions of the Medical and Chirurgial Faculty of the State of Maryland, 1882.—Health Lectures for the People, Nos. 6 and 7.—John Weiss and Son's Price-list of Surgical Instruments &c., 1882.—Knowledge, August.—Animal Vaccination and the Origin of Vaccine; by C. R. Drysdale, M.D.—Index Medicus, Vol. IV., No. 7.—Remarks on Cattle Plague Vaccination; translated from the French of Dr. C. Eigeon.—On Croup, its Nature and Treatment; by John Moir, L.R.C.P.Ed.—Leisure Hour, Sunday at Home, Boy's Own Paper, Girl's Own Paper, Good Words, Sunday Magazine, for September.—De la Constitution Élémentaire des Tissus; par le Prof. A. Estor.

## Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

- ALFORD, CHARLES EDWARD, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Misterton District of the Beaminster Union.
- BEATTIE, JOSEPH ALOYSIUS, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Government Health Officer for Port Jackson, N.S.W., vice Alleyne, resigned.
- CLAYWORTH, CHARLES CREASY, L.R.C.P.Ed., M.R.C.S., has been appointed Resident Medical Officer at the Sydney Hospital, N.S.W.
- COATES, WILLIAM, M.R.C.S., has been appointed Resident Accoucheur to the London Hospital, vice C. E. Jennings, resigned.
- CORBIN, THOS. WILSON, M.R.C.S., L.S.A.Lond., has been appointed Visiting Medical Officer to the Home for Incurables, Adelaide, Australia.
- CRESSWELL, NATHANIEL ENGELHEART, M.D.St.And., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Blisworth District of the Towcester Union.
- HODGSON, G. G., M.R.C.S., has been appointed Medical Officer to H.M. Post Office, Liverpool, Bootle Division.

- HOLLAND, JAMES CALLANAN, L.K.Q.C.P.I., L.F.P.S.Glas., has been appointed Medical Officer to the Dungarven Dispensary District of the Dungarven Union, vice Anthony, deceased.
- LAING, R., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer of Health for the Cowpen District, Blyth, Northumberland.
- MACQUEEN, ARCHIBALD JOHN, F.R.C.S.Ed., L.R.C.P.Ed., has been appointed Government Medical Officer for the District of Forbes, N.S.W.
- PEARCE, THOS. FRED., M.D.Brux., L.R.C.P.I., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Milland District of the Midhurst Union.
- PENTLAND, ALEXANDER, M.B.Dub., L.R.C.S.I., has been appointed Medical Officer to the Casualty Hospital at Port Lincoln, South Australia.
- SPENCER, WALTER, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Gringley District of the East Retford Union.
- STEWART, DOUGLAS EDWARD, M.B., C.M.Ed., has been appointed Medical Officer to the Pentridge Stockade, Coburg, Victoria.
- VISE, CHRISTOPHER, M.B., M.R.C.S., has been appointed House-Surgeon to the Infirmary, Tunbridge Wells, vice J. B. Footner, F.R.C.S.Eng., resigned.
- WAINWRIGHT, CHARLES HENRY, M.R.C.S., has been appointed Medical Officer for the Howden District of the Auckland Union.
- WRIGHT, ADAM HENRY, M.B.Toronto, M.R.C.S., has been appointed Physician to the Toronto General Hospital.

## Births, Marriages, and Deaths.

## BIRTHS.

- BROKE-SMITH.—On the 27th ult., at Lipson-terrace, Plymouth, the wife of P. Broke-Smith, M.D., Brigade Surgeon, Army Medical Department, of a son.
- DUNLOP.—On the 17th ult., at 50, David-place, St. Heller, Jersey, the wife of Andrew Dunlop, M.D., of a son.
- GROSS.—On the 26th ult., at St. Saviour's Infirmary, Westmoreland-road, Walworth, the wife of Charles Gross, L.R.C.P.Lond., M.R.C.S.Eng., Medical Superintendent, of a daughter.
- LORD.—On the 26th ult., at Wilton House, Landport-terrace, Southsea, the wife of Frederick Lord, L.R.C.P., L.R.C.S.Ed., of a son.
- O'DONNELL.—On the 18th ult., at Darlington-street, Wigan, Lancashire, the wife of William O'Donnell, L.R.C.S.I. &c., of a daughter.

## MARRIAGES.

- BROOK—READ.—On the 31st ult., by licence, at Holy Trinity Church, Stroud, by the Rev. Edward Hugh Hawkins, B.A., Vicar, Miles Brook, Esq., of Shepley, Yorkshire, to Sidne Sara Symington Scriven Read, Matron of Stroud Hospital.
- DRUMMOND—WILSON.—On the 24th ult., at Devonport, James Drummond, M.D., of South Shields, to Charlotte, elder daughter of the late William Wilson, of Wimborne Minster, Dorset.
- FERGUSON—ROSTRON.—On the 23rd ult., at All Saints', Cheddle, Hulme, John Ferguson, Surgeon, of Stockport-road, Manchester, to Emily, second daughter of R. H. Rostron, of The Ramillies, Cheddle, Hulme.
- JACKMAN—RADCLYFFE.—On the 23th ult., at St. Thomas's Church, Camden-square, William Thomas Jackman, M.R.C.S., L.S.A.Lond., of Coggeshall, Essex, and eldest son of Dr. Jackman, of Stoke Newington, to Edith, daughter of the late Edward Radclyffe, Esq., of Camden-street, and of Mrs. Radclyffe, of Rochester-square, Camden-road, N.W.
- PURTON—JONES.—On the 23rd ult., at Christ Church, Linnet-lane, Liverpool, Astley Rufford, elder son of the late Astley Purton, M.D., of Alcester, Warwickshire, to Catherine Elizabeth, daughter of the late Anthony Jones, of Liverpool.
- TWEEDY—MEREDITH.—On the 26th ult., at St. Peter's Church, Dublin, Henry Colpoys Tweedy, M.D., son of H. Tweedy, M.D., to Alice Maud, daughter of the late Capt. T. J. Meredith, of Cloonmahon, Collooney.

## DEATHS.

- BANNISTER.—On the 22nd ult., at Great Malvern, Alfred James Bannister, M.D., of Addison-terrace, Notting-hill, aged 48.
- CORNEY.—On the 25th June, at Suva, Fiji, Orlando Pridham, the only and beloved child of Bolton Glanvill Corney, M.R.C.Eng., Government Medical Officer, Fiji, and of Evelyn, his wife. He died, to the grief of all who knew him, after three weeks' suffering, from sunstroke, aged 4 years and a half (nearly).
- DOLTON.—On the 19th ult., at Lee-road, Blackheath, William Blucher Dolton, M.D., aged 63.
- GARDNER.—On the 22nd ult., at Bungay, after three days' illness, James Gardner, M.R.C.S., L.S.A.Lond., M.R.C.P.Ed., aged 65.
- MOREHEAD.—On the 24th ult., very suddenly, at Wilton Castle, Redcar, Yorkshire, Charles Morehead, M.D., F.R.C.P., C.I.E., late Bombay Medical Service, aged 75.
- ROBERTSON.—On the 25th ult., at Albany-street, Edinburgh, William Robertson, M.D., F.R.S.E., in his 65th year.
- TICEHURST.—On the 25th ult., at the house of his father-in-law, J. Head, High-street, Lewes, Surgeon-Major Ticehurst, late of the Bombay Army, aged 50.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### THE STUDENTS' NUMBER OF THE LANCET

will be published on Saturday next, Sept. 9th. Those gentlemen holding official situations connected with Medical Institutions in the United Kingdom, who have not yet forwarded the necessary information to our Office for publication in that number, are earnestly requested to send it *without the delay of a single post*. It will be esteemed as a favour if the needed alterations be made on the slip forwarded from this Office, so that risk of error may be avoided in the course of perusing bulky prospectuses.

#### THE LAST THING IN INCUBATION.

M. TARNIER, the surgeon of the Maternity Hospital in Paris, struck by the great mortality among infants prematurely born and those which are very sickly after birth, has conceived the ingenious idea of constructing a box which is almost exactly similar to the incubators used for poultry. This box is divided into two compartments—the lower one being used as a reservoir for hot water, while the infant is placed in the upper one, which is well stuffed at the sides and fitted with a sliding glass cover. The temperature is maintained at 86 degrees Fahrenheit, and M. Tarnier has found that by keeping infants in the incubator for a period varying from two days to six weeks their vitality is enormously improved. He has made experiments upon five six-months children, six seven-months, and thirteen eight-months children, and he has only lost two of them, whereas, according to his statement, three-fourths of them would have died but for this adventurous aid to vitality.

M. N.—Registration is no longer necessary at the Royal College of Surgeons, the duty having been undertaken by the Registrar of the General Medical Council, Oxford-street, from whom all particulars may be obtained.

#### UGHT DISEASED MEAT TO BE USED AS HUMAN FOOD?

*To the Editor of THE LANCET.*

SIR,—I wish, through the medium of your columns, to ask the opinion of medical officers of health on the following case.

A cow, which had been previously ailing, gives birth to a calf, and on the following day it is slaughtered, the meat dressed and brought into market. I am consulted as to the flesh being fit for human consumption, and finding on examination that it is soft and flabby and dark in colour, with an alkaline reaction to litmus paper, and taking into consideration that the cow had been under veterinary treatment for several days, had been killed so soon after parturition, and had had physic administered to it, I condemned the meat. Acting on my advice, the Board of Health instituted an action against the butcher, and the case is heard before the local magistrates, who, after a lengthy trial, find the meat not unfit for human food.

Was I justified in condemning the meat? The magistrates by their verdict say I was not, but, as this may be made a test case, I should like the opinion of any of my medical brethren who may feel interested in the matter and who may feel qualified to speak on the subject. I should perhaps mention that a practitioner from a neighbouring town gave evidence on the opposite side, and gave it strongly as his opinion that such meat should not be condemned. He had not seen the meat. I should like to know, seeing that all authorities on the subject were entirely disregarded, what are the circumstances under which meat ought to be condemned and destroyed as unfit for human food.

I am, Sir, yours truly,

August 20th, 1882.

MEDICAL OFFICER OF HEALTH.

#### CHARGES FOR DEATH CERTIFICATES.

IN spite of "M.," a writer in the *Pall Mall Gazette*, we do not believe it is the rule of medical men practising among the poor to charge for death certificates. At any rate, it is a rule more honoured in the breach than in the observance. In the case which occasioned the coroner's reflections the practitioner was careful to explain that his charge was not for the certificate, but for attendance.

*Association of Fellows.*—An old correspondent thoroughly endorses the excellent suggestion made by Mr. Tweedy in his letter, published in THE LANCET last week, that the meeting should be held the day before, or, if more convenient, early on the day of the annual election of Fellows into the Council of the Royal College of Surgeons, and suggests either the Freemasons' Tavern or the Inns of Court Hotel as being convenient for the purpose.

#### THE INFECTIVE POWER OF DIPHTHERIA.

*To the Editor of THE LANCET.*

SIR,—I shall feel obliged by your answering the two following queries under their respective headings.

A. What is a safe period of quarantine after recovery from diphtheria? or, in other words, how long after apparent recovery from the disease can it be communicated? I have heard of an instance where it was said to have been communicated to another person two months after recovery.

B. Be so good as to state your opinion of the conduct of a medical man who, called in to see a case which he pronounces to be diphtheria, does not recommend the isolation of the patient, who is the youngest member of a family of twelve children, the eldest of whom is sixteen. I enclose my card.

I am, Sir, yours faithfully,

August 23rd, 1882.

X. Y. Z.

\*. A. We are not aware of any sufficient data which warrant a decided opinion on this point. The poison of diphtheria probably clings longer to the infected room and house than to the infected person, and recorded instances tend to show that where a second attack had occurred as long as two months after recovery, the source of infection has been the infected premises rather than any infected individual. Under ordinary circumstances, when thorough disinfection of premises and clothing has been resorted to, the lapse of a fortnight after the disappearance of all local signs of disease may be regarded as a safe interval. Such local lesions as the secondary paralyses need, in all probability, not be taken into account.—B. The infectiousness of diphtheria by personal communication has been so abundantly proved, both by experiment and experience, that we can hardly conceive such circumstances as are referred to, unless the remaining members of the family have had a prior attack. And even then the risk is by no means unimportant, second attacks being far from unusual.—ED. L.

*Metalloid.*—No. The tendency of recent observation, both anatomical and clinical, is to establish a contrary view.

Mr. John McNaught.—We do not think that we have anything more to say on the subject of our correspondent's views.

Dr. Taylor's (Scarborough) communication is unavoidably held over.

#### COW'S MILK DURING THE PERIOD OF RUT.

*To the Editor of THE LANCET.*

SIR,—I can quite corroborate the statement of your correspondent, Dr. Alex. Napier, of Glasgow, respecting the effect of cow's milk during the period of rut, although I am unaware of any alteration in the composition of the milk during that period. On investigating the causes of some infantile diarrhoea lately, I found that in most cases the parents had been very particular in obtaining milk from one cow for their infants. Some of these children had the milk from the same cow, and these were attacked with diarrhoea at the same time, and that time corresponds to the period of rut in the cow. I have little doubt but that this was the cause of the diarrhoea in this instance, and on a previous occasion I noticed the same probable cause. I believe that this would be a much more frequent cause of illness than it is at present but for the fact that cowkeepers as a rule pay little attention to their customers' orders for milk from one cow. Whenever the opportunity has occurred I have advised parents not to give any such order, believing this to be a popular and injudicious error.—I am, Sir, yours, &c.,

August 26th, 1882.

EDWARD WALFORD,  
Medical Officer of Health, Ramsgate.

Mr. James Richards would oblige by obtaining for us further particulars, when the subject shall have attention.

Mr. William Thomson (South Yarra).—The matter has not been overlooked.

#### "BICYCLE (AND TRICYCLE) RIDING."

*To the Editor of THE LANCET.*

SIR,—The concluding sentence in Mr. Creswell's reply to "F.R.C.S." suggests to me to state that I am acquainted with persons afflicted with hernia who always dispense with their trusses when tricycle-riding. I know two bicyclists—racing men—who have had to give up riding on account of varicose veins. Both attribute their condition to bicycle-riding. Can they be mistaken?

I am, Sir, your obedient servant,

W. H. STACPOLE WESTROPP, L.R.C.S.I., &c.  
Lisdoonvara, August 25th, 1882.

## MEDICAL ADVERTISING AT TUNBRIDGE WELLS.

THE *Tunbridge Wells Gazette* advertises weekly the names of its staff and the number of its in- and out-patients. This seems to us superfluous, to say the least. If the committee of the charity thinks the advertisement of the work done helps the funds, well and good. But the weekly advertisement of the medical officers is a contravention of that spirit of quietness in which medical and benevolent work should be done.

*Drachm.*—The report of a case will appear in an early number of THE LANCET.

## THE POSITIVE TREATMENT OF GONORRHEA.

To the Editor of THE LANCET.

SIR,—As a regular reader of your valuable journal I am frequently forced to the conclusion that many of the theories advanced would never find ventilation had the writers themselves had any practical personal experience of the pain their ill-begotten remedies inflict upon the patients they unfortunately try their experimental treatment upon. On no one subject has this feeling intruded itself upon me in reading the various articles, letters, &c., more than on that of the so-called "abortive treatment of gonorrhoea."

Of course it is very wicked to confess that ever I had such an ailment, but truth compels me to say that, after seeing much practice at the Manchester Lock Hospital, and having duly passed my M.R.C.S. examination and being actively engaged in practice, to my very great surprise one day I found myself (for the first time in my life) enjoying the promise of a smart attack of urethral inflammation. Now, whilst the prescribing of medicine for others and pocketing the reward of my industry (especially the latter) has constituted one of the chief enjoyments of my life during the last twenty years, I have to confess to an all but utter inability to swallow any of the nauseous compounds in which I daily dabble. You may fancy my exultant feelings in the prospect of having to face the stern reality of balsam, cubebs and co. Of course I immediately consulted the authorities (I think we always do this when matters so nearly come home), the result being that, all things considered, I came to the conclusion that the treatment recommended in "Druitt's Vade Mecum" was about the most sensible and practical treatment I could find, and one deserving honest trial. Of course, too, I was a bachelor, so had every opportunity of doing every justice to the two grains to the ounce of nitrate of silver injection, but as I sat for hours after its use nursing that weak solution, and the extreme and persistent pain it occasioned, and then shrieked out with agony when forced to micturate, I reluctantly was forced to the conclusion that Dr. Druitt never had this ailment, or, if he had, had certainly written his book before trying the remedy he recommended. Afterwards, when suffering from severe orchitis brought on by this injection, I "unanimously" came to the direct decision that he knew nothing at all about it. For two whole years I held courageously to a gleet discharge, set up entirely by this insane treatment; but eventually, to get rid of it at the cost of a persistently recurring irritability of the neck of the bladder (for which I hold this so-called "abortive treatment" entirely responsible), sulphate and chloride of zinc are all but equally painful, whilst such astringents as tannin, &c., in arresting too suddenly the discharge (which is but the product or result of the acute inflammation) are sure to be productive of as much harm as good. Now, as against this abortive treatment of this ailment I will tell your readers of a most positive cure for gonorrhoea, one at least which, based upon a large experience, I have never known to fail, and which possesses the advantage of being as palatable as most remedies which we are called upon to use in our every day experience of other ailments. Having, as I before asserted, a somewhat considerable practice in this direction, I get one pound of roughly ground cubebs (I grind my own, and so can rely upon its freshness); this I put into a 200 oz. or wide mouth bottle of commerce; to this I add 2 oz. of the iodide of potash, filling up my bottle with cold water, into the mouth of which I drop several large lumps of camphor, simply to make it keep. This I shake up two or three times a day for a few days, of course keeping it in a very cool place, afterwards pouring off the clear infusion, which I administer to my patients in regular consecutive doses.

If asked why I mix it in this wholesale fashion, I answer—for convenience, and that it may have an opportunity of macerating, and then settling. The spent cubebs I throw away. I add cold water in order that it may keep the longer, and prefer to give only the infusion, so as not to run the risk of choking my patients with drachm doses of the powder. If further questioned why I give them iodide of potash or what its curative advantages are, I honestly admit I cannot tell. All I know is that it neutralises any acidity in the urine, and, from my experience, speedily kills the virus of the poison much more effectually than any other preparation of soda or potash does. In my experience all injections are mistakes; at least, if ever I use any at all, I never but employ an infusion of cubebs, to which I add one grain of morphia. This I direct to be used warm, and only to be passed a short distance down the passage of the urethra.

Perhaps there is nothing new in this treatment—very likely not. Cubebs is a remedy as ancient as the hills. The worst is that when given in the bulk it is readily recognised, and at the best is very unpalatable. Its infusion, however, is much more easily taken. It, with the potash, soon cured me, whilst in my hands it has cured all to whom I have administered it.

Trusting it may be found as effectual in the hands of others, with many apologies for the sad confessions I have had to make, permit me, Sir, to subscribe myself yours, &c.,  
M.R.C.S. Eng.

August 29th, 1882.

## CIVIC EXPENSES.

FROM the annual report of the receipts and expenditure of the City of London, which has just been published, it appears that the expense of the *conversazioni* to the members of the International Medical Congress last year amounted to £2099. The sum of £2596 appears as the amount required for the sanitary expenses of the Port of London.

*Mr. Alfred Wright.*—The advertisement is a very unprofessional one, which would be difficult of justification. The author cannot expect professional recognition.

*Mr. Sprint's* attention is directed to a general notice in another column.

## "THE MALE URETHRA."

To the Editor of THE LANCET.

SIR,—Not having observed in the numerous works on physiology any reasons assigned for the various diameters and directions of the male urethra, I venture to offer a few remarks on the subject.

Apart from nature's economy in regarding the penis as an organ of generation, I contend that the various dimensions and directions of the calibre of the male urethra serve a twofold purpose.

1. To offer as little resistance as possible to the flow of urine, and so reduce friction to a minimum.
2. To cause the flow of the fluid to be propelled from the extremity of the urethra with as much force and with as perfect a stream as possible as compared with the propelling power.

In order that these propositions may be fully appreciated, I can give no better proof than by referring observers to instances where patients have either had ill-developed urethras or a part has been removed through malignant disease, &c., for in such cases the patients have not had the slightest control in directing the stream during micturition, the fluid dribbling, as it were, in all directions, notwithstanding that the development and tone of the bladder have been natural, thus rendering the existence of the unfortunate sufferer perfectly miserable when he is called on for nature's relief.

As to the first proposition, if the calibre of the urethra were the same throughout, a considerable part of the force exerted by the muscular contraction of the bladder would be expended in overcoming the frictional resistance of the stream of urine offered by the entire area of the canal; but as the orifice in the membranous is smaller than that in the spongy portion, the urine flows through the latter without, comparatively speaking, any impediment, but in a somewhat irregular manner on account of the various eminences and depressions of the surface and the positions in which the spongy portion may be directed during micturition, so that the stream is again slightly contracted by the smaller calibre of the meatus, and this tends not only to correct the somewhat irregular stream, but also to increase its velocity. Perhaps it may not be out of place, in order to illustrate my meaning with regard to the last remark, to compare it with an ordinary garden hose. It may readily be seen that when water is allowed to flow from the hose without being constricted by the brass nozzle, it does so in a stream corresponding with the diameter of the hose, but has only a very slight velocity. If, however, the orifice of the hose be contracted, it flows with considerable velocity.

With regard to the second proposition, I am of opinion that the calibre being somewhat of an oval shape and changing its long diameter from the horizontal to the vertical direction, the course, precision, and force of the stream are regulated as in the rifling of a gun. This may be seen when the urine passes through a catheter, the stream changing its peculiar twist, so to speak, and corresponding in shape when issuing from the catheter with the bore of the tube.

I am, Sir, yours truly,

R. FITZROY BENHAM, M.R.C.S.

Baron's-court, S.W., August 19th, 1882.

## SCARLATINA AND PUERPERAL FEVER.

To the Editor of THE LANCET.

SIR,—In response to Dr. Sworn's request, I send particulars of a case I attended some time ago, which somewhat corresponds with the one he reports.

I was sent for in great haste to a case of severe flooding, the patient being seven months pregnant with her eighth child. On my arrival I found the patient on the bed in a small room over a provision-shop, and in a crib by the side of her the body of a child recently dead of scarlatina. Not being able to get the child removed, and the patient continuing to lose large quantities of blood, I at once made an examination, and found it a case of complete placenta previa; so without wasting any time, as the patient could not have stood further loss, I introduced my hand into the vagina, and having dilated the os sufficiently, swept the placenta clear from its attachment, seized the feet of the child, and delivered; then pressed off the placenta, gave a dose of extract of ergot and brandy, and left the patient with a firmly contracted uterus, and the child living. I returned shortly after and had the crib covered with disinfectants, as well as placing them about the room. I was not able to get the child removed for a day or two.

This case, considering the excessive hemorrhage and the small, close room and dangerous surroundings, did fairly well, although the temperature rose as high as 103°. Liquid extract of ergot was administered during the first day or two after delivery, and subsequently decoction of cinchona and ammonia. I have since delivered the patient of a fine, healthy child at full term. The above is simply an outline of facts, opinions being omitted.—I am, Sir, yours &c.,

Appleby Magna, August 22nd, 1882.

CHAS. S. RICHARDSON.

## HEREDITARY LINEAMENTS.

It was Dr. Oliver Wendell Holmes to whom, as he was waiting for a prescription, the druggist said: "That is my son, sir, sitting by you; don't you think he looks like me?" "Well, yes," replied the poet, "I think I can see some of your lineaments in his face."

*An Old Member.*—Complaint should at once be made to the secretary of the Royal College of Surgeons, as the Calendar is about to be sent to press, and on satisfactory proof the name and address will be restored.

## MORBUS CORDIS.

To the Editor of THE LANCET.

SIR,—The following lines were composed this morning and written with his left hand by a patient in the Radcliffe Infirmary suffering from complete right hemiplegia, with occasional spasm in the left side of the face and the left arm. He is a ship's engineer, and has a face which reminds me of student days and old Keeley. As we have no lady-doctor in Oxford, the symptoms he describes must have been felt in the great metropolis.—I am, Sir, your obedient servant,  
Oxford, August 20th, 1882.

H. M. TUCKWELL.

## TO A LADY DOCTOR.

(Complaint of patient, an affection of the heart.)

Yes, doctor, your physic I've taken,  
That surely should conquer my ill;  
The bottle was solemnly shaken,  
I dote on those dear little pills.  
I've followed your rules as to diet,  
I don't know the taste of a tart;  
But though I've kept carefully quiet,  
The pain's as my heart.

Of course you've done good: consolation  
Seems dawning. And yet, it is true,  
I fancy the light of your presence  
Does more than your physic can do.  
I'm well when you're near; but, believe me,  
Each day when fate dooms us to part,  
Come strange sensations to grieve me—  
That must be the heart.

Your knowledge's truly stupendous,  
Each dainty prescription I see;  
I read "Haustrum-statis-somnibus,"  
What wonder you took the M.D.?  
I hang on each word that you utter  
With awe Æsculapian art,  
But feel in a terrible flutter,—  
It comes from the heart.

Have you ever felt the emotion  
That stethoscope ne'er could reveal?  
If so, you'll perchance have a notion  
Of all that I've felt, and still feel.  
Oh say, could you ever endure me,  
Dear doctor! You blush and you start!  
There's only one thing that can cure me—  
Take me—and my heart!

*Staff Surgeon.*—The salaries of the Directors-General of the Army and the Navy Medical Departments are put down at £1500 and £1300 per annum respectively. A Deputy Inspector-General in the Navy receives £720. The cost of naval medical establishments at home and abroad amounts to £65,445. The expense of carrying out the Contagious Diseases Act is £14,800 per annum, whereas in the Army it is only £6360.

## PRECAUTIONS AGAINST DROWNING.

To the Editor of THE LANCET.

SIR,—Allow me to add a few remarks to your very useful suggestions on this subject in "Annotations" of the 10th ult. It is most important that everyone who enters the water should be able to float, and a knowledge of the art of swimming ought to be more general than it is. The "belts" which you describe would be admirable for timid bathers, but the most expert swimmers are in danger of drowning if they are ignorant of other precautions, the neglect of which is the cause of most of the bathing accidents that occur during the so-called "drowning season." A knowledge of the simple laws of physiology might avert many a fatality of the kind. The teaching of such simple rules bearing on the laws of life may be brought within the capacity of all school children; indeed, this branch of knowledge should be made a part of the educational course in all board and other schools.

A case occurred recently at a sea-bathing town on the South Coast, and I relate it as an instance of many similar cases, which, however, are not always so well investigated. A youth went into the sea to bathe. He suddenly sank, and the body could not be recovered till life was extinct. It was known that the lad had partaken of a meal just before going to bathe, and a post-mortem examination revealed the fact that the sudden immersion in the water while the stomach was full of food had acted upon a weak heart, and the collapse which had caused the body to sink would no doubt have been attributed as usual to cramp of the lower extremities if the true cause of the casualty had not been elicited by the evidence at the coroner's inquest.—I am, Sir, yours obediently,  
August 21st, 1882.

M. A. B.

## AN EXTRAORDINARY CASE OF EARLY PUBERTY IN A BOY.

To the Editor of THE LANCET.

SIR,—The following case is, I think, worthy of being put on record:—W— is now six years and seven months old, having been born on January 21st, 1876. A week or two ago I saw him whilst bathing, and was greatly surprised to see that his genital organs were as fully developed as in the adult, and his pubes covered with a thick crop of dark brown hair, presenting the appearance of a youth of seventeen or eighteen; hair is also commencing to grow on his upper lip. His height is about 4 ft. 9 in., and he is big and muscular in proportion, but I regret that I am unable to give his weight and chest measurement. His voice for more than a year has been gruff and hoarse as it usually is in puberty, and his grandmother tells me that he has had hair on the pubes since he was three years of age. He is so wild and mischievous that she has had to apply to the magistrates to have him sent to an industrial school, which they consented to do, and he has now been committed for five years. A few days ago he took away a tradesman's cart, upset it on the roadside, cut the harness into pieces, and galloped the horse about till he was tired of the fun, and then let it go. His clothes were taken away from him, and he was put to bed to keep him from further mischief. He, however, managed to find his grandfather's best black trousers, cut off the bottoms so that they might fit him, and escaped through the window. One day recently he found some pigs straying, and drove them some miles to a butcher and tried to sell them; failing to do so, he gave them away to some one he met. He required three policemen to take him to the workhouse (to which he was sent until arrangements could be made for his removal to the industrial school), and when they had carried him there face downwards, as they were compelled to do, he smashed a bedstead into atoms, kicked the plaster off the walls, cursed and swore in a most fearful manner, and had to be removed to the police-station for safety. He was not a large baby at birth, but grew rapidly after twelve months. He commenced to cut his permanent teeth between four and five years of age. His father is in a lunatic asylum, suffering from melancholia. I have known the child since birth, and am perfectly certain of his age.

I am, Sir, yours truly,

Gillingham, August 24th, 1882.

T. WOODS, L.R.C.P. Lond.

*Dr. Macnab.*—The terms of the bond being precise, the answer must be in the negative.

## "THE CAUSE OR CAUSES OF ACUTE TONSILLITIS."

To the Editor of THE LANCET.

SIR,—As the cause of tonsillitis has so recently been under discussion allow me to add my quota, not as to the cause, but rather as an adjunct to the treatment. My reason for making it public is that, although I have told it to numbers of medical friends, not one ever heard of it. It is so simple and at the same time beneficial and useful in all diseases of the throat where there are difficulty and pain in swallowing, that I trust the profession will try it. The method is as follows:—Stand directly in front of the patient, and pull downward the lobes of the ears; then tell the patient to swallow: he will do this without pain. I cannot explain the theory. I will leave that to others more scientific. The fact I only state, and am so fully convinced of its beneficial application that I trust it will be an answer to any trespassing upon your notice.

I am, Sir, yours truly,

Grantham, August 22nd, 1882.

G. GREWCOCK, M.R.C.S., &c.

*Surtorius.*—The charges are quite reasonable. But clergymen need education in the payment of medical bills.

## "A METHOD OF APPLYING LIGATURES TO VEINS."

To the Editor of THE LANCET.

SIR,—In Dr. H. Sydney's paper on the above, which appeared in THE LANCET on Saturday last, he demonstrates how he applies a "reef-knot." I have amused myself by placing a penholder under a cloth to represent a vein under the skin, and tried to produce the reef-knot as Dr. Sydney describes. Out of numerous efforts I succeeded in tying a reef-knot, but not to be repeated. Each was a granny or worse. It may be my awkwardness, but I would much like to hear from many of your readers whether the reef-knot can be "correctly and securely tied subcutaneously" under ocular demonstration. It would never do to attempt the operation if it was only a haphazard whether one tied the ligature with a reef-knot or a granny.

I remain, Sir, your obedient servant,

August 27th, 1882.

F. A. P.

A Father will do well to consult a medical man on the question he puts to us. We do not give advice.

## "SULPHIDE OF CALCIUM IN CANCER."

To the Editor of THE LANCET.

SIR,—In your last issue Dr. Barton relates three cases of cancer which, "after operation," he treated with sulphide of calcium. I notice that he has omitted the dates of the operations, and also the dates when he last saw the patients. He will see at once that this alone will not enable the profession to form any judgment in the matter, adverse or otherwise, as it is no uncommon thing for a cancer patient after operation to go on well for some time without any treatment at all. Ringer has shown the efficacy of sulphides in many ailments and diseases, but I have never met with the sulphides in cancer treatment.

I am, Sir, yours, &c.,

Belper, August 28th, 1882.

EDWARD GAYLOR.

## COTTAGE HOSPITALS.

DR. LUCIUS W. BAKER, of Baldwinville, Massachusetts, in a paper read at a recent meeting of the local medical society, strongly advocates the establishment of cottage hospitals in different parts of that State. The *New York Medical Record* supports the suggestion, and remarks that in every State in the Union there is a great scarcity of hospital accommodation outside of the large cities.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Woods, Gillingham; Mr. Jas. Hall, Isle of Man; Dr. Whitelaw, Cupar, Fife; Dr. Leslie Jones, Blackpool; Mr. Lloyd, St. Albans; Dr. Tuckwell, Oxford; Dr. Adams, Dumfries; Dr. Kirchner, Würzburg; Mr. Ashton Warner, London; Dr. Andrew Marshall, Preston; Mr. Moir, London; Mr. Corsellis, London; Mr. Walford, Ramsgate; Dr. Finlay, Navaia; Dr. Norris, Birmingham; Mr. Meadows, Hastings; Mr. Hedgcock, London; Mr. Jennings, London; Dr. Fergusson, Peebles; Mr. Gaylor, Belper; Mr. McDougall, Blackheath; Mr. Westropp, Lisdoonvarna; Mr. Rushton Parker, Birmingham; Mr. Dunnett Spanton, Hanley; Dr. Thomson, South Yarra; Mr. Richards, Hastings; Mr. Walker, London; Mr. German, London; Dr. Taylor, Scarborough; Dr. Sloan, Glasgow; Mr. Crokery, Downpatrick; Dr. Macnaught, Greenock; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. Briscoe, London; Messrs. Couchman and Co., Bristol; Mrs. Ratton, London; Mr. Pike, Exeter; Mr. Worth, Colchester; Messrs. Evans and Co., Liverpool; Mr. Towers, Gloucester; Mr. Walker, Aberdeen; Mr. Smith, Chantry; Mr. Warman, Ramsgate; Mr. Garman, Wednesbury; Mr. Boscaw, Brighton; Dr. Thomas, Glasgow; Messrs. Christy and Co., London; Mr. Scott, Manchester; Mr. Philpot, London; Mr. Tothill, Colombo; Mr. Charlton, Brabourne; Mr. Granville Sharp, Hong Kong; Beta; M.D., Mile-end; J. A. M., Cadenabbia; F. A. P.; H. S.; Medical Officer of Health; &c., &c.

LETTERS, each with enclosure, are also acknowledged from—Mr. Evans, Feesting; Mr. Edmunds, Chesterfield; Dr. Simpson, South Shields; Mr. Kinder, Leicester; Mr. Kemm, Corsham; Mr. Reid, Canterbury; Dr. Slade King, Ilfracombe; Mr. Pqwell, Liverpool; Mrs. Pearson, Liverpool; Mr. Irving, Long Bennington; Mr. Unsworth, Liverpool; Dr. Spanton, Anerley; Mr. Willey, Birmingham; Messrs. Hodgson and Co., Peckham; Mrs. Bingham, Grimsby; Mr. Cox, Cirencester; Mr. Ormond, Bath; Mr. Tomson, Luton; Mr. Haines, Cannock; Mr. Hills, London; Mr. Grayham, Wigan; Mr. Morton, Sheffield; Mr. Barrett, Aberdeen; Messrs. Couchman and Son, Birmingham; Dr. O'Mullane, Nottingham; Mr. Lawson, Brighton; Mr. Sweeting, King's Lynn; Dr. Rayner, Hanwell; Mr. Evans, Liverpool; Dr. Pearce, Liverpool; Mrs. Beddingfield; Dr. Webster, Bristol; Mr. Swinson, Birmingham; Dr. Hetn, Durham; A. B., Ollerton; Pil. Saponia, Co.; Amanuensis, Bristol; M.R.C.S.; H. B., Blackheath; Z. B.; M.D., Southsea; Medicus, Sheffield; Medicus, Normanton; L. T. V.; X.; J.; Doctor, Cannon-street; Sheffield; Student, Stoke Newington; C. B., Ryde; Kirwig; M. F., Northampton; Omega, Peterborough; Vitis, Faversham; Medicus, Lyme Regis; M.R.C.S.; W. T., Stepney; Forward, Stockwell; Claude, East Dulwich; Kappa; Stanbridge; Old Kent-road; P. P., Old Swindon; M. Z. Y., Bayswater; Adam; Students; Medicus, Columbia-road; X. Y. Z., Oakley-square; H. N. O.; M. C. S., Leicester; &c., &c.

*Sydney Daily Telegraph, Perthshire Constitutional, Newcastle Daily Chronicle, Bath Herald, Houston (Texas) Daily Post, Morningside Mirror, New York Banker and Broker, Croydon Chronicle, Anti-Compulsory Vaccination Reporter, Coffes Public-house News, Wynberg Times, Nottingham Daily Guardian, Ross Gazette, Croydon Advertiser, &c.,* have been received.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, August 31st, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. in Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 a.m.
Aug. 25	29.53	S.W.	57	55	93	67	50	.14	Overcast
" 26	29.48	N.W.	59	56	115	68	51	.13	Overcast
" 27	29.74	W.	62	57	92	66	52	..	Cloudy
" 28	29.75	W.	57	55	101	66	48	..	Cloudy
" 29	29.41	W.	58	54	103	67	51	.08	Cloudy
" 30	29.91	N.W.	59	54	103	69	51	.15	Cloudy
" 31	30.08	W.	57	54	83	66	47	..	Hazy

## Medical Diary for the ensuing Week.

## Monday, Sept. 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ a.m. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ p.m. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 p.m.

ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 p.m.

ST. MARK'S HOSPITAL.—Operations, 2 p.m.; on Tuesday, 9 a.m.

## Tuesday, Sept. 5.

GUY'S HOSPITAL.—Operations, 1½ p.m., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 p.m.

WEST LONDON HOSPITAL.—Operations, 3 p.m.

## Wednesday, Sept. 6.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 a.m.

MIDDLESEX HOSPITAL.—Operations, 1 p.m.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ p.m., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ p.m., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ p.m.

LONDON HOSPITAL.—Operations, 2 p.m., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 p.m.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ p.m.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 p.m., and on Saturday at the same hour.—Skin Department: 1.45 p.m., and on Saturday at 9.15 a.m.

## Thursday, Sept. 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 p.m.

ST. BARTHOLOMEW'S HOSPITAL.—1½ p.m. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 p.m.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 p.m., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 p.m.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ p.m.

## Friday, Sept. 8.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ p.m.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 p.m.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 p.m.

KING'S COLLEGE HOSPITAL.—Operations, 2 p.m.

## Saturday, Sept. 9.

ROYAL FREE HOSPITAL.—Operations, 2 p.m.

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An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an additional advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom, and all other Advertising Agents.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.



## THE LANCET.

LONDON: SATURDAY, SEPTEMBER 9, 1882.

## ADDRESS TO STUDENTS.

## THE MEDICAL CURRICULUM.

THE conjunction of a sound mind with a sound body is an indispensable condition of the successful study and practice of medicine. A clear intellect and a quick understanding are indeed necessary, but they will not suffice. The study of medical science requires considerable mental powers; but medical practice has heavy bodily tasks that none but strong men can perform, and none but strong men should attempt. Without a sound constitution and robust health the medical student and practitioner will sooner or later find they must narrowly circumscribe their spheres of activity. The health-qualification is not sufficiently considered by some of those who enter the ranks of the medical profession. It is only when the constitution is undermined, the health broken, and the energies exhausted by the hardships, the exposures, the anxieties, and the constant application of mind and body under unfavourable and depressing conditions that its importance is fully appreciated. It is then often too late to correct the error. The whole life, training, aspirations, and interests are staked in the enterprise, and to be compelled to withdraw is an acknowledgment of defeat and failure. Those who are now contemplating starting on the medical career should assure themselves they are endowed with bodily strength and activity commensurate with the demands that are likely to be made upon them in after-life.

Next to a sound body, the qualification for the successful pursuit of the science and art of medicine is a cultivated understanding. In some degree this is provided for by a preliminary examination, but this security is not enough. The general education should be the best attainable, both as regards thoroughness and extent. By this we do not mean the student should have an elaborate acquaintance with any particular form or department of learning, whether classical or scientific, but rather that he should be carefully trained and disciplined in every useful, mental and moral exercise. Much has been said in favour of what is called "a university education" for all medical students; but experience has shown this is not an unqualified benefit. While it is desirable that every medical man should be an accomplished gentleman as well as a skilful practitioner, great scholastic attainments do not necessarily imply special aptitude for medical practice. Those who have obtained a degree in Arts before they begin medical studies have passed the time when they can readily apply themselves to the rudiments of their technical training, or have acquired an intellectual starchiness that prevents them from stooping to the fancied drudgery of such rudiments. Any youth of average talents, whose education is conducted by competent masters, may acquire an amount of general knowledge and mental discipline equal to the demands of any department of medical science.

It is, however, desirable that the student should have  
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correct notions of the meaning and object of education. In the subjoined sections, written by different eminent and experienced teachers, the medical novice will find many useful hints and suggestions as to the best mode of practically studying the various subjects embraced in the medical curriculum. He must, nevertheless, not be led astray by the belief that familiarity with any or all of these subjects will give him practical power. The medical education is almost wholly technical, though, unlike some other forms of technical training, it is capable of ultimately being transformed into culture. Despite the tendency of current opinions, it should not be assumed that education means mere knowledge, or learning, or the giving and receiving of instruction. It means rather, in MILTON's words, "that which fits a man to perform justly, skilfully, and magnanimously, all the offices, both public and private, of peace and war." The prevalence of the doctrines of the utilitarian philosophers has done much to foster false and erroneous opinions of the end and purpose of education. Knowledge, not wisdom, has become the approved end of education, and cleverness in examination rather than the skilful management of the affairs of life, the final test of success. The best minds have in all ages protested against this specious doctrine. RABELAIS, MONTAIGNE, MILTON, LOCKE, and others, have denounced it. "The greatest clerks are not the wisest men," said RABELAIS, and our COWPER differentiates the tendencies of these two schools in his lines:—

"Knowledge and Wisdom, far from being one,  
Have oftentimes no connexion. Knowledge dwells  
In heads replete with thoughts of other men;  
Wisdom in minds attentive to their own.  
Knowledge is proud, that he has learnt so much;  
Wisdom is humble, that he knows no more."

As education does not, therefore, consist exclusively or solely of the acquisition of knowledge, but includes the complete and harmonious development of all the mental and bodily faculties, the exercise and training of the natural senses should not be disregarded. In this age, when progress in applied science depends chiefly upon the elaboration of apparatus and instruments, when the conquests of therapeutics over pathology depend mainly upon the perfection of the physical aids to diagnosis, there is some risk of ruining the natural senses by the exclusive use of instruments. KANT foresaw this danger more than a century ago, and uttered a note of warning against it. The stethoscope, the thermometer, the sphygmograph, the ophthalmoscope, and the laryngoscope, have enlarged our powers of diagnosis, but it is doubtful whether they have extended our usefulness as practitioners of the healing art in a corresponding degree. Without these aids the modern practitioner is often helpless, where his forefather, prompted by the dictates of a trained experience, would have struck boldly and struck to good purpose.

However large the amount of instruction imparted in the medical curriculum may be, the medical student and practitioner who shall be worthy of their calling must be in a large measure self-taught. The student must see, hear, handle, think, and judge for himself. His knowledge and his experience must be organically assimilated, and not merely mechanically stored within his memory. Now, more than in any previous period, the student is in danger of too much didactic teaching, or, as LOCKE

would say, "of being magisterially dictated to what he is to observe and follow." Nearly three hundred years ago MONTAIGNE condemned excessive tutorship: "'Tis the custom of pedagogues to be eternally thundering in their pupils' ears, as if they were pouring into a funnel, whilst the business of the pupil is only to repeat what the teacher has said." This "thundering in the ears of pupils" may secure success in examination, but it will never bring that Knowledge which is Power. While then the pupil must in many things deliver himself up to the influence of authority, he must ever remember that he can only know through his own understanding. Though lectures and book-reading will do much for him they will not do all; they will not do even enough. The rest he must accomplish for himself. He must meditate upon what he hears and sees; he must reflect, test, and verify continually. There is no better way than diligent attendance on well-conducted class-examinations, self-questionings, and discourse with judicious friends. On this matter LOCKE, whose "Thoughts on Education" every one should read, has some wise words. "Reading," he says, "is but collecting the rough materials, amongst which a great deal must be laid aside as useless. Meditation is, as it were, choosing and fitting the materials, framing the timbers, squaring and laying the stones, and raising the building; and discourse with a friend (for wrangling in a dispute is of little use) is, as it were, surveying the structure, walking in the rooms, and observing the symmetry and agreement of the parts, taking notice of the solidity and defects of the works, and the best way to find out and correct what is amiss; besides that, it helps often to discover truths, and fix them in our minds as much as either of the other two."

#### ANATOMY.

b. In most cases the medical student will for the first time be brought into acquaintance with the real knowledge of a science by his study of this subject. To those who have had a practical experience of the methods and objects of scientific studies by a preliminary year's work at botany or comparative anatomy, the transition will be easy, and advice as to how to work is almost uncalled for. Steady application, constant work in the dissecting-room, and a keen desire to see for oneself and to verify the statements and descriptions of the best text-books are quickly developed when one has some prior acquaintance with the biological sciences, their aims and their methods. Students who have been fortunate enough to have secured this style of training will find no difficulty whatever in entering on their new work. The manipulative dexterity and the habit of close observation have already been acquired by them. With the student, however, who comes direct from a school, where the biological studies are omitted from the course of study, as is unfortunately still done in most schools, the case is different. Instead of passively imbibing the teachings of his master, he will now for the first time have to consider how to make the best use of the means at his command, so that he may verify the facts that are taught to him. His teacher no longer tells him with the weight of authority what deductions he must gather from the facts before him; he rather puts the facts forward, asks the pupil to see for himself that they are facts, and at most suggests or indicates what are the probable inferences which the student should draw therefrom. This is

the sole purpose of lectures on anatomy. A masterly arrangement of the facts, a precise and clear method in bringing them before the pupil, an obvious demonstration of every point on which any stress is laid, and an intimation of the importance thereof in the general scheme of nature, is the proper plan by which the interest and curiosity of every anxious and true student may be gained. The pupil is then urged on to examine these things for himself, and to form his own conclusions. In this way the true scientific spirit and the desire for real knowledge is fostered and assiduously maintained. The application of human anatomy to the details of practical medicine and surgery can only be laid before the student to be mastered by him at a late period of his career. It is therefore of the utmost importance to the young medical pupil that he should first learn how to observe and how to think. The practical outcome of the relations of his science to the needs of his future daily work should be carefully kept in the background until the general and more properly educational effects of his contact with the biological sciences and their methods have been allowed to exert their proper influence upon his mind. A beginner who wants to see the practical use of every detail of his scientific instruction will never attain to that breadth of view which should characterise the physician and surgeon, but will merely become an ill-educated, rule-of-thumb mechanic. A student should always be taught to strive first for the attainment of the true scientific mind, full of information, well-balanced in its inferences, and especially careful in the observation and arrangement of its facts before any attempt is made to come to a conclusion therefrom. The practical means for the cure and alleviation of disease will readily be mastered if their secondary importance in the true education of the medical man be clearly understood and appreciated. For the study of human anatomy, therefore, as of every branch of biological science, the lectures on the subject should be diligently attended, so that its aims and methods may be the more readily grasped and its due importance appreciated. It forms the real basis on which all the other sciences, such as physiology and pathology, are built; and without an accurate knowledge of its details, practical medicine and surgery must degenerate into the mere routine empiricism of the quack. The aims and methods therefore may be learnt from the lecturer; but for any knowledge which can be called real and valuable, the student must rely on his own assiduity and thoroughness in the dissecting-room. To become an anatomist, "he must dissect, dissect, dissect, always dissect." There is no royal road, no easy method. He may read, but reading can only tell him what he should see. He must see for himself if he would derive any benefit from his labours. He must clearly understand that books can only give him information, whilst from observation of and contact with the thing itself come real knowledge. The best guide that the student can use for this purpose is Professor ELLIS'S well-known Manual of Dissections. Its completeness and accuracy place it far above any of its rivals, although some of these are more attractive in style and more easily comprehended. The systematic text-books most used by students are QUAIN'S Anatomy, GRAY'S Anatomy, and WILSON'S Anatomist's Vade-Mecum. The last-mentioned was an especial favourite with the medical students of a former generation,

and the latest edition, whilst being well brought up to date, retains all the clearness and vigour of its predecessors. Its cheapness is another recommendation. GRAY'S Anatomy is undoubtedly the most popular text-book on the subject, and the excellence of its plates and the easy style in which it is written will always keep it in favour; but the really industrious learner will prefer QUAIN, which is the only work that will give him an insight into the broad domain of general morphology, at the same time that it places before him an accurate and detailed account of even the most minute structure in human anatomy. The histological portion of QUAIN'S Anatomy is the best *résumé* of modern knowledge that is to be found in our, and perhaps in any other, language. Many students purchase separate works on Osteology, but these are really unnecessary, although HOLDEN'S for its perfection of style and variety of illustration, and WARD'S for its minute accuracy, will repay anyone for the time spent in studying them. Having devoted two years to systematic descriptive anatomy, and having passed the primary examinations, in which this is the most important and most difficult of the subjects in which the student's knowledge is tested, he usually passes on to a study of medicine and surgery. It is at this point that a very grave and serious mistake is generally made. Anatomy is now given up, and the dissecting-room is forsaken for the wards. We would most strongly urge students to give up some portion of their third year to further dissections. It is at this period, and at this period only, that the practical bearings of anatomy on medicine and surgery can be properly learnt and appreciated, and it is because so few students dissect after their primary examinations that the study of anatomy degenerates into a mere cram, and fails to exercise its due and legitimate influence in the formation of the student's mind, and being always at his disposal in determining a point of diagnosis, settling a plan of treatment, or guiding him in the choice and presiding over the details of an operation. For this extra course no especial text-books have been written; but the student will gain much information from either BELLAMY'S or CHIENE'S Surgical Anatomy, whilst BRAUNE'S Topographical Anatomy and HOLDEN'S Landmarks are invaluable. It is much to be regretted that we possess no work on Applied Anatomy of first-class merit. Our Continental neighbours are far in advance of us in this respect.

#### COMPARATIVE ANATOMY.

The study of this subject is at present obligatory only on students for special examinations, such as the medical degrees of the University of London, and of the older universities, and the Fellowship of the Royal College of Surgeons. Undoubtedly the value of Comparative Anatomy as a means of education is enormously beyond what this very limited requirement might appear to indicate. This is strikingly apparent to teachers having experience of medical students, passing, as the great majority do, directly from the book work of school to the practical work of the hospital dissecting-room and wards. Considered in this light the subject is on a par with such sciences as botany and chemistry, cultivating the observing power, and teaching system and exactness. But it has the great additional merit that it affords an introduction to the earliest and probably most important study of the medical student—

human anatomy; and not only this, but it puts this study upon a broad and scientific basis, explaining and giving additional point to many facts which would otherwise be mere efforts of memory to him. For all these reasons the importance of this science to the student of medicine has been emphasised by some of our most celebrated teachers, and it is safe to predict that a more important place will before long be assigned to it by the various examining bodies, notwithstanding the crowd of subjects, and even of distinct sciences which now force themselves on the attention of the student of medicine. From what we have said it is apparent that the subject should be acquired by practical work, and this is rendered more imperative by the fact that notwithstanding the large number of good books before us, there is not one that entirely meets the wants of the student. On this account it is a subject, perhaps above all others, in which he must look for help to his own observation and to his teacher. If the Fellowship of the Royal College of Surgeons be his goal he should cultivate acquaintance with the museum, and there devote himself particularly to osteology. Admirable collections are found in the museums attached to some of the London hospitals, but if these are not available he will find everything that he can desire in the museum of the Royal College of Surgeons. It must be remarked that different examiners vary very much as to the amount of knowledge they expect from candidates. Indeed as matters stand at present we might parody a very familiar quotation, and say, "As many examiners so many degrees of examination in comparative anatomy," from the entire ignoring of the subject to a rigid questioning over a wide range according to the degree of importance which the examiner attaches to the subject, or possibly the extent of his acquaintance with it. In such case it is difficult to recommend books. The student can use either very elementary books—such as, for example, the Zoology of the London Science Class-book Series, or he can extend his studies through NICHOLSON'S Advanced Text-book, or Manual of Zoology, to the admirable Osteology of Mammalia of FLOWER. Students for the Preliminary Scientific Examination of the University of London are confronted by a similar difficulty. HUXLEY and MARTIN'S Biology is most admirable, but it includes only part of the requirements of the schedule. For the anatomy of the animals not described in it, it is necessary to consult the difficult and somewhat obscure work of ROLLESTON on Forms of Animal Life, and HUXLEY'S Anatomy of Vertebrated and Invertebrated Animals. NICHOLSON'S books on Zoology, though in some respects behind the time, will furnish the classification, unless the student has the time to consult in this respect the previously mentioned works of HUXLEY on Vertebrated and Invertebrated Animals. GEGENBAUR'S Manual of Comparative Anatomy will place his knowledge of the science upon a wider and more scientific basis. But even now the student has not found all he wants, and we repeat that he must depend to a considerable extent upon his teacher, and above all things upon his own dissections.

#### PHYSIOLOGY.

The importance of a knowledge of anatomy as a sure foundation for the practice of medicine is equalled, if not exceeded, by that of physiology. The two subjects are

complementary to each other, one speaking of form, and size, and relative arrangement of parts, the other of their use and purpose; whilst histology and physiological chemistry occupy a kind of intermediate position, the former dealing with the minute structure of the different tissues; the latter showing their composition and the changes which occur in them as the result of their activity. The wider and more accurate the knowledge of these subjects possessed by a practitioner the more competent does he become to discharge the duties of his profession with advantage to his patients and satisfaction to himself. And just as no man dare undertake to cut down upon an important artery when injured, with the view of applying a ligature to it, without a knowledge of its course and surroundings, derived from dissection, so before a physician can hope to treat indigestion or pneumonia, or albuminuria with success, he must be acquainted with the natural processes which are carried on in the stomach, lungs, and kidney. It cannot, however, be too strongly impressed on the student that the several organs of the body do not act in an isolated and independent manner, but that there is the closest and most intimate connexion between them, that all work together to preserve the body in health, and that none can be disturbed or impaired without affecting the rest. To appreciate this the student should in the first place acquire a sound general knowledge of the whole subject, without entering into details; and this may be obtained by careful study of one of the smaller text-books before attempting to master such large treatises as those of FOSTER, CARPENTER, or KIRKES. A large number of men, there can be little doubt, lose themselves in such efforts, lose their interest in what is really an extremely interesting subject, and, instead of acquiring a general grasp of the functions of the body which may be serviceable to them in after-life, endeavour only to obtain the answers to those odd and exceptional questions which are now and again put by all examiners, and ignorance of which is supposed to be fatal to success in examination. In truth, however, the failures that take place at the Primary Examination of the College of Surgeons, which attain so large and discreditable a proportion, are far more attributable to ignorance of elementary facts than to want of knowledge of details. The examiners complain that the candidates are insufficiently grounded; that whilst they are familiar and their memories temporarily burdened with many minute and unimportant facts, they are ignorant of large and general principles that are of constant application. The object of the courses of lectures that are delivered at every school is to give the student this general view of the whole subject; and he is the best lecturer who can most clearly impress on the minds of his class the principles of his own department of knowledge, and show its connexions with the medical art. We strongly recommend the student, therefore, to read some rudimentary work, even if it be no larger than FOSTER'S Primer, straight through. He will thus obtain a bird's-eye view of the whole subject; and though, of course, the knowledge thus obtained will be insufficient to carry him through such an examination as that of the College, yet it may certainly be said that if its contents were thoroughly mastered and assimilated, many a man who is now rejected would pass. When he has learned

these well he may read through one of the larger works, always remembering that, if possible, he should do some practical work; at nearly every school arrangements are now made for teaching histology and the rudiments of biological knowledge. Let him devote his energies to the acquirement of such information; a few shillings will suffice to provide him with the necessary instruments, and he will soon find that the knowledge gained from practical work is a hundred-fold more suggestive and improving, as well as far more firmly imprinted in the memory, than the most carefully written description by the best microscopist or physiologist. To aid him in this he may take the excellent little Manual of Histology by Dr. HARRIS and Mr. D'ARCY POWER, and when he has fairly worked through this he need fear no examiner, and is in a position to apply the facts he has acquired to the investigation of disease.

#### CHEMISTRY.

The study of chemistry is still commonly commenced in the medical school. It is unfortunate that this should be so, for the press of other work leaves but little time for the cultivation of so enormous a field. The applications of chemistry to physiology, to medicine, and to hygiene increase each day, and require more and more of general scientific knowledge. Probably no two lecturers follow exactly the same order in teaching chemistry; but it may safely be assumed that a good many of the earlier lectures will be devoted to theoretical matters, such as the laws of chemical combination and the molecular and atomic hypotheses. To these subjects the closest attention should be given, and we cannot too strongly urge on students the importance of not missing any of the earlier lectures. To miss one is often to lose the clue to those which follow. Little repetition is possible in a course of lectures, and it frequently happens that a student who has missed the exposition of some important doctrine, such, for example, as the law of gaseous volumes, with its attendant hypotheses, will find his comprehension of the whole subsequent course marred in consequence. The law which we have cited as an illustration is indeed one of the most important in chemistry, and governs the whole theory of the science. It presents the first real difficulty to the student, and may be described as a *pons asinorum*, which many students never really pass. In this part of the course the simpler chemical calculations must be mastered. They will be explained in lectures, but can never be acquired without the patient working out of a good many problems. Problems of this kind occur in almost every examination. Thus students are constantly required to calculate the volume of gas yielded by a certain weight of material, to find the weight of an element present in a given weight or volume of a compound, or to find from the observed volume of a gas at one pressure and temperature what its volume would be at another pressure and temperature. Apart from the practical value of such calculations, they cannot be worked without sound theoretical knowledge, and are, in fact, the best tests for its presence. After the six months winter lectures follows the three months' summer practical chemistry course. The main object of this course is to enable the student to perform simple chemical analyses without book. But the diligent student makes it the opportunity of applying the book knowledge which he has

acquired at lectures and by study, and finds that every test he uses illustrates and confirms his old knowledge. He should by no means be satisfied with finding out the name of the substance given him for analysis. He should master every reaction, and should in every possible case write out the equation which shows the nature of the chemical change involved. Above all, let him remember that when he goes up for examination no book or written paper will be allowed. As soon as he understands the course, let him strive to learn it. He can thus subject himself to a continual practical examination, with the advantage of being able at every stage to correct his own errors and supplement his deficiencies. The number of text-books on chemistry is so great that recommendation is somewhat difficult. Much depends on the student's previous knowledge and on the time he intends to devote to study. Each teacher knows the books suitable to his course, and it is better, perhaps, to leave the selection to him.

#### PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY.

In spite of the disparaging terms which such eminent clinical teachers as GRAVES and TROUSSEAU have spoken of the aid chemistry can afford to medicine, this science, as applied to physiology and pathology, has made definite progress during the last quarter of a century, and has now become a recognised branch of medical education. The discredit into which chemistry fell with practical physicians was no doubt owing to the fact that many of its advocates at an earlier period advanced theories based on insufficient observations, which, when brought to a practical test of the bedside, were found to be fallacious or inconclusive. This, however, can no longer be urged as a reproach, except in the case of a few enthusiasts and visionaries, and year by year we find a steady increase in the number of sound reliable observations, which are of material value in elucidating the nature of various physiological processes, and of aiding in the diagnosis and treatment of disease. Take, for instance, the physiology of digestion, with regard to which Professor EWALD justly remarks, the brilliant discoveries of chemical facts "have led to the attainment of new general points of view, have much elucidated its aspect, filled up many gaps, and turned the current of investigation into quite new channels." It is only necessary to enumerate a few of the discoveries: the action of the various ferments on the special food stuffs; the determination of the true nature of the acid of the gastric juice; the establishment of enormous influence the pancreatic secretion has on the digestive process, with its triple action on albumen, starch, and fat, together with the chemistry of its peptones; the destructive decompositions of one of these—hemi-peptone—which throw a light on the probable antecedent of some portion of the urea existing in the blood; to say nothing of the discovery of glycogen in the hepatic cells, and the conversion of this substance into glucose; discoveries which have given the pathology of diabetes, previously wrapped in obscurity, quite another aspect—to show how important has been the aid chemistry has bestowed on medicine in one field of observation alone. The same may be said almost with regard to urinary pathology. Here progress has been more marked in settling disputed points and demolishing unsound theories than in making fresh discoveries. Many im-

portant chemical facts, too, have been established bearing upon alterations in the blood and tissues in health and disease, which are of practical utility. But, apart from the now recognised value of chemistry as an aid to the study of physiology and medicine, there can be no doubt of the advantages derived from a practical study of physiological chemistry. Not only has a student the advantage of actually seeing and handling the substances about which he hears and reads so much, but he attains a knowledge of various analytical procedures that is in itself valuable as a scientific training in accuracy and method, and which is likely to prove of practical utility in his professional career. The works recommended are the Handbook of the Physiological Laboratory, edited by Dr. BURDON-SANDERSON (Churchill), and Professor GAMGEE'S Text-book of the Physiological Chemistry of the Animal Body (Macmillan). These works are designed more for the use of those who intend to make the subject almost an exclusive study; whilst for the ordinary medical student, the concise Demonstrations in Physiological and Pathological Chemistry (Bogue), arranged by Dr. RALFE, will supply the practical requirements for the pass examinations of the College of Surgeons and the College of Physicians.

#### BOTANY.

Lectures and practical instruction in botany form a part of the curriculum in the first summer session. This subject was at first introduced into the course of studies in order that the practising apothecary might be able to collect his own herbs; this use of botanical studies has now almost passed away. The study of vegetable growths as a department of biology, and as an aid to the study of physiology and pathology, is, however, well worthy of a permanent place in our curriculum. Botany should be studied for the assistance it affords as a science dealing with simple and elementary bodies, and because it throws light upon some of the general principles of growth and illustrates the principal processes of reproduction among living beings. Botany, if properly studied, will add much to the student's accomplishments and mental culture, for it is the best example of a systematic science to be found in the medical curriculum. It affords opportunities of describing specimens, it encourages accuracy of observation, exercises powers of classification, and stimulates the imagination. The student should for his own sake not neglect this subject, but look upon it as a science dealing with simple living organisms subject in many points to the same laws as the animal frames, but presenting no structural nerve system and no general circulation. Thus viewed the science has a bearing upon comparative anatomy, there being no distinct boundary between the animal and vegetable kingdoms, so that many points of great philosophical and analogical interest are illustrated by the facts observed in the study of the two sciences; many of the properties of elementary animal tissues may be studied in plants—e.g., the movements of cells, the movements in cells, the effects of light, heat, electricity, and gravity. Again, a knowledge of botany is essential to the successful study of materia medica and forensic medicine; further, no medical diploma can be obtained without passing an examination in botany. For the university degrees in London and most other places the



student is required to give practical descriptions of floral specimens. In training for this exercise, let every plant and flower be looked upon not simply as something to be identified, named, and classified, but as a living structure of which every part has its meaning, and every shape and touch of colour its particular use. In examining a specimen always take notes of the points observed. The flower may first be examined as to its structure, the number, union, and arrangement of all parts, and it is well to record these particulars in some form of schedule; that given in Professor OLIVER'S book is very useful. In this kind of work information is easily obtained from any of the text-books or floras. Let the student, however, never rest satisfied when examining a flower without endeavouring to obtain an insight into the use of each part in its structure, shape, and colour. In this kind of study much help will be gained from Sir JOHN LUBBOCK'S little work, "British Wild Flowers in Relation to Insects." When, as must frequently be the case, he fails fully to understand a specimen, let the student note the limits of his knowledge and his failure, thus he will learn to look wisely upon the unknown, to train his mind, and to be patient. A good opportunity is thus afforded early in the course of study for the exercise of the imagination within due limits, and for the exercise of the healthful aspiration, to try some process of original thought. The knowledge of a few of the natural orders of plants is necessary, and is required by the Examining Boards. This kind of knowledge is best obtained by systematically observing, describing, and comparing a few plants in each of the specified orders. Any London student can obtain a free order of admission to the Royal Botanical Society's Gardens, Regent's-park, by applying to his lecturer; in these gardens all the plants are arranged according to the Natural Orders, a flower bed to each order. This method of study is more useful, and is certainly pleasanter, than getting up by rote a list of the characters of the orders from a book, and this knowledge well obtained is not easily lost. BENTHAM'S Flora contains an analytical key, and by the aid of such a book any plant being taken its order can easily be determined and the specimen compared with the description of the plant in the Flora. This is excellent practice and pleasant work. Personal acquaintance must be made with the more important of the medicinal and poisonous plants, and their orders should be remembered. We would advise the student to study systematically a few orders, and a moderate number of floral specimens in each order with the aid of the Flora. Wild flowers only should be used, as those long cultivated artificially are apt to present variations. As to the use of books in study, there are many on systematic botany, fewer giving original physiological work. Professor OLIVER'S Lessons in Elementary Botany is a very useful small work, embracing most sections of botany with descriptions of some orders. A further account of the structure and physiology of plants will be obtained from MacNab's little work, 150 pages, in the London Science Series. This author has also issued a similar work on the classification of plants. A Text-book of Botany, by PRANTL and VINES, gives a very good account of structure, physiology, and classification, and is very useful to candidates for degrees. As one of the most useful works on descriptive and systematic botany we strongly recommend Professor BENTLEY'S Manual of Botany

as very complete and well illustrated. ASA GRAY'S Structural Botany is very trustworthy; only one volume of a series of four has yet appeared. The best work on structural and physiological botany is the English translation of SACH'S Text-book of Botany; it is complete, original, well illustrated, and a trustworthy authority to the student reading for honours. Sir J. HOOKER has written a little primer, which is a useful introduction to botanical study. BALFOUR'S Class Book is a well-illustrated compendium, fully illustrated, but rather bulky. To those who desire to become further acquainted with the biological aspects of botany, we strongly recommend the perusal of CHARLES DARWIN'S works. The Movements of Plants is a book affording most interesting proofs of the sensibility and brain-like action of some vegetable tissues, and their exquisite sensitiveness to light, touch, and gravitation, showing the usefulness of these properties to plants. "The forms of flowers" and "cross fertilisation" give beautiful examples of special adaptations of form and properties, and illustrate the laws of inheritance and cross-breeding in producing variations in a species. Useful Floras have been written by Sir J. HOOKER and BENTHAM.

#### MATERIA MEDICA, THERAPEUTICS, AND PHARMACY.

It is often supposed that materia medica is a dry subject. This is a mistake, for if taught by a lecturer well acquainted with the physiological action and therapeutic uses of drugs it is one of the most interesting subjects in the whole of the medical curriculum. It has this advantage, too, that it is a thoroughly practical subject, and much of the student's success in the profession he has chosen must depend on his skill in treatment. Materia medica demands a knowledge of many other subjects, and no one can hope to attain eminence in this branch of his profession who is not a fair botanist, a good chemist, and a practical physiologist. Materia medica is not a subject that can be learnt from books, the student's knowledge must be practical or it is valueless. It is useless for him to read about aconite, belladonna, and digitalis if he does not know the monkshood, deadly nightshade, and foxglove when he sees them. Many of our most valued remedies are obtained from plants that grow in the fields and by the wayside, and there is no excuse for a student who fails to make himself acquainted with them. Even in London there is no difficulty, for they are all grown in the Botanical Gardens, Regent's-park, and students' tickets for the purpose of study are always readily granted during the summer session. It is essential that the student should have access to a good materia medica museum—without this he can do nothing. He must examine each and every specimen for himself, and he must learn to know them not only by their general characters but by taste and smell also. There are certain drugs which are instantly recognised by their smell—prussic acid, acetic acid, ammonia, chloroform, camphor, cajuput, and assafoetida for example, and these the student should be familiar with, for he is pretty sure to get them at some of the examinations. He should endeavour to make a materia medica collection of his own, a collection that should contain specimens of at all events all the common drugs. Materia medica cabinets may be purchased, and some of them are excellent, but there is no collection so use-

ful to the student as that which he forms for himself. It would be well to study practically the physiological action of some of the more common alkaloids, but there are many difficulties in the way, and on this point, as on many others, the lecturer will have to be consulted. The subjects most worthy of illustration are the action of strychnia on the spinal cord, and of muscarine, atropia, aconitia, and digitaline on the heart, although of course the list might be almost indefinitely extended. The student must not neglect to avail himself to the utmost of his three months' instruction in pharmacy. It does not matter what his special department of practice may be in the future he cannot fail to learn much from a good dispenser. The student must not suppose that his studies are to be limited to officinal remedies, on the contrary, many of our most valued therapeutic agents find no place in the British Pharmacopœia. With regard to books, there is less to be said than might at first sight be supposed. There is no dearth of works on materia medica and therapeutics, but many of them are quite unsuited to the wants of students. Take PEREIRA, for example, or NÉLIGAN'S Medicines, or the National Dispensatory of STILLÉ and MAISCH. These are monuments of industry, replete with information of all kinds, but they are too large to read, and are intended as works of reference, and not as text-books. Another work quite unsuitable for students is the British Pharmacopœia. It was never a good work, and is now quite out of date. One of the best students' books on materia medica and therapeutics is GARROD, which has been popular with many generations of students. It is a good book, although somewhat behind the times as regards therapeutics. WHITLA is a work published only this year, but it is accurate and trustworthy, and will prove a formidable rival to some of the older works. THOROWGOOD is used at some of the schools, but it is too limited in its scope to be of much use to students. On therapeutics proper we have several excellent treatises. RINGER is thoroughly practical, and is still a good book, although there has been a considerable falling off in the last edition. PHILLIPS is in two large volumes, and is as yet incomplete. BARTHOLOW is an American work, but it has found favour in this country, and is frequently used both by students and practitioners. FARQUHARSON'S Guide to Therapeutics is well arranged, and is an excellent work in every way; it is small, but contains a great deal of useful information. For the physiological action of drugs there is nothing to equal WOOD. It is an advanced book, and a student would be ill-advised to begin with it; but for the higher examinations or for honours it is without a rival. There are several other works which may be found useful from time to time. For the history of drugs, for example, the Pharmacographia of FLÜCKIGER and HANBURY is admirable. The syllabus of HARVEY and DYCE DAVIDSON is a list of drugs and their preparations, printed in different sized type, according to their importance. MURRELL'S "What to do in Cases of Poisoning" will be found useful to students preparing for examination either in materia medica or forensic medicine. For hints on prescription writing PEREIRA'S *Selecta à Præscriptis* is well known. MORSHEAD'S tables of the physiological action of drugs may sometimes be consulted with advantage, and BRUNTON'S tables of materia medica are useful. The recently published Pharma-

copœia of the London Hospitals will be found of use to advanced students.

#### OBSTETRICS AND GYNÆCOLOGY.

The second summer session is the most convenient to attend the lectures on midwifery and diseases of women. Attendance on women in labour should not commence until the lectures on natural labour have been completed, and the mechanism of natural labour, together with the diagnosis of the various presentations, has been thoroughly mastered. It is best for the student not to attend his first case alone, but in company with the assistant to the obstetric physician or with a senior student who has already completed his attendance on midwifery. In this manner he will be greatly aided in recognising the conditions present in the case before him, and in carrying into practice the details which are known to him as yet in theory only. The diseases of women form now a far more important department of medicine than they did thirty years ago, and the means of acquiring a practical acquaintance with them at the medical schools are far more perfect. The student would but waste his time, however, were he to devote himself to the study of them during the earlier part of his career. The successful study of any special branch of medicine requires an acquaintance with general pathology and medicine, and this is especially true of the diseases of women. A knowledge of them does not consist in an acquaintance with uterine mechanics simply, for scientific gynæcology, like other departments of medicine, is based on the anatomy, physiology, and pathology of the organs concerned, and also largely upon general pathology. The student who devotes himself to their study before he has made himself acquainted with the other subjects named will acquire but a very imperfect, narrow, and inaccurate notion of the diseases of the female pelvic organs. The fourth winter and summer sessions will prove the most profitable period for the study of this branch, as well as of other special branches, of the healing art. It is best for the student to obtain a good book and study it thoroughly. It is folly to get many books and read them in a cursory manner; this will only lead to confusion and want of definite impressions. The best books on midwifery are the works of LEISHMAN, LUSK, and PLAYFAIR. On diseases of women, the works of BARNES, WEST, and GRAILY HEWITT, for those who read for the London University. Of the smaller works GALABIN'S and ATTHILL'S are the best.

#### MEDICINE.

There is some difference of opinion as to the time in the student's career at which he should enter upon the study of medicine proper. This is unfortunate, as it often leads to the student choosing his own time, and seeking too early to become acquainted with a subject for which he has not then received the necessary preliminary training. Doubtless this difference of view has arisen out of the old apprenticeship system, where the first step taken by the future medical student was to become acquainted with details of practice, the *rationale* of which he could not have been expected to know, and although common sense and the division of examinations into "primary" and "pass" have, to a certain extent, brought about salutary changes in this respect, the student is still too much encouraged to follow the old way, and to enter at the outset upon work which more fitly comes

ater in his career. The real profitable study of medicine, indeed, should not be commenced until the foundations of anatomical and physiological knowledge have been solidly laid, with the exception of certain preliminary matters to which we shall presently allude. The first-year's student would then be well advised not to encourage the too-natural desire to be brought into actual contact with patients, nor to try to understand the principles of practice. He is obviously unfitted for this work, and it is sheer waste of time to attempt to follow it. Let him confine his whole energies to mastering the details of such subjects as anatomy and physiology, botany and chemistry, in which he will find scope enough to exercise all his faculties. But if at the same time that he is doing this he hampers himself with hospital work, he will do it at his cost, and find out his mistake when the examination day arrives. The position taken by those who maintain the contrary is readily understood. If they do not actually desire a return to apprenticeships, they point to the brevity of the curriculum, and the importance of devoting every portion of time that can be spared to working at medicine, which, after all, takes the chief place, being that which will be the subsequent life work. At least, they say, let the young student pick up what crumbs of information he may from daily attendance in the wards or out-patient room, forgetful of the inevitable fact that information obtained thus is like grain scattered on an untilled soil, and the result is, either to give the student crude and imperfect notions, or to fill him with the idea that he knows far more than he really does. Many a student has been spoiled for subsequent work when it comes to him by having in this way obtained a false estimate of his knowledge. He thus comes to scamp the elementary principles of medicine, and fails to obtain a real grasp of the subject. We do then distinctly discourage the practice, still so common in many hospitals, of appointing first year's students to clerkships in the out-patient department or elsewhere. The only good they can really reap from such appointments is that of increasing their physiological knowledge. They may seize the opportunity given them of learning such normal facts of respiration and circulation as can be observed by methods of physical examination, may learn to define the surface-limits of organs, to become familiar with the use of the ophthalmoscope, laryngoscope, and sphygmograph—solely with reference to healthy conditions:—these and other matters they may pursue with profit; but it is too much to expect of them to understand the departures from the normal that constitute disease, or to appreciate the methods employed in treatment. Starting, then, with the assumption that the study of medicine is intentionally deferred until after the anatomical and physiological courses are passed through, let us briefly glance at the nature of the work set before the student in this department. As in other subjects the work falls under the heads of theoretical and practical, or, as may be more fully and correctly stated, under: (1) Lectures, systematic and clinical; (2) tuition, or clinical demonstration; (3) clinical observation; (4) reading. Upon the first two of these methods of study there is no need to dwell at length. The systematic course of lectures on the principles and practice of medicine is a winter course, and will therefore be attended by the student in his third year, by which

time let us hope he will have come to appreciate the value of lectures as a means of instruction. Of course it is understood that regular attendance and attention are paid to these lectures—otherwise they may just as well be omitted altogether. The student will never regret paying the closest attention and taking full notes of what he hears, for the value of a lecture lies in its presenting him with the information in a concise and clearly comprehensible form, a guide to his reading, and an analysis of facts which he is unable to get in any other way. Clinical lectures owe their value to the fact that the physician deals with cases which the student has had the opportunity of seeing, and in the lecture-theatre advantage is taken to dwell on the lessons derived from the study of facts of observation more fully than is possible by the bedside. Under the head of tuition in medicine may be included clinical teaching as distinct from the personal practical duties done by the student in his capacity as clinical clerk. Now instruction upon disease is of course most valuable when the pupil sees before him the living example of the disease upon which he is being taught. There are many ways in which this part of his work is carried on. There is the physician's regular visit to the wards for the purpose of seeing and treating his patients. Students should avail themselves of the opportunity of accompanying the physician on his rounds, even if he do not spend much time in actual teaching. He is sure to drop hints that are of value, and to point out facts of importance as he passes from bed to bed. Besides, the attendance on the physician enables the student to watch the cases in progress. Still more useful to the beginner is the class tuition which is so necessary a feature in good clinical teaching. We hold that clinical teaching should be planned systematically, and that starting from elementary instruction in case-taking, in methods of physical examination, &c., to classes where students are questioned on all points concerning the diagnosis and treatment of any special case, he comes to case-reporting; in this we have a system of clinical education that is ample and efficient. It is not the mere presence of the student in the wards, forming, perhaps, one of a group of thirty or forty gathered round the physician at the bedside, it is not the simple fact of his listening to the remarks let fall by the physician, valuable as these may be, that profit him most. He must learn how to examine the patient for himself, how to inquire into his previous history, how to report on his progress, and how to discuss diagnosis, prognosis, and treatment. All that tuition and demonstration can do is to put him on the right road in this personal research, to correct his errors, and to encourage his pursuit of knowledge. Thus we pass naturally to the third and really the most important branch of medical training—personal clinical observation—which of course is inseparably blended with clinical teaching of the "how, why, and what," to observe by the bedside. Besides joining the class of case-reporting there is another way in which the student is brought into personal contact with the patient—i.e., by holding a clinical clerkship. In this office he is attached to the ward service of one of the physicians, and should be directly under the control and guidance of the house-physician. The clinical clerk has many duties to fulfil, and if he is really desirous of working well, not only for the sake of knowledge but for

the approval of those under whom he works, he should be punctual and diligent in the performance of his duties. Like every other duty, it is possible to perform these in a perfunctory manner, but no one should take a clerkship unless he is resolved to let nothing else preoccupy him. He will find that in taking the history of his cases, in recording his daily observations of the case, or those of the house-physician, in attending the physician's visits and adding the notes dictated by him, in examining and analysing urine, blood, sputum vomit; in taking pulse-tracings, chest measurements, electrical observations, &c., as directed—he will find the whole time not required by lectures completely filled up. He should moreover utilise his cases as a means of increasing his knowledge of disease,—and it is most useful to that end to “read up” in his books the description of diseases of which they are examples. It is perhaps impossible for a man to hold such an office without learning something, but it rests with himself in large measure to make that knowledge wide and full. Before entering upon ward-duties such as these, the student will not find the time lost if he previously hold a clerkship to the out-patient department physician. The duties there demanded of him are less exacting, but properly utilised the post is very valuable, and we would advise all to hold it. This may be the proper place to speak of attendance in the out-patient department. There is so much to be seen and learnt there that the working student should make a point of being regularly present every day at one or other of the clinics. He should also not fail to regularly attend the special departments, such as those devoted to diseases of the skin and throat, where he learns so much that will be practically of value to him hereafter in the diagnosis and treatment of these affections. In all this work he will find it of great utility to cultivate the habit of note-taking, for the memoranda he then makes will serve him in good stead afterwards. Further, we would earnestly impress on the student not to be content with simply listening to what is told him, but to use every opportunity to inquire for himself—to question frequently when he is in doubt, and to satisfy himself that he really does see, hear, and understand what is pointed out to him. The more trouble and pains he expends in this the most fruitful time of his career, the sounder will be his knowledge, and the less reason will he have to fear examination-tests; or, what is worse, to have recourse to those unnecessary “cram-books” which he should resolve never to have recourse to. The culminating point of the student's hospital career, that which it should from the first be his object to aim at, is the holding a resident office. It only falls to a minority to fill these posts, but none who have held them can deny their great educational value. The duties of a hospital house-physician are to take daily notes of the cases entering his wards, and to be responsible for the treatment of them in the absence of the physician. In proportion as his previous clinical training has been full and exact, so will he make a good house-physician. It is his first introduction into the real serious business of his life, and the more he realises this the more thoroughly will he apply himself to his duties. Usually such offices are held after a medical qualification has been obtained, so that it may hardly be necessary to mention them here, except for the opportunity it gives us

for recording our emphatic belief as to their importance and value. We have left the subject of reading to the last, and have not much space to devote to it. Nor is it easy to single out particular works for study, especially as so many that are excellent for their purpose exist. The object of reading, is to supplement the instruction of the lecturer and tutor, to gain information upon methods of investigation, and to aid the student in his ward note-taking, &c. We cannot do better than recapitulate what has been said previously on this head in THE LANCET on similar occasions:—

“*Medicine.*—General: Tanner, Roberts, Bristowe, Carter, Charteris; Aitken, Niemeyer, Flint, Watson; Reynolds, Trousseau. *Nervous Diseases*: Wilks, Charcot, Althaus, Hammond, Bastian, Rosenthal, Gowers. *Diseases of the Heart*: Walhe, Balfour, Fothergill, Hayden. *Diseases of the Lungs*: Walshe, D. Powell. *Diseases of the Kidney*: Roberts, Dickinson, Stewart, Johnson, and Beale. *Diseases of the Liver*: Murchison, Habershon. This long list by no means includes all the works which may be selected from, nor do we wish to imply that the student should have to consult one-fourth even of the above. It will be necessary for him to procure one text-book, and the following brief hints may guide him in his selection:—Each has its own peculiarities. That of Dr. Tanner may be mentioned the first, because it has been longest in the field, and also because it is fully sufficient for most purposes; it is eminently practical. The handbook of Dr. T. F. Roberts is, however, perhaps the most useful, and abounds in information supplied in a thoroughly systematic manner, although from the very extensive range travelled over, the subject is necessarily condensed, and the book therefore no light reading. It is pre-eminently a student's book. The work of Dr. Bristowe is more original, and is valuable especially in its pathological portions, and in the admirable account given of diseases of the nervous system. Dr. Aitken's ‘*Outlines*’ are also good. But for a work which is both pleasant in the reading and valuable for its suggestiveness, the text-book of Professor Niemeyer takes the front rank. Certainly no candidate for the higher examinations should fail to read this book, and to carefully study it; for although in some sections it hardly comes up to the standard of some English authorities, yet, as a whole, there is no work like it. Dr. Flint's work has obtained a wide and deserved reputation, not only in America but also in this country. Dr. Alfred Carter has recently published a useful manual for students, and a still smaller work is that of Dr. Charteris. Nor should Dr. Watson's famous book on the ‘*Principles and Practice of Physic*’ be omitted, for many an hour may be passed both profitably and with pleasure in the perusal of these classical lectures. Those who intend taking high degrees, such as the M.D., should read much of the ‘*System of Medicine*,’ edited by Dr. Reynolds, and the time would not be wasted in the perusal also of several of Trousseau's admirable lectures on Clinical Medicine, translated by the Sydenham Society. Such candidates also would do well to read the monographs of Dr. Murchison on Diseases of the Liver, or those on Diseases of the Kidney by Drs. W. Roberts, Grainger Stewart, or Dickinson; and also to consult Dr. Walshe's works on Diseases of the Lungs and Diseases of the Heart, or the lectures of Dr. Balfour on the last-named subject. On Continued Fevers, there is no work comparable to Dr. Murchison's treatise. On Diseases of the Nervous System there are the larger works of Rosenthal, and Hammond; but the lectures of Dr. Wilks, and those of Charcot, which have been translated by the Sydenham Society, may profitably be read. Dr. Bastian's lectures on Brain Diseases and Dr. Gowers' lectures on Diseases of the Spinal Cord should prove of great use to the clinical student, for whose

needs we may now mention some works that have been specially written for aid in bedside observation :—

"*Clinical Medicine*: Da Costa, Finlayson, Fenwick, Tanner, Gee, Barclay, Warner. *Urine Analysis*: Legg, Tyson. *Ophthalmoscopy*: Browne, Jackson, Gowers, Clifford Allbutt. The first-named, with that of Dr. Da Costa, is of the highest class. The handbook edited by Dr. Finlayson is very complete of its kind; Fenwick's work is smaller, but has been much in use, whilst the subject of 'physical signs' in chest disease is admirably treated of in Gee's little manual on Auscultation and Percussion. To the clinical ward clerk the manual by Dr. F. Warner will be found of considerable utility. As aids in the analysis of urine, Dr. Legg's and Dr. Tyson's works are excellent. We have added four works on Ophthalmoscopy; the first is a guide to the use of the ophthalmoscope, which the beginner will find of great service; but the senior student will be repaid by studying the excellent work, which includes an atlas, by Dr. Gowers, or the book by Clifford Allbutt on the same subject. For reference, Liebreich's plates, or those of Jaeger, may be consulted.

"*Dermatology*.—Living's *Diagnosis and Treatment*, Fox's *Epitome*, Duhring, Malcolm Morris; Tilbury Fox, Neumann (Pullar's translation). *Atlases*: Tilbury Fox, Duhring. The student will find ample information within a small compass in the first-named works. Duhring's book is not so well known in this country as it deserves to be, and Neumann's is especially rich in cutaneous pathology."

#### SURGERY.

The fact that by the regulations of the Royal College of Surgeons a student is required to devote a portion of each year of his curriculum to the study of surgery is in itself sufficient proof of the great importance attached to this department of knowledge. It is not our desire to discuss the wisdom of this arrangement. In part it rests upon a misconception, and is due to the survival of notions which were proper only when surgery was not a science. When there were no general principles to fall back upon as a guide to practice, it was necessary for the practitioner to become acquainted in his student days with as many as possible of the various phases of surgical injuries and disease, and multiplied opportunities of observing both out-patient and in-patient practice were rightly insisted on. The special importance of a good knowledge of surgery lies in the fact that it may be required of any practitioner without notice to act promptly in emergencies; and also because surgical treatment has far more influence upon the course of injuries or diseases than medicinal treatment, and errors either of omission or commission are of greater import. But now that surgery is a science the student's chief aim should be to understand and thoroughly master the principles of that science which will serve him in the varied cases afterwards coming under his notice. There is no distinction between a "practical" and a "scientific" surgeon, although those ignorant of science are wont to try to conceal their ignorance by vapid exaltations of the merely mechanical arts of a surgeon. No one can now justly lay claim to the title of surgeon who is not first scientific and then skilled in the application of scientific knowledge. The essential preliminaries to an intelligent study of surgery are a sound knowledge of anatomy, physiology, and pathology. The attempt is sometimes made to apportion to each of these sciences their respective values, but no greater error could be committed. They are so allied, so intimately connected, so interdependent, that

the lack of one cannot be compensated by excess of either of the others. The mechanical and especially the operative parts of surgery are so attractive to most students, that it is especially necessary to insist upon the fact that surgery is a science, and not a mere empirical art. To learn how to adjust a splint, or how to perform kelotomy, is not to be fitted to treat a broken leg or a strangulated hernia. Not that the practical application of surgical knowledge or manual skill is of minor importance. Advancing science enables us to understand more and more clearly the importance of skill in even the most trivial operations. And here we are led to point out that the department of "minor surgery," as it is usually and incorrectly called, is one which demands the student's very careful attention. Apart from the fact that it is in daily use, and that every practitioner requires a knowledge of it, there is the consideration that success in surgical treatment depends chiefly, and in very many cases entirely, upon these "minor" details. The dressing of wounds, for example, comes under this heading, and there is nothing which more affects the results of surgical practice than a knowledge of the principles of the healing of wounds, and of the best modes of securing it. To point out the essential unity of medicine and surgery is to repeat an "oft told tale," but is none the less important, for it is a fact that is only too often forgotten by both teachers and practitioners. We would urge the student, then, to endeavour to study surgery purely as a science, to lose no opportunity of acquainting himself with the facts of surgical pathology, and of the bearings of anatomy and physiology upon the cases he witnesses; but concurrently with this, to take every occasion of acquiring skill in the practice of surgery. The dead-house and the wards are the two best schools of surgery. In the out-patient room many cases will be seen which do not find admission to the wards of most hospitals, but this practice will be of more value after than before a course of scientific surgical study. The operating theatre has attractions of its own more than sufficient, and we must caution students against the too common waste of time caused by witnessing operations, the need for and the mode of performing which they are entirely ignorant of, and when also they are unable to watch the subsequent progress of the case. Of the books that a student should read we would place BILLROTH'S *Surgical Pathology and Therapeutics* first and foremost, as forming the best groundwork on which to build. ERICHSEN'S, BRYANT'S, and HOLMES'S works on surgery have their individual merits, which are sufficiently apprised by the order in which we have placed them. Mr. HEATH'S book on *Minor Surgery* is an excellent manual, and Mr. BERKELEY HILL'S *brochure* on *Bandaging &c.* contains the best account of the way to apply bandages and splints. HOLDEN'S *Surgical Landmarks* will complete the library of most students. Those who desire to supplement these works will most profitably consult some of the articles in HOLMES'S *System of Surgery*, PAGET'S *Surgical Pathology* and his *Clinical Lectures and Essays*, Sir HENRY THOMPSON'S treatises on *Diseases of the Urinary Organs*, BERKELEY HILL or BUMSTEAD and TAYLOR on *Syphilis*, HAMILTON on *Fractures and Dislocations*, HOLMES on the *Surgical Diseases of Children* and WATSON CHEYNE on *Antiseptic Surgery*, HEATH, BELL or T. SMITH on *Operative Surgery*.



## PATHOLOGY AND MORBID ANATOMY.

The study of pathology is so linked with that of medicine and surgery that it can hardly be considered apart from them. But as at every school it takes, and rightly, a separate place in the curriculum, and as it is a subject of growing importance, some few words may be given to it here. The post-mortem room is the place where the facts of pathological anatomy are to be studied, and no opportunity should be lost by the student to be present at the examinations and demonstrations there given. If he be engaged in case-reporting or as clinical clerk he should make a point of seeing those cases which prove fatal investigated after death. Clinical observation of many diseases is of most value when amplified by post-mortem observation. The student should then familiarise himself with the characters of diseased organs, and if he be really in earnest in his work he should preserve specimens for future microscopical examination at his leisure. The course of pathological lectures is attended generally in the third winter or summer session, and in addition to formal lectures, there are generally facilities afforded for laboratory work, or practical classes are formed where the subject of pathological histology is worked at. The student will be well advised to pursue this subject practically. A third means of pathological study is that afforded by the museums. A well-ordered museum is a storehouse of information, the study of which should be utilised to the full. There are several books now specially devoted to students on this subject. Dr. GREEN'S little work is the first favourite, and besides Mrs. HART'S translation of CORNIL and RANVIER'S *Pathological Histology*, or the American translation of the same work, we are promised a translation of an admirable German text-book by ZIEGLER, and the publication of a text-book by Dr. COATS of Glasgow. These works may tend to supersede the well-known text-book of JONES and SIEVEKING, which was brought up to date a few years back under the editorship of Dr. PAYNE. The even better known book of Drs. WILKS and MOXON is admirably suited for study in connexion with the work of the post-mortem room; and in the methods of performing post-mortem examinations we have VIRCHOW'S guide and Mr. NEWTH'S. Upon surgical pathology there is Sir JAS. PAGET'S work and that by BILLROTH.

## MEDICAL JURISPRUDENCE.

The study of forensic medicine, or medical jurisprudence, should on no account be neglected. It is a branch of medical practice from which there is no escape. In cases of sudden accident or poisoning, the nearest medical man is bound by common humanity to give his services. He cannot shield himself under the plea that he is practising some special branch of his profession, and that the case in question is not one with which he is accustomed habitually to deal. As a legally qualified practitioner, he is bound to bring to bear what knowledge he possesses for the relief of the patient. A man's actions under these circumstances are liable to be made public; they may be stated in evidence in a court of law, and may be adversely criticised by counsel. It is evident, therefore, that by a want of knowledge of the principles of medical jurisprudence a medical man may bring (as many have done) great discredit upon himself. On the other hand, if in cases of emergency the practitioner

has acted with promptitude and discretion, his reputation may be established or improved. These considerations should stimulate even the laziest student to acquire a knowledge of this branch of medicine—a branch which more than any other is open to the criticism of the public press. It has been suggested by some that the courses of lectures on medical jurisprudence should be abolished, and that the points of contact between law and medicine should be dealt with by the teachers of surgery, medicine, obstetrics, and therapeutics. This is very well in theory, but since it is a fact that some questions have to be almost always omitted from all courses of lectures, it is certain that the legal relations of this or that branch of medicine would be the first thing to be sacrificed to the exigencies of time, and that without special lectures the student would fail to get adequate and systematic instruction in this most important branch of his education. The study of medical jurisprudence is full of interest, and we should strongly advise students not to content themselves with merely reading the smaller text-books. The large works, such as those of TAYLOR and BECK, are full of leading cases, many of which prove the correctness of the old adage that "truth is stranger than fiction." They rivet the attention, give a living interest to the facts of abstract science, and fix in the memory details which certainly tend to escape when acquired by the cramming process of reading and re-reading the uninteresting statements which are catalogued in the pages of those "Vade-mecums" which students love to carry in their pockets. The student who reads TAYLOR or BECK, as well as GUY, will acquire the valuable mass of facts given in the latter work with far greater ease than if he be content with the smaller book only. The study of toxicology is one of great scientific interest for this reason, that in cases of poisoning we have to deal with a disease brought about by a single cause, the nature of which is certain. The range and wonderful diversity of symptoms in different cases of poisoning by the same agent are facts which every student will do well to ponder over and take to heart, and the doing so cannot fail to lead him to appreciate the complexity of ordinary diseases, which are brought about usually by a plurality of causes, concerning the exact nature of which our knowledge is, with few exceptions, more or less indefinite and inexact. There is no lack of books on this branch of medicine. The large works of TAYLOR, BECK, and WOODMAN and TIDY are all reliable and full of information. The classical work of CASPER, translated by the New Sydenham Society, is full of interest, though somewhat behind in certain departments, and written from the point of view of German law and German customs. OGSTON, of Aberdeen, has written a good book of medium size, though incomplete. The well-known text-book of GUY and FERRIER is perhaps the best on the subject in the English language, its only fault being the somewhat condensed form in which the facts are given.

## THE GENERAL PRACTITIONER.

There is one fact that the student should always bear in mind—that the great bulk of his duty in after-life will have reference to cases and conditions that cannot be considered heroic or sensational, but which are the chief care of general practice, as they constitute the bulk of human trouble. In regard to this great point we should say these two things:

First, no case of disease, or feature of disease, should be despised for its commonness; and, secondly, that the more specific and definite the knowledge that can be gathered by a student on the common cases and facts of disease, the better practitioner will he turn out in the end. Nine students out of ten are destined not to be specialists. General practice is to be their field of labour, and there is no better field for usefulness, and even for distinction. No man is more valued in a community than the man who is helpful, and wise, and kind in all the emergencies of disease, from a toothache to a puerperal pyrexia. But though most students are to be general practitioners, their ultimate efficiency and success will depend very much on the amount of special knowledge which they can bring into general practice. Where one practitioner must be always sending his patients off to a specialist, another will be special enough in his knowledge to save his own credit and his patients' time and money. In order that the student may thus develop the greatest efficiency and credit as a practitioner, he must, after gaining a substantial knowledge of anatomy and physiology—without which all practice is a sort of quackery,—take the best opportunities of seeing common disease, and bring to its study unremitting attention. A cough, a rigor, a urinary deposit, a temperature in slight excess of the normal, a rash on the skin, the peevishness of a teething child, and remedies which a good practitioner uses in such cases, must have as much interest for him as a strangulated hernia, a glaucoma, or a case of myxœdema. Happy the student who accepts gratefully and yet with independent and even critical intelligence the best teaching of the best practitioners, whether general or special. Medical practice to him will be a joy rather than a care, and if he be occasionally in trouble, like other men, it will not be that greatest of all troubles—conscious incapacity for common duties born of inattention to common cases and common, though passing, opportunities of education. His destination may be to practise in a remote hamlet or the distant colony of an extended empire. On an emergency he may find himself confronted in such a solitude, and at midnight, with a case of ineffectual labour, or the still more trying one of retention of urine, and in the happy and timely use of his forceps or his catheter, in the relief of an agonised patient, and in his own consciousness of serviceableness, he will have reward enough, to say nothing of the greater rewards which accrue to faithful and religious men.

#### PUBLIC HEALTH AND MEDICAL OFFICER OF HEALTH.

Of late years the subject of Public Health has acquired steadily increasing attention in connexion with medical education. The appointment of a medical officer of health in every sanitary district, whether urban, rural, or port, has led many members of the profession to devote themselves exclusively to this branch of medical study and practice; and with a view of providing them with a diploma indicative of their special attainments, one or more of the Universities in each division of the kingdom have established a special examination. And quite apart from this, it is now, more than ever, felt that every medical practitioner should be acquainted with the principles of preventive medicine, and that when he is called in to advise as to the cure of disease,

he should also be able to indicate its cause, and to point out how any recurrence of it may in the future be prevented; this being especially the case in respect of infectious diseases. Indeed, the need for this has become definitely recognised both by several examining bodies and by many of the teachers in our medical schools. In several of the examinations for ordinary medical degrees or diplomas, questions bearing on public health are now invariably included, and some are so conducted as to give special prominence to this subject. Thus, candidates for the M.B. at the London University, and still more at the University of Oxford, are required to show that they have a general knowledge of the principles of public health and the prevention of disease. Indeed at the latter university the candidates are further required to give evidence of practical experience in sanitary investigations and in the detection of local conditions of sewerage, water-supply, dwelling accommodation, &c., which are calculated injuriously to affect the health of the population. To meet the requirement thus created special lectureships on Public Health have been established in several of our medical schools; and although attendance at the lectures is, as a rule, optional, yet many of the senior students recognise by their presence the advantage of acquiring information on this subject quite irrespective of any intention to devote themselves exclusively to this branch of the public service. The literature of public health is, like its study, of somewhat recent origin. The masterly reports issued by Mr. SIMON, C.B., F.R.S., in his capacity of medical officer to the Privy Council, and, later on, to the Local Government Board, should be studied by all who are interested in the subject, as should also the more recent reports by his successors in that office. Dr. FARR's articles on statistical questions in the reports of the Registrar-General and elsewhere contain much valuable and indispensable information; and as general text-books Dr. WILSON'S Handbook of Hygiene and Dr. PARKES' Manual of Practical Hygiene may, taken together, be perhaps regarded as the most useful. A fairly complete list of the various engineering, chemical, legal, microscopical, official, and other works bearing upon public health questions is published by the Cambridge University Press, together with papers for the examination in sanitary science in connexion with that university.

Notwithstanding the length of this Address, it has not been possible to consider all the subjects embraced in the medical student's education. Notices of the various Specialities have reluctantly been omitted. We must, however, warn the student against giving himself up to the attractions of Specialism in study or in practice before he is well grounded in the general principles of Medicine, Surgery, and Pathology. On the other hand, the more important diseases of the eye, ear, skin, throat, and of the nervous system should receive a fair amount of attention from every senior student. With these, as with general diseases, there must be direct observation and personal contact with actual patients. Plenty of opportunities are now afforded at all the principal medical schools for the study and investigation of special diseases.

## SESSION 1882-83.

GENERAL COUNCIL OF MEDICAL EDUCATION  
AND REGISTRATION OF THE UNITED  
KINGDOM.

**Registration of Medical Students.**—The following regulations have been adopted by the General Medical Council in reference to the registration of students in medicine:—Every medical student shall be registered in the manner prescribed by the General Medical Council. No medical student shall be registered until he has passed a preliminary examination as required by the General Medical Council,<sup>1</sup> and has produced evidence that he has commenced medical study. The commencement of the course of professional study recognised by any of the qualifying bodies shall not be reckoned as dating earlier than fifteen days before the date of registration. The registration of medical students shall be placed under the charge of the branch registrars. Each of the branch registrars shall keep a register of medical students according to a prescribed form, wherein is set forth the name, the preliminary examination and date thereof, the date of registration, and the place and date of commencement of medical study, as certified by a master or a teacher, or an official in a medical school or hospital. Every person desirous of being registered as a medical student shall apply to the branch registrar of the division of the United Kingdom in which he is residing; and shall produce or forward to the branch registrar a certificate of his having passed a preliminary examination as required by the General Medical Council, and evidence that he has commenced medical study. The branch registrar shall enter the applicant's name and other particulars in the Students' Register, and shall give him a certificate of such registration. Each of the branch registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is registrar, a sufficient number of blank forms of application for the registration of medical students. The several Branch Councils—and in England the Executive Committee, if its meeting be more convenient and the case be urgent—have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satisfactory. A copy of the Register of Medical Students, prepared by each of the branch registrars, shall be transmitted on or before Dec. 31st, in each year, to the registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an alphabetical list of all students registered in the preceding year, and supply copies of such authorised list to each of the bodies enumerated in Schedule A to the Medical Acts, and through the branch registrars to the several medical schools and hospitals. The several qualifying bodies are recommended not to admit to the final examination for a qualification under the Medical Acts any candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least forty-five months previously.<sup>2</sup> In the case of candidates from other than schools of the United Kingdom, the Branch Councils—and in England the Executive Committee, if its meeting be more convenient and the case be urgent—have power to admit exceptions to this recommendation.

Pursuant to resolutions passed by the General Medical Council at its session in July, 1880, the Regulations for Preliminary General Education, which took effect from Jan. 1st, 1882, are as follows:—

No person shall be allowed to be registered as a medical student unless he shall have previously passed a Preliminary Examination in the subjects of General Education as specified

<sup>1</sup> Exception may be made in the case of a Student from any Indian, Colonial, or Foreign University or College, who shall have passed the Matriculation or other equivalent Examination of his University or College, provided such Examination fairly represents a standard of General Education equivalent to that required in this country.

<sup>2</sup> Exception may be allowed in the case of any Graduate in Medicine of an Indian, or Colonial, or Foreign University, or of any Student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of General Education, shall have spent the whole or three-fourths of that period at an Indian, Colonial, or Foreign University, the several Licensing Bodies being requested to communicate to the Council annually, in the month of January, a statement of the action taken by them respectively during the last preceding calendar year, in regard of such exceptional cases.

in the following list:—1. English Language, including Grammar and Composition.<sup>3</sup> 2. English History. 3. Modern Geography. 4. Latin, including Translation from the original and Grammar. 5. Elements of Mathematics, comprising (a) Arithmetic, including Vulgar and Decimal Fractions; (b) Algebra, including Simple Equations; (c) Geometry, including the first two books of Euclid or the subjects thereof. 6. Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics.<sup>4</sup> 7. One of the following optional subjects: (a) Greek; (b) French; (c) German; (d) Italian; (e) any other Modern Language; (f) Logic; (g) Botany; (h) Elementary Chemistry.

Communications relating to the Medical Students' Register, or to the registration of medical students, should be sent to the registrars to the following addresses:—

W. J. C. Miller, B.A., Registrar of the General Council and of the Branch Council for England, 299, Oxford-street, London, W. — Archibald Inglis, M.D., Registrar of the Branch Council for Scotland, 33, Albany-street, Edinburgh. — W. E. Steele, M.D., Registrar of the Branch Council for Ireland, 35, Dawson-street, Dublin.

REGULATIONS  
OF THEMEDICAL EXAMINING BOARDS IN THE  
UNITED KINGDOM.

## UNIVERSITY OF OXFORD.

Every student must reside in one or other of the Colleges or Halls, or in licensed lodgings, for three years, passing at least two examinations in Arts, and one in either Mathematics, Natural Science, Law, Modern History, or Theology, when, if he obtain a first, second, or third class, he can take his B.A. degree; if he do not gain such honour, he has to pass a third examination in *Literis Humanioribus*.

A student desiring to graduate in Medicine must pass the requisite examinations for the degree of B.A. He must afterwards spend two years in study<sup>5</sup> prior to the first or scientific examination for the degree of Bachelor of Medicine, and two years more, after passing the first, prior to the final or practical examination for the same degree. Evidence must be brought to show that he has studied the practical parts of his profession in a first-class hospital.

There is an examination in State Medicine and Public Health, to which Bachelors of Medicine of the University are admissible. Copies of the examination-papers in the several examinations may be obtained through any bookseller.

A dissertation has to be publicly read, three years after obtaining the M.B., before being eligible for the M.D.

The study of Natural Science is carried on at the Museum, in which are extensive opportunities for the study of Physics, Chemistry, General, Comparative, and Human Anatomy, Histology, and other departments of Natural Science, together with courses of lectures and of practical instruction by the several professors. Collections illustrate the various subjects. There is in the medical department a pathological series, including the collection of Schroeder Van der Kolk, and a sanitary laboratory. The Radcliffe Library, containing above 40,000 scientific volumes, is open to all students daily from 10 till 4, and on certain evenings during term. There are lectures and practical instruction in

<sup>3</sup> The Examinations in General Education conducted by Universities will be accepted as heretofore, but if in any of these Examinations the subjects of Elementary Mechanics of Solids and Fluids are not included, a knowledge of these subjects will be required at a subsequent Examination.

<sup>4</sup> The General Medical Council will not consider any Examination in the English Language sufficient that does not fully test the ability of the candidate:—(1) To write sentences in correct English on a given theme, attention being paid to spelling and punctuation as well as to composition; (2) to write correctly from dictation; (3) to explain the grammatical construction of sentences; (4) to point out the grammatical errors in sentences ungrammatically composed, and to explain their nature; and (5) to give the derivation and definition of English words in common use.

<sup>5</sup> This subject may be passed either as Preliminary, or before, or at the first Professional Examination.

<sup>6</sup> If he have taken the higher honours in the Natural Science School he may go in for the first M.B. examination on the first opportunity, and so have a longer period of practical study before the second M.B. examination. By a recent decree the "testatur" of the Natural Science School exempts from examination in Physics and Chemistry at the first M.B. This examination therefore comprises in the cases of such candidates Anatomy and Physiology alone.

Botany at the Botanical Gardens, and clinical instruction at the Infirmary.

The medical examinations take place every year in the Trinity (summer) term. Scholarships of about the value of £75 are obtainable at Christ Church, Magdalen, and other colleges, by competitive examination in Natural Science. Every year a Radcliffe Travelling Fellowship is competed for by any who, having taken a first class in any of the schools, or having obtained a University prize or scholarship, propose to study Medicine. The Travelling Fellows receive £200 a year for three years, half this period being spent in study abroad.

More detailed information may be obtained from the University Calendar; from the Student's Handbook to the University; from the Regius Professor of Medicine; from the Professors in the several departments; from E. Chapman, Esq., M.A., Frewin Hall; and from the Sub-Librarian in the Radcliffe Library at the Museum.

#### UNIVERSITY OF CAMBRIDGE.

The student must enter at one of the Colleges, or as a non-collegiate student, and keep terms for three years by residence in the University. He must pass the Previous Examination in Classics and Mathematics, which may be done, and should if possible be done, in the first or second term of residence, or, which is best, through the Oxford and Cambridge Schools Examination Board or the Local Examinations, before commencing residence. He may then devote himself to medical study in the University, attending the hospital and the medical lectures, dissecting, &c. Or he may proceed to take a degree in Arts, either continuing mathematical and classical study, and passing the ordinary examinations for B.A., or going out in one of the Honour Triposes. The Natural Science Tripos is preferred by most medical students, some of the subjects for this Tripos examination (Chemistry, Botany, Human and Comparative Anatomy, and Physiology) forming part of the series of medical study.

The expenses of residence, lectures, &c., at a College are about £150 per annum; but these are in many cases lessened by Scholarships, ranging in value from £20 to £80 a year, which are very numerous, and obtainable by most students of industry and ability. They are chiefly given for mathematical and classical proficiency. Some may be obtained at once, even before entering; and notices of the examinations for these are given from time to time under the head of "University Intelligence" in *The Times* and other newspapers. Scholarships are given for Natural Science in Trinity, St. John's, St. Peter's, Clare, Christ's, Sydney, Pembroke, Caius, and Downing Colleges; the examinations begin at Easter, also in June and October.<sup>7</sup>

Non-Collegiate students can reside at less expense (£80 or £90 a year) than those who enter a College. They are allowed to attend certain of the College lectures and all the professors' lectures, and have the same University status and privileges as the other students. They are under the superintendence of the Rev. F. Howard, Non-Collegiate Student's Office, Trumpington-street, Cambridge, from whom further information may be obtained. Cavendish College has been recently founded, to afford special facilities for obtaining a degree at a moderate cost, and at the earliest practicable age. Information may be obtained from J. Cox, Esq., Warden of the College.

For the degree of *Bachelor of Medicine* five years of medical study are required, except in the case of medical students who have graduated with honours as Bachelors of Arts, four years being then sufficient. This time may be spent in Cambridge or elsewhere. The earlier portion of it is usually spent in Cambridge, the student remaining in the University till he has passed the examination for the Natural Sciences Tripos and the first and second examinations for M.B.

There are three examinations for M.B. The *first* in Chemistry and other branches of Physics and Botany. The *second* in Anatomy and Physiology (Human and Comparative), and Pharmacology. The *third*, which may be taken in two parts (at the conclusion of Medical study), in Medicine, Surgery, Midwifery, and Medical Jurisprudence. The examinations are partly in writing and partly oral, in

the hospital, in the dissecting-room, and in the laboratories. They take place twice annually (in June and December).

An Act has to be kept, which consists in reading an original thesis and passing a *viva voce* examination on the subject of the thesis and on other subjects.

Previously to the first examination, lectures must have been attended on Chemistry (with manipulations) and Botany. Previously to the second examination, the student must have attended lectures on Human Anatomy and Physiology, Comparative Anatomy, Materia Medica and Pharmacy, and Pathology; have Dissected for one season and attended Hospital Practice one year. Previously to the third examination, lectures must have been attended on Pathological Anatomy, the Principles and Practice of Physic, Clinical Medicine, Clinical Surgery, Midwifery (with ten cases), and Medical Jurisprudence; also Hospital Practice for three years. The candidate must also have been a clinical clerk, or have had special charge of patients in a hospital, dispensary, or parochial union for six months.

The degree of *Doctor in Medicine* may be taken three years after M.B. An Act has to be kept, with *viva voce* examination; and an extempore essay has to be written on some subject relating to Physiology, Pathology, the Practice of Medicine, or State Medicine. A Master of Arts proceeding to M.D. is required to produce the same certificates and pass the same examinations as for M.B.

The candidate for the degree of *Bachelor of Surgery* is required to have passed the *first* and *second* examinations, and the first, or surgical part, of the *third* examination for M.B.; to have attended the Surgical practice of a hospital for two years, have acted as House Surgeon or Dresser for six months, and have gone through a course of instruction in Practical Surgery. The subjects of the Examination are Surgical Operations and the Application of Surgical Apparatus, and the Examination of Surgical patients.

For the degree of *Master in Surgery* the candidate must have passed the three examinations for M.B., and have attended lectures on Human Anatomy (a second course), on the Principles and Practice of Surgery, Clinical Surgery; he must have dissected a second season, have attended the Surgical Practice at a recognised hospital for three years, and have held a house-surgeoncy or dressership for six months. He is then required to pass an examination in Surgical Anatomy, Pathology, and the Principles and Practice of Surgery, and Clinical Surgery.

The next examination in Sanitary Science by the University of Cambridge will take place early in October. Candidates (whose names must be on the Medical Register of the United Kingdom) should send their names to Professor Liveing, Cambridge, before Sept. 25th.

The following is a summary of the course which a student (commencing at the University, say, in October, 1882) may follow:—He enters at any one of the colleges, or as a non-collegiate student, and passes the Previous Examination (in Classics and Mathematics), in October, 1882, or in April, 1883, unless he has already passed the equivalent examination under the Local Examinations or the Oxford and Cambridge Schools Examination Board. He is then registered as a student of medicine. Medical study in the University for two years. Natural Sciences Tripos Examination (in Human and Comparative Anatomy, Chemistry, and Botany), in June, 1885; this admits to the B.A. degree in June, 1885. Second Examination for M.B. (in Human Anatomy and Physiology, and Materia Medica), June or December, 1885, or May, 1886. Third examination for M.B. (in Medicine, Surgery, Midwifery, and Medical Jurisprudence), November, 1887; Examination for B.C. (in Surgical Anatomy, Pathology, and Surgery), November, 1887. Degree of M.B. or B.C., Nov., 1887. Part of the period of medical study is thus spent in Cambridge, and part (say after the second examination) in London or elsewhere.

Attendance at the hospital and on the lectures on Anatomy, Chemistry, &c., is recognised by the Universities of Cambridge and London, and by the College of Surgeons.

The students should remain in Cambridge during part of the long vacation (July and August) and part of the Christmas vacation, as well as during the terms.

#### UNIVERSITY OF LONDON.

The *Matriculation Examinations* take place on the second Monday in January and the third Monday in June. Candidates must be above sixteen years of age. The fee for the examination is £2. Provincial examinations are appointed

<sup>7</sup> For an account of these Scholarships see THE LANCET of April 12th, 1882; and for an account of the Scholarships for Natural Sciences see *Nature* in the early part of each year. Further information may be obtained from the *Student's Handbook to the University*, published by Messrs. Deighton, Cambridge, price 1s. 6d., and the *Student's Guide to the University*.

by the Senate from time to time at specified centres. Several scholarships, exhibitions, and prizes are associated with these examinations.

The *Preliminary Scientific (M.B.) Examination* takes place once in each year, and commences on the third Monday in July.<sup>8</sup> No candidate will be admitted to this examination until he shall have either passed the Matriculation Examination or taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras (provided that Latin was one of the subjects in which he passed); nor unless he have given notice of his intention to the registrar at least fourteen days before the commencement of the examination. Fee for this examination £5.

Candidates are examined on the following subjects: Inorganic Chemistry, Experimental Physics, Botany and Vegetable Physiology, and Zoology.

Any candidate who has passed the Preliminary Scientific (M.B.) Examination may be examined at the Honours Examination next following the Preliminary Scientific Examination at which he has passed for honours in (1) Experimental Physics, (2) Chemistry, (3) Botany, (4) Zoology, unless he have previously obtained an exhibition in any one of these subjects at the Intermediate Examination in Science, in which case he shall not be admissible to the examination for honours in that subject.

*Bachelor of Medicine.*—Every candidate for the degree of Bachelor of Medicine will be required—1. To have passed the Matriculation Examination in this University (unless he have taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras, and Latin was one of the subjects in which he passed). 2. To have passed the Preliminary Scientific Examination. 3. To have been engaged in his professional studies during four years subsequently to matriculation or graduation in Arts at one or more of the medical institutions or schools recognised by this University, one year at least of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom. 4. To pass two examinations in Medicine.

*Intermediate Examination.*—The Intermediate Examination in Medicine takes place once in each year, and commences on the last Monday in July. No candidate shall be admitted to this examination unless he have passed the Preliminary Scientific Examination at least one year previously, and have produced certificates to the following effect:—1. Of having completed his nineteenth year. 2. Of having, subsequently to having passed the Matriculation Examination, or taken a degree in Arts in one of the before-named universities, been a student during two years at one or more of the medical institutions or schools recognised by this University, and of having attended a course of lectures on each of three of the subjects in the following list:—Descriptive and Surgical Anatomy, Histology and Physiology, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine. 3. Of having, subsequently to having passed the Matriculation Examination, or taken a degree in Arts, Dissected during two winter sessions. 4. Of having, subsequently to having passed the Matriculation Examination or taken a degree in Arts, attended a course of Practical Chemistry, comprehending practical exercises in conducting the more important processes of General and Pharmaceutical Chemistry; in applying tests for discovering the adulteration of articles of the Materia Medica, and the presence and nature of poisons; and in the examination of mineral waters, animal secretions, urinary deposits, calculi, &c. 5. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the preparation of medicines. These certificates (as is the case also with all the certificates hereinafter mentioned) must be transmitted to the registrar at least fourteen days before the commencement of examination. Fee for this examination, £5.

Candidates will be examined in the following subjects:—Anatomy, Physiology, and Histology, Materia Medica and Pharmaceutical Chemistry, Organic Chemistry. Candidates will not be approved by the examiners unless they have shown a competent knowledge in all these subjects.

Any candidate who has passed the Intermediate Examination

in Medicine in all its subjects at one time may be examined at the Honours Examination next following the Intermediate Examination in Medicine, at which he passed for Honours in (1) Anatomy, (2) Materia Medica and Pharmaceutical Chemistry, (3) Physiology and Histology, and (4) Organic Chemistry. The examinations take place in the week following that in which the Pass Examination commenced. They are conducted by means of printed papers and practical work.

If, in the opinion of the examiners, sufficient merit be evinced, the candidate who shall distinguish himself the most in Anatomy, and the candidate who shall distinguish himself the most in Histology and Physiology, will each receive an exhibition of £40 per annum for the next two years; the candidate who shall distinguish himself the most in Organic Chemistry, and the candidate who shall distinguish himself the most in Materia Medica and Pharmaceutical Chemistry, will each receive an exhibition of £30 per annum for the next two years. On receiving each quarterly instalment he must declare his intention of presenting himself at the M.B. Examination within three academical years from the time of his passing the Intermediate Examination in Medicine. Under the same circumstances, the first and second candidates in Anatomy and in Histology and Physiology, and the first candidate in Organic Chemistry and in Materia Medica and Pharmaceutical Chemistry, will each receive a gold medal of the value of £5.

*M.B. Examination.*<sup>9</sup>—The M.B. Examination takes place once in each year, and commences on the first Monday in November. Each candidate, two academical years after passing the First Examination, must produce certificates to the following effect:—1. Of having passed the Intermediate Examination. 2. Of having, subsequently to having passed the Intermediate Examination, attended a course of lectures on each of two of the subjects enumerated in Section 2 of the regulations for that examination, and for which the candidate had not on that occasion presented certificates. 3. Of having conducted at least twenty labours. Certificates on this subject will be received from any legally qualified practitioner in Medicine. 4. Of having attended the Surgical Practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Surgery. 5. Of having attended the Medical Practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Medicine. 6. Of having, after having attended Surgical and Medical Hospital Practice for at least twelve months subsequently to passing the Intermediate Examination, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients, in a hospital, infirmary, dispensary, or parochial union, during six months, such attendance not to be counted as part of either the Surgical or the Medical Hospital Practice prescribed in clauses 4 and 5. 7. Of having acquired proficiency in Vaccination. Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council. The candidate must also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. The fee for this examination is £5.

Candidates will be examined in the following subjects:—General Pathology, General Therapeutics and Hygiene, Surgery, Medicine, Obstetric Medicine, Forensic Medicine. The examinations will include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. Candidates will not be approved by the examiners unless they have shown a competent knowledge in all the subjects of examination.

Any candidate who has passed the M.B. Examination may be examined at the Honours Examination next following the M.B. Examination at which he has passed, for Honours in (1) Medicine, (2) Obstetric Medicine, and (3) Forensic Medicine. The examinations commence in the week following that in which the Pass Examination terminated. Except in the case of Forensic Medicine they are conducted by means of printed papers, but the examiners will not be precluded from putting *visd voce* questions upon the written answers of the candidates.

If, in the opinion of the examiners, sufficient merit be

<sup>8</sup> Candidates for the Degree of M.B. are strongly recommended by the Senate to pass the Preliminary Scientific Examination before commencing their regular medical studies, and to devote a preliminary year to preparation for it according to the following programme:—Winter Session: Experimental Physics, Chemistry (especially Inorganic), Zoology. Summer Session: Practical Chemistry (Inorganic), Botany.

<sup>9</sup> Any candidate for the M.B. Examination who has passed the Intermediate Examination under the former regulations, will be required to have also passed the examination in Physiology at some previous Intermediate Examination carried on under the present regulations, at which examination he shall not be allowed to compete for Honours.



evinced, the candidate who shall distinguish himself the most in Medicine will receive £50 per annum for the next two years, with the style of University Scholar in Medicine. Under the same circumstances the candidate who shall distinguish himself the most in Obstetric Medicine will receive £30 per annum for the next two years, with the style of University Scholar in Obstetric Medicine. Under the same circumstances the candidate who shall distinguish himself the most in Forensic Medicine will receive £30 per annum for the next two years, with the style of University Scholar in Forensic Medicine. Under the same circumstances the first and second candidates in each of the preceding subjects will each receive a gold medal of the value of £5.

**Bachelor of Surgery.**—The examination for the degree of Bachelor of Surgery takes place once in each year, and commences on the Tuesday following the fourth Monday in November. Candidates must produce certificates to the following effect:—1. Of having passed the Second Examination for the degree of Bachelor of Medicine in this University. 2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject. Fee for this examination, £5.

Any candidate who has passed the B.S. Examination may be examined at the Honours Examination next following the B.S. Examination at which he has passed, for Honours in Surgery. The examination takes place on Tuesday in the week following the Pas Examination, and is conducted by means of printed papers. If in the opinion of the examiners sufficient merit be evinced, the candidate who shall distinguish himself the most will receive £50 per annum for the next two years, with the style of University Scholar in Surgery. Under the same circumstances, the first and second candidates will each receive a gold medal of the value of £5.

**Master in Surgery.**—The examination for the degree of Master in Surgery takes place once in each year, and commences on the fourth Monday in November.

Candidates must produce certificates to the following effect:—1. Of having taken the degree of Bachelor of Surgery in this University.<sup>10</sup> 2. Of having attended, subsequently to having taken the degree of Bachelor of Surgery in this University: (a) To Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University. (b) Or to Clinical or Practical Surgery during one year in a hospital or medical institution recognised by this University, and of having been engaged during three years in the practice of his profession. (c) Or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University. One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the first division. 3. Of moral character, signed by two persons of respectability. Fee for this degree, £5. The examination is conducted by means of printed papers and *visà voce* interrogation.

Candidates will be examined in Logic and Psychology, and Surgery, and will not be approved unless they have shown a competent knowledge in both the subjects of examination.

If sufficient merit be evinced, the candidate who shall distinguish himself the most in Surgery at this examination will receive a gold medal of the value of £20.

**Doctor of Medicine.**—The examination for this degree takes place once in each year, and commences on the fourth Monday in November.

Candidates must produce certificates to the following effect:—1. Of having passed the Examination for the degree of Bachelor of Medicine in this University. 2. Of having attended, subsequently to having taken the degree of Bachelor of Medicine in this University, (a) to Clinical or Practical Medicine during two years in a hospital or medical institution recognised by this University; or (b) to Clinical or Practical Medicine during one year in a hospital or medical institution recognised by this University, and of having been engaged during three years in the practice

of his profession. (c) Or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Medicine in this University. One year of attendance on Clinical or Practical Medicine or two years of practice will be dispensed with in the case of those candidates who at the M.B. Examination have been placed in the first division. 3. Of moral character, signed by two persons of respectability. Fee for this degree, £5. The examination is conducted by means of printed papers and *visà voce* interrogation.

Candidates will be examined in Logic and Psychology, and Medicine, and will not be approved unless they have shown a competent knowledge in both the subjects of examination. If sufficient merit be evinced, the candidate who shall distinguish himself the most in medicine at the examination for the M.D. degree will receive a gold medal of the value of £20.

**Public Health.**—A Special Examination will be held once in every year in subjects relating to Public Health, to commence on the second Monday in December. Candidates must have passed the Second Examination for the B.M. degree in this University at least one year previously; and must give notice of their intention to the Registrar, at least *two calendar months* before the commencement of the examination. The fee for this examination is £5. Candidates will be examined in Chemistry, and Microscopy, Meteorology, Geology, Physics and Sanitary Apparatus, Vital Statistics, Hygiene, and Sanitary Law. The examination will be both written and practical, and will extend over four days. Candidates will not be approved unless they have shown a competent knowledge in all the principal subjects of the examination. If sufficient merit be evinced the candidate who shall distinguish himself the most shall receive a gold medal of the value of £5.

#### UNIVERSITY OF DURHAM.

A certificate, two licences, and three degrees are conferred—viz., a certificate of proficiency in Sanitary Science, a licence in Medicine and a licence in Surgery; and the degrees of Bachelor in Medicine, Master in Surgery, and Doctor in Medicine.

For the degree of *Bachelor in Medicine* there are two professional examinations; the first being held twice yearly—viz., in October (in 1882 commencing on the 9th) and April (in 1883 commencing on the 23rd); the second twice yearly—viz., in December (in 1882 commencing on the 4th) and in June (in 1883 commencing on the 18th).

The subjects for the first examination are—Anatomy, Physiology, Chemistry, and Botany. Candidates must produce the following certificates:—(1) Of registration as a medical student. (2) Of having passed one of the following examinations in Arts: (a) the examination for graduation in Arts at one of the following universities—Oxford, Cambridge, Durham, Dublin, London, Queen's (Ireland), Edinburgh, Glasgow, St. Andrews, Aberdeen, Calcutta, Madras, Bombay, McGill College (Montreal), and Queen's College (Kingston); or (b) the Preliminary or Extra-professional examination for graduation in medicine at one of the following universities—London, Edinburgh, Glasgow, St. Andrews, Aberdeen, and Queen's (Ireland); or (c) the Preliminary Examination in Arts qualifying for the membership of the Royal College of Physicians of London or for the fellowship of the Royal College of Surgeons of England; or (d) the Preliminary Examination in Arts for the degrees in medicine of the University of Durham (in 1883 commencing on April 7th and September 18th). Candidates who, at the commencement of their professional education, passed the Arts examination for registration only, may pass in the extra subjects required for the M.B. Durham either before or after presenting themselves for the first examination for the degree, but must do so before presenting themselves for the final examination. (3) Of attendance on two courses of Anatomy, on one of Physiology, on one of Theoretical and one of Practical Chemistry, and on one of Botany; of twelve months' dissection; and of attendance on a course of Practical Physiology of not less than thirty lessons.

The subjects for the Second Examination are Medicine, Surgery, and Public Health, Pathology, Materia Medica, Therapeutics, Midwifery, and Diseases of Women and Children, and Medical Jurisprudence. For it candidates must produce the following certificates—viz. (1), of being not less than twenty-one years of age; (2) of good moral cha-

<sup>10</sup> Candidates who have obtained the degree of Bachelor of Medicine previously to 1866 will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor of Surgery; and in the case of such candidates the attendance on surgical practice required by Regulation 2 may commence from the date of the M.B. degree.

acter; and (3) of attendance on the remainder of the course of medical and surgical study as prescribed by the Royal College of Surgeons of England, together with the following additional subjects—viz., one course of lectures on Medicine, one on Therapeutics, one on Public Health, and one on Botany and on Medical Hospital Practice, with Clinical Lectures during one winter and one summer session. There must be proof that the whole course of professional study has occupied at least four years.

N.B.—It is required that one of the four years of professional education shall be spent in attendance at the College of Medicine, Newcastle-upon-Tyne. During the year so spent the candidates must attend at least two courses of lectures in the winter session and two in the summer session, together with the class and test examinations held in connexion with those classes, and must also attend hospital practice and clinical lectures at the infirmary during the same period. Candidates may fulfil this portion of the curriculum at any period before they present themselves for the Final Examination for the degree. The other three years of the curriculum may be spent either at Newcastle-upon-Tyne or at one or more of the schools recognised by the licensing bodies named in Schedule A of the Medical Act, 1858. Candidates who are already qualified by other of the licensing bodies are required to attend for one winter and one summer session at the College of Medicine, Newcastle-upon-Tyne.

For the Degree of *Master in Surgery* the candidate must have passed the Examination for the Degree of Bachelor in Medicine and must have attended one course of lectures on Operative Surgery. Each candidate will have an additional paper on Surgery, and will have to perform operations on the dead body, and to explain the use of instruments.

For the Degree of *Doctor of Medicine* candidates must be not less than twenty-four years of age, must have obtained the degree of M.B. at least two years previously, and in the interim have been engaged in medical or surgical practice. Each candidate will be required to write an essay on some medical subject selected by himself and approved by the Professor of Medicine, and to pass an examination thereon, and must be prepared to answer questions on the other subjects of his curriculum in so far as they are related to the subject of his essay.

Candidates for any of the above degrees must give at least twenty-eight days' notice to the Registrar of the College.

*The Degree of Doctor of Medicine, for Medical Practitioners of fifteen years' standing, without residence.*—There is a special Examination, under the following regulations:—

1. That the candidate shall be registered by the General Council of Medical Education and Registration of the United Kingdom.
2. That the candidate shall have been in the active practice of his profession for fifteen years as a qualified practitioner.
3. That the candidate shall not be under forty years of age.
4. That the candidate shall produce a certificate of moral character from three registered members of the medical profession.
5. That if the candidate shall not have passed, previous to his Professional Examination (in virtue of which he has been placed on the Register), an examination in Arts, he shall be required to pass an examination in Classics and Mathematics.
6. That if the candidate shall have passed, previous to his Professional Examination (in virtue of which he has been placed on the Register), a preliminary examination, he shall be required to translate into English passages of certain named Latin authors.
7. That the candidate shall pass an examination in the following subjects: *a*, Principles and Practice of Medicine, including Psychological Medicine, and Hygiene; *b*, Principles and Practice of Surgery; *c*, Midwifery and Diseases peculiar to Women and Children; *d*, Pathology, Medical and Surgical; *e*, Anatomy, Medical and Surgical; *f*, Medical Jurisprudence and Toxicology; *g*, Therapeutics.
8. That the fee shall be 50 guineas.
9. That if the candidate shall fail to satisfy the examiners, the sum of 20 guineas shall be retained; but that, if he shall again offer himself for the examination, the sum of 40 guineas only shall then be required.

Examinations in accordance with the above regulations will commence on Dec. 4th, 1882, and June 18th, 1883, in the College of Medicine, Newcastle-upon-Tyne. Gentlemen intending to offer themselves as candidates are requested to forward their names to Dr. Luke Armstrong, registrar of the University of Durham College of Medicine, Newcastle-upon-Tyne, on or before Nov. 1st, 1882, or May 1st, 1883,

together with the fee and the before-mentioned certificates.

*Certificate of Proficiency in Sanitary Science.*—Candidates for this certificate must be registered medical practitioners and have attended one course of lectures on Public Health, at the College of Medicine, Newcastle-upon-Tyne, extending over one winter session. The examination will be by written papers, practical and *visd voce*, and will commence on October 9th, 1882, and on April 23rd, 1883. In the practical examination the candidate will be required:—To report upon the condition of some actual locality, to analyse liquids and gases, to explain the construction and use of instruments employed in meteorology, and to make microscopic examinations. The fee is £5 5s.

Medical Officers of Health of five years' standing, who were registered as qualified members of the profession before January 1st, 1878, may obtain the certificate of proficiency in Sanitary Science under the following conditions:—They must be registered medical practitioners, and be not under thirty years of age; they will be required to pass the same examination as before mentioned, write an essay upon some practical sanitary subject, and will be examined upon the essay, and upon other sanitary questions. The fee is £10 10s. During the ensuing year two examinations will be held, commencing the one on October 9th, 1882, the other on April 23rd, 1883.

#### UNIVERSITY OF EDINBURGH.

The session 1882-83 will be opened on October 24th.

Three medical degrees are conferred by the University of Edinburgh—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The degree of Master in Surgery is not conferred on any person who does not also at the same time obtain the degree of Bachelor of Medicine. All candidates for these degrees must give evidence of having obtained a satisfactory general education.

1. The preliminary branches of extra-professional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and the proficiency of students in these branches is ascertained by examination prior to the commencement of their medical study.

2. No candidate is admitted to a professional examination who has not passed a satisfactory examination on at least two of the following subjects (in addition to the subjects mentioned above):—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the examination on these latter subjects also takes place before the candidate has entered on his medical curriculum.

3. A degree in Arts (not being an honorary degree) in any one of the universities of England, Scotland, or Ireland, or in any foreign or colonial university specially recognised for this purpose by the University Court, exempts from all preliminary examination; and an examination in Arts by any corporate body, whose examination has been recognised as qualifying for entrance on medical study by resolution of the General Medical Council of the United Kingdom, provided the said examination by the said corporate body shall also be approved by the University Court, shall exempt *pro tanto* from preliminary examination in Arts, on the subjects comprised in the examination of the said corporate body.

4. No one is admitted to the degree of Bachelor of Medicine or Master in Surgery who has not been engaged in medical and surgical study for four years—the medical session of each year, or *annus medicus*, being constituted by at least two courses of not less than one hundred lectures each, or by one such course and two courses of not less than fifty lectures each; with the exception of the clinical courses, in which lectures are to be given at least twice a week during the prescribed periods.

5. Every candidate for the degrees of M.B. and C.M. must give sufficient evidence by certificates—(a) That he has studied each of the following departments of medical science—namely, Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children, and General Pathology, each during courses including not less than one hundred lectures; Practical Anatomy, a course of the same duration as those of not less than one hundred lectures; Practical Chemistry, three months; Practical Midwifery, three months at a midwifery hospital, or a certificate of attendance on six cases from a registered medical practitioner; Clinical Medicine, Clinical

Surgery,<sup>11</sup> courses of the same duration as those of not less than one hundred lectures, or two courses of three months' lectures, being given at least twice a week; Medical Jurisprudence, Botany, Natural History (including Zoology), during courses including not less than fifty lectures. (b) That he has attended, for at least two years, the medical and surgical practice of a general hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of physicians and surgeons. (c) That he has attended during a course of not less than fifty hours' instruction the class of Practical Materia Medica in the University of Edinburgh, or a similar class conducted in a university or recognised school of medicine, or a similar class conducted by a teacher recognised by the University Court; or that he has been engaged, for at least three months, by apprenticeship or otherwise, in compounding and dispensing drugs at the laboratory of a hospital, dispensary, member of a surgical college or faculty, licentiate of the London or Dublin Society of Apothecaries, or member of the Pharmaceutical Society of Great Britain. (d) That he has attended, for at least six months, by apprenticeship or otherwise, the out-practice of a hospital, or the practice of a dispensary physician, surgeon, or member of the London or Dublin Society of Apothecaries.

6. Students of Medicine in the London schools, and in the school of the College of Surgeons in Dublin, can obtain there two *anni medici* out of the four required for the Edinburgh degrees in Medicine. One *annus medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the winter session. Another *annus medicus* by attending either (a) full winter courses on any two of the following subjects:—Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or (b) on one such course and three months' courses on any two of the following subjects:—Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the student selects the arrangement prescribed in (a), certificates of attendance on either a third winter course, or a third three months' course, will also be accepted by this University. The other subjects, and the additional courses, not given in London or Dublin, required for the degrees of the University, will have to be attended at this University. In provincial schools, where there are no lecturers recognised by the University Court, a candidate can only have one *annus medicus*, and this is constituted by attendance on a qualified hospital along with a course of Practical Anatomy. All candidates not students of the University, availing themselves of the permission to attend the lectures of extra-academical teachers in Edinburgh, must at the commencement of each year of such attendance enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the matriculation fee paid by students of the University, and having, in respect of such payment, a right to the use of the library of the University. The fee for attendance on the lectures of an extra-academical teacher in Edinburgh, with a view to graduation, must be of the same amount as that exigible by medical professors in the University. No teacher is recognised who is at the same time a teacher of more than one of the prescribed branches of study, except in those cases where professors in the University are at liberty to teach two branches.

7. Every candidate must deliver, before the 31st day of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine a declaration, in his own handwriting, that he has completed his twenty-first year, or that he will have done so on or before the day of graduation, and that he will not be, on the day of graduation, under articles of apprenticeship to any surgeon or other master; together with a statement of his studies, accompanied with proper certificates.

8. Each candidate is examined, both in writing and orally, on Chemistry, Botany, and Natural History; on Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; clinically on Medicine and on Surgery in a hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History, Materia Medica, and Pathology are conducted, as far as possible, by demonstrations of objects placed before the candidates.

<sup>11</sup> The Medical Faculty recommend that medical students should not attend Clinical Surgery during their first six months' attendance on Clinical Medicine.

9. Students who profess themselves ready to submit to an examination on the first division of these subjects, at the end of their second year may be admitted to examination at that time. Provided always that students who commence their medical studies in the summer session, and who profess themselves ready to submit to an examination on the first division of these subjects at the beginning of their second winter session may be admitted to examination at that time on condition that they produce certificates of attendance on at least two classes during each of two summer sessions and one winter session; and on the further condition that they shall not be admitted to a degree in Medicine unless their course of study, subsequent to the completion of the summer session in which they commence their medical studies, shall not be less than the minimum course of four years prescribed in Section 4 hereof.

10. Students who have passed their examination on the first division of these subjects may be admitted to examination on the second division at the end of their third year.

11. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *annus medicus*.

12. Candidates may, if they choose, be admitted to examination on the first two of these divisions at the end of their third year, or to the fourth examinations at the end of their fourth year.

13. If any candidate at these examinations be found unqualified, he cannot be again admitted to examination unless he has studied during another year two of the prescribed subjects, either in the University or other medical school.

14. The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degrees of Bachelor of Medicine and Master in Surgery, and who is of the age of twenty-four years, and produced a certificate of having been engaged, subsequently to his having received the degrees of M.B. and C.M. for at least two years, in attendance on a hospital, or in the military or naval medical service, or in medical and surgical practice; provided always that the degree of M.D. shall not be conferred on any person unless he be a graduate in Arts of one of the universities of England, Scotland, or Ireland, or of such other universities as are above specified, or unless he shall before or at the time of his obtaining the degree of M.B., or thereafter, have passed a satisfactory examination on three of the subjects mentioned in Section II. of the statutes relative to preliminary examination. Two of these must be Greek, and Logic or Moral Philosophy, and the third is to be one of the following subjects, at the option of the candidate—namely, French, German, Higher Mathematics, and Natural Philosophy, and provided also that the candidate for the degree of M.D. shall submit to the Medical Faculty a thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the degrees of M.B. and C.M., which he may have made a subject of study after having received that degree. The candidate must lodge his thesis with the Dean on or before 30th April of the year in which he proposes to graduate. No thesis will be approved by the Medical Faculty which does not contain either the results of original observations in practical medicine, surgery, midwifery, or in some of the sciences embraced in the curriculum for the Bachelor's and Master's degree; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.

15. Persons who began their medical studies before the 4th of February, 1861, are entitled to graduate under the system in force before or after that date, according as they may comply with the regulations in force in the University before or after that date.

The Preliminary Examinations in General Education are held in the Upper Library Hall, and students matriculated for the academic year are admitted on presenting their matriculation tickets at the door. Students matriculated for the summer only and non-matriculated students pay a fee of 10s. each, and are admitted on showing their receipts. Those who pay the fee in March will be admitted to the examination in October without further payment. Payment in October does not exempt from payment in March. The academic year is reckoned from 1st of November to 1st of November. Examinations on the preliminary branches of

extra-professional education will take place on the 3rd, 4th, 5th, and 6th October, 1882; and on the 13th, 14th, 15th, and 16th March, 1883.

The fees for M.B. and C.M., £22. Total fees and stamp for graduating as M.D. only, by regulations for students commencing before February, 1861, £25. The fees for examination must be paid at the secretary's office ten days before the dates thereof, and the fees for the degree of M.D., and the stamp duty for the latter, must be paid on or before the 15th day of July in the year of graduation. In the event of the candidate not passing any one of the professional examinations the fee is not returned; but he may appear at one subsequent examination without paying an extra fee, and at any future examination on paying one-half the fee.

The new buildings intended for the Faculty of Medicine of the University are now sufficiently advanced to admit of the departments of Institutes of Medicine and General Pathology being removed there for the ensuing winter session, in addition to the departments of Anatomy, Surgery, Practice of Physic, and Midwifery, which were carried on there during the past session.

#### UNIVERSITY OF GLASGOW.

Three degrees in Medicine are granted—viz., Bachelor of Medicine, Master in Surgery, and Doctor of Medicine. The curricula of study and the examinations for the several degrees conferred are nearly the same as in the University of Edinburgh. The annual term for conferring medical and surgical degrees is the 1st of August. The Preliminary Examinations of medical students in branches of general education take place on the 11th of October, 1882, and on the 28th of March, 1883.

The fees for the degrees are the same as in the University of Edinburgh.

The regulations under which the above degrees are granted and the notices of the subjects of examination may be obtained by application to the assistant clerk of Senate of the University.

*Bursaries tenable by Medical Students.*—Two James Ferguson Bursaries, value £70 per annum each, tenable for two years by medical students who have attended certain prescribed courses in the Arts Faculty. The Brisbane Bursary, of £50 yearly, held for four years by a student of medicine who is a Master of Arts. The Walton Bursary, of £36 yearly, held by a medical student (a native of England being preferred) for four years. The Logan Bursary, of £16 yearly, tenable by a medical student for four years. Two Rainy Bursaries, value £20 per annum each, open to medical students who have just completed the second year of professional study, and tenable for two years. The Armagh Bursaries, three in number, amounting each to £25 yearly, for three years, open to students of Divinity, Law, and Medicine, who have taken the degree of M.A. The Macfarlane Bursary, value £40 per annum, and tenable for three years, open to students who have attended the first session of their professional study in the University of Glasgow, and who have passed in all the seven subjects of the Preliminary Examination for M.B. The Marshall Bursary, value £17 per annum, and tenable for four years, open to students entering the Medical Faculty, and awarded by competition on the subjects of the Preliminary Examination. Four Limer Bursaries, two of the value of £25, and two of the value of £18 per annum each, tenable by medical students for three years.

#### UNIVERSITY OF ABERDEEN.

The curricula for the several degrees conferred are nearly the same as in the University of Edinburgh.

Professional Examinations will be held twice in each year—namely, in April and July, directly after the close of the winter and summer sessions.

The fees for graduation are the same as in the University of Edinburgh. Matriculation fee, including all dues, for the winter and summer sessions, £1; summer session alone, 10s.

Candidates who commenced their medical studies before November, 1861, are entitled to appear for examination for the degree of M.D., after four years' study, one of which must have been in the University of Aberdeen.

Besides the Royal Infirmary, students have the opportunity of attending the following institutions:—Sick Children's Hospital; General Dispensary, and Lying-in and Vaccine Institutions, daily; Royal Lunatic Asylum; Eye

Institution, in which is given clinical instruction on the Diseases of the Eye, and on the Application of the Ophthalmoscope for their diagnosis.

Application for further information should be addressed to Professor Brazier, Secretary to the Medical Faculty.

#### UNIVERSITY OF ST. ANDREWS.

Three degrees in Medicine are granted—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The curricula for these degrees, and the regulations under which they are conferred, differ from those of the University of Edinburgh only in the particulars noticed below.

The degree of *Doctor of Medicine* may be conferred by the University of St. Andrews on any registered medical practitioner above the age of forty years whose professional position and experience are such as, in the estimation of the University, to entitle him to that degree, and who shall, on examination, satisfy the medical examiners of the sufficiency of his professional knowledge; provided always that degrees will not be conferred, under this section, on a greater number than ten in any one year. The examinations are held yearly, towards the end of April. Candidates must lodge with the Dean of the Medical Faculty the following certificates, along with application for admission to examination:—1. A certificate of age, being a baptismal certificate or an affidavit of age. 2. Holograph certificates from at least three medical men of acknowledged reputation in the medical profession or in the medical schools, recommending the candidate to the Senatus for the degree, and testifying to his professional skill and position. As only ten can graduate yearly, candidates will be selected whose service and certificates seem to the Medical Faculty to present the highest professional claims, and where these seem equal preference will be given to age and priority of application. 3. Candidates, when notified for examination, shall remit a portion of the graduation fee (viz., £10 10s.). This sum shall be forfeited should the candidate fail to appear, or to graduate, at the time appointed. 4. A satisfactory examination, written and *visà voce*, must be passed in the following departments—viz., *Materia Medica* and General Therapeutics, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, Midwifery, and Diseases of Women and Children.

No one will be received as a candidate for the degree of *Bachelor of Medicine* or *Master in Surgery* unless two years at least of his four years of medical and surgical study shall have been in one or more of the following universities or colleges—viz., the Universities of St. Andrews, Glasgow, Aberdeen, Edinburgh, Oxford, and Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

Subject always to the condition here specified, the studies for candidates for the degrees of Bachelor of Medicine and Master in Surgery will be under the following regulations: The remaining years of medical and surgical study may be either in one or more of the universities and colleges above specified, or in the hospital schools of London, or in the school of the College of Surgeons of Dublin, or under such private teachers of medicine as may from time to time receive recognition from the University Court. Attendance during at least six winter months on the medical or surgical practice of a general hospital which accommodates at least eighty patients, and during the same period on a course of Practical Anatomy, may be reckoned as one of such remaining years. Attendance on the lectures of any private teacher in Edinburgh, Glasgow, or Aberdeen will not be reckoned for graduation in St. Andrews, if the fee for such lectures be of less amount than is charged for the like course of lectures in the University of Edinburgh, of Glasgow, or of Aberdeen, according as the teacher lectures in those places respectively.

Every candidate for examination for the degrees of M.B. and C.M. is required to lodge a declaration of age, a statement of his course of study, his inaugural dissertation, and all his certificates, with the Dean of the Medical Faculty, on or before the 25th of March in each year.

No candidate offering himself for examination on the first two divisions of the subjects specified in Clause 12 of the regulations will be considered to have passed in the second if he fails in the first; and no candidate offering himself for examination on the three divisions shall be considered to have passed in the third if he fails either in the first or second division. Every candidate who fails to pass in any of the

divisions will, for a first failure in any and each of the divisions, forfeit the sum of £2 2s., and £1 1s. for every subsequent failure in each.

#### UNIVERSITY OF DUBLIN (TRINITY COLLEGE).

**Matriculation.**—All students in the School of Physic intending to practise Physic must be matriculated, for which a fee of 5s. is payable. No student can be admitted for the winter course after Nov. 25th.

**Previous Medical Examination.**—Candidates for degrees and licences in Medicine and Surgery are required to pass a previous examination in Physics, Chemistry, Botany, Materia Medica and Pharmacy, and Descriptive Anatomy, and Institutes of Medicine (Practical Histology and Physiology) previous to their degree examination.

**Bachelor in Medicine.**—A candidate for this degree must be a graduate in Arts, and may obtain the degree of Bachelor in Medicine at the same commencement as that at which he receives his degree of B.A., or at any subsequent commencement. The medical education of a Bachelor in Medicine is of four years' duration, and comprises attendance on a single course of each of the following lectures:—Anatomy, Practical Anatomy, Surgery, Chemistry, Materia Medica and Pharmacy, Physiology, Practice of Medicine, Midwifery, Botany, Medical Jurisprudence, Heat, Electricity, Magnetism, Comparative Anatomy. Three courses of nine months' attendance on the Clinical Lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board of Trinity College. Six months' instruction in Practical Midwifery, including Clinical Lectures. A certificate of personal attendance on Fever cases, with names and dates of cases. Six months' dissections, three months' laboratory instruction in Chemistry, and three months' Practical Histology are required. Any of the above-named courses may be attended at any medical school in Dublin recognised by the Provost and Senior Fellows. Fee for the *Licent ad Examinandum*, £5; for the M.B. degree, £11.

**Doctor in Medicine.**—A Doctor in Medicine must be M.B. of at least three years' standing, or have been qualified to take the degree of B.A. for three years, and must perform exercises for the degree before the Regius Professors of Physic, in accordance with the rules and statutes of the University. Total amount of fees for this degree, £13.

**Bachelor in Surgery.**—A Bachelor in Surgery must be a Bachelor in Arts and in Medicine, and have spent four years in the study of Surgery and Anatomy. He must also pass a public examination in the Hall before the Professors of the School of Physic, having previously completed the prescribed curriculum of study.<sup>12</sup> Candidates are required to perform surgical operations on the dead subject. Fee for the *Licent ad Examinandum*, £5; for the degree of Bachelor in Surgery, £5.

**Master in Surgery.**<sup>13</sup>—A Master in Surgery must be a Bachelor in Surgery of three years' standing, or have been qualified to take the degree of Bachelor in Surgery for three years; and must read a thesis publicly before the Regius Professor of Surgery, or undergo an examination before the Regius Professor, according to regulations to be approved by the Provost and senior Fellows. Fee for the degree of Master in Surgery, £11.

**University Licences.**—Candidates for the Licences in Medicine or Surgery must be matriculated in Medicine, and must have completed two years in Arts and four years in medical studies.

**Licentiate in Medicine.**—The medical course and examination necessary for the Licence in Medicine are the same as for the degree of M.B. A Licentiate in Medicine, on completing his course in Arts, and proceeding to the degree of B.A., may become a Bachelor in Medicine, on paying the degree fees, without further examination in Medicine. Fee for the *Licent ad Examinandum*, £5; for the Licence in Medicine, £5.

**Licentiate in Surgery.**—The surgical course and examination necessary for the Licence in Surgery are the same as for the degree of Bachelor in Surgery. Fee for the *Licent ad Examinandum*, £5; for the Licence in Surgery, £5.

**Medical Scholarships.**—Two Medical Scholarships will be given annually, tenable for two years, with a salary of £20

<sup>12</sup> Students in the School of Physic who matriculated before June 22nd, 1872, may obtain the degree of Master in Surgery according to the regulations in force previous to the creation of the degree of Bachelor in Surgery.

<sup>13</sup> Masters in Surgery must be of the standing of Masters of Arts.

per annum, on the conditions stated in the University Calendar.

**Qualification in State Medicine.**—Doctors in Medicine or graduates in Medicine and Surgery of Dublin, Oxford, or Cambridge, who wish to obtain from the University a Certificate of Qualification in State Medicine, can do so on passing an examination in a limited course of the following subjects:—1. Law, comprehending sanitary legislation, and the laws relating to the conduct and duties of medical men. 2. Engineering in its sanitary aspects. 3. Pathology, including the laws of epidemics, vaccination, insanity, &c. 4. Vital and sanitary statistics. 5. Chemistry in relation to air, water, gaseous poisons, deodorisation, and disinfection. 6. Meteorology. 7. Medical Jurisprudence. 8. Hygiene.

The total cost of the education and first degrees in Medicine and Surgery is as follows, in addition to the fees for education in Arts and B.A. degree (£83 4s.); Medical and Surgical Lectures, £59 1s.; Hospitals, £42 2s.; Medical and Surgical Examinations and Degrees, £31.

#### ROYAL UNIVERSITY OF IRELAND.

In the commencement of the year the Queen's University in Ireland ceased to exist, and the Queen's Colleges became dissociated from the University. The Colleges still remain as heretofore great teaching centres, more particularly for medical education, and it is gratifying to find that their progress has been so uninterrupted since their establishment in 1849. During the last year it was believed that the loss of certain privileges in relation to the Queen's University would have had an injurious effect on the number of students entering their walls, but it is satisfactory to learn that these fears are unfounded, and that never were the Queen's Colleges in Ireland so healthy and vigorous as at the present moment. The Royal University of Ireland, which takes the place of the late Queen's University, has so far succeeded in its aims and objects, and will no doubt attract a very large number of medical students, who, from various circumstances, pecuniary and otherwise, could not comply with the regulations of the late and other universities. The standard selected by the new University is a high one, and we believe that the Royal University of Ireland will prove of immense service to medical education in Ireland. A medical student from the Queen's Colleges, the Queen's University, or any other institution approved by the Senate, matriculated therein before October 1st, 1891, who has completed at least one year of the medical curriculum in any of the said colleges, is entitled to credit for any year's course in the Royal University, without passing the First Examination in Arts. To put it plainly, all examinations passed by students of the Queen's Colleges are allowed for in the Royal University. The cost of lectures for the M.B., M.D., and M.Ch., with fees for examinations, will come to about £65, which, compared with other universities, permits medical degrees to be obtained by parties to whom an expensive curriculum would be a serious obstacle. The University differs from the Queen's University in granting a M.B. degree, and there is also a diploma in Sanitary Science, which is to be conferred only on graduates in Medicine of the University, at a fee of £2. There will be about 600 candidates for the Matriculation Examination to be held this month.

#### ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The licence of this College is a qualification to practise Medicine, Surgery, and Midwifery, and is recognised by the Local Government Board as a qualification in Surgery as well as in Medicine.

**Licentiate.**—Every candidate for the College licence (except when otherwise provided by the by-laws) is required to produce satisfactory evidence to the following effect:—Of having attained the age of twenty-one years. Of moral character. Of having passed before the commencement of professional study an examination in the subjects of general education recognised by the General Medical Council. Of having been registered as a medical student in the manner prescribed by the General Medical Council. "Every candidate (not exempted from registration) is required to have been registered at least forty-five months previously to admission to the Final Examination." Of having been engaged in professional studies during at least forty-five months, of which at least three winter sessions and two summer sessions



shall have been passed at a recognised medical school or schools, and one winter session and two summer sessions in one or other of the following ways:—

1. Attending the practice of a hospital or other institution recognised by the College for that purpose. 2. Receiving instruction as the pupil of a legally qualified practitioner having opportunities of imparting a practical knowledge of Medicine, Surgery, or Midwifery. 3. Attending lectures on any of the required subjects of professional study at a recognised place of instruction. Professional studies commenced before Registration, except in the subjects of the First Examination, will not be recognised by the College. Of having attended, during three winter sessions and two summer sessions, the medical and surgical practice at a recognised hospital or hospitals;<sup>14</sup> of having discharged the duties of a medical clinical clerk during six months; and of surgical dresser during other months; and of having been engaged during six months in the clinical study of Diseases peculiar to Women. Of having received instruction in Chemistry, Practical Chemistry, Materia Medica, Botany, and Practical Pharmacy. Of having attended a course of lectures on the following subjects:—Anatomy (with Dissections), during twelve months; Physiology; a practical course of General Anatomy during a winter or a summer session, consisting of not less than thirty meetings of the class; Pathological Anatomy; Principles and Practice of Medicine; Principles and Practice of Surgery; Midwifery and the Diseases peculiar to Women; Forensic Medicine. Of having attended Clinical Lectures on Medicine during nine months, and also Clinical Lectures on Surgery during nine months, and of having been engaged during a period of three months in the Clinical Study of Diseases peculiar to Women. Of having passed the professional examinations.

Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology, conducted by a university in the United Kingdom, in India, or in a British colony, or by the College of Surgeons in England, Scotland, or Ireland, or the Faculty of Physicians and Surgeons of Glasgow, shall be exempt from re-examination on those subjects. Any candidate who shall produce satisfactory evidence of having passed an examination on Chemistry and Materia Medica, required for a degree in Medicine at a university in the United Kingdom, in India, or in a British colony, will be exempted from re-examination on those subjects. Any candidate who shall have obtained a degree in Surgery at a university in the United Kingdom, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery. Any candidate who shall have passed the examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery. Any candidate, being a "registered medical practitioner," whose qualification or qualifications shall have been obtained before the first day of January, 1861, having been with the consent of the College admitted a candidate for the licence, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the professional examinations as his qualifications may seem to the examiners to render in his case unnecessary. Any candidate who shall have obtained a foreign qualification which entitles him to practise Medicine or Surgery in the country where such qualification has been conferred, after a course of study and an examination equivalent to those required by the regulations of the College, shall, on production of satisfactory evidence as to age, moral character, and proficiency in vaccination, be admissible to the Pass Examination, and shall be exempt from re-examination on such subjects as shall in each case be considered by the Censors' Board to be unnecessary.

Examinations will take place in the months of January, April, July, and October, and no candidate can be admitted without a fortnight's notice.

**Members.**—The members of the College, present and future, shall be alone eligible to the fellowship. Every

candidate (except such as are admissible under special provisions relating to practitioners) must produce proof of his having been engaged in professional studies during a period of five years. The examination will be partly written and partly *viva voce*. Doctors and Bachelors of Medicine may claim exemption from all or any part of the examination, except such as relate to the Third or Pass Examination. Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology, conducted by any of the bodies named in Schedule A to the Medical Act and recognised by the College as requiring a course of study and an examination satisfactory to the College, will be exempt from re-examination on the subjects of the Primary Examinations. Any candidate who shall have obtained a degree in Surgery, at a university in the United Kingdom, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and the Principles and Practice of Surgery. Any candidate who shall have passed the examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, after a course of Study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and on the Principles and Practice of Surgery. Every candidate approved by the Censors' Board shall be proposed at the next general meeting of fellows as qualified to become a member of the College.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

### REGULATIONS RESPECTING THE EDUCATION AND EXAMINATION OF CANDIDATES FOR THE DIPLOMA OF MEMBER OF THE COLLEGE.

**Preliminary General Education and Examination.**—Candidates are required, before the commencement of their professional education, to pass a Preliminary Examination recognised by the General Medical Council and to obtain a certificate of having been registered by that Council. N.B. In the case of any colonial, Indian, or foreign student, not registered by the General Medical Council, the conditions of admission to the Professional Examinations for the diploma will be determined by the Council of the College.

**Professional Education.**—The following are recognised modes of commencing professional education:—(1) Attendance on the practice of a hospital, or other public institution recognised by this College for that purpose. (2) Instruction as the pupil of a legally qualified surgeon, holding the appointment of surgeon to a hospital, general dispensary, or union workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. (3) Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College.

Candidates, prior to their admission to the First or Primary Examination on Anatomy and Physiology, will be required to produce the following certificates, viz.:—Of having, prior to the commencement of professional study, been registered by the General Medical Council. Of having attended lectures on Anatomy during two winter sessions. Of having performed dissections during not less than two winter sessions. Of having attended lectures on General Anatomy and Physiology<sup>15</sup> during one winter session. Of having attended a Practical Course of General Anatomy and Physiology<sup>16</sup> during another winter or a summer session, consisting of not less than thirty meetings of the class.

Candidates, prior to their admission to the Second or Pass Examination on Surgical Anatomy and the Principles and Practice of Surgery, Medicine, and Midwifery, will be required to produce the following certificates, viz.:—Of being twenty-one years of age. Of having been engaged, subsequently to the date of registration by the General Medical Council, during four years, or during a period extending over not less than four winter and four summer sessions, in the acquirement of professional knowledge. Of having attended lectures on Surgery during one winter session. Of having

<sup>15</sup> By the Practical Course referred to in Clause 5, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, &c.; but it is not hereby intended that the learners shall perform dissections.

<sup>14</sup> A three months' course of clinical instruction in the wards of a recognised lunatic hospital or asylum may be substituted for the same period of attendance in the medical wards of a general hospital.

<sup>16</sup> The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

attended a course of Practical Surgery during a period occupying not less than six months prior or subsequent to the course required by the preceding Clause 3.<sup>17</sup> Of having attended one course of lectures on each of the following subjects, viz.:—Chemistry,<sup>18</sup> *Materia Medica*, Medicine, Forensic Medicine, Midwifery (with practical instruction), and a certificate of having personally conducted not less than ten labours, and Pathological Anatomy during not less than three months. Of having studied Practical Pharmacy during three months. Of having attended a three months' course of Practical Chemistry (with manipulations), in its application to medical study. Of instruction and proficiency in the practice of Vaccination.<sup>19 20</sup> Of having attended, at a recognised hospital or hospitals, the Practice of Surgery, during three winter<sup>21</sup> and two summer<sup>22</sup> sessions. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised hospital or hospitals, under the direction of a recognised teacher, during not less than three months.<sup>23</sup> Of having, subsequently to the first winter session of attendance on Surgical Hospital Practice, attended at a recognised hospital or hospitals, clinical lectures on Surgery, during two winter and two summer sessions. Of having been a dresser at a recognised hospital, or of having, subsequently to the completion of one year's professional education, taken charge of patients under the superintendence of a surgeon during not less than six months, at a hospital, general dispensary, or parochial or union infirmary recognised for this purpose, or in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery. Of having attended during the whole period of attendance on Surgical Hospital Practice (see Clause 9) demonstrations in the post-mortem rooms of a recognised hospital. Of having attended at a recognised hospital or hospital, the practice of Medicine, and Clinical Lectures on Medicine, during one winter and one summer session.

*Special Notice.*—Candidates commencing their professional education on or after the 1st of October, 1882, will not be admitted to the Second or Pass Examination until after the expiration of two years from the date of their passing the Primary or Anatomical and Physiological Examination for such diploma, except in the following cases:—When a candidate, before presenting himself for the Primary Examination, shall possess a recognised degree or diploma in Medicine or Surgery, or shall have completed the curriculum of professional education for the diploma. In the case of a candidate who, being desirous of obtaining the Fellowship, shall fail to present himself for the Primary Examination for the Membership at the end of his second year of professional study, but who shall pass at the end of his third winter session the Primary Examination for the Fellowship, it being required in such case that not less than one year of attendance on the Surgical Practice of a recognised hospital shall intervene between the date of his passing the Primary Examination for the Fellowship and the date of his presenting himself for the Second or Pass Examination for the diploma of Member. In the case of a candidate who, having commenced his professional studies by attendance on the practice of a recognised provincial or colonial hospital, and having completed a year of such attendance shall fail to pass the Primary Examination at the end of his second winter session of attendance at a recognised medical school, provided that in his case not less than one year shall elapse between the

date of his passing the Primary Examination and the date of his presenting himself for the Second or Pass Examination for the diploma of Member. When a candidate owing to illness, duly certified by one or more of the teachers of his medical school, shall be prevented from presenting himself for the Primary Examination on the completion of his second year of professional study. And in the case of a candidate who, from some unforeseen circumstances, shall fail to present himself for the Primary Examination on the completion of his second year of professional study, it being left to the Court of Examiners to determine whether in such case the candidate shall or shall not be required to comply with the regulation.

Certificates of attendance upon the practice of a recognised provincial or colonial hospital unconnected with, or not in convenient proximity to, a recognised medical school, will not be received for more than one winter and one summer session of the hospital attendance required by the regulations of this College; and in such cases Clinical Lectures will not be necessary, but a certificate of having acted as dresser for a period of at least six months will be required. Those candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the several certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland from candidates for their diploma, together with a certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of registration by the General Medical Council, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge; and in case of candidates who shall have pursued the whole of their studies at recognised foreign or colonial universities, upon the production of the several certificates required for their degree by the authorities of such universities, together with a certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University recognised for this purpose by this College, will be admitted to examination on producing their diploma, licence, or degree, together with proof of being twenty-one years of age, a certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of registration by the General Medical Council, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College will be admitted to examination on adducing, together with their diploma or degree, proof of being twenty-one years of age, a certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of registration by the General Medical Council, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

*Professional Examination.*—This Examination is divided into two parts. The first or Primary Examination, on Anatomy and Physiology, is partly written and partly demonstrative on the recently dissected subject, and on prepared parts of the human body. The second or Pass Examination, on Surgical Anatomy and the Principles and Practice of Surgery, Medicine, and Midwifery,<sup>24</sup> is partly written, partly oral, and partly on the practical use of

<sup>17</sup> The course of Practical Surgery referred to in Clause 4 is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of anatomical facts to surgery, on the living person, or on the dead body; the methods of proceeding and the manipulations necessary in order to detect the effects of diseases and accidents on the living person, or on the dead body; the performance, where practicable, of the operations of surgery on the dead body; the use of surgical apparatus; the examination of diseased structures, as illustrated in the contents of a museum of morbid anatomy and otherwise.

<sup>18</sup> The course of lectures on Chemistry included in Clause 5 will not be required in the case of a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination.

<sup>19</sup> The certificate of instruction in Vaccination must be such as will qualify its holder to contract as a Public Vaccinator under the Regulations at the time in force of the Local Government Board.

<sup>20</sup> The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

<sup>21</sup> The winter session comprises a period of six months, and, in England, commences on the 1st of October and terminates on the 31st of March.

<sup>22</sup> The summer session comprises a period of three months, and, in England, commences on the 1st of May and terminates on the 31st of July.

<sup>23</sup> It is intended that the candidate should receive the instruction required by Clause 10 at an early period of his attendance at the hospital.

<sup>24</sup> Candidates can claim exemption from examination in Medicine and Midwifery under the following conditions, viz.:—The production by the candidate of a degree, diploma, or licence in medicine and midwifery entitling him to register under the Medical Act of 1858, or a degree, diploma, or licence in medicine and midwifery of a colonial or foreign university approved by the Council of the College. A declaration by the candidate, prior to his admission to the Pass Examination, that it is his intention to obtain either of the qualifications in medicine and midwifery mentioned in the foregoing paragraph, in which case the diploma of the College will not be issued to him until he shall produce either the said qualification, or proof of having passed the several examinations entitling him to receive the same.

surgical apparatus, and the practical examination of patients.

The Primary Examinations are held in the months of January, April, May, July, and November, and the Pass Examinations generally in the ensuing week, respectively. Candidates will not be admitted to the Primary Examination until after the termination of the second winter session of their attendance at a recognised school or schools; nor to the Pass, or Surgical Examination, until after the termination of the fourth year of their professional education. The fee of five guineas, paid prior to the first admission to the Primary Examination, is retained whether the candidate pass or fail to pass the examination, but is allowed as part of the whole fee of twenty-two pounds<sup>25</sup> payable for the diploma. A candidate, after failure at any Primary Examination, is required, on admission to any subsequent Primary Examination, to pay a further fee of three guineas, which is retained, whether he pass or fail to pass the examination, and which further fee is not allowed as part of the whole fee of twenty-two pounds for the diploma.

The fee of sixteen pounds fifteen shillings is payable prior to each admission to the Pass Examination; but on each occasion of failure the balance of eleven pounds ten shillings is returned to the candidate. A candidate having entered his name for either the Primary or Pass Examination, who shall fail to attend, will not be allowed to present himself for examination within the period of three months from the date at which he shall have so failed to attend. A candidate referred on the Primary Examination is required, prior to his admission to re-examination, to produce a certificate that he has pursued, to the satisfaction of his teachers, his anatomical and physiological studies in a recognised medical school during not less than three months subsequently to the date of his reference. A candidate referred upon the Primary Examination, who shall not obtain more than half of the total minimum number of marks, is not readmitted to examination until after the lapse of six months, and is then required to produce a certificate of the performance of dissections during not less than three months, and of having pursued, to the satisfaction of his teachers, his anatomical and physiological studies in a recognised medical school during six months subsequently to the date of his reference. A candidate referred on the Pass Examination is required, unless the Court of Examiners shall otherwise determine, to produce, prior to his admission to re-examination, a certificate of at least six months' further attendance on the surgical practice of a recognised hospital, together with lectures on clinical surgery, subsequently to the date of his reference. A candidate, referred on the Pass or Surgical Examination for the diploma of Member, who shall have exhibited such extreme ignorance in the examination as, in the opinion of the Court of Examiners, to render it desirable that he should be referred for a longer period than six months, is required, before his admission to re-examination, to produce a certificate of having attended the surgical practice and clinical lectures on Surgery of a recognised hospital for a further period of nine or twelve months, as the Court shall determine.

#### ROYAL COLLEGE OF PHYSICIANS, EDINBURGH.

**The Licence.**—No one can obtain the licence of the College until he has completed the age of twenty-one years. Every applicant for the licence must produce evidence that he has been engaged in the study of Medicine during a period of at least four years subsequent to his registration as a medical student, which period shall include attendance during not less than four winter sessions, or three winter and two summer sessions, at a recognised medical school. He must produce certificates that he has attended the following courses at a university, or at some medical school recognised by the College:—Anatomy, six months; Practical Anatomy, six months; Chemistry, six months; Practical Chemistry, three months; Materia Medica and Pharmacy, three months; Physiology or Institutes of Medicine, three months; Practice of Medicine, six months; Clinical Medicine, six months; Principles and Practice of Surgery, six months; Clinical Surgery, three months; Midwifery, three months; Medical Jurisprudence, three months; General Pathology or Patho-

logical Anatomy, three months; Practical Pharmacy, three months. The applicant must also produce evidence of having attended the practice of a public hospital (containing not fewer than eighty beds) during a period of not less than twenty-four months, twelve of which must have been spent in attendance on the medical wards. He must have attended for six months the practice of a public dispensary, or have acted for six months as clinical clerk or dresser in a hospital, or have been engaged for six months as visiting assistant to a registered practitioner. He must produce a certificate of having attended at least six cases of Labour under the superintendence of a qualified medical practitioner, and that he has studied Vaccination under a competent and recognised teacher.

No candidate will be admitted to the first examination until the end of his second winter session, or to the second until he has completed four years of professional study. The examinations will be conducted partly *vivâ voce*, partly by written papers. Candidates for the licence of the College who have passed the first Professional Examination before a qualified body (provided it be as extensive as that required by this College) will be at once admitted to the second part of the examination.

Meetings for the examination of candidates, who already possess a qualification from a recognised licensing body, will be held on the first Wednesday of every month (with the exception of September and October), and, if necessary, on the following days. No one is admissible to examination who has within the previous three months been rejected by any licensing board. The fee for the licence is fifteen guineas.

Candidates may be admitted to Special Examination on days other than those appointed above on bringing forward reasons satisfactory to the Council, and on paying an extra fee of five guineas. Should the candidate be unsuccessful, the sum of eleven guineas will be returned to him.

**The Membership.**—Any licentiate of a College of Physicians, or Graduate of a British or Irish University, with whose knowledge of Medical and General Science the College may be satisfied, may be admitted a Member of the College, provided he shall have attained the age of twenty-four years.

**The Fellowship.**—No one shall be elected a Fellow of the College until he has been at least one year a Member thereof, and has attained the age of twenty-five years.

The following additional regulations apply to all candidates whose petitions are received after March 1st, 1882:—

Every candidate for the Membership (except in the case of medical practitioners of ten years' standing, distinguished for scientific attainments, whom the Council may see fit to exempt) shall be required to pass an examination.—On the Principles and Practice of Medicine, including Therapeutics. On one of the following subjects to be selected by the candidate:—(a) Pathology, including Morbid Anatomy; (b) Medical Jurisprudence and Public Health; (c) Midwifery and the Diseases of Women; (d) Psychological Medicine.

The fee to be paid by a member is £31 10s. When a licentiate is raised to the rank of a member, he pays £21. When a member is raised to the rank of a fellow, the fee is £31 10s., exclusive of stamp duty, which amounts to £25. All candidates for fellowship or membership must lodge their fees, and the amount of stamp duty payable at the time to Government, with the treasurer, previously to presenting their petitions.

**Qualification in Public Health.**—The College now confers certificates of competency in Public Health. Examinations are held in April and October. Fee for certificate, £10 10s.

#### ROYAL COLLEGE OF SURGEONS, EDINBURGH.

Every candidate for a surgical diploma must have followed his course of study in a university or in an established school of medicine, or in a provincial school specially recognised by the College of Surgeons of that division of the United Kingdom in which it is situate.

**Preliminary Examination.**—All students who intend becoming candidates for the diploma of the College must have passed the complete examination in general education as prescribed by the General Medical Council, and have had their names inscribed in the Register of Medical Students at the commencement of their professional studies. Examinations will be held on Oct. 14th, 16th, and 17th, 1882; April 10th, 11th, and 12th; July 6th, 7th, and 9th; Oct. 13th, 15th, and 16th, 1883. Testimonials of proficiency granted by educational bodies recognised by the

<sup>25</sup> This sum of £22 is exclusive of the fee of £2 paid for the Preliminary Examination.

Medical Council exempt students from the Preliminary Examination.

**Professional Examination.**—Candidates are subjected to two Professional Examinations, conducted at separate sittings, partly in writing and partly orally.

The First Examination embraces Anatomy, Physiology, and Chemistry. Examinations will be held Oct. 17th, 1882; Jan. 23rd, March 27th, April 17th, July 17th, 1883.

Candidates who desire to pass the First Professional Examination must apply to the Secretary on or before the Friday preceding the day of examination, and must produce certificates of attendance in regard to all those courses of study which have reference to the subjects of that examination. They must also produce evidence of having passed the Preliminary Examination. The sum of £6 6s. must be paid to the treasurer of the College for this examination not later than 9 A.M. of the Saturday preceding it. This sum will be considered as paid to account of the entire fee of £15 15s. payable for the diploma.

The Second Examination embraces Surgery and Surgical Anatomy; also Medicine, Midwifery, Materia Medica, and Medical Jurisprudence; and does not take place before the termination of the winter session of the last year of study; in the case of candidates who began their course of study after 16th of September, 1882, it will not take place till forty-five months after the examination in general education.

Application for examination must be made to the secretary not later than the Monday previous to the day of the examination.

Every candidate must produce to the secretary—1. Satisfactory evidence of his having attained the age of twenty-one years, and of having been duly registered. 2. The certificates of his classes. 3. The certificate of his having passed the First Professional Examination. 4. A tabular statement (for which a printed form will be furnished) exhibiting the full amount of his professional education, and distinguishing the classes, hospitals, dispensaries, and schools attended during each session of his studies. If he have been an apprentice, he must also insert the name of his master, the date of his indenture, and the length of time for which he is bound. This statement, accurately filled up, must be attested by his signature, and afterwards delivered by the candidate to the officer of the College, to be preserved by the College. If the candidate have been an apprentice to a Fellow of the College, he must also produce his discharged indenture.

The remaining fee payable to the College (being £9 9s.), together with the receipt for the fee paid for the First Professional Examination, must be lodged, not later than 9 A.M. of the Tuesday preceding the examination day, in the hands of the treasurer. £5 5s. will be returned to unsuccessful candidates.

Candidates who have passed the First Examination in Anatomy, Physiology, and Chemistry, at any of the licensing boards recognised by the Medical Act, will be admissible to the Second Professional Examination on producing certificates of the whole course of study, of having passed their Preliminary and First Professional Examinations, and of having been registered. If any of the three subjects of the first examination have been omitted, such candidates will have to undergo the first examination on the omitted subjects; and none of the subjects set done will be omitted at the second examination, even if some of them should have formed part of the first examination by another board. The fee is £15 15s. Unsuccessful candidates under this regulation receive back £11 11s.

In order to test more effectually the practical knowledge of candidates, recent dissections, anatomical specimens, and articles of the *materia medica* will be employed during the examinations; and all candidates will be required to write out formulæ of prescriptions. They will also be subjected to a practical clinical examination in the surgical hospital, including the application of surgical apparatus, &c.

No candidate will be admissible to examination who has been rejected by any other licensing board within the three months preceding his application to be examined.

**The Dental Diploma.**—Every candidate for the Dental Diploma must have attended the general lectures and courses of instruction required at a University or an established medical school recognised by the College as qualifying for the diploma in Surgery. The special courses of instruction may have been followed in a recognised dental hospital or school, or by teachers recognised by the College. The examinations will be both written and oral, and be

conducted in the same manner as the ordinary surgical examinations.

Candidates for the Dental Diploma must produce evidence of having attained the age of twenty-one years, and will be required to produce a certificate of having passed the Preliminary Examination in General Education required for the ordinary licence in Surgery, or an examination equivalent to this, and recognised by the General Medical Council, except in the case of candidates who shall have commenced their professional education previous to the first day of August, 1878.

Candidates will also be required to produce certificates of having been engaged during four years in the acquirement of professional knowledge, and of having been during that period, or at some time previous to their examination, engaged for not less than three years in the acquirement of a practical knowledge of Mechanical Dentistry with a practitioner registered under this Act. Lectures and other courses of instruction must have been attended at a recognised medical school, and the number of lectures in each of the general courses must correspond with those required for the Surgical Diploma of the College. The fee for the diploma is £10 10s.

#### ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

The Royal College of Physicians of Edinburgh, and the Royal College of Surgeons of Edinburgh, while they still continue to give their diplomas separately, under separate regulations, have made arrangements by which, after one series of examinations, the student may obtain the diplomas of both Colleges. The general principle of this joint examination is, that it shall be conducted by a board in which each body is represented in those branches which are common to both medicine and surgery; but that the College of Physicians shall take exclusive charge of the examination in Medicine, and the College of Surgeons of the examination in Surgery. The object of the joint examination is to give to students facilities for obtaining from two separate bodies, and at less expense, a qualification in Medicine and a qualification in Surgery. Students passing that examination successfully will be enabled to register two qualifications under the Medical Act—Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh. The arrangement for thus conferring a double qualification by the co-operation of the two Colleges is in conformity with Section 19 of the Medical Act, and has received the special sanction of the General Council of Medical Education and Registration.

#### FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

Preliminary Examinations in General Literature, in accordance with the regulations of the General Council, will be held in the Faculty Hall during the session 1882-83 on the following Fridays, commencing at 9 o'clock—namely, October 20th, 1882, March 30th, June 29th, and September 7th, 1883; and on each occasion the examination will be continued on the succeeding day. Those who are unsuccessful may appear at one subsequent examination without paying a second fee. The fee for the examination and certificate is 10s.

The course of study for the diploma and the regulations generally correspond with those required by the Royal College of Surgeons of Edinburgh.

The Professional Examinations are held at four periods in 1882—in January, April, July, and October. The following are the dates at which the first examination will begin in 1882-83: Oct. 18th, 1882; Jan. 9th, April 6th, July 18th, 1883. The second examination will commence on Oct. 23rd, 1882; Jan. 15th, April 10th, and July 23rd, 1883. Candidates will not be admitted to the final examination until the expiry of forty-five months from the date of registration, which period must embrace at least three winter and two summer sessions, or four winter sessions, of study at a medical school.

The regulations regarding examinations are nearly similar to those of the Royal College of Surgeons of Edinburgh. All candidates at the Primary Examination are required to dissect in presence of the examiners.

The fee for the diploma is fifteen guineas—six guineas for the first and nine guineas for the second examination. Car-

didates not already qualified in Medicine are examined in that subject orally and clinically, as well as by written papers.

#### REGULATIONS REGARDING THE DOUBLE QUALIFICATION.

The Faculty of Physicians and Surgeons of Glasgow and the Royal College of Physicians, Edinburgh, grant their diplomas conjointly before a board of examiners in which each body is represented, the object being to give to students facilities for obtaining from two separate bodies, and at less expense, a double qualification in Medicine and Surgery. Students passing this examination successfully will be enabled to register two qualifications under the Medical Act—namely, Licentiate of the Faculty of Physicians and Surgeons of Glasgow, and Licentiate of the Royal College of Physicians of Edinburgh. The curriculum of study embraces a course of Medicine, in addition to the subjects required for a diploma of the Faculty. The fee for the first examination is eight guineas; for the second twelve guineas.

The examination for the Double Qualification will begin in the Faculty Hall, Glasgow, at the following periods—namely, first examination, October 18th, 1882; January 9th, April 6th, July 18th, 1883. The second examination will begin on October 26th, 1882; January 18th, April 16th, and July 6th, 1883.

Applications to be admitted to either the first or second examination must be made to the Secretary of the Faculty not later than one week preceding the examination.

Candidates are required to subscribe a declaration that they have not been rejected by any examining board within three months before the examination.

The other regulations are nearly the same as those for the diploma of the Faculty.

#### KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

Examinations in the subjects of the First Professional Examination are held quarterly, in January, April, July, and October. Examinations in the subjects of the Final Examination for the licence in Medicine of the College and for the licence in Midwifery are held in the week following the first Friday in each month, except August and September. Every candidate for a licence must return his name to the Registrar of the College, and lodge with him his certificates, bank (Royal Bank of Ireland) receipt of fees, and his schedule, at least four days before the first Friday in each month. Special examinations will be held at such times as the President may appoint.

*Licence in Medicine.*—Every candidate for the licence of the College to practise Medicine must produce satisfactory evidence—1. Of character, from a Fellow of the College, or from two registered practitioners. 2. Of having passed an examination in general education, held by some one of the examining bodies recognised by the General Medical Council. 3. Of having been engaged during a period of four years in the study of Medicine. 4. Of having attended courses of lectures on the following subjects, at schools recognised by the College: Practical Anatomy, two courses; Physiology or Institutes of Medicine, Chemistry, Practical Chemistry, Materia Medica, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, and Midwifery—each one course. 5. Of having attended for twenty-seven months a recognised Medico-Chirurgical Hospital, in which clinical lectures and clinical instruction in Medicine are given, the attendance not to be for more than nine months in any one year—viz., six winter, and three summer months—for not less than three months. 6. Of having studied Fever in a recognised clinical hospital, containing fever wards, and recorded from daily personal observation at least five cases of fever, to the satisfaction of the attending clinical physician, as attested by his signature.<sup>26</sup> 7. Of having attended Practical Midwifery and Diseases of Women for six months at a Lying-in Hospital or Maternity recognised by the College; or, where such hospital attendance cannot have been obtained during the course of study, of having been engaged in Practical Midwifery under the supervision of a registered practitioner holding public appointments; in either case not less than twenty labour cases must have been actually attended. 8. Of having lodged the admission fee

in the Royal Bank of Ireland, Foster-place, to the credit of the College.

The professional examination is divided into two parts: 1. Anatomy, Physiology, Chemistry, and Materia Medica. 2. Practice of Medicine, Clinical Medicine, Pathology, Medical Jurisprudence, Midwifery, Hygiene, and Therapeutics. Candidates may be examined in the subjects of the first part at the termination of the second year of study, on producing the certificates in these subjects, or in all the subjects of their education, on the completion of their medical studies. No candidate can be examined in the subjects of the first and second parts in the same month.

Candidates qualified as follows are required to undergo the second part only of the professional examination, viz.:—(1) Graduates in Medicine of any University in the United Kingdom, or of any Foreign University approved by the College; (2) Fellows, Members, or Licentiates of the Royal College of Physicians of London or Edinburgh; (3) Graduates or Licentiates in Surgery; (4) Candidates who, having completed the curriculum laid down above, shall have passed the previous professional examination or examinations of any of the licensing medical authorities in the United Kingdom. Candidates qualified, as specified in Sections 1, 2, and 3, must fill up a schedule and present their registration certificate (or their medical or surgical qualification), as well as two certificates of character, of practical midwifery, and of attendance on a clinical hospital which receives cases of fever. Candidates whose case is met by Section 4 must produce, in addition to the certificates required from candidates for the licence, a certificate from the licensing medical authority to the effect that such previous professional examination has been successfully passed.

Registered practitioners of five years' standing are admitted to examination for the licence in medicine on producing certificate of registration, with satisfactory reference, and are exempted from the examination by printed questions.

Candidates who have passed the examinations for the licence in medicine must attend at the College on the Friday following, to subscribe the declaration, and to sign the roll of licentiates in medicine.

Unsuccessful candidates may be admitted to re-examination after not less than two months.

*Licence in Midwifery.*—Candidates for the licence in midwifery, who are not licentiates in medicine, may be admitted to examination on the following qualifications: (1) The degree or licence in medicine or surgery from any University or College of Physicians or Surgeons in the United Kingdom; (2) Testimonials as to character; (3) Certificates of having attended (a) a course of lectures on midwifery in a school recognised by the College; (b) practical midwifery and diseases of women, as in Section 6 of the regulations for the Licence in Medicine.

Candidates who are licentiates in medicine of the College, or who have passed the examination for such licence, may be admitted to examination for the licence in midwifery on lodging their fees and signifying their wish to the registrar a week at least before such examination.

The fees are: For the licence to practise medicine, £15 15s. Examination for the midwifery licence, £3 3s. For the licences in medicine and midwifery, if obtained within a month, to be lodged in one sum,<sup>27</sup> £16 16s. In case the candidate be a graduate both in Arts and in Medicine of any university in Great Britain or Ireland, the fee for the licence in medicine shall be £5 5s. Special examination for the licence to practise medicine, £21; for the licence to practise midwifery, £5 5s. The admission fee, less the sum paid to the examiners, is returned to any candidate rejected at any of the College examinations.

*The Membership.*—Members of the College alone are eligible to the Fellowship. Every candidate for the membership is required to produce satisfactory evidence—1. Of having attained the age of twenty-five years. 2. Of being a licentiate of this College for three years at least; or a licentiate of one year's standing, who shall be a graduate of Arts of a university in the United Kingdom at the time of his obtaining the licence; or a licentiate of one year's standing, who shall be a registered practitioner of seven years' standing at the time of his obtaining the licence. 3. Of professional conduct and moral character, as testified by a fellow or member of the College, or by a fellow of the Royal College of Physicians of London or of Edinburgh. 4. Of

<sup>26</sup> Candidates who commenced their hospital studies between September, 1878, and October, 1879, will be required to conform to Rule 4, or to produce evidence of having attended for nine months a hospital which contained fever wards.

<sup>27</sup> Any candidate rejected at the Examination for the Licence in Medicine must pay the full fee of £3 3s. for the Licence in Midwifery.



not being engaged in trade; of not directly or indirectly vending medicines or drugs; of not dispensing or compounding medicines for anyone—even his own private patients—(except in cases of extreme urgency); and of not practising medicine or surgery in partnership, by deed or otherwise. 5. Of having attended courses of practical instruction in Ophthalmology and Histology. 6. Of having held, during at least six months, the office of resident physician, or resident medical pupil, in a hospital recognised by the College; or of having acted for the same period as clinical clerk in the medical wards of such hospital; or of having been in medical charge, for at least twelve months, of any public institution for the treatment of the sick. 7. Of having lodged the admission fee of twenty guineas in the Royal Bank of Ireland to the credit of the College.

Every candidate shall be required to pass an examination in (1) Principles of Medicine, including Pathology, Medical Anatomy, and Medical Chemistry. (2) Practice of Medicine, including Principles of Public Health. (3) Clinical Medicine.

The election for fellowship takes place twice a year, on the first Friday in April, and on St. Luke's day (Oct. 18th). Candidates must be proposed and nominated three months previously. Fee, £60.

#### ROYAL COLLEGE OF SURGEONS IN IRELAND.

Students beginning their studies after May 1st, 1882, and who wish to be candidates for the Letters Testimonial of the College shall produce evidence—(a) Of having, before entering on medical studies, passed the Preliminary Examination of the College, or an equivalent examination, recognised by the General Medical Council; and (b) of having been registered by that Council as a student in medicine.

The Letters Testimonial of the College shall not be granted to any candidate at an earlier period than forty-five months subsequent to his registration as a medical student; or to anyone who has not attained the age of twenty-one.

Students may be registered as pupils of the College on payment of a registration fee of £5 5s., for which credit will be given subsequently in his examination fee.

**Examinations.**—Every candidate shall be required to pass a Preliminary Examination and four Professional Examinations, unless he possess a diploma or degree in either medicine or surgery recognised by this College, or who have passed an equivalent examination.

**Professional Examinations.**—The first, second, and third Professional Examinations shall be held in the July and October of each year; should the student fail to pass in July, he may present himself at the Examination held in October. The Examination of each year must be passed before a new session can be entered on.

**First Professional Examination.**—Candidates must have been engaged in study for at least nine months subsequent to registration. The examination shall include the following: (1) Physics, if not passed at the Preliminary Examination; (2) the Elements of Chemistry; (3) Elementary Botany; (4) Human Osteology; (5) Elementary Practical Pharmacy.

The fee for this examination shall be £5 5s.

The examination shall occupy two days. The first day printed questions and the second oral.

**Second Professional Examination.**—Candidates are required to produce evidence of having passed the first professional examination, also certificates of having subsequently attended—Medico-Chirurgical Hospital, nine months. Winter courses: Practical Anatomy, Physiology, Surgery, Chemistry (unless attended in first year). Summer courses, three months: Practical Chemistry, Practical Physiology, Materia Medica. The fee for this examination shall be £5 5s.

Candidates shall be examined in—(1) Anatomy; (2) Histology; (3) Surgery; (4) Chemistry; and (5) Materia Medica. The examination shall occupy two days—the first day (oral) in Chemistry and Materia Medica, Anatomy, Physiology, Surgery; the second day, Dissections and Histology.

**Third Professional Examination.**—Candidates must produce evidence of having passed the Second Examination, also certificates of having subsequently attended—Medico-Chirurgical Hospital, nine months as an extern pupil, or six months as a resident pupil. Winter courses: Demonstrations and Dissections, Practical Anatomy (unless attended in the first year), Surgery, and Medicine. Summer course, three months: Medical Jurisprudence.

The fee for this examination shall be £5 5s. Candidates shall be examined in—(1) Anatomy; (2) Physiology; (3) Surgery. The examination shall occupy three days. The first

day, printed questions; second, oral; and the third, dissections.

**Fourth, and Final Professional Examination.**—Shall be held in July and October, and in the following April. Candidates must produce evidence of having passed the Third Professional Examination, also certificates of having subsequently attended—Medico-Chirurgical Hospital, nine months as Extern Pupil. Winter courses: Dissections, Demonstrations, and Midwifery. Certificates will also be required of having attended a midwifery hospital, or maternity, for six months, and of having been present at thirty labours. Clinical Ophthalmology, three months. Operative Surgery. Practical Instruction in Vaccination.

The fee for this examination shall be £5 5s. Candidates shall be examined in—1. Surgery: Clinical, Ophthalmic, and Operative, with Surgical Anatomy. 2. Medicine. 3. Midwifery and Diseases of Women. 4. Medical Jurisprudence. The examination shall occupy four days. The first day printed questions; the second, oral; the third, clinical; and the fourth, operative surgery.

**Fellowship Examination for Candidates possessing no Qualification.**—The Examination shall consist of two divisions, and extend over, at least, three days; the first two of which shall be devoted to the Examination for the Letters Testimonial of the College. The third day shall be devoted to additional subjects required for the Fellowship. Candidates who do not pass the first two days' Examination shall not be allowed to proceed to the third, but those who do pass shall be entitled to receive the Letters Testimonial of the College, although they may not have passed the third day's Examination. No credit will be given, on a subsequent occasion, for passing a part only of either Examination.

#### THE SOCIETY OF APOTHECARIES, LONDON.

Every candidate for a Certificate of Qualification to practise as an Apothecary will be required to produce testimonials—Of having passed a Preliminary Examination in Arts as a test of general education. (This examination must be passed before the commencement of medical studies. Medical studies commenced before the candidates shall have passed an examination on the subject of general education will not be recognised.) Of having attained the full age of twenty-one years. Of good moral conduct. A certificate of three months' Practical Pharmacy from some recognised hospital or dispensary, or from a qualified medical practitioner. And of having pursued a course of medical study in conformity with the regulations of the court.

The course of medical study required for a licence must occupy at least four years, of which not less than three winter and two summer sessions must be passed at a recognised school or hospital. The following will be recognised and considered equivalent to eighteen months' study, in addition to the two years and a half above mentioned: (a) attendance on the practice of a hospital or other public institution recognised by this Hall for that purpose; (b) instruction as the pupil or assistant of a registered practitioner, physician or surgeon to a hospital, general dispensary, or union workhouse, or where such opportunities of practical instruction are afforded as may be deemed satisfactory.

**Course of Study.**—Every candidate must attend the following lectures and medical practice: each winter session to consist of not less than six months, to commence on the 1st and not later than the 15th October; each summer session to commence on the 1st and not later than the 15th of May.

**First Year.**—Winter Session: Chemistry, Anatomy, and Physiology (including Dissections and Demonstrations). Summer Session: Botany, Materia Medica and Therapeutics, Practical Chemistry.

**Second Year.**—Winter Session: Anatomy and Physiology (including Dissections and Demonstrations), Principles and Practice of Medicine, Clinical Medical Practice. Summer Session: Midwifery and Diseases of Women and Children, Forensic Medicine and Toxicology, Clinical Medical Practice.

**Third Year.**—Winter Session: Principles and Practice of Medicine, Clinical Medical Lectures, Morbid Anatomy, Pathology, and Clinical Medical Practice. Summer Session: Practical Midwifery and Vaccination, Morbid Anatomy, Clinical Medical Practice.

<sup>28</sup> It is proposed to omit the Principles and Practice of Medicine in the second and third winter session. One course of the Principles and Practice of Medicine is required, and one on the Principles of Surgery; the latter of which can be taken at any time convenient to the candidate after the second year.

No certificates of lectures or of anatomical instructions delivered in private to particular students apart from the ordinary classes of recognised public medical schools can be received by the Court of Examiners.

**Examination in Arts.**—This Examination will be held at the Hall of the Society on Thursday and Friday, Sept. 21st and 22nd, also in January, 1883. The fee for the examination is one guinea; not returnable in case of failure.

Prizes are annually offered for proficiency in the knowledge of *Materia Medica* and Pharmaceutical Chemistry.

**Professional Examinations.**—The Court of Examiners meet in the Hall every Wednesday and Thursday, where candidates are required to attend at 4.30 P.M. Every candidate intending to offer himself for examination must give seven days' notice previous to the day of examination. Rejected candidates cannot be re-examined until after the expiration of six calendar months.

The examination of candidates is divided into two parts, and is conducted partly in writing and partly *visu voce*.

The First Examination, which may be passed after the second winter session, embraces the following subjects:—Physicians' Prescriptions and Pharmacy; Anatomy and Physiology; General and Practical Chemistry; *Materia Medica* and Botany; Histology.

The Second Examination, at the termination of the medical studies, embraces Principles and Practice of Medicine; Pathology and Therapeutics; Midwifery, including the Diseases of Women and Children; Forensic Medicine and Toxicology; Microscopical Pathology.

Candidates are required of candidates for the Second or Pass Examination, of having completed four years' medical study, including the period spent at the hospital; of being twenty-one years of age, and of good moral conduct. Of having passed the First Examination. Of having completed the prescribed curriculum of study according to the schedule, including a personal attendance of twenty cases of midwifery; and of having received instruction in Practical Vaccination, and vaccinated not less than twenty cases. Of having served the office of clinical clerk at a recognised hospital during the period of six weeks at least. Of having been examined at the class examinations instituted by the various lecturers and professors of their respective medical schools and colleges.

**Modified Examination.**—Graduates in Medicine of British Universities will be admitted to a Clinical and Practical Examination in the Practice of Medicine, Pathology, and Midwifery.

**Fees.**—For a Certificate of Qualification to practise, six guineas, half of which is retained in case of rejection, to be accounted for at a subsequent examination. For the First Examination, three guineas, which sum is retained in case of rejection and accounted for subsequently. For the Second Examination, three guineas. For an Assistant's Certificate two guineas, which sum is retained in case of rejection and accounted for subsequently.

#### APOTHECARIES' HALL OF IRELAND.

The *Arts Examination* will be held at the Hall four times in the year—viz., the third Thursday in January, April, July, and October, at 11 A.M.

**Professional Education.**—Every candidate for the licence to practise Medicine and Pharmacy must produce certificates to the following effect:—Of having passed an examination in Arts previously to entering on professional study. Of registration as a medical student from the Registrar of the Medical Council. Of being at least twenty-one years of age, and of good moral character. Of pupilage to a qualified apothecary, or of having been otherwise engaged at *practical Pharmacy* for a period of twelve months subsequent to having passed the examination in Arts. Of having spent four years in professional study. Of having attended the following courses—namely: Chemistry, during one winter session; Anatomy and Physiology, during one winter session; Demonstrations and Dissections, during two winter sessions; Botany and Natural History during one summer session; Practical Chemistry (by daily instruction in a recognised laboratory), during three months; *Materia Medica* during three months; Principles and Practice of Medicine during one winter session; Pathology, a course; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised hospital (attendance upon twenty cases); Surgery, during one

winter session; Forensic Medicine, during one summer session; instruction in the practice of Vaccination. Of having attended at a recognised hospital or hospitals the practice of Medicine and Clinical Lectures on Medicine, during two winter and two summer sessions; also the Practice of Surgery and Clinical Lectures on Surgery, during one winter and one summer session. Of practical study, with care of patients, as apprentice, pupil, assistant, clinical clerk, or dresser. Of having performed Vaccination successfully under a vaccinator recognised by the Local Government Board.

The *Examination for the Licence* is divided into two parts. The first part comprehends Chemistry, including Physics, Botany, Anatomy, Physiology, *Materia Medica*, and Pharmacy; the second, Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene.

Candidates at the examination on Anatomy are liable to be called on to perform dissection; and at the examination on Surgery to perform operations on the dead subject.

The *Professional Examinations* will be held quarterly, and will commence on the first and second Monday in January, April, July, and October. They will be carried on as follows:—The first part on the first Monday at eleven o'clock A.M. and on the Tuesday and Wednesday succeeding at the same hour. Subjects: Chemistry, including Chemical Physics, and Botany, Monday; *Materia Medica* and Pharmacy, Tuesday; Anatomy and Physiology, Wednesday. The second part, or final examination, on the second Monday at eleven o'clock A.M.; and on the Tuesday and Wednesday succeeding at the same hour. Subjects: Medicine and Surgery, including Pathology and Therapeutics, Monday; Midwifery and Diseases of Women and Children, Tuesday; Forensic Medicine and Hygiene, Wednesday; Clinical Examination, Thursday.

#### THE ARMY, NAVY, AND INDIAN MEDICAL SERVICES.

Admission into the Army and Indian Medical Services is gained as the result of competitive examination; for although by the last Army Warrant power is reserved to the Secretary of State for War to fill up, without an examination, a number not exceeding half the vacancies in the department, with qualified candidates recommended by the governing bodies of public schools of medicine in the United Kingdom or Colonies, this has never yet been exercised. Candidates for both services must, before being admitted to examination, possess the double qualification to practise medicine and surgery, and be registered under the Medical Act, and must also furnish satisfactory certificates of moral character. Candidates for the army must be between the ages of twenty-one and twenty-eight, in good health, and both parents of unmixed European blood; for the Indian service, between twenty-two and twenty-eight, of sound bodily health, and natural born subjects of Her Majesty. Both are examined as to physical fitness by a Board of Medical Officers. These conditions being satisfied, the candidate is admitted to the competitive examination, which is usually held in London twice a year, in the months of February and August. The number of appointments to be competed for on each occasion varies according to the requirements of the services. The subjects of examination are divided into *compulsory* and *voluntary*. The former comprise Anatomy and Physiology, Surgery, Medicine, including Therapeutics and the Diseases of Women and Children, Chemistry and Pharmacy, and a practical knowledge of Drugs. The eligibility of the candidate for admission into the service is determined by the result of this part of the examination. The *voluntary* subjects are French, German, Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to *Materia Medica*, and for the Indian service Hindustani. Although the results of the examination on voluntary subjects do not affect the question of the eligibility of the candidate for a commission they influence his position on the lists, which is determined by the numbers obtained under the two heads conjointly. After having passed this examination the successful candidates for both services are sent to the Army Medical School at Netley as "surgeons on probation," with the rank of lieutenant and the daily pay of 8s., to go through a four months' course of special instruction in the duties required of them in the service. The staff of the school consists of four professors, all of them men of acknowledged ability and high

standing in their special departments; Surgeon-General Longmore, C.B., is Professor of Military Surgery; Inspector-General Maclean, M.D., C.B., of Military Medicine; Surgeon-Major de Chaumont, M.D., F.R.S., of Military Hygiene; and Dr. Aitken, F.R.S., of Pathology. To each of these an Army Medical Officer is attached as Assistant Professor. The lectures on Military Surgery include gunshot and other wounds, transport of sick and wounded, duties of army medical officers in the field, during sieges, and on board troopships and transports, &c. Those on Military Medicine treat of tropical and other diseases to which soldiers are exposed in the course of their service, the mortality and invaliding by disease, in peace and war, at home and abroad. The course of Hygiene comprises the examination of water and air, the general principles of diet, with the quality and adulterations of food and beverages, the sanitary requirements of barracks, hospitals, and camps, the clothing, duties, and exercises of the soldier, and the circumstances affecting his health, with the best means of preventing disease, and instruction in the mode of preparing the various statistical and other returns required of the medical officer. The lectures on Pathology are chiefly directed to morbid anatomy and the results of tropical diseases, with practical instruction in the microscopic examination of morbid tissues. The surgeons on probation are detailed for duty in the wards of the hospital, under the Professors and Assistant-Professors of Medicine and Surgery, and receive practical instruction in the mode of examining recruits. The Surgeons on probation are provided with quarters and are members of the excellent mess established at Netley. After having passed through the course of instruction they are examined on the subjects taught in the school. For the army this is merely a "pass," and does not affect the position gained at the entrant examination; for the Indian service the numbers obtained are added to those previously assigned, and the seniority on the list is determined by the combined results of the preliminary and final examinations. At the close of each session five prizes are awarded: the Herbert prize of £20 to the surgeon on probation who has obtained the highest number of marks at the London and Netley examinations conjointly; the Parkes Memorial Bronze Medal to the one who gains the highest number of marks in the examination on Hygiene at Netley, combined with those given for the answers to a special question set on the same subject; the Martin Memorial Gold Medal to the highest number of marks in the final examination on Military Medicine, with the addition of those gained for a special question connected with it; the Montefiore Gold Medal and £20, awarded in the same manner for Military Surgery; and the Montefiore second prize, consisting of works on Military Surgery, to the surgeon on probation who obtains the second highest numbers in this branch. The competition for the last four prizes is optional.

The conditions of admission into the Naval Medical service are the same as those for the Army; but the candidate is also required to declare his readiness to engage for general service and to proceed on duty abroad whenever required to do so. After having passed the competitive examination in London the successful candidate will receive a commission as surgeon in the Royal Navy, "and will undergo a course of practical instruction in Naval Hygiene at Haslar Hospital." At present Fleet Surgeon Walter Reid, M.D., has been appointed to Haslar "for instruction of surgeons on entry," and Surgeon H. B. Collins "to assist in instruction of surgeons on entry;" but we have no information as to the length of the course, the conditions under which it is conducted, or the subjects professed to be taught.

The following tables, showing the rates of pay and half-pay of the three branches, will probably be acceptable to students who entertain any intention of entering the public service.

## ARMY.

Rank.	Rates of Pay.	Gratuities.	Relative Military Rank.
	Daily.		
Surgeon on probation ..	£0 8 0 ..	—	Lieutenant
	Annual.		
Surgeon ..	200 0 0 ..	—	Captain
" aft. 5 years' service	250 0 0 ..	—	
	Daily.	Gratuity.	
" 10 ..	0 15 0 ..	£1250 ..	
Surgeon-Major ..	1 0 0 ..	—	Major
" aft. 15 years' service	1 2 6 ..	£1800 ..	
" 18 ..	—	£2500 ..	

Rank.	Rates of Pay.	Half-pay.	Relative Military Rank.
Surgeon-Major:			
" aft. 20 years' service	1 5 0 ..	£1 0 0 ..	Lieut.-Colonel
" 25 ..	1 7 6 ..	1 2 6 ..	
" 30 ..	—	1 5 0 ..	
Brigade-Surgeon ..	1 10 0 ..	—	Lieut.-Colonel
" aft. 5 years in rank	1 13 0 ..	—	(but always senior to)
" aft. 20 years' service	—	1 7 6 ..	Surgeon-Major)
" 30 ..	—	1 10 0 ..	
Deputy Surgeon-General ..	2 0 0 ..	1 15 0 ..	Colonel
Surgeon-General ..	2 15 0 ..	2 0 0 ..	Major-General

Surgeons are promoted to be Surgeons-Major on completing twelve years' full-pay service, of which three must have been abroad. Surgeons-Major are promoted to Brigade Surgeons by selection for ability and merit, but must have had eight years' foreign service; and Brigade Surgeons, to be eligible for selection as Deputy Surgeons-General, must have served abroad at least ten years, or which three must have been in India. All officers under the rank of Deputy-Surgeon-General are placed on the retired list at the age of fifty-five, and those of that rank and Surgeons-General at the age of sixty.

## INDIAN MEDICAL SERVICE.

From date of leaving Netley till embarkation, 10s. per diem. Pay and allowances in India.

Rank.	Monthly pay.	If in charge of a Native Regiment.	Pension, annual.
	Rs. s. p.	Rs.	£
Surgeon under 5 years' service ..	286 10 0	450	—
" after 5 ..	304 14 2	600	—
" 6 ..	392 5 2	—	—
Surgeon-Major & Brigade-Surgeon:			
" after 10 years' service	410 9 5	800	—
" 12 ..	640 14 6	—	—
" 15 ..	677 6 11	—	—
" 17 ..	—	—	292
" 20 ..	853 3 7	—	365
" 25 ..	888 12 0	1000	500
" 30 ..	—	—	700
Deputy Surgeon-General, 2 at ..	2250 0 0	aft. 5 yrs. }	250
" the rest at ..	1900 0 0	service in rank }	
		addnl. to service }	
Surgeon-General ..	2500 0 0	pension.)	350
" in Bengal ..	2700 0 0		

The rules for promotion and compulsory retirement and the relative military rank are the same as in the Army Medical Department.

Further details with regard to the Indian Medical Service will be found under that head in "The Indian List."

## ROYAL NAVY.

Rank.	Daily pay.	Half-pay.	Gratuities and retired pay.
	£ s. d.	£ s.	Rank. Gratuity.
Surgeon	0 11 6	0 6	Surgeon and Staff
aft. 2 years' f. p. in rank	..	0 7	Surgeon:
4 ..	0 13 6	0 8	aft. 8 years' f. p. £1000
6 ..	..	0 9	12 .. 1500
8 ..	0 15 6	0 10	16 .. 2250
10 ..	..	0 11	
Staff-Surgeon:			
on promotion ..	1 1 0	0 12	
aft. 2 years' f. p. in rank	..	0 13	
4 ..	1 4 0	0 14	
6 ..	..	0 15	
Fleet Surgeon:			
on promotion ..	1 7 0	0 17	Fleet-Surgeon. Daily.
aft. 2 years' f. p. in rank	..	0 18	aft. 20 years' £1 0 0
4 ..	1 10 0	0 19	24 .. 1 2 6
6 ..	..	1 0	27 .. 1 5 0
8 ..	1 13 0	..	30 .. 1 10 0
Deputy Inspector-General:			
on promotion ..	2 2 0	1 5	.. 1 15 0
aft. 2 years' f. p. in rank	..	1 7	
4 ..	..	1 9	
Inspector-General ..	2 15 0	1 13	.. 2 0 0

Surgeons are promoted to Staff Surgeons after twelve years' service, provided they pass the requisite examination, and Staff Surgeons to Fleet Surgeons after twenty years, if recommended by the Director-General. Deputy Inspectors-General are promoted by selection from the Fleet Surgeons, and Inspectors-General from the Deputy Inspectors-General having three years' foreign, four years' mixed, or five years' home service. Inspectors and Deputy Inspectors-General are retired compulsorily at sixty, and other grades at fifty-five years of age, and all ranks at any time if they have not served for five years. In calculating service for retired pay, time on half-pay will be taken as equivalent to one-third service on full-pay.

# The Medical Student's Class Guide.

TABULAR LIST OF THE CLASSES, LECTURERS, FEES, AND DAYS OF OPERATIONS AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS FOR THE SESSION 1882-83.

LECTURES, ETC.	ST. BARTHOLOMEW'S HOSP. & COL.					CHARING-CROSS HOSP. & COLL.					ST. GEORGE'S HOSPITAL.				
	LECTURERS.	Days and Hours.	FEES.			LECTURERS.	Days and Hours.	FEES.			LECTURERS.	Days and Hours.	FEES.		
			One Course.	Two Courses.	Perpetual.			One Session.	Two Sessions.	One Course.			Two Courses.	Perpetual.	
WINTER SESSION.															
ANATOMY AND PHYSIOLOGY	Mr. M. Baker	M. Tu.	9 9	...	13 2	Dr. Wolfenden	M. W. F. 3	6 6	6 6	Dr. Watney	Tu. Th. 3	7 7	...	8 18*	
ANATOMY, DESCRIPTIVE & SURGICAL	Dr. Klein	Th. 2½					Tu. Th. 9			Mr. Dent	F. 11				
	Mr. Marsh	Tu. W. Th.	7 7	...	13 2	Mr. Bellamy	M. W. F. 9	6 6	6 6	Mr. Bennett	M. W. F. 3	7 7	...	8 18	
ANATOMICAL DEMONSTRATIONS	Mr. Langton	F. 9	...	...	...	Mr. Cantlie	S. 12	4 4	7 7	Mr. Turner	Daily	...	...	...	
CHEMISTRY	Messrs. Clarke, Edwards, & Lockwood	10½ to 4					Daily								
	Dr. Russell	M. W. F. 9	6 16	...	9 9	Mr. Heaton	M. W. F. 4	5 5	...	Mr. Donkin	T. Th. S. 11½	7 7	...	8 18	
MEDICINE	Dr. Andrew	M. Tu. Th.	6 16	...	9 9	Dr. Pollock	M. W. Tu. 4	6 6	6 6	Dr. Dickinson	M. W. F. 4	7 7	...	8 18	
	Dr. Gee	3½				Dr. Lubbock	M. Th. 3	2 2	...						
SURGERY	Mr. Savory	W. Th. F. 2½	6 16	...	9 9	Mr. Barwell	Tu. F. 4, Th. 3	6 6	6 6	Mr. Rouse	M. W. F. 9½	7 7	...	8 18	
HOSPITAL PRACTICE: PHYSICIANS...	Dr. Andrew	Tu. Th. S.	6	24	Perpet.	Dr. Pollock	Daily, 1.30	6	12	Dr. Wadham	Daily, 1	6	2	Perpet.	
	Dr. Southey	M. Tu. Th.	15	15	23	Dr. Green		10	15	Dr. Dickinson		10	10	21	
ASSISTANT-PHYSICIANS	Dr. Church	Tu. Th. S.	15	15	23	Dr. B. use		10	15	Dr. Whipham		10	10	21	
	Dr. Gee	M. Tu. Th.	15	15	23			10	15	Dr. Cavafy		10	10	21	
SURGEONS	Dr. M. Duncan & Dr. Godson (Obstet.)	F. S. Th. 1½ S. 9								Obst. Phys.: Dr. Barnes					
	Dr. Duckworth	T. F. 11	...	...	...	Dr. Colquhoun	M. Th. Tu. F. W. S.	...	...	Assist. Obstet.: Dr. Champneys					
ASSISTANT-SURGEONS	Dr. Hensley	W. S. 11	...	...	...	Dr. Abercrombie	Tu. F. W. S.	...	...	Dr. Watney					
	Dr. Brunton	M. Th. 11	...	...	...	Dr. Lubbock	1.30	...	...	Dr. Ewart					
CLINICAL MEDICINE	Dr. Legg	Daily	6	12	Perpet.	Mr. Barwell	Daily, 1.30	6	12	Mr. Holmes	Daily, 1	6	2	Perpet.	
	Messrs. Savory, Willett, Smith, Langton, & Baker	M. Th. F. S. 19	19	26	5	Mr. Bellamy		10	10	Mr. Rouse		10	10	21	
CLINICAL SURGERY	Dr. Legg	Daily	...	...	...	Mr. Bloxam		...	...	Mr. Pick		...	...	...	
	Messrs. Marsh, Butlin, Walsham, Cripps, & Shuter	W. S. 12 M. Th. 12 Tu. F. 12	...	...	...	Mr. Cantlie	M. Th. Tu. F. W. S. 1.30	...	...	Mr. Haward		...	...	...	
CLINICAL MIDWIFERY, &c. DENTAL SURGERY	Ophth. Surg.: Mr. Power	Tu. Th. S. 1½	...	...	...	Mr. Morgan		...	...	Mr. Bennett		...	...	...	
	Mr. Vernon		...	...	...	Boyd		...	...	Mr. Dent		...	...	...	
CLINICAL SURGERY	Dental Surg.: Mr. Coleman	...	...	...	...	The Physicians and Assistant-Physicians	Weekly	...	...	The Physicians	M. 2	...	...	...	
	Dr. Andrew, Southey, Church, and Gee	Fr. 1	...	...	...	The Surgeons and Assistant-Surgeons	Weekly	...	...	The Surgeons	Tu. 2	...	...	...	
CLINICAL SURGERY	Messrs. Savory, Smith, Willett, Langton, & Baker	S. 12.45	...	...	...	Dr. Black	T. F. 1.30	...	...	Dr. Barnes	F. 2	...	...	...	
	Dr. M. Duncan	...	...	...	...	Mr. Fairbank	MWF, 9.30	...	...	Mr. Winterbottom	Tu. 10	...	...	...	
CLINICAL MIDWIFERY, &c. DENTAL SURGERY	Mr. Coleman	S. 10	...	...	...		Operations Th. S. 2	...	...	Operations Thurs. at 1	...	...	...	...	
	[Hygiene: Dr. Thorne M. 10]	Operations W. & S. 1½ Post-mort. exam. daily at 12 & 2½	...	...	...			...	...	on the Eye, F. 1½	...	...	...	...	
SUMMER SESSION.															
MATERIA MEDICA, &c.	Dr. Brunton	Tu. Th. S. 10, W. 11½	6 16	...	7 17	Dr. Bruce	T. Th. S. 9	3 3	...	Dr. Owen	M. W. F. 3	4 14	...	5 15	
MIDWIFERY, &c.	Dr. M. Duncan	T. W. F. S. 8½	5 5	...	6 6	Dr. Black	M. Tu. W. F. 3	3 3	...	Dr. Barnes	M. W. F. 9	4 14	...	5 15	
BOTANY	Rev G. Henslow	M. W. F. 10	4 4	...	5 5	Dr. Colquhoun	M. W. F. 10	3 3	...		T. Th. S. F. 9	3 13	...	4 14	
MEDICAL JURISPRUDENCE	Dr. Southey	M. Tu. S. 9	4 4	...	5 5	Abercrombie	M. W. F. 9	3 3	...	Dr. Wadham	Tu. Th. S. 9	4 14	...	5 15	
PATHOLOGICAL ANATOMY	Dr. Legg	W. 9½	2 12	...	4 4	Mr. Morgan	...	...	...	Dr. Owen	Daily, 10	4 4	...	...	
PRACTICAL CHEMISTRY	Dr. Russell	M. Tu. F. 11 to 1	3 3	...	3 3	Mr. Heaton	M. Th. 3-5	4 4	...	Mr. Donkin	Daily, 10	4 4	...	...	
COMPARATIVE ANATOMY...	Dr. Moore	M. Th. 11	2 12	...	4 4	Mr. Broadbent	...	...	...	Dr. Brailey	M. F. 4	4 4	...	...	
PATHOLOGY & MORB. ANAT.	Dr. Moore	W. 10	...	...	...	Mr. Forbes	...	...	...	Dr. Whipham	F. 3½	3 3	...	...	
OPHTHALMIC SURGERY	& Surg. Regs.	12, 2½	...	...	...	Dr. T. H. Green	Tu. W. F. 4	3 3	...	Mr. B. Carter	Fr. 3	...	...	...	
OPHTHALMIC SURGERY	Mr. Power	Tu. W. 4	2 12	...	4 4	Staff of Royal West. Oph. H.	...	...	...	Pract. Med.: Dr. Whipham	T. Th. S. 9	4 4	...	...	
	Mr. Vernon	M. 2	...	...	...			...	...	in Summer	Tu. 3	...	...	...	
PSYCHOLOGY	Dr. Clay Shaw	...	2 12	...	4 4	Dr. Winslow	[Psychol. Demons.: Lect. in Winter]	...	...	Dr. Blandford	Tu. 10	...	...	...	
DENTAL SURGERY	Mr. Coleman	...	2 12	...	4 4	Mr. Fairbank	M. W. F. 9	...	...	Mr. Winterbottom	Tu. 10	...	...	...	
PRACTICAL SURGERY...	Mr. Butlin	...	...	...	...	Messrs. Bloxam & Morgan	...	2 2	...	Mr. Dent	M. W. F. 3	4 4	...	...	
PRACTICAL PHYSIOLOGY...	Mr. Walsham (and in Winter)	...	...	...	...	(in Winter)	...	...	...						
PRACTICAL PHYSIOLOGY...	Dr. Harris (and in Winter)	...	7 7	...	...	Dr. Wolfenden & Demonstr. (& in Winter)	Tu. S. 11, Th. 10	4 4	...	Mr. Dent (in Winter)	Tu. Th. S. 10	3 3	...	...	
PRACTICAL PHARMACY	Apoth. Depart.	...	...	...	...	Mr. Sandall	Daily	...	...	Mr. Turner	M. W. F. 3	3 3	...	...	
OPERATIVE SURG. (DEMONST.)	Messrs. Clarke, Edwards, & Lockwood	...	5 5	...	...	Mr. Bloxam	...	...	...	in Summer					
DISEASES OF THE EAR	Cumberbatch	F. 2½	...	...	...	Mr. Cantlie	M. 3	...	...	Mr. Dalby	W. 2	...	...	...	
DISEASES OF THE SKIN	Dr. Legg	F. 1½	...	...	...	Dr. Sangster	M. Th. ½, F. 4	...	...	Dr. Cavafy	Th. 1	...	...	...	
ORTHOPÆDIC SURGERY	Mr. Walsham	F. 12½	...	...	...			...	...	Mr. Bennett		...	...	...	
Fee for all Lectures and Hosp. Med. and Surg. Practice	[Larynx: Mr. Butlin, W. 11.30]	...	...	...	131 5			£91	7	Dis. Throat: Dr. Whipham	Th. 2	...	...	125 0	

\* This fee includes also Physiological Chemistry (Dr. Ewart, on Mon., Wed., and Fri., at 10 A.M.), and Histology (Mr. Dent, on Tues., Thurs., and Sat., at 10 A.M.)

TABULAR LIST OF THE CLASSES, LECTURERS, FEES, AND DAYS OF OPERATIONS AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS, FOR THE SESSION 1882-83—(CONTINUED.)

LECTURES, ETC.	GUY'S HOSPITAL.				KING'S COLLEGE AND HOSPITAL.				
	LECTURERS.	Days and Hours.	FEES.		LECTURERS.	Days and Hours.	FEES.		
			One Course.	—			One Course.	—	Perpetual.
<b>WINTER SESSION.</b>									
PHYSIOLOGY ... ..	Dr. Pye-Smith	M. W. F. 4½	7 7		Dr. Gerald Yeo	Daily, 12½	8 8	...	...
ANATOMY, DESCRIPTIVE & SURGICAL	Mr. Howse	Tu. W. Th. F. 9	7 7		Dr. Curnow	Daily, 9	9 9	...	...
ANATOMICAL DEMONSTRATIONS...	Mr. Davies-Colley Dr. Carlington Dr. Horrocks	Daily, 9 to 4	7 7		Dr. Curnow (Prac. Anat. only)	Daily	6 6	...	...
CHEMISTRY ... ..	Dr. Debus Dr. Stevenson	Tu. Th. S. 11	7 7		Mr. Bloxam Mr. Thompson Mr. Johnson Dr. Beale	M. W. Th. 10½ M. F. 4, W. 5	8 8	...	...
MEDICINE ... ..	Dr. Wilks	M. W. F. 3	7 7		Mr. H. Smith	Tu. W. Th. 4	8 8	...	...
SURGERY ... ..	Dr. Pavy Mr. Bryant	Tu. Th. 3½	7 7		Mr. H. Smith Dr. G. Johnson Dr. Beale Dr. Duffin	M. Th. 3 Tu. F. 3 W. S. 2	9 9	...	...
PRACTICAL SURGERY...	Mr. A. E. Durham Mr. Lucas	S. 2½	4 4		Dr. Playfair (acc.) Dr. Burney Yeo Dr. Hayes (accou.)	Tu. Th. S. 13 M. Th. 1½ M. W. F. 12½	9 9	...	...
HOSPITAL PRACTICE:	Sir W. Gull and Dr. Owen Rees (cons.)	...	3mths		Dr. Ferrier Dr. Curnow Dr. Baxter	Tu. F. 1 W. S. 1½	...	...	...
PHYSICIANS...	Dr. Hicks (obst.) Drs. Wilks, Pavy, Moxon	M. Th. S. 1½	8mths		Mr. Wood Mr. Lister Mr. H. Smith Mr. Bell	Tu. Th. S. 1½ M. W. F. 1½ M. W. F. 1½ Tu. F. 10	6 6	...	...
ASSISTANT-PHYSICIANS ... ..	Dr. Goodhart, Taylor, Mah med, & Galabin (obst.)	M. Th. S. 12	1 year		Mr. S. H. Cartwright (surg.-dentist)	Tu. Th. S. 1	...	...	...
	W. F. at 12	...	24 3		Mr. Roe Mr. Cheyne	W. S. 1 M. Th. 1	...	...	...
	Messrs. Cock, Bir- kett (cons.), Bryant, Durham, Howse, & Davies-Colley	M. Th. S. 1½	3mths		Dr. Duffin Dr. G. Johnson Dr. Beale	Alt. F. 3 Alt. M. 3 Alt. T. 3	...	...	...
SURGEONS ... ..	Mr. Bader (consult.) Mr. Higgins (oph.)	Tu. F. 10	8mths		Mr. Wood Mr. Lister	Tu. Th. 3 M. F. 1½	...	...	...
	Mr. Moon (dent.)	Tu. F. 10	15 15		Dr. Playfair	Alt. Th. 3	...	...	...
	Mr. Lucas	W. S. 1½	1 year		Dr. Playfair	Alt. Th. 3	...	...	...
ASSISTANT-SURGEONS ... ..	Mr. Golding-Bird Mr. Jacobson Mr. Symonds	Tu. F. 10	24 3		Dr. Playfair	Alt. Th. 3	...	...	...
	Drs. Wilks, Pavy, Moxon, and Fague	S. 1½	31 10		Dr. Playfair	Alt. Th. 3	...	...	...
	In Summer: Drs. Pye-Smith, Taylor, Goodhart, & Mahomed	W. 1½	...		Dr. Playfair	Alt. Th. 3	...	...	...
CLINICAL MEDICINE ... ..	Mr. Bryant Mr. Durham Mr. Howse	W. 1½	...		Dr. Playfair	Alt. Th. 3	...	...	...
	Mr. Davies-Colley	W. 1½	...		Dr. Playfair	Alt. Th. 3	...	...	...
CLINICAL SURGERY ... ..	Mr. Lucas	F. 1½	...		Dr. Playfair	Alt. Th. 3	...	...	...
	Mr. Golding-Bird Mr. Jacobson Mr. Symonds	F. 1½	...		Dr. Playfair	Alt. Th. 3	...	...	...
CLINICAL MIDWIFERY ... ..	Dr. Hicks Dr. Galabin	W. 1½	...		Dr. Playfair	Alt. Th. 3	...	...	...
	[Surgical Classes: Mr. Jacobson]	W. 1½	...		Dr. Playfair	Alt. Th. 3	...	...	...
<b>SUMMER SESSION.</b>									
MATERIA MEDICA & THERAPEUTICS	Dr. Moxon	Tu. Th. F. 3	5 5		Dr. Baxter	Tu. W. Th. F. 9½	5 5	...	...
MIDWIFERY, &c. ... ..	Dr. Hicks	Tu. W. Th. F. 9 A.M.	7 7		Dr. Playfair	Tu. W. Th. F. 9	5 5	...	...
BOTANY ... ..	Mr. Bettany	Tu. Th. S. 11½	5 5		Mr. Bentley	M. Tu. Th. F. 12½	4 4	...	...
MEDICAL JURISPRUDENCE ... ..	Dr. Stevenson	Tu. Th. S. 10	5 5		Dr. Ferrier	M. Tu. W. F. 4	5 5	...	...
DISEASES OF WOMEN ... ..	Dr. Galabin	M. 3	...		Dr. Playfair	M. W. Th. 10½	6 6	...	...
PRACTICAL CHEMISTRY ... ..	Dr. Debus	M. W. F. 10 to 1	7 7		Mr. C. L. Bloxam Mr. Thompson Dr. Gerald Yeo	Tu. F. S. 11½	6 6	...	...
PRACTICAL PHYSIOLOGY...	Mr. Golding-Bird (in Winter)	M. W. S.	7 7		Mr. J. Bell (in Winter)	M. F. 4	4 4	...	...
NATURAL PHILOSOPHY ... ..	Mr. Reinold	M. 11	4 4		Dr. Duffin	W. Th. F. 3	3 3	...	...
COMPARATIVE ANATOMY...	Dr. Brailley (with Zoology)	Tu. Th. 2½	6 6		...	...	6 6	...	...
PATHOLOGY AND MORBID ANATOMY	Dr. Goodhart	Daily, 2½ (in Sum., S. 9)	7 7		Mr. McHardy Dr. Sheppard	M. Th. 1	5 5	...	...
OPERATIVE SURGERY...	Dr. Mah med	...	3 3		Mr. S. H. Cartwright Dr. Pritchard	Tu. F. 10	6 6	...	...
MORBID HISTOLOGY ... ..	Mr. Lucas	W. S. 1	4 4		Mr. Dunn Dr. Kelly (in Wint.)	M. 10½ F. 8	...	...	...
OPHTHALMIC SURGERY ... ..	Mr. Symonds	Th. 3	...		...	...	...	...	...
PSYCHOLOGICAL MEDICINE ... ..	Mr. Higgins	Tu. 11, F. 10½	8 3		...	...	...	...	...
DENTAL SURGERY ... ..	Dr. Savage	Th. 12	...		...	...	...	...	...
AURAL SURGERY ... ..	Mr. Moon	Tu. 12	...		...	...	...	...	...
DEMONST. OF CUTANEOUS DISEASES	Mr. L. Purves	Tu. 12	...		...	...	...	...	...
VACCINATION ... ..	Dr. Pye-Smith	Tu. 12	...		...	...	...	...	...
HYGIENE ... ..	Mr. Turner	M. Th. 1½	8 3		...	...	...	...	...
PRACTICAL PHARMACY ... ..	...	...	3 3		...	...	...	...	...
Fees for Lectures, and Hospital Medical and Surgical Practice ... ..									



**TABULAR LIST OF THE CLASSES, LECTURERS, FEES, AND DAYS OF OPERATIONS, AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS, FOR THE SESSION 1882-83—(CONTINUED.)**

LONDON HOSPITAL.										ST. MARY'S HOSPITAL.										MIDDLESEX HOSPITAL.										
LECTURES, ETC.										LECTURES, ETC.										LECTURES, ETC.										
LECTURERS.										LECTURERS.										LECTURERS.										
Days and Hours.										Days and Hours.										Days and Hours.										
Fees.										Fees.										Fees.										
One Session.										One Session.										One Session.										
—										—										—										
Two Sessions.										Two Sessions.										Two Sessions.										
£ s. £ s. £ s.										£ s. £ s. £ s.										£ s. £ s. £ s.										
WINTER SESSION.																														
PHYSIOLOGY ... ..	Mr. McCarthy	M. Th. S. 9 A.M.	4	4	...	6	6	...	...	Mr. Pye	M. W. F. 12	4	4	...	...	...	...	...	Mr. Lowne	M. W. F. 9	6	6	...	...	...	8	8	...	...	
EXPERIMENTAL PHYSIOL.	...	...	...	...	...	...	...	...	...	...	Tu. W. F. 10	4	4	...	...	...	...	...	Mr. Lowne (in Summer)	M. W. F. 9	6	6	...	...	...	5	5	...	...	
PATHOL. & MORBID ANAT.	...	...	...	...	...	...	...	...	...	Dr. Shepherd	Tu. F. 12 noon	4	4	...	...	...	...	...	Dr. Coupland	M. Th. 4½	4	4	...	...	...	...	...	...	...	
ANATOMY, DESCRIPTIVE & SURGICAL.	Mr. Rivington	M. 3, Tu. W. F. 9, 10	5	5	...	8	8	...	...	Mr. Edm. Owen	M. Tu. Th. F. 9	7	17	...	...	...	...	...	Mr. Hensman	M. Tu. Th. F. 4 or 4½	8	8	...	...	...	12	12	...	...	
ANATOMICAL DEMONSTRATIONS.	[Pract. Anat.] Mr. F. Treves	Daily, 10 to 5 (ex. S. aft.)	5	5	...	8	8	...	...	Dr. Phillips	Daily	...	...	...	...	...	...	...	Mr. Hensman	Daily 9 till 4	6	6	...	...	...	8	8	...	...	
CHEMISTRY ... ..	Dr. Tidy	M. W. F. 10.30	7	7	...	10	10	...	...	Dr. Wright	M. Th. 10 W. Sat. 9	6	16	...	...	...	...	...	Mr. W. Foster	M. W. Th. F. 3 or 3½	8	8	...	...	...	8	8	...	...	
MEDICINE ... ..	Dr. Stephen Mackenzie	M. W. F. 4	5	5	...	6	6	...	...	Dr. Broadbent	M. W. T. 4	...	...	...	...	...	...	...	Dr. Cayley	Tu. Th. S. 9	6	6	...	...	...	8	8	...	...	
SURGERY ... ..	Mr. Adams	Tu. Th. 4 S. 10 A.M.	5	5	...	6	6	...	...	Dr. Cheadle	M. W. Th. 4	5	5	...	...	...	...	...	Mr. H. Morris	M. W. Th. 3½	6	6	...	...	...	8	8	...	...	
PRACTICAL SURGERY...	Mr. Reeves	Tu. S.	...	...	...	...	...	...	...	Mr. Page	M. Th. 9	...	...	...	...	...	...	...	Mr. A. Clark	M. W. Th. 3 or 3½	6	6	...	...	...	...	...	...	...	
HOSPITAL PRACTICE:	Drs. A. Clark, Down, H. Jackson, Sutton, Fenwick, Palfrey (obstet.), S. Mackenzie, A. E. Sanson	Daily, 2	6	12	Un-	...	...	...	...	Dr. H. Jones	M. Th. 1½	6	12	Per-	...	...	...	...	Dr. W. Cayley	Daily, 1½	3	12	Perp.	...	...	...	...	...	...	
PHYSICIANS ... ..	...	Daily, 2	10	15	16	26	5	...	...	Dr. Sieveking	Tu. F. 1½	9	15	15	26	5	...	...	...	Dr. Coupland	Daily, 1½	5	5	...	...	...	8	8	...	...
ASSISTANT-PHYSICIANS...	Dr. F. C. Turner, Dr. G. Smith, Dr. F. Warner, Dr. Ralfe	Daily, 2	6	12	Un-	...	...	...	...	Dr. Broadbent	Tu. F. 1½	9	15	15	26	5	...	...	...	Dr. J. H. Davis (obst.)	Tu. F. 1½	3	12	Perp.	...	...	...	...	...	...
SURGEONS ... ..	Mr. Hutchinson, Mr. Couper, Mr. Rivington, Mr. J. E. Adams, Mr. W. Tav, Mr. McCarthy, Mr. Barrett, dent	Daily, 1½	10	15	16	21	...	...	...	Mr. H. Walton	M. Th. 1½	6	...	Per-	...	...	...	...	Dr. D. Finlay	M. Th. 9	...	...	...	...	...	...	...	...	...	
ASSISTANT-SURGEONS ...	Mr. Reeves, Mr. F. Treves, Mr. C. Mansell, Moullin	Daily, 1½	...	...	...	...	...	...	...	Mr. Norton	W. S. 1½	...	...	...	...	...	...	...	Dr. Fowler	Tu. F. 9	...	...	...	...	...	...	...	...	...	
CLINICAL MEDICINE ...	The Physicians and Asst.-Phys.	twice wk. 2	...	...	...	...	...	...	...	Mr. Owen	Tu. F. 1½	11	11	...	...	...	...	...	Mr. Biss	W. 9, 3.45	...	...	...	...	...	...	...	...	...	
CLINICAL SURGERY ...	The Surgeons and Asst.-Surg.	twice wk. 2	...	...	...	...	...	...	...	Out patients:	Tu. F. 1	...	...	...	...	...	...	...	Mr. Hulke	M. Th. 1½	3	12	Per-	...	...	...	...	...	...	
SUMMER SESSION.										Mr. Page	W. Th. 1	...	...	...	...	...	...	...	Mr. G. Lawson	M. Th. 1½	5	5	...	...	...	8	8	...	...	
MATERIA MEDICA...	Dr. James	Tu. Th. F. 3	3	3	...	4	4	...	...	Mr. Palfrey	Tu. W. F. S. 12	5	5	...	...	...	...	...	Mr. Morris	Tu. F. 1½	...	...	...	...	...	...	...	...	...	
MIDWIFERY, &c. ... ..	Dr. Palfrey	M. W. F. 6	4	4	...	6	6	...	...	Mr. Palfrey	Tu. W. F. S. 12	5	5	...	...	...	...	...	Mr. Turner & Mr. S. Bennett (dental)	Tu. F. 1½	...	...	...	...	...	...	...	...	...	
BOTANY ... ..	Dr. Warner	M. W. F. 12	3	3	...	4	4	...	...	Mr. Palfrey	Tu. W. F. S. 12	5	5	...	...	...	...	...	Mr. Lang (oph.)	W. S. 8.30	...	...	...	...	...	...	...	...	...	
MEDICAL JURISPRUDENCE	...	Daily, (ex. S.) 10	3	3	...	4	4	...	...	Mr. Palfrey	Tu. W. F. S. 12	5	5	...	...	...	...	...	Mr. Hensman (aural)	M. Th. 1	...	...	...	...	...	...	...	...	...	
PRACTICAL CHEMISTRY ...	Dr. Tidy	M. Th. S. 9	5	5	...	...	...	...	...	Dr. Randall	M. W. F. S. 11	4	4	...	...	...	...	...	Mr. Andr. Clark	M. Th. 1	...	...	...	...	...	...	...	...	...	
COMPARATIVE ANATOMY...	Mr. C. Mansell, Moullin	Tu. Th. 9	3	3	...	4	4	...	...	Mr. Wright	W. F. S. 9	4	4	...	...	...	...	...	Mr. R. Lyell	Tu. F. 1	...	...	...	...	...	...	...	...	...	
PATHOLOGY AND MORBID ANATOMY.	Dr. Sutton	Th. 12½	3	3	...	6	6	...	...	Mr. St. Geo. Mivart	W. Th. 10	2	12	...	...	...	...	...	Dr. Thorowgood	M. W. F. 4	4	4	...	...	...	5	5	...	...	
OPERATIVE SURGERY ...	Mr. Adams	...	3	3	...	...	...	...	...	Dr. Shepherd (in Winter)	M. Th. 3	4	4	...	...	...	...	...	Dr. J. H. Davis	Tu. Th. S. 9	4	4	...	...	...	5	5	...	...	
PRACTICAL PHYSIOLOGY...	Mr. McCarthy	Tu. Th. 11	3	3	...	4	4	...	...	Mr. Pepper	...	...	...	...	...	...	...	...	Dr. Biss	M. Th. F. 10	4	4	...	...	...	5	5	...	...	
HISTOLOGY AND THE MICROSCOPE.	Mr. McCarthy (& in Winter)	...	...	...	...	...	...	...	...	...	Tu. W. F. 10	...	...	...	...	...	...	...	Dr. Finlay	M. W. F. 9	4	4	...	...	...	5	5	...	...	
OPHTHALMIC SURGERY ...	Mr. Adams	...	2	2	...	3	3	...	...	Dr. C. R. A. Wright	W. F. S. 9	4	4	...	...	...	...	...	Mr. W. Foster (Psycho. Med.)	M. W. F. 3	4	4	...	...	...	...	...	...	...	
AURAL SURGERY ... ..	Mr. A. G. Brown	Th. 4	2	2	...	3	3	...	...	Mr. St. Geo. Mivart	W. Th. 10	2	12	...	...	...	...	...	Mr. H. Case	...	3	3	...	...	...	...	...	...	...	
DENTAL SURGERY ... ..	Mr. Barrett	Tu. F. 4	2	2	...	...	...	...	...	Mr. Shepherd (in Winter)	M. Th. 3	4	4	...	...	...	...	...	Mr. Hensman	Tu. Th. 4	2	2	...	...	...	...	...	...	...	
DISEASES OF THE SKIN ...	Dr. Stephen Mackenzie	Th. 9	...	...	...	...	...	...	...	Mr. Pepper	...	...	...	...	...	...	...	...	Mr. Clark	M. W. Th. 9	4	4	...	...	...	...	...	...	...	
DISEASES OF THE THROAT	Dr. M. Mackenzie	W. 4	2	2	...	3	3	...	...	...	...	...	...	...	...	...	...	...	Mr. Lowne (in Summer)	M. W. Th. 9	4	4	...	...	...	...	...	...	...	
PRACT. PHARM. & DISPENS.	Mr. Robertson	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Dr. Liveing	F. 4	...	...	...	...	...	...	...	...	...	
FREE for all the Lectures required by the Colleges and Hall ...			£52	10						...	...	...	...	...	...	...	...	...	Mr. Fardon	...	5	5	8	8	...	...	...	...	...	...
FREE for ditto, and Hospital Medical and Surgical Practice...			£105, in three instalments, or £94 10 in one sum.							...	...	...	...	...	...	...	...	...	Dr. Finlay	...	...	...	...	...	...	...	...	...	...	...



TABULAR LIST OF THE CLASSES, LECTURERS ETC., AND FEES, AT THE PROVINCIAL SCHOOLS OF MEDICINE, FOR THE SESSION 1882-83.

LECTURES, ETC.	BIRMINGHAM QUEEN'S COLLEGE.			BRISTOL MEDICAL SCHOOL.			CAMBRIDGE UNIVERSITY.			LEEDS SCHOOL OF MEDICINE.		
	Lecturers.	Days and Hours.	Fees. One Course.	Lecturers.	Days and Hours.	Fees. One Course.	Lecturers.	Days and Hours.	Fees. One Course.	Lecturers.	Days and Hours.	Fees.
<b>WINTER SESSION.</b>												
ANATOMY AND PHYSIOLOGY ... ..	Mr. J. Berry Haycraft* (in Summer)	M. T. W. Th. F. 11	2 s. 6 6	Dr. Smith	M. W. F. 10	2 s. 5 5	Prof. Humphry	Tu. Th. S. 1	2 s.	Messrs. Wright and Horsfall	M. W. Th. 12	2 s. 6 6
ANATOMY, DESCRIPTIVE & SURGICAL	Mr. Wm. Thomas	M. Tu. Th. F. 12	6 6	Mr. Cross	F. 11 Tu. Th. S. 9	5 5	Prof. Humphry Mr. Hill	Daily, 11	5 5	Messrs. Nunnely and Robinson	Tu. Th. F. S. 10	6 6
ANATOMICAL DEMONSTRATIONS ... ..	Mr. Bennett May Mr. H. Eales (in Summer)	Daily Th. F. 11	5 5	Mr. Harsant	...	...	Mr. Hill	Daily, 11	...	Mr. M'Gill Mr. Robson Mr. Walker	...	...
PRACTICAL PHYSIOLOGY ... ..	Mr. T. W. Th. F. 11	...	...	...	...	...	Dr. M. Foster (and in Summer)	M. W. F. 12	2 2	Prof. Thorpe	M. Tu. W. Th. 4	5 5
CHEMISTRY ... ..	Dr. W. A. Tilden*	Daily (ex. S.) 10	5 5	Mr. Coomber	M. W. F. 9	5 5	Prof. Livinge (and Prof. Chermie.)	M. Tu. Th. F. 13	3 3	Drs. Albutt & Eddison	M. Tu. W. 1	5 5
MEDICINE ... ..	Dr. B. W. Foster	Tu. W. F. 3	6 6	Drs. Spencer & Skerritt	M. W. F. 9	5 5	Prof. Paget (and Prof. Chermie.)	Tu. Th. S. 6	3 3	Mr. Jessop Mr. Atkinson	M. Th. S. 9	5 5
THERAPEUTICS ... ..	Mr. Pemberton Mr. F. Jordan	Tu. W. F. 4	6 6	Mr. Dobson	Tu. Th. S. 9 A.M.	5 5	Prof. Latham	...	...	...	...	...
HYGIENE ... ..	...	...	...	Mr. Davies	M. F. 10 A.M.	2 2	...	...	...	...	...	...
HOSPITAL PRACTICE:	GENERAL HOS- PITAL AND QUEEN'S HOS- PITAL.	...	31 10	Bristol Rox. INFIRMARY, AND BRISTOL GENERAL HOSPITAL.	Daily, 11 to 3	...	ADDENBROOK'S HOSPITAL, Prof. Paget Prof. Latham Dr. Bradbury Prof. Humphry Mr. Carter Mr. Wallis Mr. Wherry Prof. Latham (and Pharmacy)	Daily	6 maths. 8 8 12 maths. 10 10 perp. 15 15	LEEDS GENERAL INFIRMARY. Dr. Albutt Dr. Eddison Dr. Churton Mr. Wheelhouse Mr. T. P. Teale Mr. Jessop Mr. Atkinson	...	...
PETRICIANS ... ..	(See Additional Information on Schools.)	...	31 10	...	...	...	...	...	...	...	...	...
<b>SUMMER SESSION.</b>												
MATERIA MEDICA, &c. ... ..	Dr. Sawyer	Tu. W. Th. 13	4 4	Dr. Shaw	Tu. Th. S. 9 A.M.	3 3	...	Tu. Th. S.	2 2	Mr. W. N. Price Dr. J. Braithwaite	M. W. Th. 9 M. Tu. Th. F. 4	4 4
MIDWIFERY, &c. ... ..	Mr. Clay and Dr. Bassett	M. Tu. Th. F. 1	5 5	Dr. Swaine Dr. Lawrence	Daily (ex. S.) 9 A.M.	4 4	...	...	...	...	...	...
PRACTICAL SURGERY	...	...	...	Mr. Pritchard Mr. Keal	Tu. Th. S. 9 Tu. Th. S. 3	3 3	[Osteology: Prof. Humphry] The Surgeons	Daily	...	...	...	...
OPERATIVE SURGERY	...	...	...	...	...	...	Prof. Babington	M. W. F. 1	1 1	Prof. Miall	M. W. Th. 9	4 4
BOTANY ... ..	Mr. Pemberton Mr. F. Jordan Mr. W. Hillhouse*	M. W. F. 3	4 4	Mr. Leiper	Tu. Th. S. 3	3 3	...	...	...	Mr. Scattergood	M. Tu. Th. F. 5	4 4
MEDICAL JURISPRUDENCE ... ..	Mr. Wilders Dr. A. B. Hill	M. F. 13 Tu. 3	4 4	Dr. Eager Dr. Harrison	M. Th. S. 10 A.M.	3 3	...	...	...	Dr. H. C. Major Prof. Thorpe	W. 11, F. 3 Tu. Th. 10	4 4
MENTAL DISEASES	...	...	...	...	...	...	Prof. Livinge Dr. Hickson	Daily	...	Prof. Miall	M. Th. 4	2 2
PRACTICAL CHEMISTRY ... ..	Dr. W. A. Tilden*	T. Th. F. 2	4 4	Mr. Coomber	M. W. F. 3	3 3	+	M. Tu. F. 1	...	Mr. Robson	Tu. S. F. 2	3 3
COMPARATIVE ANATOMY ... ..	...	...	...	Prof. Solles	Tu. W. F. 4	4 4	Prof. Newton (in Winter)	M. Tu. F. 1	...	Mr. Walker (Physiology)	M. 10, W. 10	6 6
PATHOLOGY AND MORBID ANATOMY	Dr. E. Rickards (in Winter)	Th. 3	...	Dr. Spencer Dr. Skerritt Mr. Atchley	M. W. F. 3 9 A.M. 8 A.M.	3 3	Mr. Hill	M. Tu. F. 9 S. 12	...	...	...	...
PRACTICAL HISTOLOGY ... ..	...	...	...	...	Weekly	...	The Physicians	F. 11	...	...	...	...
DENTAL SURGERY ... ..	Mr. T. Hawkins The Physicians of the two Hospitals.	...	3 3	...	...	...	The Surgeons	Th. 11	...	...	...	...
CLINICAL MEDICINE ... ..	...	...	3 3	...	Ditto	...	...	...	...	...	...	...
CLINICAL SURGERY ... ..	The Surgeons of the two Hospitals. [Edon. Dr. Carter]	...	...	...	...	...	...	...	...	...	...	...
Fees for all the Lectures required by the College and Hall ... ..	...	...	203 0	...	...	203 0	...	...	...	...	...	250 8
Ditto, and for Hospital Medical and Surgical Practice ... ..	...	...	243 0	...	...	243 0	...	...	...	...	...	243 0

\* Held in Mason Science College.



TABULAR LIST OF THE CLASSES, LECTURERS ETC., AND FEES, AT THE MEDICAL SCHOOLS OF SCOTLAND, FOR THE MEDICAL YEAR 1882-3.

LECTURES, ETC.	ABERDEEN UNIV.		EDINBURGH UNIV.		SCH. OF MED. EDINBURGH.	GLASGOW UNIV.		GLAS. ROY. INFRM. SCHOOL OF MEDICINE.		GLASGOW, ANDERSON'S COLLEGE.		GLASGOW WESTERN MEDICAL SCHOOL.	
	Lecturers.	Fees. One Course.	Lecturers.	Fees. One Course.	Lecturers.	Professors.	Fees. One Course.	Lecturers.	Fees. One Course.	Lecturers.	Fees. One Course.	Lecturers.	Fees. One Course.
<b>WINTER SESSION.</b>													
ANATOMY, DEMONSTRATIONS, &c.	Dr. Struthers, 11, 9 Dr. Hamilton, 3 Mr. Brazier, 3	2 s. 5 s. 3 s.	Mr. Turner, 1, 4 Dr. Crum Brown, 10, 2, 7 (Adv. Class in Sum.)	2 s. 7 s. 7 s.	Mr. Symington, 9 to 4 Mr. King, 10 to 4	Dr. J. Cleland, 11, 2 Mr. J. Ferguson, 10	2 s. 6 s. 6 s.	Mr. Clark, 4 Dr. J. Clark, 4 (and in Summer)	2 s. 4 s. 2 s.	Dr. A. M. Buchanan, 12, 30 Mr. Dittmar, 10, 15	2 s. 4 s. 2 s.	Mr. Mayland, 11, 2 Mr. Milne, 10	2 s. 2 s.
CHEMISTRY (PRACTICAL, &c.) ...	...	...	...	...	...	...	...	...	...	...	...	...	...
PHYSIOLOGY (LECT. OF MEDICINE) ...	Dr. Stirling, 2 (Pract. in Summer)	3 s.	Dr. Rutherford, 11	4 s.	Mr. J. Hunter, 11	Dr. McKendrick, 12	3 s.	Dr. Fleming, 3 (and in Summer)	2 s.	Dr. Barlow, 12, 30 (Practical & Infrmary)	2 s.	Mr. Limont, 1	2 s.
GENERAL PATHOLOGY, &c. ...	Dr. Rodger Dr. Smith-Shand, 3	2 s. 3 s.	Dr. G. Crawford, 3 Dr. Grainger Stewart, 9	4 s. 4 s. 4 s.	Dr. Waller, 9 Dr. Wylie, 9	3 o'clock Dr. Gardner, 11	3 s. 3 s.	Dr. Newman, 10 Dr. Anderson, 1	2 s. 2 s.	...	...	Dr. McVall, 11	2 s.
MEDICINE ...	...	...	...	...	...	...	...	...	...	...	...	...	...
SURGERY ...	...	...	...	...	...	...	...	...	...	...	...	...	...
MATERIA MEDICA, &c. ...	Dr. Davidson, 4 Dr. Stephenson, 4	3 s. 3 s.	Dr. T. R. Fraser, 2 Dr. Simpson, 11 (Dia. Wom. & Child.)	4 s. 4 s. 4 s.	Dr. Craig, 2 Dr. Croom, 5	Dr. Charles, 13 Dr. Leishman, 4	3 s. 3 s.	Dr. Dougall, 3	2 s.	Dr. Morton, 4 Dr. A. Wallace, 3 (in Summer)	2 s. 2 s.	Dr. Carmichael, 3 Dr. Reid, 12	2 s. 2 s.
MEDICAL JURISPRUDENCE, &c. ...	Dr. Ogston, 9	3 s.	Dr. D. MacLagan, 11 (in Summer only)	4 s.	Mr. A. Husband, 2	Dr. Simpson, 11	3 s.	Dr. Gleister, 11 (in Summer)	2 s.	Dr. Dunlop, 3 [Dental Practice daily, 8 a.m.]	2 s. 10 s.	Dr. Knox, 12	2 s.
NATURAL HISTORY ...	Dr. Nicholson, 3 Mr. Niven, 9	3 s. 3 s.	Dr. Ewart, 3 Mr. Tait, 11	4 s. 3 s.	...	...	...	...	...	...	...	...	...
NATURAL PHILOSOPHY ...	...	...	...	...	...	...	...	...	...	...	...	...	...
HOSPITAL PRACTICE:	Dr. J. F. Smith-Shand, Beveridge, and A. Fraser Daily, 12	2 s. 10 s.	...	...	...	...	...	...	...	...	...	...	...
PHYSICIANS ...	...	...	...	...	...	...	...	...	...	...	...	...	...
STENOGRAPHS ...	Dr. Ogston, Will. Garden, Dr. Williamson (dental) Daily, 12	3 s.	...	...	...	...	...	...	...	...	...	...	...
ASSISTANT-STENOGRAPHS ...	Dr. Hall	...	...	...	...	...	...	...	...	...	...	...	...
CLINICAL MEDICINE ...	Dr. J. F. Smith-Shand, Beveridge, and A. Fraser, 1	3 s.	Dr. MacLagan, G. Stewart, Fraser, & Greenfield, & Dr. Simpson (Dia. of Women), Tu. F. 12 to 2	4 s.	...	...	...	...	...	...	...	...	...
CLINICAL SURGERY ...	Dr. Ogston, Will. and Garden, 1	3 s.	Dr. Turner, 11, 3	2 s.	Mr. Symington, 9 to 5	Dr. Buchanan & Macleod, 9 (and in Summer)	3 s.	Dr. Clark, 3 Dr. Macleod, 4 M. W. Th. 13	1 s. 1 s. 1 s.	...	...	...	...
<b>SUMMER SESSION.</b>													
PRAC. ANAT. & DEMONSTRATIONS	Dr. Struthers, 9 to 4	2 s.	Dr. Turner, 11, 3	2 s.	Mr. Symington, 9 to 5	Dr. Buchanan & Macleod, 9 (and in Summer)	3 s.	Dr. Clark, 3 Dr. Macleod, 4 M. W. Th. 13	1 s. 1 s. 1 s.	...	...	...	...
BOTANY ...	Dr. Trail, 8	3 s.	Dr. Dickson, 8	4 s.	Mr. M. Alpine, 9	Dr. Buchanan & Macleod, 9 (and in Summer)	3 s.	Dr. Clark, 3 Dr. Macleod, 4 M. W. Th. 13	1 s. 1 s. 1 s.	...	...	...	...
HISTOLOGY ...	Dr. Struthers and Dr. Stirling, 9	...	...	...	...	...	...	...	...	...	...	...	...
COMPARATIVE ANATOMY ...	Mr. Brazier, 10	3 s.	Dr. Crum Brown, 10, 11, 13	3 s.	Mr. King, 10	Dr. Young† Mr. J. Ferguson, 10	3 s.	Dr. J. Clark, 3 Dr. Macleod, 4 M. W. Th. 13	1 s. 1 s. 1 s.	...	...	...	...
PRACTICAL CHEMISTRY ...	Dr. A. D. Davidson Dr. Stephenson	1 s. 1 s.	...	...	Dr. Duncan, 11 Dr. Robertson, 9 Dr. Carmichael, 2	Dr. Young Dr. Yellowlees Dr. Leishman (in Winter)	2 s. 2 s. 2 s.	Dr. Robertson, 12 Dr. Stirling Dr. Stirling, 3	Free 2 s. 2 s.	...	...	...	...
DISEASES OF THE EAR ...	...	...	...	...	...	...	...	...	...	...	...	...	...
DISEASES OF THE EYE ...	...	...	...	...	...	...	...	...	...	...	...	...	...
DISEASES OF CHILDREN ...	...	...	...	...	...	...	...	...	...	...	...	...	...
NATURAL HISTORY ...	Dr. Nicholson, 11	3 s.	Dr. Ewart, 2	4 s.	Mr. Geddes, 2	Dr. Young Dr. Yellowlees Dr. Leishman (in Winter)	2 s. 2 s. 2 s.	Dr. Robertson, 12 Dr. Stirling Dr. Stirling, 3	Free 2 s. 2 s.	...	...	...	...
MEDICAL PSYCHOLOGY & INSANITY	...	...	...	...	...	...	...	...	...	...	...	...	...
GYNECOLOGY ...	Dr. Stephenson, 11 (in Winter)	2 s.	Dr. Simpson, 10 [Pr. M. Anat. & Path.]	3 s.	Dr. H. Croom, 4	...	...	...	...	...	...	...	...
MIDWIFERY, &c. ...	...	...	Dr. Greenfield, 11	3 s.	...	...	...	...	...	...	...	...	...
OPERATIVE SURGERY ...	...	...	Dr. Cleland, 4	3 s.	...	...	...	...	...	...	...	...	...

\* With Fee, Instruction at an Asylum (Mon. Wed. Fri.), £3 3s.

† In Winter.

‡ Dental Anat. and Surg. daily, 9 a.m.

§ And in Summer.

|| Messrs. J. Bell and Chene, and Drs. Watson and Duncan, 4 p.m., £3 2s. each.



TABULAR LIST OF THE CLASSES, LECTURERS ETC., AND FEES, AT THE MEDICAL SCHOOLS OF IRELAND,  
FOR THE SESSION 1882-83.

LECTURES, ETC.	DUBLIN UNIVERSITY.		DUBLIN R.C. OF SURGEONS.		LEDWICH SCHOOL OF SURG. & MED.		DUBLIN, CAR-MICHAEL COLL.		DUBLIN, CATHOLIC UNIVERSITY.		CORK, QUEEN'S COLLEGE.		BELFAST, QUEEN'S COLLEGE.		GALWAY, QUEEN'S COLLEGE.	
	Lecturers.	Days & Hours.	Lecturers.	Days & Hours.	Lecturers.	Days & Hours.	Lecturers.	Days & Hours.	Lecturers.	Days & Hours.	Lecturers.	Days & Hours.	Lecturers.	Days & Hours.	Lecturers.	Days & Hours.
ANATOMY AND PHYSIOLOGY	Dr. Macalister (surgery)	Dr. Macalister M. W. F. 8.3	Mr. T. P. Mason	Dr. R. J. Harvey	Mr. T. P. Mason	Dr. R. J. Harvey	Dr. R. J. Harvey	Dr. R. J. Harvey	Dr. R. J. Harvey	Dr. R. J. Harvey	Dr. R. J. Harvey	Dr. R. J. Harvey	Dr. R. J. Harvey	Dr. R. J. Harvey	Dr. R. J. Harvey	Dr. R. J. Harvey
ANATOMY, DESCRIPTIVE & SURGICAL	...	...	Mr. M. A. Ward	...	Mr. M. A. Ward	...	...	...	...	...	...	...	...	...	...	...
PRACTICAL ANATOMY AND DISSECTIONS	Dr. Little	Dr. Little	Mr. R. P. Mason	Dr. R. P. Mason	Mr. R. P. Mason	Dr. R. P. Mason	Dr. R. P. Mason	Dr. R. P. Mason	Dr. R. P. Mason	Dr. R. P. Mason	Dr. R. P. Mason	Dr. R. P. Mason	Dr. R. P. Mason	Dr. R. P. Mason	Dr. R. P. Mason	Dr. R. P. Mason
CHEMISTRY	Dr. Reynolds	Dr. Reynolds	Mr. E. Lapper	Dr. E. Lapper	Mr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper
PRACTICAL CHEMISTRY	Dr. Reynolds	Dr. Reynolds	Mr. E. Lapper	Dr. E. Lapper	Mr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper	Dr. E. Lapper
MATERIA MEDICA AND PHARMACY	Dr. W. G. Smith	Dr. W. G. Smith	Mr. R. D. Pursey	Dr. R. D. Pursey	Mr. R. D. Pursey	Dr. R. D. Pursey	Dr. R. D. Pursey	Dr. R. D. Pursey	Dr. R. D. Pursey	Dr. R. D. Pursey	Dr. R. D. Pursey	Dr. R. D. Pursey	Dr. R. D. Pursey	Dr. R. D. Pursey	Dr. R. D. Pursey	Dr. R. D. Pursey
BOTANY AND ZOOLOGY	Dr. Wright	Dr. Wright	Mr. Robinson	Dr. Robinson	Mr. Robinson	Dr. Robinson	Dr. Robinson	Dr. Robinson	Dr. Robinson	Dr. Robinson	Dr. Robinson	Dr. Robinson	Dr. Robinson	Dr. Robinson	Dr. Robinson	Dr. Robinson
INSTITUTES OF MEDICINE	Dr. Parer	Dr. Parer	Mr. T. Mason	Dr. T. Mason	Mr. T. Mason	Dr. T. Mason	Dr. T. Mason	Dr. T. Mason	Dr. T. Mason	Dr. T. Mason	Dr. T. Mason	Dr. T. Mason	Dr. T. Mason	Dr. T. Mason	Dr. T. Mason	Dr. T. Mason
NATURAL PHILOSOPHY	Prof. Fitzgerald	Prof. Fitzgerald	Mr. Ledwich	Dr. Ledwich	Mr. Ledwich	Dr. Ledwich	Dr. Ledwich	Dr. Ledwich	Dr. Ledwich	Dr. Ledwich	Dr. Ledwich	Dr. Ledwich	Dr. Ledwich	Dr. Ledwich	Dr. Ledwich	Dr. Ledwich
HOSPITAL PRACTICE	Dr. P. Dwyer	Dr. P. Dwyer	Mr. Lapper	Dr. Lapper	Mr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper
CLINICAL LECTURES	Dr. P. Dwyer	Dr. P. Dwyer	Mr. Lapper	Dr. Lapper	Mr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper	Dr. Lapper
SURGERY	Dr. E. H. Bennett	Dr. E. H. Bennett	Mr. J. E. Kelly	Dr. J. E. Kelly	Mr. J. E. Kelly	Dr. J. E. Kelly	Dr. J. E. Kelly	Dr. J. E. Kelly	Dr. J. E. Kelly	Dr. J. E. Kelly	Dr. J. E. Kelly	Dr. J. E. Kelly	Dr. J. E. Kelly	Dr. J. E. Kelly	Dr. J. E. Kelly	Dr. J. E. Kelly
MIDWIFERY, &c.	Dr. Kirkpatrick	Dr. Kirkpatrick	Mr. Stokes	Dr. Stokes	Mr. Stokes	Dr. Stokes	Dr. Stokes	Dr. Stokes	Dr. Stokes	Dr. Stokes	Dr. Stokes	Dr. Stokes	Dr. Stokes	Dr. Stokes	Dr. Stokes	Dr. Stokes
MEDICINE	Dr. Flannery	Dr. Flannery	Mr. R. E. Macdon	Dr. R. E. Macdon	Mr. R. E. Macdon	Dr. R. E. Macdon	Dr. R. E. Macdon	Dr. R. E. Macdon	Dr. R. E. Macdon	Dr. R. E. Macdon	Dr. R. E. Macdon	Dr. R. E. Macdon	Dr. R. E. Macdon	Dr. R. E. Macdon	Dr. R. E. Macdon	Dr. R. E. Macdon
MEDICAL JURISPRUDENCE	Dr. Travers	Dr. Travers	Dr. Foot	Dr. Foot	Dr. Foot	Dr. Foot	Dr. Foot	Dr. Foot	Dr. Foot	Dr. Foot	Dr. Foot	Dr. Foot	Dr. Foot	Dr. Foot	Dr. Foot	Dr. Foot
COMPARATIVE ANATOMY	Dr. Macalister	Dr. Macalister	Mr. R. Travers	Dr. R. Travers	Mr. R. Travers	Dr. R. Travers	Dr. R. Travers	Dr. R. Travers	Dr. R. Travers	Dr. R. Travers	Dr. R. Travers	Dr. R. Travers	Dr. R. Travers	Dr. R. Travers	Dr. R. Travers	Dr. R. Travers
PRACTICAL PHARMACY	Dr. Macalister	Dr. Macalister	...	...	...	...	...	...	...	...	...	...	...	...	...	...
LOGIC	The College Tutors	The College Tutors	...	...	...	...	...	...	...	...	...	...	...	...	...	...

## METROPOLITAN HOSPITALS AND MEDICAL SCHOOLS.

**ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.**—The clinical practice of the hospital comprises a service of 710 beds, of which 676 are in the hospital at Smithfield, and 34 are for convalescent patients at Lauderdale House, Highgate.

Four house-physicians, ten house-surgeons, and a midwifery assistant are appointed annually, each of them holding office for one year, and provided with rooms by the hospital authorities. The ophthalmic house-surgeon is appointed for six months, and is eligible for re-election for a second term of six months. The senior assistant chloroformist and junior assistant chloroformist are appointed annually, and are provided with rooms. No fee is paid for any of these appointments, and each receives a salary of £25. The clinical clerks, the obstetric clerks, the clerks to the medical out-patients, the dressers to the surgical out-patients, and the dressers in the special departments are chosen from the diligent students. Forty ward-dresserships are given annually to the students who pass the best examination in the subjects of study of the first year. Other ward-dresserships may be obtained by payment of the usual fees.

A college is attached to the hospital, in which students can reside, subject to the college regulations.

**Foundation and other Prizes.**—Open Scholarships in Science of the value of £120 each, tenable for one year, will be competed for September 25th. Candidates must not be more than twenty-five years of age for one, and twenty-one for the other, and must not have entered to the medical or surgical practice of any metropolitan medical school. The subjects of examination are Physics, Chemistry, Botany, Physiology (not more than four subjects to be taken), and Zoology.—Preliminary Scientific Exhibition (founded 1873). The subjects of examination are identical with those of the Open Scholarship in Science. This Exhibition, of the value of £50, is tenable for one year. The examination is confined to students of the Hospital of less than six months' standing, and will be held October 28th. The Jeaffreson Exhibition, of the value of £50, and tenable for two years, is awarded after examination, beginning September 25th, in the subjects of General Education. It is now an Open Exhibition. A Senior Scholarship, £50, in Anatomy, Physiology, and Chemistry. Lawrence Scholarship, and Gold Medal, of the value of forty guineas (founded in 1873 by the family of the late Sir Wm. Lawrence). Two Brackenbury Scholarships in Medicine and Surgery, £30 each. Junior Scholarships in the subjects of study of the first year: 1st, £50; 2nd, £30; 3rd, £20.

**CHARING-CROSS HOSPITAL AND COLLEGE.**—The fee for matriculation, which involves no examination, is £2 2s., to be paid on entering. Matriculated students pay proportionately lower fees, and are admitted without additional fee to the courses of Clinical Medicine and Surgery, the lectures on Psychological Medicine, and to the practice of the Royal Westminster Ophthalmic Hospital. They alone are entitled to compete for the scholarships, gold medal, and Pereira prize.

Two Entrance Scholarships, of the value of £30 and £20 respectively, tenable for one year, are awarded annually in October, after a competitive examination in the following subjects:—*Compulsory*, English, Latin, French or German, Mathematics; *Optional* (only one of which may be selected), Chemistry, Mechanics, German or French, the subjects being those of the matriculation examination of the University of London. Candidates must give notice of their intention to compete on or before Saturday, Sept. 21st, 1882. Two scholarships are open for competition among the matriculated students: the Llewellyn Scholarship of £25, for students who have just completed their second year; and the Golding Scholarship of £15, for students who have just completed their first year. The Pereira Prize of £5 is open to all matriculated students, and is awarded annually for the best clinical reports.

The various resident appointments are open to all matriculated students without additional fee.

**ST. GEORGE'S HOSPITAL.**—Perpetual pupils, by payment of £130 in three instalments, or £125 in one sum, are entitled to admission to the medical and surgical practice;

to compete for prizes and exhibitions; to hold the appointments of house-physician and house-surgeon, assistant house-physician, assistant house-surgeon, ophthalmic assistant, and to become clinical clerks for two periods of three months each, and dressers for similar periods. The house-physician and house-surgeon receive their board and lodging free, and no payment is made for the appointment. Gentlemen are admitted to the hospital practice and lectures required by the College of Physicians and Surgeons and the Society of Apothecaries on payment of £45 at the commencement of the first year of study, £45 at the commencement of the second year of study, £20 for the third, and £20 for the fourth year. These payments entitle the pupil to hold the offices of clinical clerk and dresser for three months each, and to become a candidate for the offices of medical and surgical registrar and demonstrator of anatomy and curator of the museum. There are all salaried offices. The obstetric assistant is resident, with a salary of £100.

**Prizes.**—The William Brown Exhibition of £100 per annum, tenable for two years, open to any perpetual pupil of St. George's who is under twenty-five years of age, and who shall have obtained a diploma or licence entitling him to be registered as a practitioner of medicine or surgery in England, within two years previous to the period fixed for the examination (July). The examination is to test the proficiency of the candidate in Medicine, Midwifery, and Surgery, including Ophthalmic Surgery. The William Brown Exhibition of £40 per annum, tenable for three years, for general fitness for the exercise of the medical profession, and for moral conduct, open to perpetual pupils in their fourth year of study. Sir Charles Clarke's Prize (interest of £200 Consols) for good conduct. The Brackenbury Prize in Medicine, value nearly £40; the Brackenbury Prize in Surgery, value nearly £40; open to all pupils of the hospital.

**GUY'S HOSPITAL.**—House-physicians and house-surgeons, obstetric residents, dressers, clinical and other clerks, are selected from the students, according to merit, and without payment. The house-physicians, of whom there are three constantly on duty, one as junior and two as seniors, hold office for six months each, the first two months in the former capacity, the other four in the latter. The duty of the junior house-physician is to attend in the medical out-patient room three times a week, in a room adjoining that occupied by the assistant-physician for the day, and prescribe for those patients who are not seen by the assistant-physician. The senior house-physicians are chiefly occupied in the medical wards, and attend to all emergencies that may arise in the absence of the physicians. They have separate rooms in the clinical building, and are boarded at the charge of the hospital. The house-surgeons, of whom there are also three on duty, hold office for six months each. During the first two months the house-surgeon assists in the out-patient department. During the next two months he has the general superintendence of the surgical casualty department, and assists the senior when required; and subsequently, as senior house-surgeon, he has, in the absence of the surgeons and assistant-surgeons, the care of the patients in the surgical wards, and lives during these four months in the hospital, being boarded free of expense. The dressers are selected from those gentlemen who have completed their third winter session, and who have been most diligent in the junior appointments. They hold office for six months each. Three are attached to each surgeon. During their week of special duty they reside in the hospital, and board with the house-surgeons free of expense. Two obstetric residents reside, and are boarded in the hospital.

**Scholarships, Prizes, &c.**—Open Scholarship of the value of £131 5s. in Arts, Latin, Greek, Mathematics, and modern languages. Open Scholarship of £131 5s. in Science. Subjects: Inorganic Chemistry, Zoology, Botany, Physics (these will be competed for on Monday, September 25th). At the end of the summer session: first prize, £50; second prize, £25. Subjects: Anatomy, Physiology, Chemistry, Materia Medica, and Botany or Comparative Anatomy.—For Students in their second year: First prize, £25; second prize, £10. Subjects: Anatomy, Physiology. The Sands Cox Scholarship of £15 per annum for three years. Subject: Physiology. The Michael Harris Prize of £10 for Anatomy.—For Students in their third year: First prize, £25; second prize, £10. Subjects: Medical and Surgical Anatomy, Midwifery and Therapeutics. Fourth year's Students: First prize, £25; second prize, £10. Subjects: Medicine, Surgery, Midwifery, and Medical Jurisprudence.—

For Senior Students: The Treasurer's Gold Medal in Medicine; the Treasurer's Gold Medal in Surgery; the Gurney Hoare Prize of £25, for Clinical Medicine and Surgery. The Beane Scholarship, of thirty guineas, for Pathology. The Physical Society awards the following prizes: Two of £5 each to the members who send in the best essays on selected subjects; prizes of £10 and £5 for the best papers read before the Society; and one of £5 to the member who has most distinguished himself in the debates of the sessions.

The Library is supplied with weekly, monthly, and quarterly journals of medicine, natural history, and philosophy. It is open to the students from 9.30 A.M. to 5.30 P.M.

**KING'S COLLEGE.**—The physicians' assistants, the physician-accoucheur's assistant, the clinical clerks, and the house-surgeon and dressers are selected by examination from among those matriculated students of the college who are pupils of the hospital. The College and Hospital fees amount to £125 if paid in one sum on entrance, to £130 if paid in two instalments—viz., £70 on entrance and £60 at the beginning of the second winter session; or to £135 if paid in three instalments—viz., £60 on entrance, £50 at the beginning of the second winter session, and £25 at the beginning of the third. Students are recommended to add to the above the fee for attendance on the Medical Tutors' class for one year—namely, £3 3s. for the first year's subjects, or in the case of those preparing for the Preliminary Scientific Examination of the University of London, £5 5s. All resident students are required to attend the tutor during their first year. Rooms are provided within the walls of the college for the residence of a limited number of matriculated students. Registration fee at hospital 10s. 6d. Rooms and commons are provided at the hospital for the resident officers free of charge.

**Scholarships.**—Warneford Scholarships: Two of £25 per annum for three years. Science: One of £50 and one of £25 each for two years. Sambrooke: One of £60 and one of £40 for Science and Literature. College Scholarships: One of £40 per annum, for two years; one of £30, for one year; three of £20 for one year. The Daniell Scholarship of the annual value of £20. Sambrooke Registrarships, of the annual value of £50 each, and tenable for two years, are open to all matriculated students who have filled any one of the higher appointments of the hospital, or who have become Associates. The Leathes Prizes, value £7, and the Warneford Prizes, value £40, are given annually amongst the matriculated medical students. Two Medical Clinical Prizes, one of £3 for the winter session, and one of £2 for the summer session, and two Surgical Clinical Prizes, of £3 each, are given. The Todd Medical Clinical Prize consists of a bronze medal and books to the value of £4 4s. The Tanner Prize for Obstetric Medicine, value £10, and the Carter Gold Medal and Prize for Botany, value £15, are given annually in July. All students, occasional as well as matriculated, are admitted to contend for the class prizes.

**LONDON HOSPITAL AND COLLEGE.**—The Medical School of the London Hospital is under the direction of a College board, composed of six members of the hospital staff, and six of the house committee. The executive authority is committed to a Warden. The hospital, which is the largest in Great Britain, contains nearly 800 beds. Last year the number of in-patients was 6840; out-patients 58,307.

The following Scholarships and Prizes will be offered for competition during the ensuing winter and summer sessions:—Two Entrance Scholarships in Natural Science, of the value of £60 and £40 respectively, will be offered for competition on September 25th, 26th, and 27th, 1882. The subjects are Physics, Botany, Zoology, and Inorganic Chemistry. The successful candidates must forthwith become full pupils of the hospital and school, if not already entered; and are not eligible to compete for the Buxton Scholarships:—The Two Buxton Scholarships, value £30 and £20, will be offered for competition on September 28th, 29th, and 30th, 1882. The subjects are those appointed by the General Council of Medical Education and Registration as the subjects of the Preliminary Examination. A Scholarship, value £25, in Anatomy, Physiology, and Chemistry, will be competed for at the end of the winter session, by first and second year students. The Letheby Prize, value £30, for proficiency in Chemistry. (At the end of the sum-

mer session.) Open to all full students who have completed their second summer session up to the termination of their fourth year from entrance. A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Medicine. (At the end of the winter session.) A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Surgery. (At the end of the winter session.) A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Obstetrics. (At the end of June.) The Duckworth Nelson Prize, value £10, will be offered biennially for competition at the end of the winter session, and be open to all students on similar conditions to those of the Hospital Scholarships. The subjects of examination will be Practical Medicine and Surgery. Out-Patients Dressers' Prizes. Six prizes of the aggregate value of £60 will be offered for competition at the end of the winter session. Candidates must pass an examination in Minor Surgery, must have dressed diligently for twelve months, and have passed the Primary Examination of the Royal College of Surgeons. Special certificates are given to those gentlemen who have faithfully performed their duties in the hospital, and to those who have distinguished themselves at the examinations for scholarships and prizes.

**Appointments.**—The resident appointments consist of five house-physicians, five house-surgeons, and one accoucheurship. Two dressers and two maternity pupils also reside in the hospital. (N.B.—The holders of all the resident offices are provided with rooms and board free of expense.) There are also three clinical assistants in the out-patient departments, at a salary of £80 each. Medical registrar, salary £100. Surgical registrar, salary £100. There are also numerous appointments for clinical clerks, dressers, maternity pupils, post-mortem clerks, &c., without additional fees. Special classes for the Preliminary Scientific and other examinations are held throughout the year.

For instruction in Mental Diseases, students can attend, without further fee, the practice of Dr. John Millar, medical superintendent of Bethnal House Asylum, a few minutes' walk from the hospital.

Students who have passed the Preliminary Scientific Examination at the University of London, and have obtained signatures for Lectures on Botany, Zoology, Chemistry, and Practical Chemistry, shall have the fees for the same, amounting to £18 18s., remitted on entering as full students at the London Hospital; and students who have attended the above courses elsewhere, and have obtained signatures for the same previous to their entrance at the London Hospital, shall also have these fees remitted, provided they pass the Preliminary Scientific Examination within eighteen months of their entry as full students.

General fee to lectures and hospital practice, 90 guineas, in one sum, or 100 guineas payable in three instalments of 45, 40, and 15 guineas at the commencement of the first, second, and third years respectively. Special entries can be made to lectures or practice.

For the convenience of gentlemen attending the Hospital and College, a Student's Club has been erected in the hospital grounds, where refreshments can be obtained at moderate charges.

**ST. MARY'S HOSPITAL.**—There are four resident medical officers, three of whom are appointed for twelve months, and one, the obstetric officer, for six months, who board free of expense in the hospital. These appointments are awarded after competition, without additional fee. There is also a resident dresser. A resident registrar is appointed from amongst the students, with a salary of £100 a year and dispensary fees, who resides free of expense in the hospital. In addition to the above, two demonstrators of anatomy are appointed annually with a salary; and the medical tutor in like manner, with a salary of £100 a year. All these officers are eligible for re-election.

All general students are required to perform the duties of clinical clerk and dresser during the last two years of their curriculum. Students of the third year and of subsequent years are also appointed to assist the physicians and surgeons in charge of the out-patients. There is a Hospital Medical Society, which meets regularly during the winter session.

A Maternity Department is attached to the hospital. There are special departments for Diseases of the Eye, the Ear, the Skin, and the Throat, in which clinical demonstrations are constantly given by the physicians and surgeons.

**Scholarships, Prizes, &c.**—Three Scholarships in Natural Science, each tenable for three years, and of the value of £60 the first year, £40 the second, and £20 the third year,

and an Exhibition in Natural Science of the value of £20, tenable for one year. One of the Scholarships and the exhibition are awarded, immediately before the commencement of each winter session, by open competitive examination. An extra Scholarship in Natural Science, tenable for three years, of the value of £60 the first year, £25 the second, and £15 the third, will also be awarded by open competition in October, 1882. A Scholarship in Anatomy of the annual value of £20, for students who have completed their second winter session; and a Scholarship in Pathology of £20, for students who have completed their third winter session. Examinations will be held and prizes awarded in the various classes of each year, at the termination of both the summer and winter sessions. Two prosectors are annually appointed, who each receive £5 and a certificate for their services.

Fee to the hospital practice and lectures, 107 guineas in instalments, or 101 guineas in one sum; perpetual, 125 guineas in instalments, or 119 guineas in one sum. Fee to the hospital practice and lectures required for the examination in Dental Surgery by the College of Surgeons, 62½ guineas. Special entries can be made to courses of lectures or periods of hospital practice; no fee for registration.

Practitioners in the neighbourhood receive pupils to reside with them; information on this point may be obtained from the Dean.

**MIDDLESEX HOSPITAL.**—There is a special Cancer Department, affording accommodation for thirty-three in-patients, whose period of residence in the hospital is unlimited. Classes, open to all the students, are held for practical instruction in the microscopical examination of healthy and diseased tissues, and also in the application of bandages and other surgical apparatus. Students are allowed to take out to read at their own homes the books from the large and carefully selected medical library of the school. Two Entrance Scholarships, of the annual value of £25 and £20, and tenable for two years, also a Science Scholarship, value £50, are offered for competition at the commencement of the winter session. An Exhibition in Elementary Anatomy, Osteology, and Physiology, value £10 10s., is awarded to students at the end of their first year. Two Broderip Scholarships, of the annual value of £30 and £20, tenable for two years, are awarded to those students who pass the best examination at the bedside and the post-mortem room. The Murray Medal and Scholarship, founded in connexion with the University of Aberdeen, is awarded every third year to a student of this hospital; it will be next awarded in May, 1883. The Governors' Prize of twenty guineas is also awarded annually to the student who shall most distinguish himself during his three years' curriculum. Valuable class prizes are also given, and ten resident clinical appointments are annually awarded, after competitive examination, to students who have completed their education, and complied with the regulations of the school. The officers thus appointed reside and board in the hospital free of expense. The college tutor assists all general students, especially those who are preparing for examination, free of charge; and his instruction is arranged with a view to avoid the necessity of students obtaining any private tuition apart from that of the Medical School. The fee for attendance on the hospital practice and lectures required by the Colleges of Physicians and Surgeons and by the Society of Apothecaries is 90 guineas, if paid in one sum on entrance. The fees may be paid by instalments—£40, first year; 40, second year; £20, third year; £5, fourth year.

The clinical clerk and dresser of the physician and surgeon of the week dine at the board-room table, free of charge. A limited number of general students are also allowed to dine at the board-room table. The paid offices of medical registrar, surgical registrar, resident medical officer, and demonstrator of anatomy are open to qualified men as they become vacant. All clinical clerkships and dresserships are awarded without fee.

**ST. THOMAS'S HOSPITAL.**—*Prizes and Appointments for the year 1882-3.*—For First-year's students: Two Entrance Scholarships in Natural Science of the value of £100 and £60 respectively, open to all first-year's students, will be awarded during the first week in October, after an examination in Physics, Chemistry, and either Botany or Zoology at the option of the candidate; the William Tite Scholarship, the proceeds of £1000 Consols (£30 per annum), is awarded each year; also prizes of £20 and £10; summer, £15 and £10. For Second-year's Students: The College Scholarship of

40 guineas, and the Musgrove Scholarship of 40 guineas, are awarded biennially to the student who shall take the highest place in the first-class list in the examinations at the end of the second winter session; they are tenable for two years, provided the holder obtains a place in the first class in the subsequent examinations: making the winter prizes, £42, £20, and £10; summer, £15 and £10; with the dresserships and the clinical clerkships. For Third-year's students (winter): Second Tenure of Scholarship £42, and prizes of £20, £15, and £10, and the Prosecutor's Prize of £5; summer, £15 and £10. Clinical clerks and dressers are selected according to merit. The Grainger Testimonial Prize of £20, awarded biennially to third or fourth-year's students, for the best Physiological Essay, to be illustrated by preparations and dissections; the Cheselden Medal, for Surgery and Surgical Anatomy; and the Mead Medal, for Practical Medicine, are awarded annually to fourth-year's students. The Solly Medal, with a prize from 10 to 20 guineas, will be awarded biennially to a student of the third, fourth, fifth, or sixth year, for the best report of Surgical Cases. The Treasurer's Gold Medal, for general proficiency and good conduct, is awarded annually to a fourth-year's student. The house-physicians, house-surgeons, assistant house-physicians and surgeons, and resident accoucheur are chosen from gentlemen who have obtained their professional diplomas according to merit, and, with the dressers, are provided with rooms and commons. Two hospital registrars, at £100 per annum each, will be selected from gentlemen distinguished for merit.

The medical and surgical casualty out-patients are seen by the resident assistant-physician, the resident assistant-surgeon, the house-physicians, house-surgeons, and dressers, at from 12 to 1 o'clock daily. The Dissecting-room is open to the students from 9 A.M. to 5 P.M.

The fee to hospital practice and lectures may be paid in several ways:—1st. £125, paid on entrance. 2nd. £135, in two payments—£75 on entrance, and £60 at the beginning of next year. 3rd. Payment by three instalments—viz., of £65 at the beginning of the first year, £50 at the beginning of the second year, and £30 at the beginning of the third year entitles a student after the payment of the third instalment to an unlimited attendance. The fee for attendance on the general subjects required of students in Dental Surgery, is for the two years £55, or by instalments £50 for the first year and £10 for the second year. Regularly qualified medical practitioners are admitted to the hospital practice and to the lectures and library on payment of a fee of £12 10s. for unlimited attendance.

Special classes are held throughout the year for the Matriculation, Preliminary Scientific, and 1st M.B. examinations of the University of London.

**UNIVERSITY COLLEGE, LONDON.**—The fees for lectures and hospital practice required by the College of Physicians and Surgeons and the Society of Apothecaries during the student's entire course amount to 125 guineas if paid in one sum, or 130 guineas if paid by instalments—viz., first year 60 guineas, second year 50 guineas, third year 20 guineas.

*Exhibitions, Prizes, &c.*—Three Entrance Exhibitions, of the respective values of £100, £60, and £40 per annum, tenable for one year, are annually awarded, upon examination by printed papers, to gentlemen who are about to commence their first winter attendance in a medical school. The subjects of the examinations are—Chemistry, Physics, Botany, and Zoology. The next examination will take place at the College on September 27th and 28th. The Atkinson Morley Surgical Scholarship of £45, tenable for three years, is annually awarded to the student who, upon examination, is found to possess the greatest proficiency in the Theory and Practice of Surgery. The Sharpey Physiological Scholarship of about £105 per annum, tenable for three years, for proficiency in Biological Science. Filliter Exhibition: a prize of £30 is awarded annually, in July, to the most proficient student in the class of Pathological Anatomy. An Atchison Scholarship, value about £55 per annum, tenable for two years. The Morris Bursary of £25 a year, tenable for two years. Besides the above, gold and silver medals and other prizes are awarded in each class. The appointments of demonstrators of anatomy, of resident medical officer to the hospital, and of surgical registrar—all of which have emoluments attached to them—are almost invariably conferred upon students of the College. Physicians' assistants, house-surgeons, midwifery assistants, physicians' clerks, surgeons' dressers, ward clerks, and

ophthalmic surgeons' assistants are selected from the pupils, without additional fees.

**WESTMINSTER HOSPITAL.**—The Hospital contains upwards of 200 beds. There are separate departments for Diseases of the Eye, Ear, Skin, Teeth, and Throat, and for Diseases of Women. The Anatomical Museum is constantly open to the students. There are also a Pathological Museum and a Materia Medica Museum.

In addition to the practice of the Hospital, pupils who enter for the whole period of medical education may attend, without further fee, the practice of the Royal Westminster Ophthalmic Hospital, and of the Royal Hospital for Paralysis. Instruction in the Physical Examination of the Chest is given by Dr. Dunkin, and in the use of the Laryngoscope by Dr. Dr. Haviland Hall. Mr. R. Davy gives demonstrations in Orthopaedic subjects.

A Curator of the Museum and Pathologist with a salary of fifty guineas, and a Medical and a Surgical Registrar are appointed annually, each with a salary of £40. Two House-Physicians, a House-Surgeon, and a Resident Obstetric Assistant are appointed for six months after examination, and are provided with rooms and commons. They each pay a deposit of £20 on appointment; but receive £25 at the expiration of the term if their duties have been performed satisfactorily. An Assistant House-Surgeon is appointed from among the senior students; he is provided with commons at the hospital table. Clinical Assistants to the Physicians and Surgeons, and to the officers in charge of special departments, are appointed from students of the fourth year. Every student must perform the duties of Clinical Clerk and Dresser.

**Scholarships and Prizes.**—The Fence and Houldsworth Entrance Scholarship, each £40 a year or two years; and one Entrance Scholarship value £40. Exhibition in Anatomy, Physiology, and Chemistry, value £10 10s., tenable for one year for first year's men. A Prize of £2 2s., by Mr. A. P. Gould, to the first year's student who is most regular and diligent in the Dissecting Room. Scholarship in Anatomy and Physiology, value £21, given by His Grace the Duke of Westminster, President of the Hospital, to student of second year (to be styled Assistant Demonstrator). At the end of the third summer, Prizes of £5 each (books or instruments), in Clinical Medicine and Clinical Surgery. Frederick Bird, Medal and Prize, value £15, to students who have completed their fourth winter; subjects of examination? Medicine, Midwifery, Diseases of Women and Children, and Pathology. Chadwick Prize for General Proficiency, £21 (books or instruments), to the most meritorious student or students of any year not exceeding the fifth. In most of the classes, Special Prizes are given by the Lecturers; and Certificates of Honour are awarded in each Class. Two Tutors assist and guide the students in their work, and hold Senior and Junior Classes. Special Classes for the Preliminary Scientific M.B. examination commence in January.

**GREAT NORTHERN HOSPITAL, Caledonian-road.**—Consulting-Surgeon: Frederick Le Gros Clerk. Physicians: Drs. Cholmeley, Cook, Robert Bridges, Burnet, and Beale. Obstetric Physicians: Drs. Gustavus C. P. Murray and Fancourt Barnes. Ophthalmic Surgeon: Mr. R. W. Lyell, F.R.C.S. Surgeons: Messrs. Gav, W. Adams, W. Spencer Watson, J. Macready, and C. B. Lockwood. Aural Surgeon: Mr. A. E. Cumberbatch. Chloroformist: Mr. George Eastes. Dental Surgeon: Mr. E. Keen. House-Surgeon: Mr. J. N. Cook. Junior Resident Medical Officer: Mr. W. Brewster.

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.**—Consulting Physicians: D. C. J. B. Williams, F.R.S., Dr. W. H. Walshe, Dr. R. Quain, F.R.S., Dr. J. E. Pollock. Consulting Surgeon: Professor John Marshall, F.R.S. Physicians: Drs. E. S. Thompson, C. T. Williams, R. D. Powell, J. Tatham, R. E. Thompson, and F. Roberts. Assistant-Physicians: Drs. T. H. Green, J. M. Bruce, J. Fowler, P. Kidd, C. Y. Bies, and I. Owen. Pathologist: vacant. Dental Surgeon: Mr. C. J. Noble. Resident Medical Officer: Dr. F. J. Hicks. Secretary: Mr. H. Dobbin. Three clinical assistants reside in the hospital for a period of six months. Pupils are admitted to the practice of the hospital: terms, £3 3s. for three months; perpetual, £5 5s. The medical practice of the hospital is recognised by the University of London, the Apothecaries' Company, and the Army and Navy and Indian Medical

Board. The hospital contains 192 beds. 137 additional in the new extension building.

**ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.**—Established 1814. 26 beds. Consulting Physicians: Drs. Herbert Davies and Horace Dobell. Physicians: Drs. G. Goddard Rogers, P. J. Hensley, Gilbert Smith, and D. W. Finlay. Assistant-Physicians: Dr. W. Murrell, H. S. Gabbett, and W. H. White. Consulting Surgeon: Mr. Jonathan Hutchinson. Surgeon: Mr. W. J. Walsham. House-Physician: Dr. Duncan Burgess. In-patients, 269; out-patient cases, 6875. This hospital has been enlarged by the addition of a very complete new out-patients' department, and wards for 14 additional in-patients. The office of house-physician, which is tenable for six months, and for which a sum of at the rate of £30 per annum is voted in lieu of board is filled up in April and October.

**NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, 23, 24, and 25, Queen-square and Powis-place, Bloomsbury.**—120 beds; 10 cots for children. The physicians attend every Monday, Tuesday, Wednesday, and Friday, at 2.30 P.M. In- and out-patients' practice and electrical room treatment at that hour. Physicians: Drs. Ramskill, Radcliffe, Hughlings Jackson, and Buzzard. Physicians for out-patients: Drs. H. Charlton Bystian W. R. Gowers and Ferrier. Assistant-Physicians: Dr. Ormrod and Horrocks. Surgeon: W. Adams, F.R.C.S. Resident Medical Officer and Registrar: C. F. Cogwell, M.B. Cantab. Medical practitioners and students will be admitted on showing their cards.

**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.**—The hospital, founded in 1804, and considerably enlarged in 1876, now contains 100 beds for patients, which were occupied during last year by over 1500 persons. The out-patients are yearly over 20,000. Operations are performed daily from half-past ten to one o'clock, and three surgeons attend on each day: Mr. Streetfield, Mr. Ware, Mr. Adams, on Monday and Thursday; Mr. Lawson, Mr. Cooper, and Mr. Tweedy, on Tuesday and Friday; Mr. Wordsworth, Mr. Hulke, and Mr. Lyell, on Wednesday and Saturday. Students are admitted to the practice. Fees for six months, £3 3s.; perpetual, £5 5s.; with admission to demonstrations and lectures, to be given during the winter. Students of the hospital are eligible for the office of house-surgeon, or may be appointed clinical assistants. The Secretary, Mr. Robert Newstead, will furnish further information, as may be desired.

**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, Charing-cross.**—The hospital contains 50 beds; and the patients, who number 10,000 annually, are seen and operations performed daily at two o'clock. The following are the days of attendance of the surgeons: Mr. Power, Monday and Friday; Mr. Rouse, Tuesday and Saturday; Mr. Macnamara, Monday and Thursday; Mr. Cowell, Wednesday and Saturday. The practice of the hospital is open to students. Fees for six months, £3 3s.; perpetual, £5 5s. Students of the hospital are eligible for the post of house-surgeon. Special Demonstrations and Lectures will be given during the session. Secretary, Mr. George C. Farrant.

**ROYAL ORTHOPÆDIC HOSPITAL, 297, Oxford-street.**—Surgeons: Messrs. B. E. Brodhurst, H. A. Reeves, Charles Read, and William E. Balkwill. House-Surgeon: Mr. H. F. Baker. Secretary: Mr. Maskell. Operations on Mondays at 2 P.M. The hospital is open to all legally qualified practitioners. Pupils are admitted to witness the practice of the hospital on the following terms: Six months, £3 3s.; twelve months, £5 5s.; perpetual, £10 10s.

**LONDON SCHOOL OF DENTAL SURGERY, Leicester-square.**—Lectures are delivered in winter on Mechanical Dentistry, by Dr. J. Walker, on Wednesdays at 7 P.M.; on Dental Metallurgy, by Professor Huntington on Tuesdays at 12 o'clock. In summer, by Mr. Coleman, on Tuesdays and Fridays, at 8 A.M., on Dental Surgery and Pathology, and by Mr. Tomes, on Dental Anatomy and Physiology (Human and Comparative), on Wednesdays and Saturdays, at 8 A.M. Fees: General fee for special lectures required by the curriculum, £15 15s.; fee for two years' hospital practice required by the curriculum, £15 15s.; total fees for lectures and practice, £31 10s. Hospital Surgeons: Messrs. Hepburn, Medwin, Gregson, Hutchinson, Moon, and Hill. Assistant-Surgeons: Messrs. Canton, Underwood, Truman, Woodhouse, Storer Bennett, and Parkinson. Chloroformists: Messrs. Clover, Braine, Bailey, and Bird. House-Surgeon:



Mr. Hern. Assistant House-Surgeon: Mr. Cornelius. Medical Tutor: Mr. Morton Smale.

SEAMEN'S HOSPITAL (late *Dreadnaught*), Greenwich, S.E.—This institution is established for the relief of seamen of all nations. Casualties are received at all hours. Apartments are provided in the house of the Surgeon for students and others who may be desirous of studying diseases incidental to tropical climates before entering the services or going abroad. Unusually good opportunities also exist for the practice of operative surgery. There are resident House Physicians and Surgeons. Honorary Consulting Physician: Dr. Robert Barnes, F.R.C.P. Visiting Physicians: Drs. John Curnow, F.R.C.P., and R. E. Carrington. Honorary Consulting Surgeon: Mr. George Busk, F.R.C.S. Eng., F.R.S., &c. Visiting Surgeon: Mr. G. Robertson Turner, F.R.C.S. Medical Officer, Well-street Dispensary: Mr. E. Muirhead Little, M.R.C.S. Principal Medical Officer: Mr. W. Johnson Smith, F.R.C.S. Secretary: Mr. W. Thomas Evans.

THE HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Queen-square, W.C., and Cromwell House, Highgate.—Physicians: Drs. Dickinson, Gee, and W. B. Cheadle. Assistant-Physicians: Drs. R. J. Lee, O. Sturges, Thomas Barlow, D. B. Lees, and Montagu Lubbock. Surgeons: Mr. T. Smith, Mr. Howard Marsh, Mr. Edmund Owen, and Mr. J. H. Morgan. Ophthalmic Surgeon: Mr. Nettlehip. Surgeon-Dentist: Mr. A. Cartwright. Secretary: S. Whitford. There are now 105 beds in the hospital, Great Ormond-street, and 52 beds at the country branch; total 156. In-patients last year, 1050; out-patients, 13,180. The practice at the hospital has recently been thrown open gratuitously to the pupils of the different hospitals and medical schools of London on conditions which may be ascertained of the Secretary.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.—Established 1752, for the reception of married and single women, the latter with their first child only. The hospital receives annually upwards of 600 women as In-patients, of whom three-fourths are primiparæ, and upwards of 700 Out-patients are attended. Pupils see the practice of both departments. Of 1450 cases delivered since 1879 there were over 250 obstetric complications at birth or shortly after delivery. Physicians to the In-patients: Dr. Hope and Dr. Grigg. Physician to the Out-patients: Dr. Boulton. The physicians attend daily, and give clinical instruction. Medical pupils are received to be trained in Midwifery. Fees: from five guineas. Monthly nurses and midwives are also received for training. Fees: Ten guineas and twenty-five guineas respectively.

BRITISH LYING-IN HOSPITAL, Endell-street, St. Giles's, W.C.—Consulting Physician: Dr. Priestley. Consulting Surgeon: Mr. T. Spencer Wells. Physicians: Dr. Heywood Smith, Dr. S. Fancourt Barnes, and Dr. John Phillips. Matron: Miss Freeman. Secretary: Mr. Fitz-Roy Gardner. This institution receives women only as midwifery pupils. The pupils reside in the hospital, and attend the patients in-doors and within half-a-mile radius, under the direction of the matron and physician. A course of lectures is also given by the physicians. The fee for the course of three months is ten guineas. Pupils that prove themselves competent receive a certificate signed by the physicians, enabling them to practise midwifery.

THE ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road.—Instituted 1816. Consulting Physicians: Dr. Wilks, Dr. John Williams. Consulting Surgeons: Mr. J. Cooper Forster, Mr. Edwin Canton. Physicians: Drs. W. Park, G. Roper, and Edwin Burrell. Surgeon: Mr. H. C. Jacobson. Assistant-Surgeon: E. Overman Day. Surgeon-Dentist: Mr. W. Whitehouse. Resident Medical Officer: J. F. Briscoe. Secretary: Mr. R. G. Keatin. Advanced students in medicine, and such practitioners as may desire it, are permitted to attend the practice of this hospital gratis. If a certificate signifying such attendance be required, the sum of £5 5s. must be paid to the physicians and surgeons in ordinary conjointly.

VICTORIA HOSPITAL FOR CHILDREN, Chelsea, S.W., and Churchfields, Margate.—The Hospital contains 65 beds and 17 at the home at Margate; and has a large out-patient department (over 500 weekly). Physicians: Dr. Julian Evans and Dr. Ridge Jones. Physician to the out-patients: Drs. Grigg, Albert Venn, T. Colcott Fox, and F. D. Drewitt. Surgeon: Mr. Cowell. Surgeons to the out-patients: Messrs. Churchill and Walter Pyc. Dental Surgeon: Mr. Francis Rex. House-Surgeon: William Arbutnot Lane. Regis-

trar: George Weldon. Secretary: Captain W. C. Blount, R.N. Out patients are seen daily as under:—Medical cases: Daily, except Saturday and Sunday, at 9 A.M.; also on Mondays and Thursdays at 1.30. Surgical cases: Daily, except Monday and Thursday, at 10 A.M. Dental cases: Wednesdays and Saturdays at 9 A.M.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Consulting Physicians: Robert Barnes, M.D.; Andrew Clark, M.D.; Consulting Surgeon: Buxton Shillitoe, Esq. Consulting Ophthalmic Surgeon: George Cowell, Esq. Physicians: Eustace Smith, M.D. Lond.; Horatio B. Donkin, M.B. Oxon. Surgeons: Arthur Caesar, M.R.C.S.; H. A. Reeves, F.R.C.S.E. Assistant Physicians: Francis Warner, M.D. Lond.; H. Radcliffe Crocker, M.D. Lond. Assistant Surgeon: R. W. Parker, M.R.C.S. Administrator of Anæsthetics: Thomas Bird, M.A., M.R.C.S. Medical Officer: J. Scott Battams, M.R.C.S. The hospital contains 92 beds, besides 10 beds in an infirmary for nurses and children who require isolation. The hospital is open free.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Consulting Physician: Dr. W. S. Playfair. Consulting Surgeon: Mr. Prescott Hewett. Physicians: Drs. Fred. Willcocks, F. Taylor, N. I. C. Tirard, James Goodhart. Surgeons: Messrs. W. Morrant Baker, H. G. Howse, R. Clement Lucas, and C. J. Symonds. Ophthalmic Surgeon: Dr. W. A. Brailey. Dental Surgeon: Mr. Isidore Lyons. House-Surgeon: Dr. W. H. C. Newham. Hon. Secretary: Dr. I. Dobree Chepmell.

SCHOOL OF PHARMACY OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—Lectures on Chemistry and Pharmacy by Professor Redwood, Ph.D., F.I.C., F.C.S. Botany and Materia Medica by Professor Bentley, M.R.C.S. Eng., F.L.S. Practical Chemistry: Professor John Attfield, Ph.D., F.R.S., F.I.C., F.C.S., Director of the Laboratories; Wyndham R. Dunstan, F.C.S., Demonstrator; Frederick William Short, Assistant-Demonstrator. The session commences on Monday, Oct. 2nd, at 10 A.M. Application for admission to the School, for prospectuses, or for further information, may be made to the professors or their assistants in the lecture theatre or laboratories, 17, Bloomsbury-square, London, W.C.

SOUTH LONDON SCHOOL OF PHARMACY, 325, Kennington-road, S.E.—Managing Director, Dr. Muter. Daily lectures on Chemistry, Botany, Physics, Materia Medica, Pharmacy, Classics. A special hygienic laboratory for the practical training of Medical officers of health and public analysts. Apply to the Secretary, Mr. W. Baxter. Medical students will find this one of the best training schools for examination purposes in or out of London.

THE PARKES MUSEUM.—This museum has recently been incorporated and will shortly be established in Margaret-street, where excellent accommodation has been found for it. The removal of the museum from its somewhat inaccessible quarters at University College has been rendered necessary by the greatly increased size of the museum, and the ever-increasing demands for space by the Professors of University College. In its new home the museum will be accessible to all students, and we believe it is the intention of the Council to offer facilities to any teacher of Hygiene in a medical school who may wish to bring his class to the museum for instruction. The lectures and demonstrations which were given in the museum with so much success in 1879-1880, but which had to be discontinued in consequence of the overcrowded state of the museum at University College, will be renewed as soon as the reinstating of the museum is accomplished.

## ENGLISH PROVINCIAL HOSPITALS AND MEDICAL SCHOOLS.

BATH ROYAL UNITED HOSPITAL.—120 beds. Honorary Consulting Physicians: Drs. Davies and Coates. Physicians: Drs. Goodridge, Cole, and Fox. Surgeons: Messrs. Stockwell, Fowler, and Freeman. Assistant-Surgeons: Messrs. Green, Scott, and Ransford. Honorary Medical Officers for Out-patients: Dr. Field, and Messrs. Cowan and Craddock. Dental Surgeon: Mr. Gaine. Pathological Registrar and Curator: Mr. H. Cultiford Hopkins. The hospital is recognised by the General Medical Council, and licensed for dissection. It has a good library and an excellent museum, containing a large number of interesting specimens, both in Pathology and Comparative Anatomy.

A year spent at the hospital counts as one out of the four required before qualifying for practice. Fees for attending the hospital practice, six months, £5 5s.; twelve months, £10 10s. Instruction in Practical Pharmacy, £5 5s.

Pupils entering in October can, if desired, be instructed in the subjects required for the First Professional Examination of the Royal College of Physicians, which can be passed during the year spent at the hospital. The subjects are Chemistry and Chemical Physics, Materia Medica and Pharmacy, Medical Botany, and Osteology.

For further particulars apply to the Registrar and Curator.

**QUEEN'S COLLEGE, BIRMINGHAM.**—The Sands Cox Prize, of the value of £20, is offered annually in the Medical Department. It is open to students who have completed their curriculum, and is awarded after examination in Medicine, Surgery, and Midwifery. The examination for this prize in 1883 will be held in the last week in March. Two Ingleby Scholarships will be offered annually after examination in Obstetric Medicine and Surgery, and Diseases of Women and Children. These Scholarships are open to students who have completed the first two years of their curriculum in this College. One or more Sydenham Scholarships will be offered annually, of the value of thirty guineas each. The orphan sons of former students of the Birmingham Medical School shall have priority of election. No Sydenham scholars shall be elected whose age exceeds twenty-three years on the day of election. The Scholarships shall be held for three years, subject to good behaviour. One or more Queen's Scholarships will be offered annually of the value of thirty guineas. They are held for three years, one third being paid each year, subject to good behaviour. Medals and certificates of honour are awarded annually, in each class after examination. Students of Queen's College are qualified to compete for all Scholarships, gold medals, and other prizes offered by the University of London, the Royal College of Surgeons, and the Apothecaries' Society.

**THE GENERAL AND THE QUEEN'S HOSPITALS, BIRMINGHAM.**—*The General Hospital*.—Consulting Physician: Dr. Fletcher. Consulting Surgeons: Mr. Crompton and Mr. Baker. Physicians: Drs. Russell, Wade, Foster, and Rickards. Surgeons: Messrs. Pemberton, Bartleet, Jolly, and Chavasse. Obstetric Officer: Dr. Malins. Assistant-Physicians: Drs. Saundby and Simon. Assistant-Surgeons: Messrs. Archer and Haslam. *The Queen's Hospital*.—Consulting Obstetric Surgeon: Mr. Berry. Consulting Surgeon: Mr. S. Gamgee. Physicians: Drs. Sawyer, Carter, and Hunt. Surgeons: Messrs. West, Furneaux Jordan, Wilders, and Bennett May. Obstetric Surgeon: Mr. John Clay. Ophthalmic Surgeon: Mr. Priestley Smith. Dental Surgeon: Mr. Charles Sims. Physician for Out-patients: Dr. Suckling. Casualty Surgeons: Messrs. Lloyd and Hawkins.

The practices of these hospitals are amalgamated for the purposes of clinical instruction under the direction of the Birmingham Clinical Board. All students will be allotted to each hospital by the Clinical Board, so that they may divide their time equally between the two hospitals.

**BRISTOL SCHOOL OF MEDICINE** (affiliated to University College, Bristol).—Students of Anatomy or Physiology who do not pay the composition fee of sixty guineas are required to pay a medical tutor's fees of two guineas per annum.

**BRISTOL ROYAL INFIRMARY.**—250 beds. Physicians: Drs. Spencer, Shingleton Smith, Waldo, and Shaw. Surgeons: Messrs. Board, Dowson, Pritchard, Cross, and Greig Smith. Surgeon for the out-patients: Mr. Harsant. Medical Superintendent: Mr. Macintire. House-Physician: Dr. Watson. House-Surgeon: Dr. London. Secretary: W. Trenerry. In-patients last year 2863; out-patients last year 30,478. Clinical clerkship, six months, five guineas; one year, eight guineas. Dressership, five guineas for each six months. Obstetric clerkship, three guineas for each three months. Special clinical instruction is given in Diseases of the Eye, Ear, and Throat, also in Diseases of Women. Several prizes, of considerable value, are open to competition among the students.

*Fees.*—Medical or Surgical Practice, six months, seven guineas; one year, twelve guineas; perpetual, twenty guineas. Medical and Surgical Practice together in one payment, one year, twenty guineas; perpetual, thirty-five guineas. The above fees include Clinical Lectures.

Pupils are entitled to attend the practice not only of their own physician or surgeon, but also that of all the physicians

or surgeons. Surgical pupils, on acquiring the requisite experience, are permitted to dress all the out-patients, and also to reside in the house in weekly rotation, where they are in charge of all the casualties under the supervision of the house-surgeon. A Pathological Clerk, who performs all the post-mortem examinations, is appointed for three months from among the senior students. Practical Pharmacy at the laboratory and dispensary. The library contains about 3000 volumes, the museum over 3000 specimens.

**BRISTOL GENERAL HOSPITAL.**—154 Beds. Physicians: Drs. Burder, Skerritt, and Harrison. Physician Accoucheur: Dr. Lawrence. Surgeons: Messrs. Lansdown, Dobson, Kvall, and Pickering. Dentist: Mr. Parson. House-Surgeon: Mr. Penny. Physician's-Assistant: Mr. Woolby. Assistant House-Surgeon: Mr. Ansted. Clinical clerkship, six months, five guineas. Dressership, six months, five guineas. Obstetric clerkship, three months, three guineas. Special clinical instruction is given in Diseases of the Skin, Eye, Ear, and Throat, also in Diseases of Women, and in Dental Surgery. Several valuable scholarships are open to competition.

*Fees.*—Medical or Surgical Practice, six months, £6; twelve months, £10; perpetual, £20. The above fees include Clinical Lectures.

Pupils are entitled to attend the whole medical and surgical practice of the hospital. Dressers re-side in the hospital in rotation, and free of expense, and attend all the casualties under the direction of the House Surgeon. Instruction in Pharmacy is given in the hospital dispensary. There is a good library, and also a museum, to both of which the students have access.

**ADDENBROOKE'S HOSPITAL, CAMBRIDGE.**—Clinical Lectures in Medicine and Surgery in connexion with the Cambridge Medical School are delivered at this hospital twice a week during the academical year; and practical instruction in Medicine and Surgery, in the wards and out-patient rooms, is given by the physicians and surgeons daily, during the vacations as well as term time. Instruction is also given in all the special modes of medical and surgical investigation. Clinical clerks and dressers are selected from students according to merit and without payment.

**UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-upon-Tyne.**—*Scholarships, &c.*—A University of Durham Scholarship of the value of £25 a year for four years annually for proficiency in Arts awarded to full students in their first year only. The Dickinson Scholarship, value £15 annually, for Medicine, Surgery, Midwifery, and Pathology. The Tulloch Scholarship, value £20 annually, for Anatomy, Physiology, and Chemistry. The Charlton Scholarship, value £35 annually (together with a gold medal), for Medicine. The Gibb Scholarship, value £25 annually, for Pathology. At the end of each session a Silver Medal and Certificate of Honour are awarded in each of the regular classes. An Assistant Curator of the Museum is annually appointed from among the senior students, and receives £12 as an honorarium. Four Assistant Demonstrators of Anatomy (each receiving an honorarium of £5), Assistant Physiologists, Pathological Assistants, and Assistants to the Dental Surgeon are also elected. Four times in the year, two Resident Medical Assistants, two Resident Surgical Assistants, three Non-resident Clinical Clerks, and sixteen Non-resident Dressers (eight for the In-patients and eight for the Out-patient Department), are appointed for three months. The Medical and Surgical Assistants are provided with apartments and board in the Infirmary, on payment of five guineas for three months.

*Fees for Lectures.*—Composition fee for all the lectures, qualifying for the Licence in Medicine and the Mastership in Surgery of the University of Durham, the Licence and Membership of the Royal College of Physicians, the Membership of the College of Surgeons, and the Licence of the Apothecaries' Society, and payable on entering to the first winter session, or by instalments, 60 guineas. Separate courses of lectures, each £5 5s.

*Hospital Practice.*—This can be attended at the Newcastle Infirmary, which contains 230 beds. Midwifery, Gynaecology, Ophthalmology, Dermatology, Diseases of the Throat and Ear, and Insanity can be specially studied. The Laboratories, Libraries, and Museums are open daily.

*Fees for Hospital Practice.*—Twelve months, £12 12s.; six months, £8 8s.; three months, £5 5s.; perpetual fee, £26 5s.; or, if paid by three instalments, first year, £12 12s.; second

year, £10 10s.; third year, £6 6s. If paid by two instalments, first year £14 14s.; second year, £12 12s. These fees are payable in advance.

**GENERAL KENT AND CANTERBURY HOSPITAL.**—Open for the reception of patients April 26th, 1793. 46,019 in-patients, and 80,048 out-patients, have been admitted since the hospital was open. The hospital contains 102 beds. Pupils of the staff are admitted to the practice of the hospital, and have the use of the library of the East Kent and Canterbury Medical Society, for £7 7s. Operation day, Thursday, 11 A.M. Physicians: Drs. Alfred Lochee and Henry Alexander Gogarty. Consulting Surgeon: Mr. James Reid. Surgeons: Messrs. Charles Holtum, Frank Wachter, Thomas Whitehead Reid, and John Gressley. Dentist: Mr. Martin L. Bell. House-Surgeon: Mr. F. de Courcy Skeete. Assistant House-Surgeon and Dispenser: Mr. H. J. Dyson. Secretary: Mr. Charles H. Read.

**LEEDS GENERAL INFIRMARY** has accommodation for 300 in-patients. Clinical Lectures are given by the Physicians and Surgeons in the theatre of the school, and in the operating-room of the infirmary. All students must hold the office of clinical clerk and dresser, in accordance with the recent requirements of the examining boards. In the Eye and Ear Department a large number of special cases are treated during the year. Demonstrations on Diseases of the Ear are given by Mr. Nunneley.

A house-physician and a house-surgeon are elected from time to time when vacancies occur. There are also four resident assistants in the infirmary. Two are elected every six months, and they continue in office for one year. They are chosen from the senior students of the school, and are provided with apartments and board in the infirmary free of charge.

Dr. Major, Medical Director of the West Riding Lunatic Asylum, lectures on Mental Diseases during the summer.

The Hardwick Clinical Prize, value £10, is conferred annually upon the most deserving student who exhibits a satisfactory proficiency in Clinical Medicine. The Surgeons' Clinical Prizes, value respectively £8, £5, and £3, given by the surgeons to the hospital, are conferred annually on the most deserving students who exhibit proficiency in Clinical Surgery. In addition to the Silver Medal awarded in Medical Jurisprudence, there is a prize of £10 (Thorpe Prize), for which a special examination is annually held. Four resident assistants are chosen from the senior students, board and residence free. There are a large Dispensary and a Fever Hospital in the town, both open to students attending the school.

**LEEDS SCHOOL OF MEDICINE.**—Several of the Courses of Lectures, are now, by arrangement, attended at the Yorkshire College, which is within a short distance of the School of Medicine. This College commenced its operations in 1874, and in addition to the lectures on Chemistry, Biology, Comparative Anatomy, and Botany, attended by students of the Leeds School of Medicine, it now possesses Chairs in various branches of Science and Literature.

**UNIVERSITY COLLEGE, LIVERPOOL** (Royal Infirmary School of Medicine).—Three house-surgeons and two house-physicians are elected every six months from pupils of the school who have obtained a qualification. Nine clinical dressers and nine clerks are elected quarterly; and post-mortem clerks for six weeks. Pupils of the infirmary are admitted to learn pharmacy in the dispensing department for six months. Three scholarships of £21, held for two years, and one of £16. The hospital contains 300 beds; including 40 beds for the treatment of diseases of women. The Lock Hospital adjoining contains 60 beds.

*Fees.*—For six months' medical practice, six guineas; twelve months, seven guineas; surgical, seven guineas for six months, ten pounds for twelve months (this includes admission to the practice of the Lock Hospital adjoining the Infirmary); perpetual medical and surgical practice, forty guineas.

A School of Dental Surgery exists in connexion with the above. The curriculum includes Lectures and Demonstrations on all the subjects required for the Licence in Dental Surgery of the Royal College of Surgeons of London, Edinburgh, and Dublin.

**LIVERPOOL NORTHERN HOSPITAL.**—Physicians: Drs. Dickinson and Caton. Surgeons: Mr. Chauncey Pozey, Dr. Campbell, and Mr. D. H. Harrison. Dental Surgeon:

Mr. J. B. Lloyd. House-Surgeon: Mr. G. S. Hamilton. Assistant House-Surgeon: Mr. W. R. Parker. House-Physician: Dr. C. Shears. 142 beds. There is a special ward for the treatment of children. Clinical lectures are delivered by the physicians and surgeons during the summer and winter sessions. Clinical clerkships and dresserships are open to all the students without additional fee.

*Fees for Hospital Practice and Clinical Lectures.*—Perpetual, twenty-five guineas; one year, ten guineas; six months, seven guineas; three months, four guineas. Students can enter to the medical or surgical practice separately on payment of half the above fees. Practical pharmacy, three months fee, two guineas.

Attendance on the practice of this hospital qualifies for all the examining boards.

**LIVERPOOL ROYAL SOUTHERN HOSPITAL.**—Physicians: Drs. Cameron, Carter, and Williams. Surgeons: Messrs. Hamilton, Little, and Paul. Senior House-Surgeon: Dr. Davison. Junior House-Surgeons: Mr. W. H. Irvin Sellers and Mr. M. M. Fitzpatrick. 200 beds. Clinical lectures are given by the physicians and surgeons during the winter and summer sessions. Clinical clerkships and dresserships open to all students. Special wards for accidents and diseases of children. Rooms for a limited number of resident students.

*Fees for Hospital Practice and Clinical Lectures.*—Perpetual, twenty-five guineas; one year, ten guineas; six months seven guineas; three months, four guineas.

The practice of the hospital is recognised by all examining bodies.

**LIVERPOOL COLLEGE OF CHEMISTRY.**—Founder: Sheridan Muspratt, M.D., Ph.D., F.R.S.E., &c. &c. Principals: Geo. Tate, Ph.D., F.C.S., and Granville H. Sharpe, F.C.S. The chemical lectures will be delivered on Mondays, Tuesdays, Thursdays, and Fridays, commencing October 9th, and continuing until May. Fee four guineas. The chemical laboratories are open from 10 to 5. Fee for practical course for Medical Students, three guineas. Certificates for attendance will be recognised by the chief Medical Examining Boards. Evening courses are also held.

**NORFOLK AND NORWICH HOSPITAL.**—120 beds. One year's attendance recognised by examining boards. *Fees:* For the physicians' practice, five guineas for six months; ten guineas, perpetual. For the surgeon's practice, including dressership, £10 for three months; £15 for six months; £20 for one year; £30 for two years; and £40 perpetual. Pupils, resident and non-resident. Physicians: Dr. Eade, Dr. Bateman, and Dr. Taylor. Surgeons: Mr. Cadge, Mr. Crosse, and Mr. Williams. Assistant-Surgeons: Dr. Beverley and Mr. Robinson. House-Surgeon: Mr. D. D. Day.

**NORTHAMPTON GENERAL INFIRMARY.**—Established 1743; rebuilt 1793. In-patients, 1128; out-patients, 7587. Beds, 144. Physician: Dr. Buzard. Surgeons: Messrs. Kirby Smith and G. H. Percival. House-Surgeon: Dr. A. H. Jones. Resident Medical Officer: Mr. E. J. Morley. Out-pupils are received and have every opportunity of acquiring a practical knowledge of their profession. Instruction is also given in Anatomy and Materia Medica, and Practical Pharmacy. Pupils' fee £25 per annum, or a perpetual fee of £50. The infirmary is recognised by the examining boards.

**OWENS COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE.**—This medical school is located in a large new building, which forms a part of Owens College. It is provided with a very large dissecting-room, physiological laboratory, private laboratories, and work-rooms, besides lecture-rooms, a museum, and a library. The departments of Anatomy, Physiology, and Chemistry are taught by professors who devote the whole of their time to the duties of their respective chairs. The more strictly practical departments of medical study are taught partly in the Medical School and partly in the Royal Infirmary, to which are attached a fever hospital, a lunatic asylum, and a convalescent home. Medical and surgical clinical classes are conducted in the infirmary, by the professors of medicine and surgery, and separate instruction is afforded in the elements of medical and surgical physical diagnosis, in obstetric medicine, ophthalmic surgery, and pathological anatomy by the different members of the staff of the medical school and infirmary. The following scholarships and

prizes are open to students of the medical school:—1. A Dauntsey Scholarship of the value of about £100 is offered annually for competition at the beginning of October to persons who have not been students in any medical school in the United Kingdom, and whose ages does not then exceed twenty-five years. The subjects of examination are—(a) General and Comparative Anatomy; (b) Physiological Botany; (c) Chemistry; (d) Mathematics or Latin. 2. A Scholarship and Prizes are awarded at the end of each academic year to students of the first, second, and third year. 3. A Platt Physiological Scholarship of £50 a year for two years is offered annually to the student who, having studied for one entire session in the physiological laboratory of Owens College, has prosecuted the best original investigation in Physiology, and has passed a satisfactory examination in Physiology. 4. Two Platt exhibitions of the value of £15 each, to be competed for by first and second year's students in the class of Physiology. 5. A Dumville Surgical Prize of £20 is offered annually for proficiency in Clinical Surgery. 6. Medical and Surgical Clinical Prizes, each of the value of six guineas, are open to competition each year for the best reports (with comments) of cases which have occurred in the wards of the infirmary.

MANCHESTER ROYAL INFIRMARY.—Consulting Physicians: Drs. R. F. Ainsworth, Frank Renaud, Henry Browne. Consulting Surgeon: Mr. George Bowring. Physicians: Drs. William Roberts, Henry Simpson, John E. Morgan, D. J. Leech. Assistant Physicians: Drs. Julius Dreschfeld and James Ross. Obstetric Physician: Dr. John Thorburn. Surgeons: Messrs. F. A. Heath, Edward Lund, Walter Whitehead, Thomas Jones. Assistant Surgeons: Messrs. James Hardie, Fred. A. Southam. Ophthalmic Surgeon: Dr. D. Little. Dental Surgeon: Mr. G. W. Smith. Resident Medical Officer: Dr. Graham Steel. Resident Surgical Officer: Mr. Edmund H. Howlett. Medical and Surgical Registrar: Mr. G. A. Wright. Pathological Registrar: Dr. Alfred H. Young. Assistant Medical Officers: Drs. S. Moritz and T. J. Wilkinson. General Superintendent and Secretary: Mr. W. L. Saunderson.

The infirmary embraces a nurse-training institution, consisting of a staff of about eighty skilled nurses. It contains 315 beds. The annual average number of out- and home-patients is over 16,000, and the list of casualties in the accident-room exceeds 6000 per annum. The Infirmary, the Barnes Convalescent Home, and the Mossall Fever Hospital contain together 670 beds. The Lunatic Hospital at Cheadle now accommodates 250 patients.

Fees.—Medical practice: three months, four guineas; six months, eight guineas; twelve months, twelve guineas; full period required by the examining board, eighteen guineas. Surgical practice: three months, six guineas; six months, nine guineas; twelve months, eighteen guineas; full period required by the examining board, thirty guineas. The fees for the full period required by the examining boards of both medical and surgical practice may be paid by a composition fee of £42 on entrance, or by two instalments of £22 each at an interval of twelve months.

One medical and one surgical clinical prize, each of the value of six guineas, are offered annually for the best reports and commentaries on medical and surgical cases. Four non-resident and twelve resident officers are appointed. Two or more clinical clerks are attached to each physician and assistant-physician, and two or more dressers to each surgeon and assistant-surgeon. Two clerks are appointed to the pathological registrar and to each of the assistant-medical officers. Accident-room dressers are appointed every month.

SHEFFIELD SCHOOL OF MEDICINE.—The infirmary contains 180 beds; a Museum of Pathology, Library, and Post-mortem Theatre, with microscopes and all the appliances for clinical research. Perpetual fee for attendance on all the lectures required by the Royal College of Surgeons and the Apothecaries' Hall, £47. Secretary, Mr. A. Jackson. A tutor's fee of £2 2s. is required from students entering for Anatomy and Physiology.

JESSOP HOSPITAL FOR WOMEN, Gell-street, Sheffield.—Medical Officers: Dr. Keeling, Dr. Hime, Mr. F. Woolhouse, and Mr. R. Favell. The hospital is devoted chiefly to diseases peculiar to women. There is also an obstetric department attached to the hospital for the admission of a small number of cases. A staff of midwives connected with the hospital attend lying-in women at their own homes, and in case of need are assisted by the members of the medical staff of the

hospital. Out-patients are attended daily at the hospital. Students can attend the practice of the hospital, and be supplied with cases of midwifery. Secretary, H. B. Warner, Hallamshire Chambers, Church-street.

HARTLEY INSTITUTION, Southampton.—In addition to preparations for the Preliminary Examination, instruction is given in Anatomy and Physiology, Zoology, Chemistry, Botany, Practical Chemistry, and in the use of the Microscope. The institution contains a fine collection of anatomical models, and a medical library. The practice of the Royal Infirmary of Southampton is open to students. The course of instruction is recognised by the Royal Colleges of Physicians and Surgeons of London for eighteen months of the four years of professional study required.

Fees £6 6s. per term, or £15 per annum, in advance, which entitle the student to twenty-eight hours' instruction per week, supplemented by the teaching in the Department of General Literature.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—The New Infirmary, opened in 1869, is built on the pavilion plan, has accommodation for nearly 220 patients, including detached fever wards, children's wards, and special ovarian wards. In-patients last year, 1501; out-patients, 9398. The attendance of pupils at this Infirmary is duly recognised by all the Examining Boards; and there are unusual facilities for acquiring a practical knowledge of the profession. Physicians and Medical Officers: Dr. J. T. Arldge, Dr. C. Orton, Messrs. Ashwell and J. G. West. Surgeons: Messrs. W. H. Fulker, J. Alcock, and W. D. Spanton. Secretary: Mr. R. Hordley, Hartshill, Stoke-on-Trent, from whom particulars as to fees, &c., may be obtained.

NEWCASTLE-ON-TYNE THROAT AND EAR HOSPITAL.—Senior Surgeon: Richard Ellis, F.R.C.S. Edin. Surgeon: Samuel J. Macaulay, L.R.C.P. Edin., L.F.P.S.G. This hospital is open to students of Medicine on Tuesdays, Thursdays, and Saturdays, on the payment of a small fee.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Founded 1848. Beds, 210. A preparatory school of Medicine and Surgery. The pupils have the advantage of seeing the whole of the practice of the physicians and Surgeons, and are trained in clinical work by the medical and surgical staff. The attendance of pupils at this hospital is recognised by all the examining boards.

Fees.—Six months, £6 6s.; twelve months, £10 10s.; perpetual, £21. Some members of the honorary staff receive resident pupils. For further particulars, apply to the Hon. Secretary of the medical committee.

YARMOUTH HOSPITAL.—Surgeons: Mr. Charles Palmer, Mr. T. Lettis, Mr. D. Meadows, and Mr. A. C. Mayo. House-Surgeon: Mr. P. H. Kidd, M.B., C.M. Edin.

YORK COUNTY HOSPITAL.—Established 1740; rebuilt 1851. 110 beds. In-patients, 704; out-patients, 4283. Physicians: Drs. G. Shann and W. Matterson. Consulting Surgeon: Mr. W. D. Husband. Surgeons: Messrs. R. Hewetson, W. H. Jalland, and F. Shann. House-Surgeon: Mr. Arthur Jefferson. Secretary: Mr. R. Holtby.

## SCOTTISH HOSPITALS AND MEDICAL SCHOOLS.

SCHOOL OF MEDICINE, EDINBURGH.—The lectures qualify for the University of Edinburgh and the other universities, the Royal Colleges of Physicians and Surgeons of Edinburgh, London, and Dublin, and the other medical and public boards.

In accordance with the statutes of the University of Edinburgh any four of the medical classes required for graduation, or two complete *Anni Medici*, may be attended in this school, each of which *Anni Medici* may be constituted by attendance on two of the six months' courses, or on one of these and two three months' courses. The regulations require that the fee for any class taken for graduation in Edinburgh be the same as that for the corresponding class in the

University. The whole education required for graduation at the University of London, may be taken in this school.

*Fees.*—For a first course of lectures, £3 5s.; for a second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh the perpetual fee is £2 4s. Practical Anatomy (six months' course), £3 3s.; course of demonstrations, £2 2s.; perpetual, £4 4s. Practical Anatomy with course of demonstrations, £4 4s. Practical Chemistry, £3 3s. Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months. Practical Materia Medica, including Practical Pharmacy and Diseases of the Ear, Diseases of Children, Diseases of the Skin, each £2 2s. Vaccination, £1 1s. For summer courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy, including Anatomical Demonstrations, Operative Surgery, and Practical Medicine, and Medical Diagnosis, each £2 2s.; Insanity, £1 1s. The minimum cost of the education in this School of Medicine for the double qualification of Physician and Surgeon from the Royal Colleges of Physicians and Surgeons, including the fees for the joint examination, is £95; whilst the minimum cost for the single qualification of either Physician or Surgeon, including fee for examination, is £85.

**EDINBURGH SCHOOL OF MEDICINE**, Marshall-street, Nicholson-square.—The classes of this School will be resumed for the Winter Session on the 24th October. Chemistry, Theoretical and Practical, Midwifery, Surgery and Medicine. From the Dispensary attached to this Institution, Pharmacy, Practical and Theoretical, Practical Midwifery, Out-door Practice, and Surgical Diagnosis. Attendance at this institution qualifies for the University of Edinburgh and all other Licensing Boards. Tutorial Classes in all the branches of the medical curriculum. Preliminary Medical Classes, L. H. Wright, M.A., 11 A.M. to 4 P.M.; Theoretical Chemistry, Dr. Drinkwater, 10 A.M. to 11 A.M.; Theoretical Midwifery, Dr. C. Bell, 11 A.M. to 12 A.M.; Theoretical Pharmacy, R. Urquhart, 3 P.M. to 4 P.M.; Class for Surgical Diagnosis, Dr. Miller, 3 P.M. to 4 P.M.; Practical Midwifery and Out-door Practice at the Dispensary, 2 P.M. to 4 P.M.; Practical Pharmacy, 2 to 4 and 7 to 8 P.M.; Practical and Analytical Chemistry, 9 A.M. to 5 P.M.; Class for Practical Medicine, Dr. A. Smart, 2 P.M. to 3 P.M. The Pharmaceutical Section of this School will open on Oct. the 3rd. Particulars of R. Urquhart, Secretary.

**ROYAL INFIRMARY, EDINBURGH.**—Beds are set apart for clinical instruction by the professors of the University of Edinburgh. Courses of Clinical Medicine and Surgery are also given by the ordinary physicians and surgeons. Special instruction is given in the medical department on Diseases of Women, Physical Diagnosis, &c., and in the surgical department on Diseases of the Eye. Separate wards are devoted to fever, venereal diseases, diseases of women, diseases of the eye, also to cases of incidental delirium or insanity. Post-mortem examinations are conducted in the anatomical theatre by the pathologist, who also gives practical instruction in Pathological Anatomy and Histology. From and after the commencement of the winter session, 1882-3, the fees shall be as follows, viz.:—Perpetual ticket in one payment, £12; annual ticket, £6 6s.; six months, £4 4s.; three months, £2 2s.; monthly, £1 1s. Separate payments amounting to £12 12s. entitle the student to a perpetual ticket. No fees are paid for any medical or surgical appointment. The appointments are as follows:—1. Resident physicians and surgeons are appointed, and live in the house free of charge. The appointment is for six months, but may be renewed at the end of that period by special recommendation. 2. Non-resident clinical clerks are appointed by the physicians and surgeons for such periods and under such conditions as they deem expedient. 3. Each surgeon appoints from four to nine dressers, the appointment being for six months. 4. Assistants in the Pathological department are appointed by the pathologist.

**ANDERSON'S COLLEGE, GLASGOW.**—The following courses are given: In winter, Senior Anatomy, Dr. Buchanan, 4 P.M.; in summer, Osteology, Dr. Buchanan, as may be arranged; Public Health, Dr. Christie, 1 P.M.; Aural Surgery, Dr. Barr, Thursday, 3 P.M.; Practical Medical Chemistry, Mr. Dittmar, Tuesday, Wednesday, and Thursday, 4 P.M. Dental Anatomy (in summer), Dr. D. Taylor, Wednesday and Friday, 8 A.M. Dental Surgery (in summer), Mr. J. R. Brownlie, Tuesday and Thursday, 8 A.M.;

Mechanical Dentistry (in winter), Mr. Woodburn, Thursday, 8 P.M. The Chemical Laboratory is open daily from 10 to 5. Students of the College are admitted to the practice of the Ophthalmic Institution on payment of a matriculation fee of 5s.

*Fees.*—Each course of lectures (except Anatomy), first session, £2 2s.; second session, £1 1s.; afterwards free. Anatomy (including Dissecting-room), first session, £4 4s.; second session, £4 4s.; third session and perpetual, £1 1s.; summer (including Practical Anatomy), £1 1s.; Practical Anatomy only, £1 1s.; Osteology, £1 1s.; Dental Courses, each £2 2s. Fee for two years' curriculum at Dental Hospital, £10 10s. Students who have attended classes at other schools will be admitted to such classes as they may have attended elsewhere at reduced fees. Fees for all the Lectures and Hospital Practice required of candidates for the diplomas of Physician and Surgeon, £48.

*Scholarships, &c.*—A Medical Scholarship of £10 for students entering on their second winter. Subjects: Anatomy (bones, joints, muscles, alimentary canal, and heart); Chemistry (general principles; non-metallic elements, and the following metals—viz., potassium, sodium, calcium, magnesium, zinc, aluminium, iron, manganese, and mercury; carbo-hydrates; alcohols, aldehydes, and acids of the fatty series). Prizes of £5 in classes of junior Anatomy and Chemistry.

*Kerr Bursary in Anatomy*, tenable for three years (provided the holder continues to study anatomy during that time). This bursary will be awarded at the close of the winter session to the student of the junior anatomy class who will pass the best examination in the subjects embraced in the lectures.

A Dispensary is connected with Anderson's College. Students have the privilege of visiting and treating patients at their own homes, being assisted by a specially appointed qualified practitioner.

**GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.**—The winter session will open on November 1st. Courses of lectures are given on all the subjects required by the licensing bodies for qualification, and lectures and demonstrations are also given on Practical Physiology, Operative Surgery, Aural Surgery, Dental Surgery, and Diseases of the Eye. During summer, lectures on Insanity are given by Dr. A. Robertson, and the City Asylum under his charge is free to students of this school. Students have unusual facilities for the study of anatomy, the supply of subjects being practically unlimited.

*Class Fees.*—For each course, first session, £2 2s.; second session, and perpetual, £1 1s. Students who have attended a first course elsewhere can enter on the second course on payment of £1 1s. Anatomy: First winter session, £4 4s.; summer session, £1 11s. 6d.; second winter session, £4 4s.; afterwards the fee for lectures and practical anatomy is £1 11s. 6d. per session. Lectures on Diseases of the Ear, £1 1s.; with clinique to those not students of the hospital, £2 2s. Dental Dispensary free to students of the hospital; to others, £5; first year, perpetual, £10. Lectures on the Eye, £1 1s.

**GLASGOW ROYAL INFIRMARY.**—Number of beds, 532. In addition to the ordinary medical and surgical wards, there are separate wards for the treatment of venereal diseases and the diseases of women, whilst Diseases of the Eye, Ear, Throat, and Teeth are specially treated at the dispensary. Courses of clinical medicine and surgery are given by the physicians and surgeons; instruction in pathological anatomy and histology is given by the pathologist.

*Appointments.*—There are five physicians' and five surgeons' assistants. These appointments can be held for six or twelve months, and are open for students who have passed all their examinations except the last, or to gentlemen who have a qualification in medicine or surgery. Clinical assistants, dressers, dispensary clerks, and pathological assistants are selected from the students without additional fee.

*Fees for Hospital Practice and Clinical Lectures.*—First year, £10 10s.; second year, £10 10s.; afterwards free. For six months, £6 6s.; three months, £4 4s. Students who have paid twenty guineas at another hospital for its perpetual ticket are admitted six months for £2 2s., or one year for £3 3s. Vaccination certificate, £1 1s.

**GLASGOW HOSPITAL AND DISPENSARY FOR THE DISEASES OF THE EAR**, 239 and 241, Buchanan-street.—Senior Consulting Physician: Dr. P. Stewart. Senior Consulting Surgeon: Dr. James Morton. Consulting Dental Surgeon:



Dr. J. Cowan Woodburn. Physicians: Dr. A. K. Irvine, Dr. A. L. Kelly, Dr. J. Gardner. Aural Surgeon and Lecturer on Aural Surgery: Dr. James Patterson Cassella. Clinical Assistant: Dr. James Erskine.

This institution is supported by public and voluntary subscription, its object being the advancement of this special department of medical science by lectures and clinical teaching to students, and the gratuitous treatment of poor persons suffering from all forms of ear disease and deafness. Number of cases treated annually 3600.

The hospital, which contains 15 beds for in-door patients, is always open for urgent cases. Hours of surgeons' visit, 3 P.M. daily; clinical teaching daily. Out-door patients are seen on Tuesdays, Wednesdays, Thursdays, and Fridays, at 2 P.M., by Dr. Cassella and assistant; and operations and special demonstrations to students and practitioners on Wednesdays and Thursdays, from 3 to 4 P.M. Adam Sutherland, 75, West Nile-street, Secretary and Acting Treasurer.

GLASGOW WESTERN MEDICAL SCHOOL, University-avenue, Hillhead.—The winter session will open on November 1st. The school is situated close to the Western Infirmary, where students obtain their Hospital Practice and Clinical Lectures. The class-rooms have been newly arranged and enlarged. The attention of students is directed to the unusual facilities presented for the study of practical anatomy and operative surgery, the supply of subjects being practically unlimited. The dissecting-rooms are open for work from the beginning of October till the end of July.

The lectures qualify for the University of Glasgow, the Faculty of Physicians and Surgeons, Glasgow, and the other corporations.

*Class Fees.*—For each course of lectures, first session, £2 2s.; second session, £1 1s. Students who have attended a first course elsewhere pay £1 1s. Anatomy, including practical anatomy, £4 4s. Summer session, £1 11s. 6d.

ABERDEEN ROYAL INFIRMARY.—Contains about 250 beds. Consulting Physician: Dr. A. Harvey. Physicians: Drs. J. W. F. Smith-Shand, R. Beveridge, Angus Fraser. Physicians' Assistant: Dr. D. R. McKinnon. Consulting Surgeon: Dr. W. Pirrie. Surgeons: Messrs. A. Ogston, J. O. Will, R. J. Garden, and John Hall. Surgeons' Assistant: Dr. William Sinclair. Ophthalmic Surgeon: Dr. Alex. D. Davidson. Pathologist: Dr. James Rodger. Chloroformist: Dr. P. Blaikie Smith. Dental Surgeon: Dr. Williamson. Resident Superintendent and Apothecary: Dr. E. W. Robertson. Pathologist and Curator of Museum: Dr. J. Rodger. Treasurer and Secretary: Mr. W. Carnie.

THE ABERDEEN ROYAL LUNATIC ASYLUM contains about 540 beds. Physician: Dr. Robert Jamieson.

## IRISH HOSPITALS AND MEDICAL SCHOOLS.

QUEEN'S COLLEGE, CORK, SCHOOL OF MEDICINE.—The building is provided with a very large, well-ventilated dissecting-room, with physiological and toxicological laboratories, materia medica, anatomical and pathological museums, as well as a room for surgical and obstetrical instruments and appliances. There are well-appointed physical and chemical laboratories, and a large natural history museum in the adjoining building; and part of the College ground is laid out as a botanical garden. The plant houses are now completed and well filled with plants, and are open to the students in the class of Botany.

*Fees.*—For Practical Anatomy, £3; for Practical Chemistry, £3 each course; for Anatomy and Physiology, £3 first course, and £2 for each subsequent course. Other medical classes, £2 first course, and £1 each subsequent course. Eight scholarships (value about £30 each) as well as several exhibitions and class prizes are awarded every year.

Clinical instruction is given at the North and South Infirmaries, and at the Lying-in Hospital; students can also attend the Mercy General Hospital, the Maternity, the Children's Hospital, and the Eye and Ear Infirmary. Fee for clinical lectures and attendance at either the North or South Infirmary, eight guineas for twelve months; five guineas for six months. Clinical instruction can now be given to the students of Queen's College, Cork, by the resident medical superintendent of the Cork District Lunatic Asylum, which contains about 700 patients.

SIR PATRICK DUN'S HOSPITAL, Dublin (in connexion with the School of Physic).—Consulting Surgeon: Dr. William Colles. Physicians: Drs. John Mallet Purser, J. Magee Finny, J. R. Kirkpatrick (Midwifery Physician). Surgeons: Drs. Charles Ball, Edward H. Bennett, Thomas Evelyn Little, Richard G. Butcher (University Lecturer in Operative Surgery). The hospital is visited daily by each of the physicians and surgeons on duty.

The payment of £3 3s. to the hospital entitles any student to attend the clinic of the hospital for twelve months, and to attend the lectures delivered by Dr. R. G. Butcher, University Lecturer in Operative Surgery. Students who have taken out the degrees of Bachelor in Medicine and Master in Surgery in Trinity College are entitled to attend the hospital as perpetual free pupils.

Clinical Lectures are delivered in the hospital theatre at ten o'clock on Mondays and Tuesdays. In addition to the hospital fee, the payment of a fee of £9 9s. is required for the privilege of attending these lectures. Total fees for hospital and lectures for twelve months, £12 12s.

*Sir Patrick Dun's Maternity.*—Total fees for college students, £3 3s. Total fees for externs, £6 6s.

THE ADELAIDE MEDICAL AND SURGICAL HOSPITALS, Peter-street, Dublin.—Fee for nine months' Hospital attendance, £12 12s. Six months', £8 8s. Summer three months', £5 5s.

Three resident pupils are selected half-yearly. At the termination of the session, prizes in Clinical Medicine and Surgery, in Obstetric Medicine, and in Ophthalmic Surgery will be awarded.

*Hudson Scholarship.*—In addition to the junior prizes, the Hudson Scholarship, £30 and a gold medal, as well as a prize of £10, together with a silver medal, will be awarded at the end of the session for proficiency in Clinical Medicine and Medical Pathology; Clinical Surgery and Surgical Pathology; Pathological Histology; Surgical Appliances, including instruments and bandaging; Ophthalmology and Gynaecology.

The certificates of attendance are recognised by all the Universities, Colleges, and Licensing Bodies in the United Kingdom. Physicians: Drs. Henry H. Head and James Little. Surgeons: Dr. John K. Barton, Mr. Benjamin Wills Richardson (Vice-President, Biological Association, University of Dublin), and Dr. Kendal Franks. Obstetric Surgeon: Richard Dancer Purefoy, M.B., F.R.C.S.I. Ophthalmic and Aural Surgeon: H. Rosborough Swanzy, M.A., M.R. Dental Surgeon: Dr. R. Theodore Stack. Assistant-Physician: Wallace Beatty, M.B. and B.Ch., T.C.D.

LEDWICH SCHOOL OF SURGERY AND MEDICINE, Peter-street, Dublin (formerly original School of Anatomy, Medicine, and Surgery).—There are endowments in favour of students, subject to conditions prescribed by the founder, in the following departments:—Two in Anatomy and Physiology; two in Minute Anatomy; two in Practical Anatomy; one in Surgery. Certificates of attendance on these lectures are received by the various examining boards; by the Apothecaries' Halls of Dublin and London; by the King and Queen's College of Physicians in Ireland; by the Royal Colleges of Physicians, London and Edinburgh; by the Royal University, the Universities of Dublin, London, and Glasgow; by the Glasgow Faculty of Physicians and Surgeons and by the Queen's University in Ireland. The Senate of the Royal University having recognised the lectures of this school, arrangements have been made to educate students for its Medical and Surgical Degrees in accordance with its requirements. This school is in a central situation, and is replete with every convenience for study, and successful instruction. By its teachers it is connected with nine hospitals, four of which are Medical and Surgical hospitals, one for Fever, one for Midwifery and Diseases of Women and Children, one for Diseases of the Eye and Ear, &c.

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## To Correspondents.

WE tender our best thanks to those gentlemen who have kindly supplied us with the returns and prospectuses upon which the information given in this Students' Number of THE LANCET relative to the various medical examining bodies, hospitals, and medical schools of the United Kingdom is based.

The present number being almost exclusively devoted to information especially interesting to students, we are necessarily compelled to defer the publication of communications on other important subjects.

### "EXAMINATION MARKS IN SCOTLAND."

To the Editor of THE LANCET.

SIR,—As an Edinburgh man, I cannot let the statement of "Medicus" in your issue of the 26th ult.—"that in Edinburgh the percentage for a pass is 40, whilst above 50 gives honours"—pass unchallenged. This is a misstatement. The system of marking (*vide* Edin. Univ. Calendar, the only official authority on the subject) is carried on by letters and the abbreviations of words—S for satis, and so on. To these none except the examiners can attach a percentage. That the percentage is high, the fact that few, compared with the number who get first-class honours in the various classes, obtain distinction in the professional examinations would tend to indicate. With regard to the long lists of students successful in their class examinations, I fail to see that that indicates a low standard of marking any more than it might equally show a high standard of students' industry and attainments.

I am, Sir, yours sincerely,

Kent, August 30th, 1882. ERNEST F. NEVE, M.B., &c.

To the Editor of THE LANCET.

SIR,—Having noticed in an anonymous communication in your issue of the 26th ult. on the above subject, I would ask your correspondent his authority for the statement, "In Edinburgh the percentage for a pass is 40, while above 50 gives honours." The Calendar gives the only official and authentic information on the subject, and that does not give the percentage in figures. Hence I am driven to the supposition that "Medicus" has stated as a fact that which exists solely in his own aberrant imagination.—I am, Sir, sincerely yours,

Durham, August 30th, 1882. JOHN HERN, M.B. Edin., &c.

### TUBERCULAR DISEASE.

To the Editor of THE LANCET.

SIR,—There is one aspect of the recent discoveries with regard to tubercular disease which I think should be pointed out before the recent ideas on the subject are forgotten, and the controversy with regard to it passes into a new phase. The most generally accepted opinion has been that consumption was a condition of the lungs which might arise from a variety of causes, and might pass by insensible gradations into a variety of other conditions. It was held that ordinary bronchitis or pneumonia might pass into tubercular consumption under certain circumstances, and that there was no line of demarcation between the pathological processes operating in each case. In connexion with these ideas the words "caseous" and "catarrhal" pneumonia were invented and used. Others held that this view was arrived at by giving too great an attention to the microscopical appearances, and by not taking a general view of the facts regarding the disease. They looked upon the results of consumption as due to a specific and definite disease, which they gave the name of *tubercular*, and upon consumption, as accompanied by a special growth or deposit, which they called *tubercle*. Which was most right in the conclusion they drew from the evidence then before them? Koch's observations seem to say decidedly the latter.

I am, Sir, yours, &c.,

Cape Town, August 8th, 1882.

H. S.

*Dr. Pirrie's Resignation.*—The vacancy created by the resignation of Dr. Pirrie will doubtless be filled before the commencement of the ensuing winter session. The patronage of the chair is vested in the Crown. Dr. Pirrie has, we believe, been Regius Professor of Surgery in the University of Aberdeen for forty-three years.

*The Fellows' Association.*—Our correspondent should seek the support of some of his influential associates. We agree that if the meetings of the Association be held as originally proposed, their influence may be prejudicial both to the College and to medical education generally.

*Universitas.*—Our correspondent should consult Dr. Hardwicke's "Medical Education and Practice in all Parts of the World" (Churchill).

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Wyld, London; Dr. Kirkwood; Dr. Thursfield, Leamington; Lieut.-Col. Duncan; Dr. Hovell, London; Dr. Leadliff, Brighton; Dr. Donaldson, Londonderry; Mr. Inglesant, Spondon; Mr. Saunderson, Manchester; Dr. Muir, Thornhill; Mr. Firth, Blackburn; Dr. Hilles, Gargrave; Mr. Foster, Leeds; Mr. Marlin, Elgin; Mr. Craske; Mr. Bagshaw, Salford; Mr. Beal, Brighton; Captain Hobson; Mr. Western, Bath; Surgeon-Major Hopkins, Leeds; Mr. Cooke, Powick; Dr. Cresswell, Birmingham; Mr. Dixie, London; Mr. Stuart, Dublin; Mr. Moutray, Honduras; Mrs. Elgar, Plymouth; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. G. Walker, London; Mr. C. Jennings, London; Dr. Coumbe, Twyford; Dr. Cotterill, Edinburgh; Mr. Bader, London; Mr. Watford, Surbiton; Dr. Urquhart; Dr. Sandby, Birmingham; Mr. Kendall, Malda-hill; Mr. T. P. Cook, London; Rev. L. Hawkins, Madras; Mr. Jukes, Ghazee Khan; Mr. Robinson, North Shields; Mr. Street, Reading; Mr. Hickman, Brighton; Mr. Hannah, Ashton; Dr. Edwards, Hounslow; Mr. Ward, Leeds; Dr. R. Jones, Redhill; Mr. Abbott, Sheffield; Mr. Harding, Westgate-on-Sea; Mr. Saunders, London; Messrs. Linton and Co., Manchester; Mr. E. Bellamy, London; H.; E. A. Leigh; G., Bayswater; Sartorius, Stamford; The Military Secretary, India Office; Director-General, Admiralty Department; Director-General, Army Medical Department; A. C.; M.R.C.S.E., Lowestoft; D. M.; Aqua; Universitas; Alexandrian; N. W. S., London; W. E. B.; Scalpel; H. B.; &c., &c.

LETTERS, each with enclosure, are also acknowledged from—Mr. Smith, Gray's-inn-road; Mr. Hadfield, London; Dr. Crawford; Mr. Pentland; Mr. Redwood, Rhymney; Mr. Sall, Regent's-park; Mr. Owen, Tipton-green; Mr. Worman, Margate; Mr. White, London; Mrs. Bingham, Grimsby; Dr. Pierce, Hoylake; Dr. Combs, Castle Carey; Mr. Ball, Gloucester; Mr. Whitmore, Darley; Dr. Mackintosh; Mr. Turner, Worcester; Mr. Weeks, Chatham; Mr. Hopkins, Bath; Mr. Maccock, Leamington; Mr. Engineer, Aden; Dr. Oliver, Harrogate; Mr. Croke, Worthing; Messrs. Montgomery and Plumbe, Maidenhead; Mr. Shone, Great Marlow; Mr. Haines, Cannock; Mrs. Nicolay, Newcastle-on-Tyne; Mr. Bingham, Alfreton; Mr. Porter, Highbury; B. B. D.; F.R.C.S.; Soit; J. W.; W. F. W., New Wortley; H. L., London; M.B., Gordon-square; Mantone; Box 14, Sowerby-bridge; A. B. C., Paddington; Medicus, Worthing; R. C. D., London; T. S.; Medicus, Jersey; Medicus, Brixton; Medicus, Preston; C. C., New-cross; Upsall; Medicus, Upper Clapton; G. C. E. S., Bungay; T. E. S., Malden; J. G., Manchester; Assistant; Doctor; Omega; Humber, Manchester; Surgeon E.; Downing; L. M.; Z.; Medicus, Belgravia; Surgeon, Glasgow; 177, New North-road; A., Gower-street; Medicus, Stepney; Medicus, Sheffield; Owner; H. R. M., Faversham; A. E.; Cygnet; Medicus, Bolton; Alpha, Leeds; Medicus, Londonderry; T. S. L.; Alpha B.; Zeta; Delta, Camden-town; &c., &c.

*Sydney Daily Telegraph, Bath Herald, Daily Courier, Church of England Pulpit, Scotsman, Fermanagh Mail, Reigate Journal, Port Elizabeth Telegraph, Newcastle Daily Chronicle, Cape Argus, Bradford Observer, Hawick Express, &c.,* have been received.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

## Clinical Lecture

ON THE

## CURABILITY OF ACUTE TUBERCULOSIS.

*Delivered at the Westminster Hospital.*

BY OCTAVIUS STURGES, M.D.,

PHYSICIAN TO THE HOSPITAL.

GENTLEMEN,—The case I propose bringing before you involves a curious problem of practical medicine in the nature of a dilemma. Acute tuberculosis is represented to us from the anatomical point of view as a disease which is uniformly fatal. At the bedside, however, we meet with examples, indistinguishable from acute tuberculosis, which nevertheless recover. Are we to say of these that our diagnosis has been in error, or that the statement of the uniform fatality of acute tuberculosis is not without exception? Is it more probable that the diagnosis is wrong or the treatment curative? If the diagnosis be in error, how may such errors be avoided in the future? If it be the treatment that makes all the difference, in what manner is such treatment to be employed, what is the evidence of its efficacy, and to what stage of the disease does it apply? I need not say that questions like these are of the highest practical interest. They are so from the pathological side, owing to the very intimate likeness between acute tuberculosis and enteric fever. They are so still more from the treatment side, owing to the assertions of some that the hypophosphites of lime and soda are directly curative of acute tuberculosis.

Now the case shortly summarised from the notes of Mr. Butler, clinical clerk, is as follows:—

George C—, aged sixteen, a well-nourished youth, but of tubercular aspect (his mother being consumptive, and two of his maternal aunts having died of acute phthisis), was admitted on May 31st. Just a month before, he had been standing at a pier-head when heated from fast running, and in that way, as he supposed, caught cold. Shivering came on the next day, and he kept his bed for a fortnight, being "very ill"; the chief symptoms were coughing, with much expectoration, repeated nose-bleeding, and profuse sweating, especially at night. At the end of the fortnight the boy improved sufficiently to get up. He had lost much flesh during his illness, and his cough and sweating continued. As soon as he could bear the journey he came to hospital, where he was admitted at the date mentioned. When first seen the patient's aspect and pose indicated extreme depression, and there was that blush on his cheeks which, taken together with his lustrous eyes and long eyelashes, would suggest to the observer, other things being excluded, acute tuberculosis. The temperature was  $104^{\circ}2$  on the first night (for the next eight days the highest daily reading reached or exceeded  $104^{\circ}$ ). The tongue was furred; bowels confined. Pulse about 100. A very careful examination of the lungs discovered large rhonchi merely, no dulness; no small bubbling; no physical evidence of any kind, except of bronchial flux; the sputum bronchial and uncoloured. Such was his condition on admission, and so it continued for fourteen days; a condition, namely, of extreme depression, temperature ranging daily between  $102^{\circ}$  and  $104^{\circ}6$ ; absolute loss of appetite; sleeplessness, night-sweating, and wearing cough, with mucous expectoration, sometimes blood-streaked; the bowels being confined (except for one occasion, when they acted copiously after medicine), and the pulse seldom much exceeding 100. But what was the most striking and the most suggestive, or, as it seemed, probative of the diagnosis of tuberculosis, was that with the progress of time the patient rapidly wasted. That and the profuse sweating and prostration were the main features of the case, yet still with no more positive physical signs than those mentioned. Between the sixth and the twelfth days from admission the prostration was so extreme that it was only with great difficulty he could be raised, or indeed moved, for the purpose of examination. Yet, with an eye to possibilities, attention was continuously directed to the lungs, and it may be said positively that although bronchitis persisted, and

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some small bubbling was audible for a time at the left base, there was never any sign of consolidation or pneumonia. However, on the fourteenth day from admission (which would be six weeks from his first seizure and a month from the time when he had a temporary mend) signs of improvement were observed in that the night temperature fell from  $104^{\circ}$  to  $103^{\circ}$ , and the bodily weakness was less. From that day to the nineteenth a continuous progress began to open out hope of ultimate recovery. By the twenty-second day (making sixty-two days from the commencement of illness) that hope became almost assurance. The temperature had gradually fallen, and was now hardly above normal; the wasting and sweating had ceased; and, above all, the extreme bodily prostration had disappeared. With this marked improvement the catarrhal sounds within the lung underwent but little change, and on the twenty-eighth day, when he was up and convalescent, some bubbling rhonchus was audible at both bases. During the extremity of his illness it was impossible to take his weight; the only measure of the loss of flesh, therefore, is quite inadequate to express the fact. Before his illness he weighed 7 st. 10 lb.; on the twenty-seventh day after admission, and when approaching convalescence, he weighed 6 st. 8½ lb.; a week later he had gained exactly 4 lb. As regards treatment, all that it is necessary to say now is that on the 7th of June, when near his worst, and seven days before he began to mend, the boy was given ten grains of hypophosphite of soda every four hours, and this was continued for the rest of the acute illness.

In the main features of this remarkable case there are, as I think, to be found some important practical lessons—facts which are too little recognised and probabilities which are too easily set aside. Take first the fact itself. Better than all theories or precarious deductions is the knowledge which this case gives that in a tubercular subject a pyrexia of indefinite duration, which entails such wasting as almost to reach the point of emaciation, and is attended by profuse night sweats and extreme prostration, is a condition which may and which does recover. Let it be enteric fever or acute tuberculosis, or what you will, this combination of symptoms, grave as it is, as a rule fatal as it is, is not absolutely hopeless. That made certain, many other questions press for consideration. What are the probabilities in regard to diagnosis, and how are these affected by the fact of recovery? What are the particular circumstances of these recovering cases as to treatment? What is the likelihood that we may ever succeed in making recovery more common?

It has been said—the expression indeed is attributed to a very sagacious physician of our day—whenever you have to deal with pyrexia of anomalous character, the other symptoms not fitting in with any recognised pattern of disease, always put to yourself this question: "Have we here to deal with enteric fever?" But this admirable hint, so serviceable to prevent grievous errors, is not to be twisted from its real meaning. Some would put it not as a question to be deliberately decided yea or nay, but as an affirmation. Here is a pyrexia with anomalous symptoms. I cannot fit it to anything in particular; I will call it enteric fever, an affection which has so many forms that it may be fitted to anything.

Only just now, while I am speaking, we have an illustration at hand of the errors that may be committed and the valuable clinical knowledge that may be overlooked by such conduct as this. A patient in Burdett ward, with symptoms corresponding in many respects—in aspect, in temperature, in nervous prostration, in the colour and consistence of the motions—with enteric fever gets, too easily, credited with that disease. And if by any accident she had passed from our notice in the second or the third week of illness, her precise condition would take its place in our memory as a contribution towards the full conception of the many ill-defined modes of enteric fever. But it so happened that at the end of the fourth week she died, exhibiting post mortem, not enteric fever, or any trace of it, but the most characteristic and extensive ulcerative endocarditis.

In the case before us, however, there is not the same excuse as in the other—nay, the same necessity, we may almost say—for making use of enteric fever to eke out a doubtful diagnosis. Except for febrility, this youth had nothing of enteric fever about him either in his symptoms or in their duration. We put the question as we are advised, and we answer it without hesitation in the negative. Be it what it may, the disease we have before us is not enteric fever. Proceeding, as is the custom in such cases, upon the principle of exclusion, that alternative, at all

events, may be dismissed. But may we not go further, and say of this boy not only that his illness was *not* enteric fever, but that it *was* acute tuberculosis? Remember that while acute tuberculosis is very commonly mistaken for typhoid fever, the converse of this is not true. We have here the proper tubercular symptoms clearly marked out from the rest, symptoms which have been met with repeatedly in connexion with grey miliary granulations. There seems hardly room for mistake. Only when we are confidently expecting the boy's death, he disappoints that expectation and recovers.

Is then the fact of recovery to negative the diagnosis of acute tuberculosis? Of the actual deposit of tubercle it may indeed. No one, I suppose, believes that these little bodies may be thickly strewn throughout the lung in the way that we find them and the patient nevertheless recover. But there is much reason for believing that we may approach—who shall say how near?—to that pathological event and then stop short; just within the boundary, it may be, which separates extreme peril of death from the absolute certainty of it.

Did time serve I could adduce much evidence to prove that the condition we recognise clinically as acute tuberculosis is not necessarily fatal, whether occurring in youth and tending towards the lung (yet with no admixture of phthisis in the sense of lung destruction), or occurring in childhood and tending towards the pia mater. We get the very same group of symptoms in cases that are exceptional in that they recover, as in cases that form the rule in that they die; and, moreover, the earlier in life the observation is made—the nearer we get to that period when tuberculosis is seen, so to speak, in perfection,—the more does it appear that individuals may exhibit all the symptoms, not only premonitory of tuberculosis, but which are commonly believed to announce it, and then, when the diagnosis is complete and the prognosis seems certain, turn round and recover.

But I would ask you to look at the matter upon a somewhat broader ground. The recovery from tuberculosis, meaning by that term the clinical phenomena commonly supposed to be indicative of the deposition of miliary tubercle, so far from being rare, is a matter of frequent experience. What is rare, although less rare, I believe, than seems, owing in great measure to the habitual invocation of enteric fever, is its recovery when it has passed a certain stage. We all know and teach that children of a particular conformation, whose scalps sweat at night, who grind their teeth and but half close their eyes in sleep, and so forth, are especially prone to tubercle and to death by meningitis. We advise that particular care should be taken to preserve such children from cold, from foul dwellings, from overmental application; and we insist that the first signs of pyrexia or sickness, signs insignificant with other children, need immediate attention with them. Yet, in spite of all our precautions, or for the want of them, such children get pyrexia more often than others. A certain proportion—the most tubercular, if we may so speak—will inevitably die; the rest will die or not, according to the care that is taken of them, the food they get, and the place where they live. But hardly any, until the time of their special liability is over, will escape attacks in which they will be pyrexia and waste, and show symptoms, cerebral and other, which are often absolutely indistinguishable from those that usher in a fatal meningitis.

Still more striking is the case of young adults who are tubercular. With these we know that the chief danger is not for the brain, but for the lungs; and we have strong hope that if we can tide them over the period of youth later manhood will give them comparative security. But how is it with them during this time of jeopardy? Much more than with the little children, it is apparent that they will live or not, according as their circumstances are ordered; that their life depends, that is to say, upon the conditions of living being made the easiest for them. A young man of tubercular tendencies (I am quoting from the fact) wastes, and sweats, and coughs, but with nothing discoverable in his chest beyond bronchial catarrh. Soon he is too weak to leave his room. He is advised to take a sea voyage, and to remain for a year or more in New Zealand. There he loses his cough and his weakness, puts on flesh, takes to an active out-door life as a sheep farmer, and presently, as is but natural, pining for his home and his old profession, and believing himself perfectly recovered, he returns to England. Again there are the wasting, the cough, and the depression; and this time the symptoms are so threatening that

there is grave doubt whether he can be got on board ship, or whether in his extreme state a long journey is justifiable. But once more away from the country which is not liveable for him the threatening symptoms disappear, and his health returns.

Who then, I ask, will venture to say or to write in a book at what particular stage in the tubercular fever (so to call it) all expectation of recovery is cut off; or, rather let me say, not so much expectation as possibility? It would of course be a grotesque misrepresentation of nature to pretend that such a case as ours in Burdett ward is not highly exceptional; or that with such symptoms any other result than death is to be looked for. But who is to draw the line between recoverability and irrecoverability? who is to say what particular phase or event in the clinical history represents the actual development of tubercle and seals the doom of the patient? We have ample justification, I contend, in laying down as true this proposition: in youth as well as in childhood threatened tuberculosis recovers. We can tell when such recovery is to be looked for; we can tell when it is highly improbable; we can hardly tell, certainly we cannot tell precisely, the point at which it becomes absolutely impossible.

But there is another point for consideration. Tubercular individuals, children at all events, will present the clinical symptoms of tubercular meningitis, and die in the usual way, but post mortem neither tubercle nor inflammatory exudation will be discovered.<sup>1</sup> We have to reckon, then, with the following facts, and to make out of them the best hypothesis we can. There is a certain set of symptoms by means of which acute tuberculosis is commonly recognised at the bedside. Such symptoms commonly end fatally, and after death grey granulations are found in certain situations. But to this rule there are two kinds of exceptions. One where the symptoms in question do not end fatally; the other where, although ending fatally, no trace of the grey granulations is to be found.

What, then, is the hypothesis—I mean the working provisional hypothesis—which best fits this state of facts? I think it is this: Acute tuberculosis regarded from the clinical point of view is to be distinguished from the actual deposition of tubercle regarded as an anatomical fact. The early symptoms of acute tuberculosis are those which precede the actual development of the grey granulations. This latter event, analogous in some respects to the eruption of a specific fever, is preceded by certain phenomena extending over a variable period of time, during which restitution is still possible. And while, on the one hand, the deposition of tubercle marks the termination of hope, on the other the stress of the premonitory fever which precedes that occurrence may of itself suffice to produce death.

But here the therapeutist steps in, and clearly there is a place for him. If his experience be large, it will furnish him with examples which will easily push aside the assertion that the acute tuberculosis which seems to recover is in fact not what it seems, but enteric fever, or something else. He has, then, only to appeal to the dogma that acute tuberculosis, pursuing its natural course, is necessarily fatal in order to reach the position he desires—the doctrine, namely, that the cure of this disease is accomplished through the agency of the hypophosphites of lime and soda. My own practice with reference to such drugs is this. In the belief that they are at least harmless, that they are commended for a class of affections very bare of remedies, and where some medicinal treatment or other is reasonably expected on behalf of those who are acutely and progressively ill, I have uniformly given the hypophosphites in every case of acute phthisis or acute pulmonary tuberculosis that has been under my care for many years. Without being at all struck with the effects of a remedy very highly commended in some quarters, I can certainly quote instances where the hypophosphites have been so far injurious that patients have improved on their being discontinued. In the present case ten grains of the hypophosphite of soda were given every four hours, commencing a week after the patient's admission. His worst and weakest time, you will remember, was the week succeeding. How far this is consistent with any curative power of the hypophosphites I leave you to determine. For myself, I believe that when cases like this one of ours are more widely recognised; when the fact of recovery is admitted not only by

<sup>1</sup> As authority for this statement I might quote Dr. Austin Flint, Dr. Gee, and others. See a very suggestive paper by Mr. Howard Barrett, on Tubercular Meningitis, in the tenth volume of the St. George's Hospital Reports.



those who profess to have brought it about, but by others as well who are prepared to note all the circumstances under which it occurs,—when that time comes the curability of tuberculosis will be found to depend not upon the hypophosphites or any other preparation of pharmacy, but upon the employment of those agencies for its cure which are suggested by the causes that provoke it. Is there no therapeutical teaching in the fact that the tuberculous children of the poor develop tuberculosis as the rabbits do, by living in impure air and damp underground cellars; or the fact that a youth of tuberculous family will escape the fate of his brothers and sisters, and the fate that over and over again has threatened himself, by removing to some better country?

Those who are the most firmly persuaded of the incurability of acute tuberculosis will not deny that there are certain well-recognised signs by means of which the tuberculous are distinguished from the rest of the community; they will not deny that there are certain localities and certain modes of living the least hostile, each for each, to the lives of such persons, and that by having recourse to such places and plans the life that is repeatedly menaced during childhood, and youth may reach a healthy and secure manhood. But why need we stop here? I firmly believe that the time will come when what everybody admits will no longer be applied partially, but carried out to its full conclusion; and when it comes patients suffering like this boy whose case we have been discussing will be removed, wherever feasible, from their town surroundings, and placed without delay or fatigue in the best possible conditions for recovery upon some hill or mountain top, or, at all events, in the pure air of the country.

### ON THE INVISIBLE CORPUSCLES OF MAMMALIAN AND OVIPAROUS BLOOD, AND THEIR RELATION TO FIBRIN FORMATION AND COAGULATION.

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In the *Bullettino della reale Accademia Medica di Roma*, Anno viii., No. v., pp. 174, *et seq.*, will be found a communication presented by Associate Colosanti on behalf of Professor F. Legge, which concerns itself with the controversy between Professor Bizzozero and myself. The communication is entitled, "Observations on the Blood of the Salamander and of the Triton, in relation to the plates (piastrine) of Bizzozero, and to the Invisible Corpuscles of Norris." The author first refers in the following terms to the original communication by Professor Bizzozero: "The distinguished Professor Giulio Bizzozero at the sitting of the 9th of December, 1881, communicated to the Royal Academy of Turin the discovery of a new morphological blood element to which he gave the name of 'blood-plate.'" The characteristics of this new element are that it is one-third or one-half smaller than the red corpuscles; that it has the form of a disc, or of a lens; and, finally, that it is colourless and excessively pale. This great discovery was made in the circulating blood, in which the plates are seen irregularly distributed among the red corpuscles. Bizzozero thinks that these little plates are to be regarded as special elements, since they are morphologically perfectly distinct, as much from the white corpuscles as from the red ones, and he thinks that from them originate those special accumulations of granulations to which modern histologists, and especially Ranvier, attribute the coagulation of the blood. If, in fact, the blood be observed outside the bloodvessels, without the addition of any reagent, the little blood-plates are seen to break up into exceedingly fine granulations, and at the same time is noticed the formation of a fine mesh-work, which is in direct relation to the above-named granulations. The presence of this network, which is composed of fibrous substance, points to the initiation of the blood-clot. Even the formation of thrombus and the coagulation of protoplasmic liquids, according to Bizzozero, is in connexion with the blood-plates. The same author has lately published that in the lower mammals the said plates are

nucleated, and correspond to those elements which Hayem has designated hæmatoblasts.<sup>1</sup> Subsequently, at a sitting of the Turin Academy, March 3rd, 1882, Professor Bizzozero states facts which, according to him, raise to a certainty the belief expressed that the blood-plates have, in relation to the formation of fibrin the function which Mantegazza and Schmidt attributed to the white corpuscles. This last fact was contested by Dr. Giulio Fano, in a note on the coagulation of the blood, published in vol. v., fasc. 4, of the "Archiv per le Scienze Mediche." In this note the author mentions facts which tend to demonstrate that, excluding the presence of the blood-plates, we can equally have coagulation in which, according to him, the white corpuscles take the most active part. He asserts, moreover, that upon the latter depends the coagulation in the lower vertebrata, since in them the blood-plates are completely absent. It will be observed that neither of these authors appears to consider that the blood-plates, or the white corpuscles, or the granules which they yield, are actually transmuted into fibrin, but only that they excite or determine its formation, and that the granules add to the bulk of the clot by becoming attached to the true fibrin, which is spoken of as being deposited in their vicinity.

Two leading considerations present themselves in connexion with these claims of Bizzozero—1. Is he the actual discoverer of the particular corpuscle in question? 2. Has this corpuscle the properties he ascribes to it, and if so was he the first to determine this? In the first place, these are visible delicately granular bodies, lenticular or disc-shaped, of smaller size than the red discs, colourless—that is, free from hæmoglobin, and nucleated. Now, here we have six very distinct characters, by which the corpuscles in question may be identified; and when we add to this the fact that they may be seen without difficulty, not only in the circulating blood, but also after it has been shed, it would certainly be a somewhat remarkable circumstance if they had altogether escaped the attention of the great army of microscopic observers of the blood. To the credit of physiology this is not the true state of the case. For several years past I have myself been acquainted with these particular corpuscles, and I presumed that other physiologists were also equally well informed. So far as I am able to understand the question, the confusion which exists appears to have entirely arisen from the too common practice of confounding together the leucocyte or white blood-corpuscle and the true lymph disc. In my first paper on the development of the blood<sup>2</sup> I pointed out that an able English investigator of the blood, Professor Gulliver, so far back as 1846, in his annotations to the collected works of William Hewson, strongly insisted that a distinction existed and ought to be recognised between the true lymph-corpuscles and the pale or white corpuscles of the blood, both as to their physical and chemical characters. He says, "The globules of the chyle, of the thymus fluid, and of lymph are smaller and differ in structure from the pale globules of the blood. In these last there are two, three, or four nuclei, easily seen when the envelope is made more or less transparent or invisible by acetic, sulphurous, citric, or tartaric acid. But the globules of chyle, of lymph, and of the thymus fluid, like the nuclei of the red corpuscles of the oviparous blood, are only rendered more distinct and slightly smaller by any of these acids, so that the central part presents no regular nuclei or divided nucleus, such as are contained in the pale globules of the blood. In short, these last-named globules have the characters of perfect elementary cells, while the former globules, as shown in the note to 'Gerber's Anatomy,' page 83, resemble, and probably are, nuclei or immature cells." Professor Gulliver also gave extensive tables of the measurements of red discs, of the pale corpuscles of the blood (leucocytes), and of lymph, chyle, and thymus corpuscles, under these distinctive headings, and pointed out that while the average diameter of the red disc in man was about  $\frac{1}{1000}$ , and that of the white corpuscle about  $\frac{1}{2000}$ , that of the true lymph corpuscle was only about  $\frac{1}{3000}$  of an inch, and that the latter was lenticular in form. He also made the additional statement, "In the blood besides the common pale cells (white corpuscles) there are a few smaller corpuscles, like those of lymph."<sup>3</sup> It is, too, a matter of history that the late Professor of Physiology in the University of Edinburgh, Dr. Hughes Bennett, did not, as so many have done, confound the white corpuscle (with which he was necessarily

<sup>1</sup> The oviparous hæmatoblasts of Hayem, not the mammalian, are here referred to.

<sup>2</sup> Birmingham Philosophical Society, 1878.

<sup>3</sup> Hewson's Works, pages 244 and 254.

so familiar) with the true lymph corpuscle, which latter element, as will be seen from the following quotations, he regarded as passing from a granular globular body, having a diameter of about  $\frac{1}{1000}$  of an inch, through the disc or flat stage, into the form of a colourless biconcave disc about the size of the red disc. After speaking of the molecular basis of the chyle, described by Gulliver, he says:—"Floating amongst these (oil globules) we observe globular and granular bodies about  $\frac{1}{1000}$  of an inch in diameter, which, on the addition of acetic acid, exhibit a thicker margin than they did before. In chyle taken from the thoracic duct there are also biconcave flattened discs, exactly resembling the coloured blood-corpuscles in size and form, but destitute of colour. Between these two kinds of corpuscles (the granular bodies, about  $\frac{1}{1000}$  of an inch in diameter, and the colourless biconcave discs) all kinds of intermediate stages may be observed, so that there can be little doubt that the former become flattened and are changed into the latter. They are, in fact, embryo blood-corpuscles, which become coloured in the lungs." Again, speaking of the lymphatic glands, he says, "On cutting into these glands shortly after digestion, and examining microscopically the fluid they contain, it may be seen that a molecular fluid (first described by Gulliver) is more or less crowded with naked nuclei, which resist the action of acetic acid. On repeating the observation on fluid taken from the thoracic duct the same thing is noticeable, only several of the nuclei are more flattened, and in every point, except colour, closely resemble the red blood-corpuscles."<sup>1</sup> Kölliker also recognised as the smaller chyle-corpuscles the bodies which I have called the primary lymph discs, and noticed also that their nucleated character disappeared, and that they became flattened. In my first paper on the development of the blood I have taken great pains to show that the so-called lymph globule is in reality a disc-shaped body, smaller than the blood disc, and that it consists of two varieties, to which I have given the names primary and advanced: the former being a true cell, the capsule or exterior of which is intimately applied to its nucleus, but which can easily be distended by osmosis, and its nucleated character revealed; the advanced lymph disc being, on the contrary, the delicate naked nucleus of this body, set free by disintegration of its capsule; both these bodies enter the blood, the former in health in small numbers only, and these remain visible, but become more delicate in appearance than they are when seen in the glands; this change appears to depend simply upon their transfer into the blood, for it may be effected artificially—that is, by adding gland discs to fresh blood.<sup>2</sup>

The advanced or nuclear lymph discs pass into the blood in far greater numbers, but for the most part being colourless and already smooth, enter at once upon their stage of existence as the invisible discs of the blood; a few of these, however, which are less perfectly elaborated, may remain for a time visible as finely granular discs. The former are the bodies which Professor Bizzozero has observed in the circulating blood of the lower mammals, in which they may be readily seen both while circulating and after the blood is shed. These bodies conform entirely to the description given by Professor Bizzozero, being visible, delicately granular in appearance, disc-shaped in form, of smaller size than the red discs, and colourless—i.e., free from hæmoglobin, and nucleated; and as there are in the blood no others in the least degree like them, it is logical to conclude that they are the bodies which he has observed. If this be so, although we may regard Professor Bizzozero as an independent observer of this particular corpuscle, we cannot admit his claim to the discovery of a new and previously unknown element of the blood. We come now to consider the rôle which this corpuscle plays in fibrin formation and the coagulation of the blood.

In February, 1878, I pointed out that there existed in the blood a series of corpuscles, the disintegrative changes of which were competent to account for and to explain all the phenomena of fibrin formation, and that the existing chemical views of coagulation must give place to morphological ones. I designated this series of corpuscles the "fugitive discs of the blood and lymph," in contradistinction to the more permanent corpuscles. I also photographed step by step the successive changes and variations in these bodies till they presented themselves in the well-recognised forms

of fibrin—e.g., films, networks, embolic masses, &c. Of this fugitive group of corpuscles some are visible, others barely visible, and large numbers wholly invisible. At both ends of the group there are visible discs, for it includes on the one hand the lymph discs which are antecedent to the invisible blood discs, and on the other those discs which have again become visible by the acquisition of colour, but which are not yet sufficiently stable to be included in the permanent group of red discs. These limitations I have repeatedly stated in my papers. That Bizzozero has been working on the lines I laid down in my papers to the Birmingham Philosophical Society in 1878 and 1880 will be sufficiently obvious to anyone who will take the trouble to read the preface of my work on the "Physiology and Pathology of the Blood," in which, to facilitate comparison, I have taken the liberty of placing our mutual statements in contrast side by side. It will be seen that the statements in respect to fibrin formation and the staining and preservation of the corpuscles concerned in it are essentially and almost verbally the same, and that mine possess the advantage of having been published for several years. My contention briefly stated is, that the red blood disc of the mammal begins its existence as the primary lymph disc, a body which is found in the spleen, in the lymphatic glands, in the thymus and thyroid, and in the bone-marrow. While in its own proper organs this body undergoes a development by which its nucleus is set free, this nucleus is transmitted to the blood, and becomes its smooth, colourless, invisible disc, which, taking on the biconcave form, gradually acquires colour, and becomes again visible in the blood as the palest order of coloured discs. Now the corpuscles concerned in fibrin formation in the blood are the lymph discs, the invisible discs, and the palest order of the coloured discs of the blood; to these, taken collectively, I have given the name of the "fugitive group." It will be remembered that I have divided the lymph discs into two varieties, the primary or nucleated, and the advanced, which is the liberated nucleus. As the corpuscles Bizzozero refers to were nucleated, it must be the former of these bodies; and if this be so, it is of the corpuscles of the "fugitive group," the one which is most permanent, and which therefore plays a smaller rôle in fibrin formation than the others. The bodies which take the greatest part in the formation of fibrin, both in the lymph and the blood, are simple nuclei; true fibrin, in fact, in all cases is formed of the material of which nuclei is composed.<sup>3</sup>

It is the advanced corpuscle, in other words the free nucleus of the lymph, which causes its coagulation, and it is this same body, when promoted to the dignity of a young blood disc, which causes the coagulation in shed blood. The few primary lymph discs (so-called blood-plates of Bizzozero) which are, as it were, accidentally present in the blood play but a very insignificant part in fibrin formation, very little, if any more, than the white corpuscles. I wish it to be distinctly understood that my views of the coagulation of the blood differ fundamentally from any which have hitherto been propounded; I desire to state them clearly and unmistakably, and then to abide the issue of time. The coagulation of the blood I believe to be purely a physical and morphological, and not a chemical, process; it is certainly a process every step of which can be traced by the microscope, and can be shown to depend on physical changes in bodies which were originally definite corpuscular elements of the blood, changes, occurring, in fact, in those corpuscles which I have included under the designation of the "fugitive group." These corpuscular changes are themselves sequential upon certain general alterations in the blood, when it is shed, as yet of an obscure character. Such a view of course excludes the idea that the liquid of the blood contains in solution the elements necessary to coagulation, and it equally excludes all such ideas as those of "ferment," "exciting or determining causes," "deposition of fibrin," &c. The study of the coagulation has unfortunately been conducted with pathological fluids which do not represent the normal state of things in the blood, but which are charged with products derived from the corpuscles. The pure liquid of the blood or lymph has no power to coagulate, nor does it contain those substances known as fibrinogen and fibrino-plastin, which are capable of being thrown down by solid salt and  $\text{CO}_2$  from the state of solution in pathological fluids. I make this statement advisedly, after the most careful inquiry, and with a full appreciation of the skimming

<sup>1</sup> Text-book of Physiology (Bennett), pp. 200 and 203.

<sup>2</sup> Physiology and Pathology of the Blood, pp. 116 and 127, published by Smith, Elder, & Co. 1882.

<sup>3</sup> The formation of fibrin by the invisible cell-bodies of the youngest blood-corpuscles of the ovipara is no exception to this rule.

experiments of Hewson and Hunter, the filtration experiments of Müller, and the subsidence experiments of Schmidt. These methods are all imperfect, because they fail to get rid of the morphological elements. Perfect filtration of the blood not only deprives it of the power to coagulate, but also shows that it does not hold in solution those substratal substances on the union of which coagulation is supposed to depend. When the blood is shed the corpuscles of the "fugitive group" are variously affected. The primary lymph discs (so-called plates of Bizzozero) granulate like the white corpuscles; the advanced lymph discs and the invisible discs tend to form sheets of fibrin by fusion and liquid subsidence; while the discs with a slight tinge of colour, apparently because they are more viscous and extensible, give rise to fibrinous networks. This much it is necessary for me to state in order that my views may neither be misunderstood nor misinterpreted. I will shortly expose my facts and experiments on coagulation in detail to the criticism of contemporary workers.

I desire now to refer briefly to that part of Professor Legge's memoir which is concerned with his own observations and experiments, and which he believes to have a direct bearing on the points at issue between Professor Bizzozero and myself. In publishing his investigations the author states he had two objects in view. 1. To determine if there be or not an identity between the blood-plates of Bizzozero and the corpuscles of Norris. 2. To determine if the same plates exist in the blood of the oviparous vertebrates. To this end he first examined the blood of the triton and salamander, as it circulates in the margin of the tail, in a part in which, in consequence of the narrowness of the capillaries, the corpuscles are moving slowly. He states that the morphological forms which present themselves under these conditions can be reduced to three: First, the red corpuscles; second, the white corpuscles; third, a special form of morphological element which differs as much from the red corpuscles as from the white ones. "This last one," he says, "although with some slight modifications, seems to me to have a very striking analogy with the plates of Bizzozero, since they, although like the red corpuscles, appear oval or fusiform according as they present themselves in front or edgewise, are smaller than these, strictly colourless, having no visible trace of hæmoglobin." "In the circulating blood," he continues, "it is not possible to decide if these are nucleated or not. It is only possible to observe that they are sometimes homogeneous and smooth, while at other times they are covered with small rounded prominences, which give them a mulberry-like appearance. Very striking is the distinction from the white corpuscles, a distinction observable as much in the form as in the manner of circulating, inasmuch as while the white corpuscles in the interior of the vessels here and there stop against the walls, and emit more or less numerous protoplasmic prolongations, or are seen to circulate in the form of round globules, the elements under consideration always maintain their oval form and circulate freely amongst the red corpuscles in the axis of the blood current, without ever stopping, unless they be compelled to do so by the extraordinary narrowness of the vessel. As to their numbers, these elements are rather more numerous than the white corpuscles, but are less numerous than the red ones; as a rule, one of them is seen for every forty or fifty red corpuscles; occasionally they can be observed in small groups of four or five together." The author then proceeds to examine the same blood immediately after it is shed, and says: "The above described elongated, oval, and colourless forms may be still observed; they do not, like the white corpuscles, exhibit any amoeboid movement, but show themselves with all the characters which individualise them in the circulating blood—i.e., their form remains elongated and oval, and their colour is like that of the white corpuscle, but a little paler. In form they are relatively more elongated and flattened than the red corpuscles; in construction homogeneous or slightly granular. Sometimes they contain a round nucleus, which, from unknown circumstances, is not always manifest. If we add methyl-violet to such blood the nuclei of the white and red corpuscles become rapidly coloured, but these elements do not become coloured, or only slowly, and with less intensity." The author then proceeds: "In addition to the above described elements, in smaller proportions, are observed corpuscles of an extreme pallor, and altogether homogeneous, which only reveal themselves by a line feebly refracting the light which surrounds them. In the interior

circle included in this line the corpuscle does not present traces of structure, and has the same index of refraction as the added liquid. Following for a long time one of these corpuscles, I have seen the said circle always growing paler, until it disappears altogether from observation. From the above-named facts we may deduce that in the blood of the triton and salamander are to be met, in addition to the white and red corpuscles, two other elements, of which one seems to be, although with some modifications, analogous to the blood-plates of Bizzozero, and the other to the invisible corpuscle of Norris. However, whilst the first must be held truly as a normal constituent part of the blood, of the other the same cannot be said, because only the first is found in the circulating blood, whereas the other is altogether absent. Nor can the objection be made of its excessive delicacy, because when we are forewarned it is possible to observe a detail, however delicate. I hold on the contrary, as asserted by Bizzozero in his note, in answer to Norris concerning the invisible corpuscle described by the latter in the blood of mammalia, and also for the form which I have seen in the blood drawn from salamanders and tritons, we must think of a product of change of the red corpuscles. When we examine blood with all due precautions, then the corpuscle in question does not appear at all in the preparation; but when, on the contrary, an ordinary preparation is made, then it appears in greater or less numbers; in fact, if, instead of examining the blood which escapes abundantly from the wound, we examine blood touching with the object glass a smaller wound of the skin, then the said corpuscles are excessively numerous, and that because in this manner the blood becomes mixed with the water which moistens the skin of the animal ..... making preparations of blood by adding common water, we have the same results, but the preparation remains more demonstrative, because all the red corpuscles undergo the same change. They commence to lose the hæmoglobin, becoming therefore little by little so pale that their cellular body disappears completely from view, a circular or elliptical line alone remaining visible."

The author concludes his memoir as follows:—

"1. In the blood of tritons and salamanders, in addition to the white and red corpuscles, is a special morphological element, which, if it be not identical with, is at least analogous to the blood-plates of Bizzozero.

"2. In the preparations of the said blood are observed colourless discs which correspond to the description which Norris gives of his invisible corpuscles.

"3. These discs are the result of an alteration which the red corpuscles have undergone in the presence of water."

(To be concluded.)

## ON SOME DEFORMITIES OF THE BODY INCIDENT TO THE PERIOD OF GIRLHOOD.

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LATE ASSISTANT-SURGEON TO THE VICTORIA HOSPITAL FOR SICK  
CHILDREN, ETC.

I HOPE the time is not distant when a careful study of the living model of the child and the adult, and the whole period of the development of the one into the other, will form a part of the student's ordinary course of anatomy and physiology, as such knowledge is essential to the surgeon engaged in removing and preventing deformities of the body. Orthopædic surgery as a specialty is a great evil both to the profession and the public. The specialist who concentrates all his attention on a narrow field of study and practice is tempted to exaggerate its importance, and to analyse and disintegrate his facts till he loses sight of their relation to, and their dependence on, each other; while, on the other hand, the general practitioner is disheartened and repelled by the apparent complication of the subject, and is induced to hand over to the specialist many cases which he is quite competent to treat, or, as is too often the case, to undervalue the importance or deny the existence of many deformities. How else can we explain the difference in practice between the fussy mechanical ingenuity with which many professed orthopædists treat the slightest deformities of children—

which, by the way, they often tell us are only visible to their specially trained eye, and are hidden from that of the family doctor,—and the *sangfroid* of the general practitioner who meets the difficulties by the administration of a few doses of steel and quinine and rest in the recumbent position?

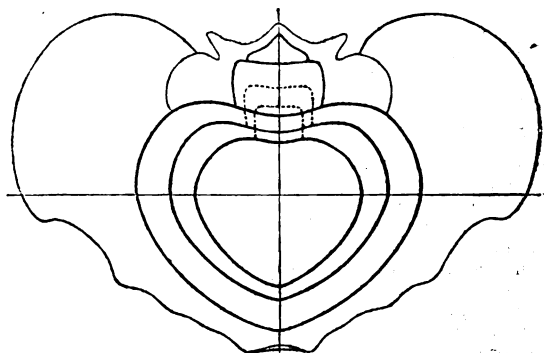
No deformity of a child's body gives rise to so much alarm to parents, or is the subject of greater diversity of treatment among medical men, as lateral curvature of the spine, and this is due, I believe, to an imperfect acquaintance with its origin. Specialists are accustomed to treat lateral curvature, knock-knee, and flat-foot as distinct deformities, while in truth they are all links in the chain of one deformity. Lateral curvature may arise in different ways, but in all cases it is due to the loss of the lateral balance of the body in the upright position, and is the result of an effort of nature to maintain the centre of gravity of the body and support the head and shoulders in the position which requires the least expenditure of muscular effort. The paralysis, wasting or loss of a limb, or the shortening of one of the legs by disease of joint, rickets, knock-knee, or flat-foot in growing children, will produce lateral curvature, and these are its chief if not its only causes. It is not a deformity arising from general debility, and I do not think it can be produced, as is often asserted, by an awkward sitting position, as in writing and other school occupations. The curvature of the spine which results from these causes is antero-posterior, or what is commonly called round-shoulder (non-carious). The tendency of debility, whether local or general, is to bring the body into the prone or recumbent position, and not to tilt it on one side.

Setting aside the cases of lateral curvature in children who have been affected with rickets, disease of joints, paralysis or loss of a limb in early life, and which affect both sexes, and all ages equally, what may be called the idiopathic or acquired deformity is rarely found in children of either sex under the age of nine or ten years, and very rarely in boys above that age. It is, indeed, almost peculiar to girls verging on puberty, and is as often found in strong and healthy as in weak and delicately built girls, and most commonly in those who are too fat and heavy for their stature and age. It is a deformity which is less common among the labouring classes than among the rich and well-to-do, and is largely associated with a life of indolence and luxury.

A careful examination of the subject has satisfied me that this acquired lateral curvature in girls is due to the change in the position of the lower limbs resulting from the development of the pelvis from the infantile to the female type a year or two before the accession of puberty. Anyone who will examine the figures of young children below this age will find little differences between the two sexes. The legs of young girls are set on the body like those of boys, and, within the limits of their training and dress, they can run as well and as gracefully as boys; but as puberty approaches and the pelvis alters its shape, the heads of the femora are removed further from the centre of gravity, and at the same time become rotated forward by the widening of the pelvis, and especially of the outlet of the pelvis. The effect of these changes is to bring the knees closer together, and produce the weak-kneed condition and the awkward running gait peculiar to women. This condition of the limbs is well seen in pictures and statues of the nude figure, and it is often exaggerated by the artist or sculptor, probably to give a more distinct idea of a woman's helplessness or modesty. The knee-cap in women looks straight forward, while in men it is turned a little outward; and in women the knees touch, or even overlap each other, while in men they are quite free. In running, a woman has to move the knees round each other, and to throw the feet out in a succession of small semicircles, which accounts for the peculiarity in her gait. This gait is not found in young girls before the onset of puberty, and is useful as a diagnostic sign of pelvic evolution long before the ordinary signs appear.

Although this weak-kneed condition is quite normal, it is a fruitful source of deformity in growing girls. A little additional strain will convert it into knock-knee, and by throwing the weight of the body on the inner ankle, it will quickly break down the arch of the foot and produce flat-foot or complete eversion of one or both feet. It is here, indeed, that nearly all the mischief lies, for according to my experience ninety per cent. of the cases of lateral curvature of the spine in girls are associated with flat-foot. This deformity is exceedingly common among women, and a French *savant* recently quoted it as a proof of the physical inferiority of woman to

man. To a slight extent flat-foot may exist in all women, as the position of the lower limbs after puberty would seem to produce it, and it may be nature's plan to promote what anthropologists call marriage by capture; but to a large extent, and in its worst forms, flat-foot is the result of civilisation. Indeed, both the highly arched instep and the everted foot are peculiar to civilised peoples, and are absent from the lower races, especially those who go barefoot, and both conditions owe their existence to the wasting of the muscles which flex the toes and foot by the constant use of tight-fitting shoes. In India, where the native workman makes use of his toes with almost the same facility as his fingers, the instep is obliterated by the fleshy bellies of the abductor of the great toe and the short flexor of the toes, which stretch across the arch from their attachment to the heel bone. The wasting of these muscles is of little importance to us who have no need to use our toes in detail; but it is far otherwise with the deep flexors of the foot and toes which are attached to the leg bones, and whose tendons pass under the ankle-joint and arch of the foot and form their chief support. It is, indeed, from the wasting or inaction of the deep flexor muscles, coupled with the turning out of the toes which fashion has imposed upon us, that the ankle and arch of the foot give way under the changed position of the



The diagram shows the relation of the brim of the pelvis in the child, at puberty, and in the adult female, from measurements of pelvis in the museum of the Royal College of Surgeons. The want of parallelism of the two inner pelvic curves shows that in the change from the infantile to the female type evolution takes place chiefly behind, and that the legs must be rotated forwards and inwards. The dimensions are:—Child: breadth 83 mm.; length 73; index 114. Young female: breadth 112 mm.; length 85; index 132. Adult female: breadth 143 mm.; length 108; index 132. The indices of the young female and the adult are the same, but the bones of the former are not united together.

limbs in girls at puberty, which I have described; and what is remarkable, and not easily explained, the deformity generally occurs only in one foot, or is greater in one than the other. In this way, however, the legs become of unequal length, and we have obliquity of the pelvis, and consequently, lateral curvature of the spine to correct the balance of the body, and bring the head and shoulders into the line of the centre of gravity. Flat-foot also produces, or exaggerates, the natural disposition to knock-knee in girls, which, in its turn, adds to the inequality in the length of the two legs. Some observations recently made in America show that even in adults of both sexes the two legs are rarely of equal length, and there must be, therefore, slight lateral curvature in all persons, and it is probable that these natural curves become exaggerated, as in the development of round shoulder the large antero-posterior curves of the spine are exaggerated. It is to the wasting or non-development of the fleshy parts of the deep flexors of the toes or foot that Europeans owe the small ankle and the comparatively large calf of which they are so proud as distinguishing them from the lower races. It is a distinction, however, which is more than counterbalanced by the ugliness and inconvenience of flat-foot, to which it frequently gives rise. The ingenuity of an Edison could not devise a machine so favourable to the production of flat-foot as the tight-fitting, high-heeled, long-topped boot at present worn by girls. Not only does the rigidity of the front part cramp the action of the muscles, but the high heels place the foot at such an angle with the leg that the tendons are of least use in supporting the ankle-joint, and the long tops hamper the development of the muscles in the remainder of their course. The

high heels, moreover, push the centre of gravity forward on the arch of the foot, and by propping up the heel gives greater leverage, and a greater space for the arch to fall when once it gives way. In the majority of cases the mischief would stop when the arch reached the level of the natural heel, but the heels of boots favour a still greater fall, which ends in eversion of the foot. It is difficult to understand how women submit to the discomfort of wearing high-heeled boots, or can be so cruel as to let their daughters wear them. It is true they give a fictitious height to the body, and disguise the slighter forms of flat-foot, but on the other hand they exaggerate the severer forms, and the boots are entirely wanting in proportion. Zeising's law of proportion requires that the sole and the heel should have the relative length of three to two, like that of the normal foot.

In treating the deformities of the spine and legs incident to healthy girls, it is obvious that attention must be directed in the first instance to correcting the deformed knees and feet. The very first signs of the giving way of the arch of the foot, which is easily detected by examination, by growing pains, and especially a change of gait, should be met by the wearing of flat-soled, well-fitting boots, with indiarubber or felt pads inside to support the arch, and special exercises favourable to the development of the deep flexor muscles. At puberty, and for two or three years before, the growth is very vigorous, and in both stature and bulk girls shoot ahead of boys of the same age, the period of rapid growth of boys coming later. From ten to fourteen years the stature of girls increases at a uniform rate of two inches per year, except at thirteen, when it is two inches and a half, but the weight increases at a much greater rate. At ten years girls add 4 lb., at eleven 6 lb., at twelve 10 lb., at thirteen 12 lb., and at fourteen and fifteen 8 lb. to their weight, and this sudden addition to the weight tells rapidly on ankles, feet, and knees placed at a disadvantage by concurrent change in the position of the lower limbs by the evolution of the pelvis and the cramping of the muscles by tight boots. The arch of the foot often breaks down in the course of a few weeks, without warning or apparent cause, and in girls in perfect health, and especially those of an indolent habit. Fortunately the remedy is as easy and complete if applied promptly at the beginning and adhered to persistently, as it is difficult and unsatisfactory if put off till the deformity is firmly established. Support to the arch of the foot prevents the formation of knock-knee and lateral curvature of the spine. When it fails to do so, the knock-knee can be corrected by the temporary application of long splints, especially in bed at nights; but no apparatus is necessary for the curvature of the spine in its earlier stages, as it will disappear on restoring the lateral balance of the body, and all treatment will be useless until this is done. Much walking or standing should be avoided, and short but vigorous gymnastic exercises substituted, and when possible the recumbent position assumed. Sitting on the ground or on a sofa in the cross-legged oriental position serves to expand the pelvis, evert the knees and invert the ankles, and counteract all the deformities; while sitting on chairs with the legs crossed one over the other directly favours them. It is probable that most children spend too much of their time on their feet, and that their powers of walking is very much overrated. Running is the natural gait of all young animals, and children always run if left to play by themselves. The dire effect of standing and walking in producing flat-foot in children is shown by the following statistics, taken from my paper on "Flat-foot" in the St. George's Hospital Reports (1872-4): Of 10,000 children between the ages of eight and thirteen years which were examined, about one-third were school children living in country towns and agricultural districts, another third were school children living in manufacturing towns, and the remainder were factory children. Among the first, 17.1 cases per 1000 of flat-foot occurred; among the second, 30.7 cases per 1000; and among the third—i.e., the factory children, who were employed five hours' daily standing, walking, and carrying weights—79 cases per 1000 of flat feet were found. Among the latter the deformity was found to increase rapidly with age—i.e., with the longer period of employment in factories. Thus:—

Of the age of 8 years, 15.1 per 1000 had flat-foot.

9	45.6	"	"
10	51.2	"	"
11	104.2	"	"
12	132.4	"	"

At the period when these observations were made (1873) children were allowed to commence work in factories at the

age of eight years, instead of ten as now, and the low rate of 15.1 per 1000 represents the normal rate before the strain of labour has begun to tell on the children's feet.

There can be little doubt that children are made to stand and walk far too much both at home and at school. Standing at lessons, parade exercise, and much of the military drill in schools are injurious to both boys and girls, and especially to the latter. Instead of listless standing about, or taking long walks with adults, children should be permitted and encouraged to play lively games, which they will generally do even if left to themselves, to dance, and to perform short but spirited gymnastic exercises with apparatus. Exercises which develop the muscles of the feet and ankles, such as hopping and skipping, are especially necessary for girls; and still better than these are the admirable exercises preparatory to stage dancing taught at the National Training School for Dancing.<sup>1</sup> These exercises are directed to the development of the muscles and the free action of the joints of the lower limbs, and are far preferable to the languid movements of ordinary dancing. For the development of the muscles of the trunk and arms the excellent system of gymnastics for girls recently established by a lady<sup>2</sup> in various parts of London, with the approval, after careful and repeated inspection by myself, of Dr. Richardson, Mrs. Garret Anderson, and others, is all that can be desired. The Swedish and other exercises effected without apparatus are of little use, as idle and indolent girls who stand most in need of physical training easily comply with the form, but evade the spirit and hearty compliance which such systems demand. These systems lack motive to complete an exercise, while simple apparatus such as balls, dumb-bells, and bars compel it by keeping the end in view and giving an impetus to its performance. With half the care which mothers spend on dressing and decking-out their children, often in unsuitable clothing, they might, with a little help from their medical advisers, prevent most of the deformities which mar the physical beauty, comfort, and health of their offspring; and no time seems more appropriate than the present for directing the attention of medical practitioners, and through them of parents, to the means of attaining these objects, as the short walking dresses worn by women and girls at the present time reveal to all of us to what a great, indeed unexpected, extent the ugly deformities of the feet and ankles to which I have referred exist, especially among the well-to-do and higher classes.

## THE PATHOLOGY OF HEPATIC TUMOURS.

By WM. ROBT. SMITH, M.D., F.R.S. Ed.

(Continued from p. 384, vol. i., 1881.)

### MALIGNANT GROWTHS, WITH MICROSCOPICAL DEMONSTRATIONS.

(a) *Cancer*.—Cancer is found in the liver either as a primary growth or secondary to cancer elsewhere. For many years it was taught the primary variety was the most frequent, but now it is known that more than three-fourths of all cancerous growths in the liver are of metastatic origin, and of these metastatic deposits by far the larger number are secondary to primary cancer arising somewhere within the portal area.

There are two forms under which we meet with primary hepatic cancer—viz., first as a large solitary rounded tumour, and secondly as a diffuse degeneration of the entire organ, the liver meanwhile retaining its normal shape. When present as a solitary tumour, the growth is round and frequently of enormous size. Sooner or later it projects above the surface as an irregular prominence, over which the capsule becomes thickened and opaque. On section it appears as a soft pulpy growth of a greyish colour, from which a thick cream-like liquid exudes on pressure. It is seen to be traversed by glistening fibres varying in thickness; they have a reticulated arrangement, which gives the cut surface a lobulated appearance. In many places the external border is sharply defined, whilst in others the borderline between hepatic tissue on the one hand and cancerous growth on the other is indistinct or altogether wanting. As we should expect, the hepatic tissue and bile-ducts in the

<sup>1</sup> Under the direction of Madame Katti Lanten.

<sup>2</sup> Miss M. A. Chreiman, 69, Petherton-road, N.



neighbourhood are distinctly compressed, whilst some of the larger ducts are found blocked with cancerous masses; the portal and hepatic veins also contain cancerous thrombi, and are dilated. The mass may present certain varieties of retrogression—e.g., its centre may become converted into a dry yellowish cheese-like substance, owing to fatty changes in the cancer cells, or extravasations of blood show themselves as hæmorrhagic infarcts, which ultimately break down into dry hard masses, and, owing to the compression of the bile-ducts, the flow of bile is impeded and the organ becomes of a yellowish or greenish hue.

The diffuse or infiltrated variety of primary cancer is but rarely met with, but when observed is found to have a highly characteristic form. The liver is enlarged in all directions, the capsule thickened, and the surface covered with slight rounded elevations varying in size from that of a pea to a small nut. On section the lobules are seen to be enlarged, although their shape and outline are still preserved; but they are more or less transformed into cancerous matter. They are separated from each other by broad tendinous bands of fibrous tissue; they are either whitish in colour or yellow or green from the inhibition of bile, and are decidedly more succulent and pulpy than the ordinary hepatic tissue. The fibrous interlobular septa, owing to their vascularity, may have a tint varying from pink to bright red, which gives the organ a brilliant appearance. This variety of cancer, unlike the one just described, either undergoes no retrogressive change, or but slight fatty degeneration of its cells; the portal and hepatic veins and the bile-ducts are unaffected; whilst, as is also the case with the solitary growth, metastases to distant organs never occur, although the lymphatic glands found in the transverse fissure may in both cases be affected.

Microscopically, primary cancer presents the ordinary features of a medullary growth. It consists of large, round alveoli, the walls of which are composed of fibrous tissue and capillary bloodvessels, these latter being sometimes alone present. The alveoli are filled with cells which may have no particular shape or arrangement, at other times being cylindrical and symmetrically arranged. The capillaries derive their blood from the hepatic artery. These cancer cells are no doubt the direct offspring of the hepatic cells, although by some the epithelial cells of the smaller bile ducts are supposed to contribute in their formation. In both forms of the primary growth the cancerous transformation of the hepatic cells is the same, and may be studied in the various sections I have placed under the microscope. The true hepatic cells at first enlarge, by which the rows of cells become distinctly widened and separated from each other; at the same time the outline of the cells becomes very indistinct or altogether lost; the lobules then appear to be transformed into a number of protoplasmic masses, with a corresponding number of nuclei; these nuclei rapidly increase in number by the process of fission. This transformation of the hepatic cells is confined to a limited number of the rows of cells; the remainder, together with the capillaries, undergo atrophy from pressure; the portal capillaries, thus compressed together, with the connective tissue surrounding them, form the fibrous stroma of the growth; the capillaries which nourish the tumour are branches of the hepatic artery which have sprung into existence with the growth of the mass. It is, however, as a secondary metastatic growth that we have most frequently to deal with in cancer of the liver, the infecting source being generally the pyloric end of the stomach; it may likewise proceed from cancer of the intestines or peritoneum. If we reflect on the origin and distribution of the portal vein and lymphatics, we can readily understand with what ease the cancer germs may be transported. Secondary cancer of the liver appears nearly always as a number of deposits or nodes, and with extreme rarity as an infiltration.

The external appearance of a cancerous liver varies greatly. A number of milk-white nodules may protrude on the surface, which, on section, are found to vary in size from a millet seed to that of an orange, and to be sparingly scattered through a more or less atrophied parenchyma; or, on the other hand, the liver may be enormously enlarged, presenting superficially a number of umbilicated or centrally depressed nodules, being very much like a *nux vomica* seed, and about the size of an orange. The secondary hepatic growth increases so rapidly in size, and reveals to such a great extent retrogressive changes, that the primary infecting source is in danger of being overlooked, for very frequently the primary growth causes no very marked symptoms, and

unless systematically looked for the actual site of origin of the lesion is often overlooked, for the secondary growth of the liver is so large that it readily obscures the primary and insignificant one of the pylorus. About five-sixths of all cancerous growths in the liver have a metastatic origin, and of these two-thirds are secondary to primary cancer in the portal area, and one-third to primary cancer elsewhere, being very rarely metastatic to cancer of the skin. There can be no doubt that these growths are due to the presence of cancerous emboli in the branches of the portal vein or hepatic artery. The nodes which are seen on section scattered throughout the liver substance vary much in number, size, and general character; they may be so small in size and so limited in number that they may escape suspicion during life, and be only accidentally discovered at the post-mortem. Generally, however, they are scattered irregularly throughout the organ, in numbers varying from two or three to fifty or sixty, or more, at the same time presenting the greatest differences both in size and shape—the size varying from minute granules imperceptible to the naked eye to that of an orange or cricket-ball, the average size being that of an egg or an orange, whilst the usual shape is globular. They are sharply circumscribed, but not encapsulated, and they cannot be easily detached from the liver substance, which is in immediate contact with their borders, although neither compressed nor altered in character. These nodes increase in size in one of two ways: they grow at their margins by progressively invading the healthy tissue, or they coalesce with smaller nodules in the immediate neighbourhood, but at the same time the central portions fall into a more or less rapid degeneration of the fatty, caseous, or calcareous variety, which is the cause of the characteristic cupping. In the unaffected parts of the liver there is usually great hyperæmia, which doubtless has something to do with the enormous enlargement of the organ which so commonly takes place; often, too, the liver appears intensely yellow from retention of bile in consequence of compression of the biliary ducts, but it is important to note that the liver substance seldom exhibits signs of compression, the foreign growth apparently taking the place of the normal tissue.

If we examine these nodes a little more closely we shall find that in all their essential details the characteristics of the infecting growths are repeated. On the surface they are usually of the scirrhous variety, more internally they are of the medullary type, a creamy juice exudes from the cut surface in variable quantity, which microscopically exhibits the ordinary appearances. On the surface we have already noticed that the growths rise at their edges, and if we trace them downwards we shall find them to be rounded masses lying in the liver substance, having stellate bands of fibrous tissue radiating out from it towards the surface. It is the contraction of these bands which causes the characteristic umbilication. A number of small yellow spots are visible in most growths which correspond to parts undergoing fatty degeneration. These retrogressive changes arise most rapidly in parts removed from the source of nutrition, which is at the periphery of the nodule; the centre, therefore, is most prone to be affected, the cells, of which the growth in great measure consists, undergoing fatty changes and resorption. The stroma may also participate in the degeneration. The absorption occurs only when the nodule is superficial, when the side towards the peritoneum can sink in and give rise to the phenomenon of umbilication. At this stage, if the growth be cut into, we find nothing but the cicatrix left after the removal of the cells. When the nodule is more deeply situated and surrounded on all sides by a stratum of uniform thickness and rigidity, cancerous abscesses are formed as a result of the degeneration (*Geschwulstwand*).

Another form of degeneration which these growths, more particularly the larger ones, undergo, is the cheesy variety. The cancer masses in this case become dry and hard, and the cut surface appears of a yellowish-grey tint; the cells and stroma both participate in the process; the vessels are destroyed; the whole mass being ultimately transformed into a finely granular detritus.

In the earliest stages of the disease the liver is seldom increased in size, or altered in form, although it contains a large number of cancer nodules of small size; however, as these become more numerous, and especially as they increase in size, the organ undergoes great alterations in shape, volume, and weight, becoming enlarged, much thickened, and enormously increased in weight; indeed, sometimes the liver weighs from 20 lb. to 25 lb. in such cases. On section

very little of the normal parenchyma is found to remain, which as a rule shows no morbid change or sign of compression; the branches of the portal vein are often found filled with cancerous emboli; they lose themselves in the nodules, thus rendering it very difficult to say with certainty whether the nodule is the result of the emboli found in the vessels, or whether the diseased condition of the vein is itself secondary to the cancer growth, unless indeed the small branches of the portal vein containing emboli are continuous with the gastric and portal veins arising in the vicinity of a cancerous growth of the pylorus, and they themselves contain emboli of a malignant character. The walls of the gall-bladder and the lymphatic glands lying in the portal fissure are likewise affected with cancer.

(To be concluded.)

## SOME UNCOMMON SEQUELÆ OF DISEASES OF THE SKIN.

By W. ALLAN JAMIESON, M.D., F.R.C.P.,

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CUTANEOUS diseases, while presenting in general a somewhat uniform course as regards each particular disorder, exhibit at times certain peculiarities which may be due to the individual or to the locality affected, or to some special modifying circumstances. They are, however, also subject to sequelæ which may be regarded as rare. And to instances of these I wish to direct attention.

**CASE 1. *Urticaria following Scabies in an Adult.***—A fresh-coloured healthy young man of twenty, who in the course of business had to travel much and sleep night after night in beds sometimes not of the cleanest, consulted me about an itchy eruption which had annoyed him for a couple of months. It began about the wrists, then spread to the thighs, arms, and shoulders. The lesions consisted chiefly of scratched papules and isolated vesicles. There was scarcely any irritation in the daytime, but it became most annoying when warm in bed at night. A brother who lived with him was similarly affected, and a physician in France whom he had consulted told him he had "gale." I ordered a warm bath and an ointment containing storax and balsam of Peru. Two months after he came back, and informed me that the eruption for which he had asked my advice had long disappeared, but ever since he had been troubled with a prickling and itching sensation, accompanied with the development of very evanescent wheals. These chiefly appeared on the thighs, where the scabies had been worst, and only when warm and in bed. There was nothing visible when I examined him, but he said a warm bath would immediately evoke them. He was directed to sleep lightly covered at night, to avoid warm baths or any stimulants to the skin, and to sponge the body before retiring at night with a lotion containing carbolic and prussic acids, spirit of camphor, and a little glycerine. I heard no more of him, so I assume this relieved him.

Mr. Hutchinson has made us familiar with the various itchy eruptions which children are liable to as a sequence of the bites of insects, of scabies, and of varicella; but it is seldom irritation of such persistence follows scabies in a healthy adult, more particularly when an ointment so slightly irritating is employed for the destruction of the acarus. The following may be regarded either as an accident of the eruption or as a consequence of it.

**CASE 2. *Enlargement of the Inguinal Glands following Zoster Abdominalis.***—A young man of a rather lymphatic temperament, engaged as a law clerk, consulted me about a painful swelling in his left groin. The inguinal glands were found to be much swollen, tender, and painful. There was no gonorrhœa or chancre or history of either, but on examining the flank a group of vesicles on a hyperæmic base was found just above the crest of the ilium, and another nearer the spine and higher up. His bowels were habitually constive, and he accounted for the glandular enlargement by straining at stool; the presence of the patches of herpes zoster afforded, however, a much more rational explanation. He was directed to paint the patches of vesicles with flexible collodion, and to take some compound liquorice powder as an aperient. I have not observed any notice of glandular enlargement as a sequence of the eruption of zoster, and

cannot recall a case in which any complaint was made of it. Such an occurrence would seem therefore to be rare, while the situation would without further examination have raised, as it did to me at first, a suspicion of gonorrhœa. When one considers how much inflammation in the skin is sometimes produced in zoster, it is certainly rather surprising that sympathetic adenitis does not happen often.

**CASE 3. *Keloid after one Erasion with the Sharp Spoon.***—About a year ago Mr. Chiene asked me to see with him a young female, aged twenty-six, who had a curious black mark on her shoulder, just above the spine of the right scapula. This spot had existed as long as she could remember. When ten years old it was, she said, about the size of a threepenny piece. Of late it had grown larger, and had reached the size of half a crown. At its upper part it was of a deep bluish-black, and well defined from the surrounding skin. At the lower part was an outlying ring, reddish-brown in tint; and between these limits was an area little altered from normal in hue. Though apparently not elevated above the surface, when the fingers were passed over it little shot-like bodies could be felt rolling beneath them. The affection was quite superficial, and involved little more than the rete mucosum. The cuticle over it was shiny, thin, and as if loosely attached, and was wrinkled vertically in fine lines. It itched at times, and was painful when dragged but not when pressed. The patient is stoutish, with a fair skin, has had slight hæmoptysis, and suffers from bronchitis every winter. She is easily fatigued. Bowels rather constipated. Menses regular, but scanty. I attacked the growth with the sharp spoon, and though the resistance was considerable most of the mark was removed, some pigment which obstinately refused to be separated still remaining. The part was then dressed with absorbent cotton, and afterwards, till healed, with boracic lint and lotion. Professor D. J. Hamilton examined the scraping for me, and found it was a blood-clot under the epidermis. So perfectly had the encysted blood been preserved that the cells were distinct, and probably because they had not broken down had consequently not undergone absorption. More than six months after she came back, and on looking at the part which had been scraped I found that a nodule of keloid had become developed in it. It was about one-third of an inch in diameter, of a square shape, and reddish-pink in colour. It was both rather tender to touch and smarted a little spontaneously. I directed it to be painted with a solution of iodoform in flexible collodion, but this a couple of months after had done no good. It was quite unchanged. Erasion when employed for the removal of a new growth, such as lupus or epithelioma, seems to have no tendency to occasion that disease of scars which we know as keloid. Here, however, there was no new formation, and it may have acted as repeated multiple scarification has been found to do in nævus, and set up an irritation in the corium which eventually took the form of keloid. The singular point is that only one erasion was done, and yet keloid grew in the cicatrix.

**CASE 4. *Pruriginous Eruption as a Sequela of Psoriasis, and possibly Scabies also.***—A healthy-looking man, about thirty-six years of age, consulted me in March last. He had then well-marked patches of psoriasis on his back, abdomen, arms, legs, and head. These bore few scales, as he had been taking arsenic. Though he has suffered from the disease for some time, it went nearly entirely away last summer and winter, to return this spring. The psoriasis itself was more than usually itchy, but, besides this, there were small and discrete papules on the flexor aspect of the wrist, and a vesico-pustular eruption on the penis. These parts were specially irritable at night. On the head, great part of which was bald, the spots of psoriasis were erythematous maculæ, and not itchy. He was directed to take a warm bath, and then apply an ointment of storax and balsam of Peru to the body, and one of rufigallic acid (one in ten) to the head. One-fiftieth of a grain of arsenious acid in pill was prescribed to be taken three times a day. The itching was relieved, but not cured by the use of the storax ointment, and the arsenic was gradually increased to the one-twentieth of a grain thrice a day. At the end of April he went to a hydropathic establishment, where he continued to improve as regarded his psoriasis. When seen in the middle of July the psoriasis had disappeared, but the skin of his hands was uniformly rough and dry. Inside the thumbs and between the thumbs and forefinger, as well as between the fingers themselves and on the knuckles, the surface was warty in character, not unlike the veruca necrogenica of Wilks. Over the whole of the arms, trunk,

abdomen, and back were deep crimson-red papules, intensely itchy, and many of them torn and scratched. Though most of these papules were seated at hair-follicles, they had neither the appearance nor the arrangement of those of lichen ruber. They were not set in lines nor aggregated into patches, nor had they the peculiar horny glance which characterises those of lichen. While very itchy at night, they gave comparatively little annoyance in the daytime, but his rest was broken and his life rendered miserable. His appetite had not failed, though he felt somewhat languid, and unable for prolonged exertion. I ordered him a nightly bath at a temperature of 90°, containing two ounces of sulphide of potassium in each bath; and after the bath to be painted with a lotion containing carbolic acid and glycerine; for the hands inunction with glycerine of starch, and twenty drops of tincture of gelsemium as an antipruritic at bedtime. A week afterwards he wrote to me saying that he was much relieved. He could now sleep the greater part of the night with comfort. He found the lotion cooling and pleasant, and his hands were softer, and the skin more pliant. I recommended continuance of the same treatment, simply adding some spirit of camphor to the lotion. Ten days more elapsed, and then he wrote to me that his hands were nearly well, and except his arms, which still rather rebelled, his body also was almost cured. I permitted the discontinuance of the sulphur bath in the meantime, the resumption of the morning cold tub, with inunction with glycerine of starch afterwards. I have not since heard from him.

Poriasis seldom itself itches much when uncomplicated; and a pruriginous eruption like this developing out of it must be regarded as uncommon. In some respects it seems analogous to what Dr. Tilbury Fox described as pityriasis pilaris, which occasionally follows pityriasis rubra. But the colour constitutes a difference. The influence sulphur baths had in allaying the itching would seem to bring it into relation with Hebra's prurigo; and, indeed, the general aspect of the eruption resembles nothing so much as the plate of prurigo in Fox's Atlas. Now that dermatology is becoming better known, and day by day is being based on more secure ground, the manifestation of peculiar sequelæ in certain cases will assume due importance and attract greater interest. These cases may serve to direct attention to a new and unexplored field.

### CASE OF INGUINAL AND FEMORAL HERNIA OCCURRING ON THE SAME SIDE OF THE BODY.

By J. M. COTTERILL, M.B. EDIN., F.R.C.S.E.

THE subject of hernia is one full of interest to the surgeon; and this is mainly due to the fact that not only does considerable difficulty occasionally present itself in making an exact diagnosis, but that we so frequently meet with complications of widely different natures, such as inflammation, adhesions, strangulation, hydrocele, malposition of the testicle, and the like, giving rise in their turn to various symptoms and risks to the patient, and calling for a careful consideration and treatment of each case on its particular merits. In illustration of this statement the following case may be of some interest.

On June 15th, 1882, I was asked to see Mrs. G—, aged sixty-four, who was reported to be suffering from severe pain in the abdomen, persistent vomiting, constipation, and other symptoms of intestinal obstruction. The history of the case was, that eight days previously to my seeing the patient vomiting and constipation had set in, and, in spite of the adoption of the usual lay treatment in such emergencies, she had grown steadily worse, the abdomen becoming somewhat tense and very painful, and the vomiting after the fifth day of the illness becoming slightly fecal in odour and appearance. Getting alarmed at her condition, she sent for medical advice, and the gentleman who saw her, recognising her symptoms as those likely to be due to strangulated hernia, and, on examination, finding an inguinal hernia in her right groin, reduced it without difficulty, and left his patient, as he hoped, in a fair way to recovery. The following day, however, she was considerably worse, and symptoms of collapse so rapidly set in that at

noon she was fast sinking, and by the time I reached her house at two o'clock she had died.

I had an opportunity of carefully examining the body after death, and found that the hernia, which had been reduced over-night, and which was of the direct inguinal variety, had again protruded, owing no doubt to the constant vomiting; but it was easily capable of reduction, and it turned out on inquiry that the patient had suffered from this reducible hernia for some forty years past. At first I naturally suspected that this hernia had become strangulated, and had been reduced *en bloc*; but on making a more careful examination I discovered a small femoral hernia on the same side of the body, which had escaped previous notice from its comparatively small size and from the great development of superficial fat over the patient's body. This femoral hernia was about the size of a walnut, tense and irreducible, and there seemed every indication that it had been the cause of death. It seems strange that it had not attracted the notice of the patient, but she had made no complaint of it, and seemed to have been unaware of its presence, referring the pain and other symptoms to the inguinal hernia lying close above it. As no medical advice was sought until two days before death, when, judging from the symptoms, gangrene of the gut and peritonitis had supervened, it is not probable, even if the exact nature of the case had been then recognised and herniotomy performed, that the case would have terminated satisfactorily.

The comparatively rare occurrence of two forms of hernia on one side of the body, and the fact that one of these, apparently the fatal one in this instance, had been overlooked, seem to render this case deserving of record.

Edinburgh.

### THE INTRA-VEINUS INJECTION OF FLUID FOR SEVERE HÆMORRHAGE.

By C. EGERTON JENNINGS, L.R.C.P. LOND.,

RESIDENT ACCOUCHEUR, AND FORMERLY HOUSE-PHYSICIAN AT THE LONDON HOSPITAL.

ON August 20th, at about 3 P.M., M. A. S—, a patient of the London Hospital Maternity Charity, pregnant, and nearly at term, fell in the courtyard adjoining her house, suddenly becoming the subject of profuse ante-partum hæmorrhage. At 5 P.M. I found her collapsed to a marked extent, lying on a sofa in her bedroom, the pulse barely perceptible, the skin cold and clammy, extreme pallor of the face, an anxious expression of countenance, sighing respiration, and slight jactitation. Blood was flowing from the vagina; the mucous membranes were blanched. Upon examination, I found the os uteri fairly dilated, the right shoulder presenting; the membranes were unruptured, and the edge of the placenta could be felt just within the os uteri posteriorly.

At this critical juncture I remembered the cardinal rules laid down very clearly by Dr. Palfrey in his lectures on Obstetric Medicine for the management of cases of this description—viz., to arrest hæmorrhage, to correct the malpresentation with the least possible shock, and, by cautiously employing stimulants and restoratives freely, to allow the patient to rally and deliver herself spontaneously. A drachm of brandy with one of water was injected into the gluteal muscles; the membranes were ruptured, and the left leg brought down into the vagina with considerable ease, owing to the flaccid condition of the parts and the amount of general anæsthesia present. The abdomen was kneaded, the hæmorrhage ceasing. To have accelerated delivery at this period would, I think, have proved fatal. Two grains of sclerotic acid, in solution, were injected into the buttock, and the woman was covered up with blankets. I left an assistant steadily kneading the uterus, and returned to the hospital for a transfusion apparatus. Not being able to procure a blood-giver, it was determined to try a saline alcoholic intra-venous injection.

I may observe parenthetically that great difficulty was experienced in finding a vein, owing to the profound anæmia existing. The patient's right elbow was immersed in hot water, and the cubital triangle thoroughly sponged. These means, added to friction of the part and the adaptation of a

turn of a bandage around the arm, were successful in causing the veins to stand out with some prominence; an incision was made over the median basilic, the vein exposed, isolated, and an aneurism-needle armed with a double ligature passed beneath it. The distal ligature was tied, the vein opened, the nozzle of a three-ounce metal syringe, charged with the fluid already prepared, inserted; the proximal ligature tied loosely over the nozzle of the syringe, and the piston pressed slowly home. This was about 6 P.M., the woman being moribund. The syringe was emptied; it was disconnected, refilled and readjusted, the process being continued till sixteen ounces of fluid had been injected. Signs of animation very rapidly appeared—recognition of people present, speech, vision and hearing returned, and complaints of pain in the abdominal region were made. The syringe was withdrawn, the proximal ligature on the vein now tied tightly, the wound closed with the interrupted suture, and a compress and bandage applied. Another grain of sclerotic acid was injected hypodermically and the case left to nature, delivery occurring at about 7.30 P.M., without any further operative interference whatever.

I may add that the saline alcohol solution, employed in this case, consisted of twenty ounces of water at about 100° F., into which was stirred a powder containing exactly the following ingredients:—Chloride of sodium, fifty grains; chloride of potassium, three grains; sulphate of soda, and carbonate of soda, of each 2.5 grains; phosphate of soda ( $\text{Na}_2\text{PO}_4$ ), two grains. To the fluid thus prepared two drachms of absolute alcohol were added. The subsequent progress of the patient has been most favourable. The highest temperature (Aug. 23rd) noted since delivery was 102.4° F.; the wound at the elbow healed kindly, and the woman has proceeded to an uninterrupted convalescence.

I believe I am correct in asserting that transfusion is commonly regarded as a theoretical rather than a practical operation—as one to be performed in the theatre of a hospital, but not in the country village or wayside house. With the view of facilitating the method of intra-venous injection, Messrs. Maw, Son, and Thompson, have made for me a small case containing a few feet of elastic tubing, to be used after the principle of a nasal douche or syphon, cannulae of different sizes, a pair of dissecting forceps, with fine points, a scalpel, an aneurism-needle and ligatures, a graduated bottle for alcohol, and room for some saline powders. Here, within very small compass, the accoucheur has the means, with the addition of a jug of hot water, of combating very speedily the effects of alarming hæmorrhage. This is, I submit, a more practical method than the transfusion of blood; here no blood-donor is required, and no risk—it may be urged a trilling risk—to a healthy life incurred.

## EXCISION OF THE LATERAL HALF OF THE TONGUE BY WHITEHEAD'S METHOD.

BY BENNETT MAY, B.S., &c.,  
SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

AT the present time, when the subject of excision of the tongue in cancer is somewhat prominent, I feel called upon to make a short record of the following case, which terminated fatally.

J. T.—, aged forty-four years, became an inmate of the Queen's Hospital on January 21st, 1882. He was suffering from an epithelioma of the right margin of the tongue, appearing as a foul ulcer about an inch and a half in length, and parallel to the long axis of the organ. It extended back to within a quarter of an inch of the palato-glossal fold, but was not infiltrated beyond its immediate base. The history pointed markedly to a local causation—viz., the ragged edges of a row of stumps, which after many months' irritation were extracted too late to arrest the progress of the disease. Under the angle of the jaw was a single glandular swelling the size of a pigeon's egg, slightly tender, but movable and circumscribed; it had come up suddenly within three weeks of his admission, and was thought to be subsiding at that time. He was otherwise in fair health.

*Operation.*—The patient, placed in a dentist's chair, was brought under ether, and the frænum divided with curved

scissors to give more room in the mouth. The tongue was then transixed with the bistoury, and split into lateral halves by cutting forwards. The scissors were used to sever the mucous membrane along the floor of the mouth, the palato-glossal fold, and finally the right half of the organ was severed on the level of the lower border of the maxilla. Bleeding was free, and required prompt attention for its arrest. It followed every cut, but it was not till the final severance that it welled in profusion from the main artery in the floor of the mouth. I did not interrupt the proceeding long to attempt to arrest it in detail, with the exception of securing a vessel in either half which had been severed during the splitting. The vessels were exposed by traction on the sound half of the tongue, and were secured by gutligatures without much difficulty. The gland was then removed through an incision over it, beneath the angle of the jaw, whilst it was made prominent in the neck by a finger in the mouth. Being a salivary gland, it easily shelled out until it held only by a small tag of tissue, which rather unfortunately was touched with the scalpel instead of being torn off, for a small vessel was severed, and continued to bleed into the mouth, the floor of which had been penetrated. This bleeding was more difficult to arrest than that from the tongue, and the wound had to be thoroughly everted before the little point could be found. The resulting wound, however, which extended from the back of the floor of the mouth to beneath the angle of the jaw, afforded an excellent line of drainage, and a tube was retained there for the purpose. Every precaution was taken in the after-treatment, as described in THE LANCET of June 10th. On the third day I thought he was out of danger, for he had rallied well from the operation, was free from fetor of the breath, and with excellent drainage through a tube below the jaw. On the fourth day the pulse and temperature went up, and he began to cough purulent mucus from the trachea. There did not seem enough mischief in the chest, however, to account for his serious illness. On the same day, after thoroughly irrigating the mouth, I let him have a little milk to drink, and soon afterwards he was seized with pain in the abdomen, followed by diarrhoea and hæmorrhage from the bowels. These continued unchecked till the eighth day, when his death took place rather suddenly after intestinal bleeding. No post-mortem was permitted, but the cause of death is believed to have been gastro-enteritis and purulent bronchitis.

The principal point of interest in the case is that of hæmorrhage from the mode of operation, and its bearing on the fatal result. Although free, the bleeding was controllable, and was arrested by promptly securing three or four vessels. I cannot say that none entered the air-passages, though the operation was not embarrassed by this cause. It was not formidable or dangerous *per se*, further than it may have opened the way, as it does so fearfully in these cases, to other complications, such as admission of blood to the lungs and the ready onset of septic infection. Having only to remove one-half of the organ, I was at great ease and advantage in securing the vessels by traction on the sound portion, but if the other half had required removal I should not expect to have fared so well. I felt this at the time. There would not have been the same facility in exposing the bleeding vessels. For the same reason, after the first splitting of the organ, I made very little delay to arrest bleeding in detail. I found more loss than gain by this, the severance of one-half being effected very quickly, and there being no profuse bleeding till the final cuts. I have seen nearly as much bleeding follow the use of the écraseur, and without the great advantage of being securely arrested before the patient left the operating-table, as was the case with this patient. I do not wish in any way to associate the fatal issue with the special method of operating. I hardly know why death should have occurred, or how far the hæmorrhage of the operation may have contributed to the fatal result; certainly the gland was as much to blame as the tongue. Nor do I wish to disparage the operation on such limited experience. But it appears to me that Mr. Whitehead underrates the amount of bleeding which may at times be encountered. The operation is easy of performance and rapid in execution, and in his hands has yielded excellent results, whilst his rules for after-treatment are most valuable. In the meanwhile the possibility of having to encounter such a case as that of Mr. Treves (THE LANCET, April 22nd), although doubtless exceptional, and my experience in this, one, will deter me from resorting to a cutting operation with-

out adopting Billroth's preliminary step of securing the lingual arteries. Any operation, to be satisfactory, should provide against the admission of blood into the air-passages, and should also secure subsequent drainage below the jaw, and my own experience leads me to believe that these desiderata can be most surely attained by an operation which includes division of the lower jaw whenever the entire organ is to be removed.

## EXCISION OF THE ENTIRE TONGUE BY WHITEHEAD'S METHOD.

By ANDREW MARSHALL, M.D.

A FEW months ago a brief report was published in the columns of THE LANCET of a case of excision of the entire tongue performed by me according to Mr. Walter Whitehead's method, in which there was an entire absence of the difficulties and dangers which some surgeons have experienced in the course of this operation. The process was found to be easy and expeditious, the amount of blood lost quite insignificant, and the result satisfactory. Another similar case has lately occurred in my practice which has tended to confirm in my mind the favourable opinion of the operation which I formerly expressed.

W. D—, aged forty-eight, by occupation a wheel-smith, living in Preston, and suffering from cancer of the tongue, was first seen by me on July 22nd, in consultation with Dr. Lightbourne. The disease at that time involved nearly the whole tongue, excepting the anterior third. It was worst on the left side, where there were much enlargement, induration, and ulceration. There also the tongue was partly bound down by infiltration of the subjacent tissues; and attempted movements by the patient, or manipulation by others, produced extreme pain.

The man was evidently a great sufferer, exhibiting in a marked degree the usual symptoms of his distressing complaint—viz., constant pain, aggravated by talking, masticating and swallowing, great fetor of the breath, and profuse salivation. The disease had been in existence for several months. It was first noticed as an indurated spot on the left side. No cause could be ascribed for the existence of the malady. There were no sharp teeth to account for it. The patient had been a temperate man, was not a smoker, and said he never had syphilis. There was no history of cancer in the family so far as could be ascertained. We advised removal of the whole tongue, considering it expedient as a palliative measure, although of course not likely to result in anything better. It should be stated that Dr. Lightbourne had previously given him the same advice, which, however, he then declined. After a few days' consideration he gave his consent, and the operation was performed on July 28th. Mr. Whitehead's directions were strictly followed, and surely that is necessary if a fair estimate is to be formed of his operation. After the first few snips with the scissors, blood began to flow rather freely, but the prompt application of small sponges not only prevented any reflux of the blood into the air-passages, but also speedily arrested the flow sufficiently to allow the operation to be safely proceeded with. Bleeding took place from the right lingual only, and pressure with the finger sufficed to stop it; the left lingual was never seen. The later stages of the operation were accompanied by very little hæmorrhage, and after its completion there was hardly any at all. Altogether there was not much, probably from two to four ounces, and there was no difficulty whatever in controlling it.

There was nothing specially noteworthy in the after-treatment. No food was given by the mouth for three days. Antiseptic washes and inhalations were used. Great relief from pain followed the operation and a good recovery was made, but of course the benefit is only temporary, a cure under the circumstances being impossible.

A difference of opinion still exists amongst surgeons as to the relative merits of Mr. Whitehead's operation, but this difference refers principally, or perhaps solely, to the danger from hæmorrhage, it being very generally admitted that "if the question of probable bleeding be put aside the operation would be in every way excellent. By its means the tongue can be removed entire, with ease, precision, and rapidity; the neighbouring parts are but little disturbed, and all the

evils incident to the crushing or bruising of tissues (as involved in the use of écraseurs) are avoided." With regard to hæmorrhage, Mr. Whitehead asserts that it "is easily controllable and usually trifling." Some operators have not found it to be so, however, for cases have been recorded in which the hæmorrhage was "very profuse" and even "terrific." It does seem desirable therefore to obtain an "accumulation of cases from different sources" in order to determine the real extent of this danger, and to discover, if possible, the true explanation of the "conflicting statements" which have been put forward with regard to this subject. Preston.

## ON TWO CASES OF HEPATIC ABSCESS; RECOVERY.

By F. C. BARKER, M.D., F.R.C.S.I.,  
BOMBAY MEDICAL SERVICE.

CASE 1.—D. S—, aged about twenty-five years. Admitted to Surat Civil Hospital August 13th, 1877. Liver enlarged to about a handbreadth below costal margins, and upwards to an inch below nipple. Tenderness and loss of appetite. Attack began ten days ago. No pain in shoulder. Temperature normal. Given twenty-five grains of ipecacuanha. No emesis followed.—Aug. 14th: Severe hepatic pain. Slight fever in the night with "cold" (rigor?) reported. Tongue slightly furred. Given a calomel and jalap purge.—19th: A distinct fluctuation in right hypochondrium, with fulness here and in the chest above, and obliteration of the intercostal depressions with great tenderness. Tapped in hypochondrium with aspirator and No. 2 needle; twelve ounces of reddish-brown fluid, abounding in hepatic cells, drawn off from a cavity evidently large, judging from the free movements of the needle without encountering the opposite walls. Allowed two ounces of country spirit daily as he was reported an habitual drinker. Ordered thirty grains of chloride of ammonium three times a day.—22nd: Partial relief to symptoms since tapping, but swelling returning. Temperature 100°. Chloroform given and an incision made close to puncture of 19th, about an inch and a half long, passing through the rectus, which was torn through with a director, down to its posterior sheath. Dry lint into wound and poultice.—23rd: Abdomen ascitic and feet slightly cedematous.—26th: As no bursting had taken place into the wound a finger was introduced, and the remaining covering of the abscess divided with a scalpel, on which about forty ounces, chiefly pus, flowed, a small quantity of bile-tinged fluid following. Drainage-tube introduced, and carbolized oiled lint pad applied. Abdomen and lower part of chest firmly bandaged. Ordered egg mixture.—27th: Abdomen reduced in size. No fluctuation. Discharge about two ounces. Pulse 76; temperature normal.—28th: Pulse 97. Abscess admitted a probe five inches backwards. Discharge less. Pressure steadily kept up on abdomen during dressing. Skin generally becoming dirtier and looser.—29th: A great falling in of abdomen has occurred from pressure of the bandages. Discharge in great measure bilious.—30th: Pulse 100. Discharge still bilious.—31st: Same. Abdominal bandages slackened. Castor oil.

Sept. 2nd: Stools free and well tinged with bile, contrasting strongly with their previous clayey colour; bile apparently diverted from abscess to bowel. Its reappearance in the motions and disappearance from the abscess allayed fears of injury to the gall-bladder or ducts. Lateral space in abscess lessening; bandage a little tighter.—3rd: Pulse 97. Discharge nearly free from bile, purulent, rather thin.—4th: Pulse 91. Thermometer in abscess showed 99° 8'.—7th: Daily discharge now about three or four ounces.—9th: Discharged a piece of thin membrane about two inches square, tinged with bile.—23rd: Rupial eruption on back of hand.

Oct. 4th to 10th: Discharge much less. A small sore on glans penis and a general ulcerative eruption covering the body by the 10th, with increase of discharge from abscess to about an ounce.—19th: A great decrease in discharge since the 13th, on which iodide of potassium was increased. Crusts of eruption separating.—28th: Drainage-tube discontinued. Improvement uninterrupted from this date.



Nov. 10th: Abscess scabbed over; health good; become fat. Discharged.

The total amount of discharge during treatment was calculated at over four pints and a half, including that atappings.

*Treatment* (essentially) after incision of abscess:—Stimulants; alimentation; cod-liver oil; iron; quinine; nitro-muriatic acid; frictions of cod-liver oil and iodide of potassium on appearance of syphilitic eruption, which, under its use, disappeared as promptly as it had supervened severely, and in evident connexion with the persisting suppurative tendency in the liver.

CASE 2.—Mr. G—, aged thirty-nine, tall, sanguine temperament and spare active frame, and remarkable powers of recovery from repeated illnesses, having had several attacks of liver congestion, or inflammation more or less acute, and once evidently connected with malarious fever, and on subsidence of which the liver got well. On July 23rd, 1879, two days after hard racquets, followed by iced drinks and while out of practice, he was seized with lancinating pain in right and left hypochondria, which became more intense next day. Purgatives for costiveness having partially acted, opium gave temporary relief, but the temperature rose and remained so, with evening remissions till the 31st, when a sudden fall of three and a half degrees, with a profuse perspiration, accompanied the discovery of a deep-seated tender induration in the epigastrium, two and a half inches in diameter. No fluctuation. This was found, however, on August 5th, and on the 8th became so superficial that puncture was practised with a large trocar and cannula after a short cutaneous incision, and a grooved needle exploration gave exit to a drop of pus. About an ounce of healthy pus mixed with blood afterwards escaped. On this ceasing a carbolic oiled strip of lint was inserted through the cannula, and poultices kept on. Subsequent daily discharge very slight, and relief marked, temperature remaining at 98.4° and 99°, till the 17th, and a previous severe hæmorrhagic and dysenteric purging at once and finally ceasing. The discharge, however, continued of a disappointing character, scanty and reddish; pulse, though only from 62 to 77, laboured and unrhymical; temperature showing the slight evening rise to 99°; slight headache and disturbed sleep, with bad dreams. On the 18th a return of enlargement round site of abscess; temperature rose to 101.6°. Leeches, fourteen over liver and four to anus; milk diet.—19th: Slight fall of temperature; leeches, six and four.—20th: Further fall to 99.4°; leeches, eight and two.—21st: Further fall to 99.6°; leeches, twelve over liver.—22nd: Further fall to 98.4°, and evening 99°. From this date convalescence progressed, and he departed, by sea, for Bombay, where, under appropriate treatment, comprising blisters, iodine painting, chloride of ammonium, nitro-muriatic acid, nux vomica, Carlsbad salts, and no stimulants for a time, the small remaining sinus healed, and his general health was restored. On inspecting him again, at Ruttonagiri on November 15th, I found him doing well and engaged in hard official work, with which he was occupied till his departure for Europe in May last.

*Remarks.*—In THE LANCET, Dec. 21st, 1878, p. 871, Surgeon Major Furnell, speaking of the aspirator, says: "The abscess is tapped again and again with relief." This is precisely what promised to occur in my Case 1, and appears, as Dr. Furnell says, an inevitable consequence of the use of the aspirator in all large abscesses. The liver must have something to fill the vacuum, and the readiest things are pus, blood, or liver tissue. A week after the aspirator drew twelve ounces the scalpel incision gave vent to forty ounces. No further operation was required. But in this case, I think, immense benefit was derived, and for obvious mechanical reasons, from the firm abdominal bandaging. Here was an equable pressure aiding contraction from without, and in no way conducing to internal breach of surface, like the suction force of an aspirator.

Since reading Dr. Furnell's cases and remarks, I should certainly prefer (to even the small piece of drainage-tube I used) the oiled lint strip, as less interfering with nature while sufficiently keeping open a way of exit for discharge. It answered well in Case 2, introduced through the cannula as he advised.

In Case 1, a severe syphilitic taint, declared by the rupia, warranted every possible blood-restoring and supporting measure whose good effects, coupled with the iodide, were shown by the progress of the case; whereas in Case 2 a directly opposite line of treatment was as clearly indicated

by the sanguine temperament and purely phlegmonous character of the abscess, and that which answered best was found to consist of leeches, low diet, no stimulants, and repeated doses of castor oil.

Dr. Furnell's directions for the preliminary incision should be paid special attention to. The grasp of the skin and underlying tissues on a large trocar with an incision insufficient in length and depth, is such as to necessitate a degree of force in its introduction which might be dangerous in a thin-walled abscess, and in any case gives a needless shock.

Warrenpoint, County Down.

#### NOTE ON THE

### TREATMENT OF CONTRACTED FINGERS.

By EDWARD BELLAMY, F.R.C.S.,  
FELLOW OF KING'S COLLEGE, LONDON.

A POWERFUL man some months ago scratched his little finger with a meat-bone. The usual train of symptoms followed, and when I saw him the tip of the little finger was so tightly approximated to the palm that no force could separate it, and strong fibrous bands corresponding with the primary flexures were readily observed, and as I thought the tendon was uninvolved, and still ran in a tolerably free theca, I divided the bands with a von Graefe's iridectomy knife, which is singularly useful for fine plastic work, and extended the fingers forcibly. No good came of this proceeding. I subsequently placed him under an anæsthetic, and carefully and thoroughly extirpated the entire cicatricial tissues, and divided the tendon, with antiseptic precautions. The finger was carefully retained in the straight position, a metal circlet was made for the wrist, and a piece of stout steel clock-spring welded on to it. This steel spring was carried up the dorsum of the finger and suitably attached to it. By its tension it effectually kept the parts on the stretch, and when the wound had healed, passive and active movements, conducted by the patient himself, brought about an excellent result. The finger is as straight as the others, and will be, no doubt, ultimately quite as useful.

Wimpole-street.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORCAEVI De Sed. et Caus. Morb., lib. IV. Proœmium.

#### CHARING-CROSS HOSPITAL.

CASE OF TUMOUR OF BLADDER; DIGITAL EXPLORATION  
THROUGH MEDIAN INCISION; REMOVAL OF  
GROWTH.

(Under the care of Mr. JOHN H. MORGAN.)

FOR the following notes we are indebted to Mr. W. H. Colman.

Edward J—, a labourer from Great Wakering, Essex, aged sixty-five, was admitted to the hospital at the beginning of the year, under the care of Mr. Bellamy. He stated that about fifteen years ago he had felt pains after micturating. The pain was at first of a cutting nature, and was referred to the region of the neck of the bladder, but there was not at the time any alteration in the character of the stream from the urethra. In the course of time he found that the frequency of micturating gradually increased, and occasionally the urine was mixed with large quantities of blood. Previous to this time he had been healthy, his habits were temperate, and his family history was exceptionally good. During the last few years he had occasionally passed gravel, sometimes pieces coming away with the urine as large as wheat-grains.

On admission he was found to be a well-built muscular man,

of rather florid complexion, and with hair turning grey. Notwithstanding the frequent loss of blood, he declared that he had not grown perceptibly thinner. During the day, he required to pass urine frequently, but the length of the intervals was very variable; at some times he was able to go two hours, at others being compelled to micturate every five or ten minutes. Movements increased the frequency, and gave rise to some pain, which, however, was never excessive. There was never any retraction of the testes, nor had he ever suffered from sickness or diarrhoea. He was sounded by Mr. Bellamy, but no calculus could be detected, and he was ordered a mixture containing small quantities of tincture of perchloride of iron and tincture of opium. The urine was almost always tinged with blood, but the amount and colour varied greatly; at times the urine being bright scarlet, and at others the amount of blood being so small as only to be detected by microscopic examination. No calculous matter was passed during his stay in the hospital, but when the quantity of blood in the urine was larger there was usually to be found a large number of whitish flocculent masses at the bottom of the receptacle, which proved, on examination, to be small amounts of decolorised fibrin.

During the absence of Mr. Bellamy the patient came under the care of Mr. Morgan, who on sounding the bladder was unable to detect the presence of any calculus, but the sensation was given of the presence of a soft uneven mass lying at the posterior part of the bladder. Examination per rectum showed the prostate to be slightly enlarged, but did not assist in determining the nature or size of the new growth. Accordingly the patient was placed under the influence of ether and again sounded, when the previous conjecture was still further strengthened. The bladder was then washed out by means of an apparatus which Mr. Morgan has lately devised for the examination of detritus after lithotomy. The result of this was the removal of a large quantity of the decolorised fibrin with a good deal of fresh blood; but under the microscope no characteristic epithelial cells could be detected.

On May 11th the patient was again placed under ether, and a staff having been passed, and the patient being in the position for lithotomy, Mr. Morgan, having first divided the skin in the middle line a little above the anus, passed a lithotomy knife down to the groove in the staff and made an incision of the urethra of about three-quarters of an inch in length. Through this wound the left forefinger, aided by the pressure of the right hand on the abdomen above the pubis, was able to explore the greater part of the walls of the bladder, as pointed out by Sir Henry Thompson. There was found to be a quantity of soft velvety growth springing from the posterior wall, and generally diffused, but one large mass grew as from a pedicle, and this was easily grasped between the blades of a lithotrite, and removed through the incision. A full-sized catheter was introduced through the wound and secured. Very little bleeding followed the operation, and the patient passed a comfortable night. On the following day the catheter came out of its own accord, and was not replaced. On the second day the patient was slightly feverish, but after the bowels had been well relieved this passed off, and he made a rapid recovery; so that he was up and about the ward on the sixth day after the operation, urine being passed by the urethra only every two or three hours, and containing hardly any trace of blood.

The growth removed resembled a filbert in size and shape, and in structure consisted of a rather contracted pedicle from which sprang innumerable branchlets, which again were subdivided into small villous prolongations. The villi consisted of a basement containing vessels, and were covered by layers of epithelium of a squamous character.

At his own request, the patient returned home at the end of a fortnight, and Dr. Raper, who has attended him since, reports in a letter dated July 12th, that he "remained very much better for some time after he returned home; his water was comparatively free from blood, and he only required to pass it once in two or three hours; sometimes there was a little blood-stained mucus at the bottom of the chamber, and a few gritty particles passed at times, similar to what he had been passing before he went to the hospital, but less in quantity and in size. Since Friday last he has not been so well, the blood has much increased and he has to pass water more frequently, often two or three times in an hour; also the water passes less freely, and he has more pain and feels weaker."

## DISTRICT HOSPITAL, WEST BROMWICH.

### RUPTURE OF LIVER; DEATH IN THIRTY-FOUR HOURS.

(Under the care of Mr. SANSOME.)

G. R—, aged forty-six, was admitted, Aug. 25th, about 4 P.M. He was a labourer, employed at some chemical works near the hospital. In the afternoon he was standing behind a stationary truck for the purpose of coupling it to others coming up behind and drawn by horse power. For some purpose he stepped out before the hinder trucks had been quite drawn up, the buffer struck him in the back, knocking him forward on to the buffer of the stationary truck with such force that the latter was propelled about two yards.

On admission he was suffering from severe shock, his features being pinched and sallow, surface cold, and pulse feeble. The conjunctivæ were not discoloured, and there were no marks of violence about the body. The area of hepatic dulness was somewhat extended posteriorly. Hot fomentations were applied, opium administered internally, and milk only ordered. About midnight eight ounces of clear, high-coloured urine were drawn off, but catheterism was subsequently needed. Next morning the same conditions obtained, except that the dulness was not so extensive. He suffered acute pain and nausea; the shock seemed intensified, and stimulants were ordered, but without avail. About 8 P.M. all pain ceased, and he expressed himself much better. This continued till 11 P.M., when delirium supervened; he rapidly sank, and died at 12.30 A.M. on the 26th.

At the post-mortem, fourteen hours afterwards, the body was found to be well nourished and muscular. On opening the abdomen a large quantity of clear bloody fluid escaped, and on the posterior border of the right lobe of the liver was a gaping jagged wound, three inches in length and one-inch in depth at the centre, which was the deepest part. Three inches anterior to this was another wound two inches long, about one-twelfth of an inch deep, but in which the capsule was not in its entire extent torn through. The gall-bladder and duct were uninjured. There were numerous clots around, and the ascending colon and surrounding structures were much discoloured. The other organs were healthy.

It will be observed that the patient lived thirty-four hours after the receipt of the injury.

## GUEST HOSPITAL, DUDLEY.

### LATERAL LITHOTOMY; EXTRACTION OF A LARGE URIC ACID STONE, WEIGHING THREE OUNCES AVOIRDUPOIS.

(Under the care of Dr. UNDERHILL.)

B. J—, aged twenty-three years, a fender maker, of average development, but very anæmic, was admitted on June 2nd, 1882. There was no particular family history, and he had had no illness of moment until the present. He stated that when a schoolboy he experienced pain when micturating; that this had continued until the present time; that slime sometimes followed the urine, and that the stream had sometimes stopped suddenly, but that he had not observed any blood in it. For five months before admission he did not work, and remained chiefly in bed, the agony during micturition, which was frequent, being intense, and the urine turbid. During that time a sound was twice passed without a stone being detected; possibly it did not completely enter the bladder, as there was slight hypospadias, with much spasm and irritability of the urethra. Under ether a large stone was detected on June 9th. The man being under the influence of ether, left lateral lithotomy was performed in the usual way; the stone was grasped with difficulty, and the forceps slipped twice during the attempt to remove it (as there were none at hand suitable for a very large calculus). The incision was then extended in a backward direction with a bistoury; the stone was again grasped, and after long and steady traction, with much force, was extracted. The sphincter ani was slightly lacerated during the last part of the operation. A fair amount of hæmorrhage took place, which soon ceased on bringing the thighs together. The mucous membrane of

the bladder was felt to be roughened. The shock of the operation was severe, and opium was administered on recovery from the ether. The stone was irregularly oval; apparently it consisted of uric acid, with a thin phosphatic coating. It weighed just over eight ounces avoirdupois; length,  $3\frac{1}{2}$  inches; breadth (greatest),  $2\frac{1}{4}$  inches; circumference at greatest breadth,  $7\frac{1}{4}$  inches.

June 22nd.—There have been no unfavourable symptoms. Temperature has only reached  $100^{\circ}$  F. on two occasions. Urine was passed to-day, for the first time since the operation, per vias naturales.

July 22nd.—Full diet has been taken since June 28th, and the man has become quite fat. A fistula remains at the anterior part of the incision, but very little urine passes by it, and that only occasionally. Some small phosphatic scales have been expelled per urethram. He walks about a little. A mixture of half a drachm of dilute nitric acid with cinchona was ordered, and the sinus to be injected with nitric acid lotion four times a week.

August 5th.—Patient remains in the hospital; the fistula has not yet closed. General health good.

### BLACKBURN AND EAST LANCASHIRE INFIRMARY.

COMPOUND DISLOCATION OF ASTRAGALUS FORWARDS AND INWARDS; EXCISION.

(Under the care of Dr. STEPHENSON.)

IN THE LANCET of September 2nd, a case is reported from St. Albans of a simple dislocation of the astragalus. As complementary to it the following may not be without interest.

On July 3rd, J. K.—, while working in a gravel pit, was buried under a large quantity of falling earth and stones. On admission into the infirmary, he was found to have a gaping wound, some four inches long, extending over the inner and dorsal surfaces of the left foot. Through this the head of the astragalus protruded. The foot itself was twisted outward. There was much swelling and effusion into the soft parts. The tibia and fibula were intact, and the ankle-joint uninjured.

Ether being administered, reduction was attempted. This failing, and the bone seeming much detached, it was decided to excise the whole of it. This was readily done. Drainage being provided, the foot was carefully adjusted to a back-splint with foot-piece. The wound healed rapidly; the drain was removed on the fifth day, and the parts quite recovered by July 30th.

Owing to the extensive contusion the outer side of the leg received from the falling earth, large sloughs formed up the leg, denuding in one place the fibula for more than an inch. This delayed the man's discharge from hospital until September 1st. He can walk with ease, the new false joint admitting of both flexion and extension. The amount of shortening of the limb is barely appreciable.

### KASHMIR HOSPITAL.

TWO CASES OF HYDATID OF THE LIVER.

(Under the care of Mr. DOWNES.)

CASE 1.—A middle-aged woman was seen in September, 1877. There was a large tumour extending from the liver to about two inches below the umbilicus; it was most prominent a little above the level of the umbilicus on the right side, and in one spot where it particularly bulged distinct fluctuation showed that it contained fluid. The history of the case and the appearance of the patient seemed to indicate that it was not an abscess; there was considerable pain, but no fever, and the pain had come on gradually and seemed to be due to pressure only. Hydatid of the liver was diagnosed; and the tumour was tapped with a very small trocar and cannula. The fluid withdrawn from it (which amounted to about half a gallon) was quite clear and non-albuminous. The tumour disappeared, and the woman experienced great relief. The patient remained quite quiet for some days. After about a week fever supervened, and there was tenderness at the spot which had been punctured. The fever disappeared, but a swelling was observed near the spot of puncture, and the tumour evidently contained fluid; this swelling increased for a few days, when it became

stationary. The tumour did not extend below the level of the umbilicus. She remained in hospital for two or three weeks, when she returned to her home. She and her husband were very desirous that the tumour should be tapped again, but this was not done, as it was thought that it might become absorbed.

When the woman left the hospital the swelling had not materially decreased, but there was no tenderness, and the tumour extended only to about the level of the umbilicus, instead of occupying a large part of the right iliac fossa, as it did before the operation. The patient has not been heard of since.

CASE 2.—The subject of this case was a middle-aged man, who was seen in September, 1879. There was a round tumour in the epigastric region extending down to the umbilicus, and apparently connected with the liver. It was particularly prominent in the very centre of the epigastric region, and there was indistinct fluctuation. The tumour was very tense, and pressure gave rise to very great discomfort, but not amounting to acute pain. The tumour did not extend much to either side, and this made the diagnosis a little puzzling; but, taking everything into consideration, it seemed certain that it was a case of hydatid of the left lobe of the liver. The patient lived a long way from the hospital and he could not go there. Mr. Downes then and there in the open fields, surrounded by an interested group of villagers, inserted a small trocar and cannula, and drew off more than a quart of fluid, which was slightly turbid. This gave marvellous relief immediately. The man was carried to his cottage and kept quiet for some weeks.

After about a month or six weeks he paid a visit to the hospital. He was not then suffering from any pain or inconvenience, but a small tumour, apparently containing fluid, was in the position of the original tumour. As in the former case, this reaccumulation of fluid was not tapped, and the patient was told that this swelling would probably subside of itself. He did not present himself again, so it is hoped that he considered himself cured.

These two cases illustrate what has already been written by the late Dr. Murchison—viz., that hydatid tumours of the liver may be tapped in the majority of instances with a small trocar and cannula without danger; and that this proceeding gives immediate and complete relief, and in many cases may cure the disease.

### Reviews and Notices of Books.

*Human Parasites.* A Manual of Reference to all the known Species of Entozoa and Ectozoa which (excluding the Microphytic, Confervoid, and Simple Sarcodic Organisms) are found infesting Man. By T. SPENCER COBOLD, M.D., F.R.S., F.L.S. London: Longmans, Green, and Co. 1882.

THE author of this work has done so much to advance our knowledge on the subject of which it treats that any further contributions he makes to it are always welcome. We have here in a concise and compact form a synopsis of all the species of animal parasites infesting the human body, including those whose "visits may be little more than instantaneous." Each species is described, its habitat and intermediate host stated, its larval condition noted, and mention made, when necessary, of experimental researches upon it. Lastly, reference is made to the literature of the subject, which in the case of the *Filaria Bancrofti* (syn. *Fil. sanguinis hominis*) comprises a complete bibliography, occupying more than five pages. The utility of the book is self-evident, and we hope that its publication may do something to remedy the state of affairs to which the author alludes in his "concluding remarks"; and to show our freedom from the "insane prejudice" therein referred to, we cannot do better than transcribe these militant words for the benefit of those concerned who may not have the opportunity of perusing them in the original:—

"The literature of the subject of microphytes has of late increased to such an extent that it would require several pages for the mere enumeration of published memoirs. As a model of the exhaustive treatment of one department,

ter's work on *Spirillum Fever* leaves d. If our leading hospital physicians possible for any one human intellect to knowledge of all that appertains to diseases, and their treatment, they must they greatly deceive themselves. Not be informed that by restricting their place subjects, they do serious injustice on of medical practitioners. An insane al knowledge has recently sprung up. ceed from individuals who are ignorant ce, it can only have for its object the e investigation and the suppression of progress. In civilised communities the e of division of labour is intimately ublic welfare, and those who arrogate session of universal medical knowledge o the cause of suffering humanity. s, like other good things, are liable to sh developments of culture are based dent education at our medical schools re need be no fear as to the general y department of the science of medicine lgar and unqualified persons demands e secure the approbation of every right- e medical profession."

*of the London Hospital.* Compiled on of a Committee appointed by the Medical Council. London: J. and A.

poesia of the London Hospital having ut of print, the Medical Council con- ter might with advantage be revised, nittee of the medical staff to report on sult is the work before us, which is pharmacopoeia, but a guide to the art dition to the hospital formulæ, we have collection of diet-tables with directions eptonised food, and an appendix nstructions for taking cases in the wards, and urea, for preserving and staining e treatment of cases of poisoning, deal of very useful and practical infor- as been thoroughly done, and many of rely new. In the *materia medica* we e introduction of sanguinis bovinus inated desiccated bullock's blood—a used chiefly in the form of an enema in and other diseases in which food is not ch. The list of enemata is very com- sed nutrient enema is of especial value. id extract of ergot is an excellent pre- found of considerable use in obstetric malt and extract of malt and cod-liver been admitted as pharmacopoeial pre- poth of such inestimable value in the ing diseases that no hospital or public e treatment of the sick can afford to do ach has been deemed worthy of inser- sly enough, the more popular *Grindelia* cted. Directions are given for the pre- ferratum and gossypium iodatum, both value. The list of injections for hypo- l, and includes carbolic acid, sclerotic ergot, perchloride of mercury, morphia, quinine and strychnia. The only nce is apomorphia, a most valuable oning. Under the head of *Lincti* we e; a morphia linctus containing about quior with a little spirits of chloroform e would be a useful addition. The

aconite mixture—five minims in each dose—is far too strong, and the caution respecting its use in this quantity is not sufficiently emphatic. In the majority of cases the dose of the active drug in the mixtures errs, if at all, on the side of safety. It may be noticed as a matter of curiosity that there is a mixture of Chian turpentine. Under the head of Powders we find pulvis agarici, "powder of dried mushroom," of which the dose is given as from ten to twenty grains. The definition of the drug to be used is in this case not sufficiently precise. As far as we are told, it might be any mushroom. As a matter of fact, it is of course the agaric of the larch which is intended, a drug now largely employed in the treatment of the night sweating of phthisis. It should be remembered, however, that the agaricus muscarius has been recommended for the same purpose, and the substitution of one species for the other might be attended with disastrous results. A few drugs are omitted of which we should have been glad to see some mention; fortunately, however, only a few. A substitute for pancreatic emulsion might be introduced in the next edition, together with mixtures of pulsatilla, hydrastis, and nitro-glycerine.

*The Surgery of Deformities.* By E. NOBLE SMITH, F.R.C.S. Ed., L.R.C.P. Lond., Surgeon to the Farringdon Dispensary. With Illustrations. London: Smith, Elder, and Co. 1882.

THIS is a well-meant attempt "to produce a practical and useful guide to the diagnosis and treatment of Deformities of the Human Body." No claim to originality is made, and to a very large extent the teachings and writings of Adams, Little, Chance, Stafford, and Shaffer have been laid under contribution, and the author has managed to give a useful epitome of the views of these authorities. In many places we find it wanting in practical details, and in the matter of diagnosis in particular the reader will often look in vain for substantial help. We are sorry that the great advance in surgical treatment during the last decade does not appear to be appreciated by Mr. Noble Smith, who, in adversely criticising the operation of resection of the tarsal arch, says, "The most rudimentary knowledge of the etiology of the various forms of blood-poisoning ought to make even a bold surgeon hesitate before exposing a patient to the risks of absorption of the septic debris, which must of necessity remain in such a wound"—the italics are ours. We are tempted to reply, that "the most rudimentary knowledge of the etiology of sepsis ought to make even a bold writer hesitate before speaking of decomposition as a necessary event in a wound made by a surgeon!" Our surprise, which was extreme, when we found that the author of "The Descriptive Atlas of Anatomy" states that the medulla oblongata is continued in the spinal canal, has been even more excited by reading a few lines lower down, in the section devoted to "disease of the upper two cervical vertebrae," that "even when paraplegia occurs from pressure upon the cord the patient may recover from the severer symptoms." As pressure upon the other portions of the cord is elsewhere treated of, this sentence must of necessity refer to paraplegia from pressure upon the highest part of the spinal cord, which only a few lines above is called the "medulla oblongata." "The most rudimentary knowledge" of the instantly fatal effects of paraplegia from pressure upon this part of the cord would have saved Mr. Noble Smith from this error. In several places we noticed the names of authorities referred to misspelt: thus we find references to "Althus," "Diffenback," "Hay" of Leeds, and "Prescott Hewitt"!

#### OUR LIBRARY TABLE.

*The Annual Oration delivered before the Medical Society of London, May 1st, 1882.* By E. SYMES THOMPSON, M.D., F.R.C.P. London: Adlard. 1882.—The subject chosen for this oration was "The Old Founders and the New

Remany Fellows," in which the author traces the lives of such men as Fothergill, and many others less known to fame, as Vesuvius, Billings, Charcot, Volkmann, &c. The oration of the Congress being seized to e in the Society. The portraits of the "f" in a frontispiece reproducing the well-known possession of the Society. The oration is in a readable style, and the interest is throughout.

*The Physical Signs of Pulmonary Disease.* Ed. Edinburgh: MacLachlan: Simpkin and Marshall. 1882. A well-written book, intended for use in the study of medicine. The author has evidently studied the subject, and has incorporated in the book common views of Laennec, Skoda, and Walhe. It follows the instruction contained in the foundation for physical examination, and is characterised by an over-refined and practical working. Dr. Seell is a competent and deals with broad, well-known facts conveying to the reader as clear a picture as has been needlessly rendered by the use of terms in different senses.

*The Illustrated Quarterly Journal of Surgery.* Edited by G. H. Fox and F. R. Jones. New York: E. B. Treat, Broadway. A well-written and excellent character of the journal. The subjects are dealt with as follows: Intestinal ulcer, a new method of treatment; case of congenital keratoma, papilloma (two cases), therapeutic value of elastic tension in the treatment of the same. Dr. Chamberlain describes the value of irrigation for purposes of irrigation of heat and cold. He maintains that irrigation is far superior to the lead catheter, especially because they are not so liable to be dislodged, and can at any time and by a simple manipulation be removed for individual cases. Dr. McLachlan gives a successful cure of peritonitis. The numerous illustrations make the journal quite plain—a feat of extreme difficulty. Descriptions are given. One chief feature in these cases was making an incision in the perineum: the urine was voided several times a day, and thus the parts were kept at perfect rest until healing was complete. Wounds healed very quickly.

*La Lithotritie doit être faite sans Trauma.* Dr. F. LAURENT, Lauréat de l'Institut. Paris: 1882.—This is a reprint of a paper in the *Gazette des Hôpitaux*, in which he gives a very emphatic answer in the negative to the question whether it is a rigid disciple of Civiel's method to be a rigid disciple of Civiel's method of the urethra and bladder. The main thing to be observed in the operation is that it can be done without any lesion of the bladder by injecting or aspirating; but the risk he prefers to leave the fragments in the bladder; and he also cautions against the use of the aspirator. He refers to Bigelow's practice of preventing the bladder by an elastic ring encircled around the neck of the bladder. He says that the theory agrees with the practice, and that the operation of late years has been clearly shown of late years that the bladder are far more tolerant of instru-

or sketched the out-gill, Lettsom, Jenner, side by side with, and Verneuil, the enrol those leaders "founders" are given well-known painting in on is written in an is well maintained

*iscase.* By GRAHAM lachan and Stewart. 92.—This is a care-in the wards. The ject for himself, and ents upon the master-. Any student who ned in it will lay a tion, which in some refinement that hardly l has corrected this ell-established facts, r ideas as possible on idered difficult by the es.

*of Medicine and* R. STURGIS. Vol. I., dway.—This number the two former issues. and excellently illud of closing urethral apilloma of pharynx, tic uses of rubber nent of Pott's disease. r illustrations in this he numerous uses of on, injection, and the untains that coils of aden pipes known as lighter, more easily anyone be made as cBurney records two enile urethral fistula, e steps of the opera- ficulty if only verbal ature and element of an opening into the s drawn off through it about the fistula were was obtained. The

*raumatisme?* Par le Paris: A. Delahaye per recently published h the author gives a o the question he asks. iviale, and he regards der from all injury as peration of lithotrity. sion, he evacuates the but rather than run gments in the bladder. ould leave no traces inst overdistension of r, and is particularly ating any escape from cling the penis. All Dr. Reliquet; but it that the urethra and umentation than was

previously supposed. It is easy to see that this may lead surgeons to excess in that direction, and so far as there is that danger, we welcome Dr. Reliquet's words of warning; although we cannot thoroughly endorse the precise practice he urges.

*Winters Abroad.* By R. H. OTTER, M.A. London: J. Murray. 1882.—The author's description of a voyage to Australia in a sailing vessel is a faithful picture of the life on board such a ship, and demonstrates the necessity that exists for invalids to travel only by first-class steamers. Well-appointed passenger steamers now cross the ocean in every conceivable direction, whereas sailing vessels have almost ceased to carry anything but their crews and merchandise, and are only in exceptional cases to be chosen for the abode of an invalid. Mr. Otter has formed a most favourable opinion of the climate of Sydney during the cold season of the year, but as the hot months approach he recommends a change to the high-lying towns of Tasmania. His account of Melbourne, Queensland, and New Zealand, as health resorts for invalids, is very valuable, as also are his remarks on the Riverina. Mr. Otter thinks that this part of Australia presents a perfect climate for nine months of the year, especially for persons suffering from affections of the lungs. The climates of Algeria, Egypt, and the Cape of Good Hope are considered with reference to the circumstances of invalids. Regarding the latter, Mr. Otter advises no one in search of health to remain too long in the neighbourhood of Cape Town, and not to take up his abode for any length of time within 100 miles of the sea coast, unless he can be 1500 feet above the sea level. The volume before us is full of practical information and knowledge which too many invalids might otherwise have to gain by dearly bought experience. But our author visited the Cape in 1877, and we have reason to think if he returned there now he might not find the hotel he recommended up to the mark. Information upon these points should be accurate and up to date, otherwise it is best omitted. Passing from a description of the various climates above referred to, our author describes the advantages which Davos affords as a winter resort for a certain class of patients. He thinks "too much is claimed for it by its admirers, and far too little conceded by its detractors." Our space will not permit us to follow Mr. Otter into the data he gives for arriving at this conclusion. We recommend this work to the medical profession, as containing a reliable account of the winter resorts referred to. Medical men have frequently to advise patients on the question of a residence for the winter. A real knowledge of the difficulties to be encountered on the journey, and of the accommodation and kind of place recommended, is therefore of great importance. The fact is, knowledge of this kind can only be properly acquired from personal experience; but next to this in value is information such as that contained in the pages of a work like the one under notice, which is, moreover, pleasant reading. One defect in the book, however, is the absence of an index. We can only hope that Mr. Otter will supply this deficiency in a future edition, and that he will endeavour to complete the valuable work he has commenced, and give us full information regarding the advantages of other winter resorts besides those referred to in this volume.

*Morality.* By MAURICE CHARLES HIME, M.A., LL.D. London: W. H. Guest, Warwick-lane, Paternoster-row. Dublin: Messrs. Sullivan, Marlborough-street; and Marley and Son, Mid Abbey-street.—The little book by Dr. Hime on Morality has very deservedly reached a third edition. Admonition on this subject is much neglected, because it is a very difficult and delicate one to treat, and because parents are sometimes prone to think their children above the danger of falling into the vice of sensuality. The author is eminently adapted to perform the task, owing to his



experience, scholarship, and great zeal. Moreover, in undertaking and accomplishing this work he has shown a good example of self-control and manly conduct—the very principles he tries to inculcate among young men. This, in our opinion, enhances the value of the book; for example is better than precept. The greatest tact is displayed throughout. The reader, if he is influenced at all, can only be influenced for good. Dr. Hime brings to his aid in his pleading with young men the Bible, natural religion, metaphysical reasoning, the teachings of experience, and common sense. These powerful weapons he wields well, and does not refrain from drawing largely on the assistance of other authors. Against this array of revelation, reason, and authority no young man who respects truth can defend for a moment immorality. At the beginning of the second chapter the author ably refutes the argument that "it is a matter of no great consequence whether one exceeds a little in his youth or not." While reading this part of the book we were reminded of the great message of John Knox to men. According to Carlyle, his message was: "Let men know that they are men, created by God, responsible to God, who work in any meanest moment of time what will last through eternity." Dr. Hime does well to lay great emphasis on moderation in alcoholic drinks. When intemperance has lasted any considerable time true repentance is very difficult, almost impossible. This is mainly due to the fact that the brain itself becomes so altered that the higher functions of the mind cannot be put into action. The vice of sensuality diminishes in man as old age comes on, while intemperance increases as long as the victims live and indulge their appetites. Of the two vices, while intemperance is the more persistent, sensuality is the more corrupting and depraving to the mind. Both, unhappily, often go hand in hand. The section on prayer is especially good. Few will feel disposed to doubt the subjective efficacy of prayer, which Dr. Hime has dwelt upon. We should be glad to see this little book in every young man's collection, and especially in the hands of those who, after leaving school, are brought face to face with the temptations of a great metropolis. Any one who carefully studies this work, and who makes use of the four safeguards mentioned by the author, will be well protected against what is the besetting sin of many, and can fearlessly face those who try to argue him into doing what is wrong. The purity of the object and the intrinsic worth of the book ensure, we are confident, a large amount of success.

*The Scientific Basis of National Progress, including that of Morality.* By G. GORE, LL.D., F.R.S. London: Williams and Norgate. 1882.—This little book, dedicated to the Birmingham Philosophical Society, sets forth the power and use of scientific knowledge in all progress, material, mental, and moral. The last section advocates the promotion of original scientific research. It is simply written and fully illustrated by examples; that portion which relates to material progress is naturally the most incontrovertible. If the author seems at times to exalt the claims of natural science to an undue degree, it must be remembered that it has by no means yet met with the universal appreciation which it deserves, and that the doctrine now prevails that if we want anything we must ask for it loudly enough.

We have received a copy of the third edition of the *Improved District Railway Map*, published by Messrs. W. J. Adams and Sons, Fleet-street. It is well and clearly printed and coloured, and the cost is but 6d.; mounted on canvas, 1s. 6d.

**PREVENTION OF SMALL-POX.**—At Willenhall the General Purposes Committee of the Local Board have issued bills advising parents to prevent their children as much as possible from attending the forthcoming wakes, in consequence of many of the show-people coming from Wednesbury, where small-pox is said to be very prevalent.

## New Inventions.

### HIDES' PATENT MOULDED MILITARY AND GENERAL AMBULANCE.

MR. HIDES has very successfully contrived a light serviceable ambulance in which he avails himself of his well-known felt. It consists of a simple wooden frame made of two poles and two cross-bars. Attached to this frame are davits from which is suspended a shell of felt moulded to the form of the back of a well-grown man. Attaching the frame to the davits are Hides' "superb" elastic springs, which are connected with bands of webbing passing under the frame so as to support the main part of the weight carried, and thus guard the felt from wear and tear. The obvious advantages of this form of ambulance are its extreme lightness, and especially the greater comfort and safety secured to an injured person. In a hammock of any kind the person carried rolls down into the bottom; carried on a flat surface broken limbs move and are unevenly supported. But by Hides' contrivance every part of the body is well and equally supported, and the head, arms, and legs in particular lie in troughs so well fitting that they almost answer the purpose of well-adapted splints. The shell is easily unshipped, and the davits removed from the frame, and six frames can then be made to form a crate in which the shells can be packed, so that these ambulances are very easily carried in bulk.

Mr. Hides has carried out the same idea in another direction, in the form of a support or bed rest, intended especially for cases of weak or curved spine. A large piece of felt is moulded to the back of the patient, and when hardened is fitted on to a light frame with springs so as to afford support and pressure to the whole surface of the back of the trunk. This will no doubt be found useful.

### "THE CHEMICAL LUNG."

To the Editor of THE LANCET.

SIR,—As from time to time you have taken great interest in the Chemical Lung designed for the purification of hospital wards, sick rooms, and other collections of foul air, I venture to forward a report of the action of one sent to and experimented upon in the civil hospital at Aden. The following are the words of the medical officer under whose care the experiments were carried out: "The case in which the punkah was tried was that of a man suffering from phagedænic ulceration of the leg, a disease which gives rise to the most foul and offensive odours, so offensive to the other patients in an ordinary ward that it was necessary to isolate him in a small room. It was in this that the punkah was tried with the most beneficial effects, the air being kept odourless and inoffensive so long as the punkah was working; all other disinfectants being discontinued with the exception of a charcoal poultice immediately over the ulcer, but quite incompetent to prevent smell. I consider the punkah a very useful invention and quite able to carry out all that is promised for it. For infectious disease hospitals, for night wards and isolating rooms of ordinary hospitals, it might with advantage be adopted. The best test I know to which it could be subjected would be to try it systematically for a whole year in the night wards of one of the big Indian gaols, the mortality of which is unequalled in any community throughout the civilised world. This mortality arises doubtless from overcrowding, theoretically correct as the linear measurements and cubic feet of air allotted may be." I feel that no comments of mine are needed upon the above; I would only state the results of an experiment carried out by myself in a room crowded with twenty couples, dancing for five hours, the windows being shut, in the middle of last June. The punkah kept the air of the room deliciously cool and pure the whole time.

I am, Sir, your obedient servant,

RICHARD NEALE, M.D. Lond.

Boundary-road, South Hampstead, Sept. 19th, 1882.

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# THE LANCET.

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LONDON: SATURDAY, SEPTEMBER 16, 1882.

PROBABLY no official reports emanating from the Local Government Board have ever been more anxiously awaited than those on the Use and Influence of Hospitals for Infectious Diseases by Dr. THORNE THORNE and Mr. W. H. POWER. The need for definite information on this subject has been brought home to everyone interested in the sanitary condition of the metropolis by the lengthy and costly legal proceedings which have already resulted in the closing of one large institution for the reception of infectious persons, and in the limitation of the usefulness of others. Nor is the subject one that concerns London alone, for within recent years a number of hospitals for infectious diseases have sprung up in all parts of the country, and communities have been taught to regard such institutions as helpful in a large degree, if not absolutely necessary, for the prevention of the extension of the class of disease for which they have been erected. The fact that the use of these hospitals might be attended by any drawback was so little believed by the members of our own profession, that nothing short of the Attorney-General's masterly management of the case against the hospital of the Metropolitan Asylums Board at Hampstead could have succeeded in arousing suspicion that the full influence of such institutions upon the neighbourhood surrounding them might not be fully known. But the story which Sir FARRER HERSCHELL first told concerning the Hampstead Hospital was soon told again for other hospitals of the Metropolitan Asylums Board, and thus the subject attained a degree of importance which it was impossible not to recognise.

The relations of the Local Government Board to these and similar institutions in all parts of England and Wales made it incumbent on that Board, for its own information, to learn definitely their effect on the neighbourhoods in which they were situated. In the chapter in which Dr. BUCHANAN introduces the reports of Dr. THORNE and Mr. POWER to his Board, he states that a return made in 1879 shows that "296 authorities had arrangements of one sort or another in hospitals of their own, or by an understanding with their neighbours, for the reception of infected persons who could not be treated in their own homes with safety to other people"; and, referring to the fact that sanitary authorities who might be wishful to provide hospitals were frequently finding themselves hindered by a number of difficulties from carrying out their intentions, he says it was seen that the Board could with advantage collect, for the assistance of some sanitary authorities, the experience of other authorities who had made hospital provision, and could learn whether there was any ground for the fears which were entertained by landowners and others, and what were the conditions for removing or reducing any real danger found to exist. To this object Dr. THORNE'S labours were devoted, and during 1880 and 1881 he inspected seventy hospitals for infectious disease, the history of which occupies the greater part of the volume now before us.

We shall reserve for further and fuller discussion the many important points treated in Dr. THORNE'S report, but we may state briefly that he gives evidence of the value of hospital accommodation, particularly at the beginning of epidemics. His report also deals with hospitals under all conditions, and includes a short account by Mr. SHIRLEY MURPHY of an inquiry into the amount of prevalence of fever in the neighbourhood of the London Fever Hospital. Dr. THORNE found that, apart from spread of infection due to faulty hospital administration, there was no evidence of any of the infectious fevers other than small-pox having occurred in the neighbourhood of infectious hospitals; and with regard to the latter disease, in only two instances were there grounds for suspecting that any such occurrence had taken place. But Dr. THORNE, during the course of his inquiry in the provinces, had met with no recent instance in which a large aggregation of small-pox cases had occurred in any infectious hospital in the vicinity of dwellings, and to this extent he regarded his inquiry as to the influence of such hospitals for harm as incomplete. Under these circumstances the inquiry was extended to London, and Mr. W. H. POWER was associated with Dr. THORNE for the purpose of ascertaining the experience available as regards the Fulham Hospital. And it is in Mr. POWER'S report on the influence of the Fulham Small-pox Hospital on the neighbourhood in which it is placed that the more immediate interest chiefly centres.

We cannot do better than follow the report itself in the history it gives of this institution and its surroundings. The hospital occupies a site which, as Mr. POWER says, from the view-point of medical knowledge at the time of its selection, was singularly free from objection, for, with few exceptions, there are not within 500 feet of the limit of the hospital grounds any inhabited dwellings. As regards traffic routes, the hospital is also isolated, for by two roads alone can ambulances reach it. At the time Mr. POWER began his inquiry, small-pox, although prevalent in the East-end of London, had not invaded the surrounding parishes of Fulham, Chelsea, and Kensington; but the hospital had, on December 13th and 14th, 1880, received from the Homerton Hospital forty persons convalescent from small-pox, and it continued to receive such cases until Jan. 17th, 1881, the date at which Mr. POWER'S labours began. By this time 110 convalescents had been admitted. Meanwhile, fifty-five acute cases had also been received, of which only five came from Chelsea, Fulham, and Kensington. At this moment, therefore, there was really no reason for the people of the neighbourhood to visit the hospital, a point upon which Mr. POWER properly lays great stress. He immediately, for the purposes of comparison, selected a special area of a circle round the hospital of one mile radius. That his arrangements for obtaining information of cases were most thorough is best made evident by the fact that a subsequent house-to-house inspection brought to his knowledge only half a dozen cases which had not been previously reported. The account which he gives of the occurrence of cases in the neighbourhood of the hospital may therefore be considered to include all such attacks—a matter of very considerable importance. After

the opening of the Fulham Hospital no person in the three parishes of Chelsea, Fulham, and Kensington was attacked in either of the fortnights ending the 11th and 25th of December, but by the 22nd January eleven cases had occurred, all in separate houses, and seven within the special area. An inquiry into the movements of these seven persons showed how two of them had contracted the disease; while another two, although not known to be exposed to small-pox, had worked in the East-end where the disease was prevalent; but for the remaining three no explanation could be found. In the next fortnight ending February 5th, there occurred a general outburst of small-pox in Chelsea, Fulham, and Kensington, the fresh cases numbering sixty-seven, of which forty-seven were situated in the special area, while the remaining eleven were within a further half-mile of the hospital. When households are considered, the disease is found to have invaded fifty-six fresh houses during the fortnight; of these forty-one were within the special area, and eleven others within a further half-mile. But a curious limitation of the outburst with regard to time was observed. Of sixty-two persons who were attacked during the previous fortnight, four only began to be ill before January 26th, while in the four succeeding days forty-two persons were attacked, thirty-two of whom lived in the special area, and eight within a further half-mile. The forty-two persons must therefore have contracted their disease at a time when not more than four cases of small-pox had occurred in the special area, and eight only in the whole of the three parishes. An inquiry into the precise doings of the forty-two persons attacked during a fortnight before their illness began showed that in nine cases only could evidence or reasonable suspicion be found that the sufferers had had personal relation, direct or indirect, with a case of small-pox. Mr. POWER admits that up to this stage there is no evidence against the hospital, and if it was to be held responsible for the special prevalence of small-pox in its neighbourhood on this occasion, it must be shown that there was a similar distribution of cases each time the hospital was used in past epidemics. With a view to testing this point he divides the time since the hospital was opened, in March, 1877, into five epidemic periods, and he calculates from the number of houses from which patients were admitted into the Metropolitan Asylums Board Hospital, the amount of prevalence of small-pox in each period in the three parishes, in the special area, and in other parts outside the special area, and for the purposes of comparison he takes a period of one year before the hospital was opened, and shows the distribution of cases of small-pox during that period in the three areas already mentioned. It is unnecessary here to say more than that Mr. POWER has taken pains to eliminate any possible source of error owing to changes of population in these areas—indeed, so far as any changes have taken place, they would tend to make less obvious the different amounts of prevalence in them; nevertheless, in each epidemic period he finds the distribution of cases following the same law—namely, that for every 100 houses in each area a far greater proportion were invaded in the special area than outside, while before the hospital was opened the opposite was the case.

Another point was observed in each of these epidemic

periods, which is equally instructive. In each period, without exception, an outburst of disease occurred in the neighbourhood of the hospital. About a fortnight after it contained as many as from thirty to forty acute patients—a length of time corresponding with the incubation period of small-pox; but in the second fortnight a diminution in the number of fresh cases round the hospital invariably took place. The number of convalescents in the institution appeared to have in no single instance any influence in causing disease. A further division of the area round the hospital into rings of a quarter of a mile invariably showed in each epidemic a decreasing incidence of disease the more distant the rings were removed from it. Nor were the cases distributed along the chief lines of traffic, but they were scattered equally over the area surrounding the hospital in a manner that entirely negated the supposition that they might be due to personal communication. Mr. POWER made this point a matter of painstaking inquiry; he informed himself of every movement of each member of the hospital staff at the time at which infection must have been received by the persons who were attacked in the fortnight ending February 5th, 1881, but failed to find the least relation between the two. Every detail of the hospital administration was examined, but with only negative results. Having in view the distribution of cases and the circumstances connected with their appearance, he is driven to the conclusion that they must be due to atmospheric communication with the hospital.

It may be argued that until the same story can be proved for other small-pox hospitals Mr. POWER's conclusions must be accepted with reserve; but it must be recollected that a possibility of error of this character has been guarded against by his investigations into the behaviour of five separate epidemic periods, and that the occurrence of disease has on each occasion appeared to be governed by exactly the same laws. That he has dealt most fairly with his subject must be admitted; indeed, he speaks of the reluctance with which he has felt compelled to come to his conclusions; but with such evidence it is impossible not to accept, with Dr. BUCHANAN, that "the Fulham Hospital, with all its advantages of site and construction, has, by dissemination of small-pox material through the atmosphere, given rise to an exceptional prevalence of small-pox in its neighbourhood.

We cannot at this moment enter into Mr. POWER's speculations as to how small-pox matter came to be disseminated through the atmosphere. This raises a large question, and must be reserved for a further notice; but we cannot leave the present one without bearing witness to the very great ability with which he has dealt with a most difficult question. We find on every page of the report before us the same precise observation and thought as that which characterises his previous work, enabling us to accept with more readiness this last addition to our knowledge of the behaviour of small-pox.

THERE is no more remarkable and, in a way, mysterious, phenomenon of modern times than the influence of the press. We say of modern times, but it is probable that the particular form of moral or social force to which we allude may have asserted its influence and performed its share in the work of progress thousands of years ago, seeing that the life

and history of at least one newspaper published in China dates from a period—almost ages ago. However this may be, it cannot be doubted that “the press,” properly so called, that is to say, the journalistic or news communicating development of literature, constitutes one of the most potent controlling authorities of our national life, if indeed it be not the pivot and centre of union and self-government. It is certainly the safeguard of our liberties.

In what the power of the press actually consists, it is not easy to determine. Political and social economists recognise the power, but they have never been able to define it. Probably several elements combine to produce the result. First, there is the impression wrought on the mind by the fact that those who read are in the position of the instructed. There is some source of information to which they have not direct access. The press stands to them in the relation of a teacher, and the mind always, though insensibly, it may be unwillingly, bows to the possessor of greater knowledge than its own. There is clearly something in this; even a stranger or worthless loungee is for the moment invested with peculiar distinction in any community to which he brings news. Secondly, growing out of this prestige which belongs to the press as an oracle, there is the claim to respect which it can and does successfully put forth as a professional enterprise. As a department of industry journalism has not lagged in the march of intellectual advancement. If there be, as undoubtedly there is, a broad line of distinction between journalism and literature, the former has been making excellent progress as far back as we can trace its history. In truth it has outrun literature proper; and whereas the books of to-day, except for the recently acquired information they embody, are no better than, if as good as, the works of those who wrote generations ago, contemporary newspapers have been incomparably improved, both in matter and style, within living memory. Men of average ability, education, and earnestness devote their energy to the collection of news and the production of newspapers, and it must needs be that the claim to authority which grows out of special work of any and every kind is recognised by public opinion. Whether, on the whole, public opinion is not outgrowing the state of pupillage, in consequence of the celerity and completeness with which the data upon which the journalist bases his conclusions are presented to the public, so that the reader is nearly, if not quite as well able to form a judgment as his professional instructor, is a question we will not now attempt to discuss. Suffice it to have recalled to the mind of the reader the leading facts as to the influence of the press, and suggested certain lines of thought, which he may work out for himself, and which will help to prepare the way for that special view of this interesting subject, which we are chiefly anxious to present and enforce.

There is an evident disposition on the part of “authorities” generally to limit the freedom and if possible to reduce the power of the press. We see indications of this intent everywhere. The censorship of news, and now the limiting of news-agents, established and enforced “by authority” during the present campaign in Egypt, is a remarkable instance of the working of this intent. The exclusion of reporters from executions we take to be another. And the endeavours of corporations to suppress the criticism of

professional journals of health and hygiene on the sanitary condition of important towns may be also mentioned as instances and evidences of the tendency to limit the power, and if possible restrain the activity, of an agency which has hitherto done excellent service in the cause of right and freedom. By bringing facts to light and pointing out their significance, the press has done more than any other agency to help forward the van of progress and intelligence, and to make and keep peoples free, while despots who reigned by the aid of darkness and ignorance have been overthrown. In matters great and small—political as regards the State at large, or politic in respect to smaller areas and sections of the population—social, commercial, scientific, and sanitary,—in all departments of interest and enterprise, the power of the press has been manifestly exercised in the interests of the people. We think the time is approaching when the whole press and the entire community will need to combine if the blighting and crippling influence of officialism is not to be allowed to efface those liberties which the press has won, not for its own sake alone, or even principally, but for the people, by whose authority and for whose benefit the press exists.

Within the boundary line of our own experience as a journal devoted to the public service in the promotion of health and the limitation and remedy of disease, we have had notable proofs of the “power of the press,” and in every instance our own interest has been proved to be identical with that of the profession and the public. Since the late Mr. WAKLEY founded THE LANCET to protect the rights of the public, and to assert the rights of the profession against encroaching corporations, our enterprise has been specifically one of reform. We have not feared to expose abuses or to strive for the removal of obstacles to the progress of science and health. A long score of successes in this enterprise has been our reward, and we shall not flinch from prosecuting our work on the old lines and with the same energy in the future as in the past. Meanwhile we are certainly of opinion that the moment has come when the press generally ought to assert itself, and when the position gained by journalism should be resolutely defended. If it is not to be *free*, it had better cease to exist. It is scarcely possible that such a calamity should befall so vital an organisation, but if it did ever happen that authorities obtain control of the journals so that only selected news appeared in their columns, and adverse criticism were repressed, there would at once be an end of all influence and usefulness. A free press is necessary to the freedom of the whole nation and every section of the community. An irresponsible press—albeit that would be incomparably better than a press in chains or the creature of authority—no one desires.

It seems to be forgotten, or intentionally shut out of sight just now, that a natural censorship of the press exists, and must ever exist, in the restraining influence of public opinion. If a journal were found to abuse its power it would not long retain the influence it misused, and great would be the fall of it. The State and the law cannot, of course, afford to leave everything to the arbitrament of public opinion, but some respect might fairly be shown to

that tribunal, which, after all, as regards every moot question, not excepting that of Government itself—which in this country be it remembered is *self-government*—constitutes the court of final appeal. That court may be tardy in its proceedings and slow to express itself, especially in reference to matters relating to its own authority, but when deliverance is given it will be shown that the power exists by which the judgment pronounced can and must be enforced. At the same time, as we have said, the press owes it to its own character as an independent authority to affirm its rights, in so far as these are legitimately based on public opinion. The public *must* be promptly and fully informed, however much the spread of intelligence may inconvenience those who, tricked out in a brief authority, strive to use it as though it were their own. Moreover, the press must be free to speak its mind. This proposition may not at first sight appear so obvious as that previously stated. It may seem that the public, having got the facts, might be left to draw their own conclusions. In some connexions, doubtless, this is true; but if it were true of all, there would be an instant end of professional criticism. For the interpretation of facts special knowledge is generally necessary; when the facts are special, it is imperative that there should be special knowledge to appraise, collate, and explain them. In the absence of such a service, the significance of many facts would be overlooked until it was too late to profit by its recognition. This is why we claim freedom—with responsibility—for professional journalism, and particularly for the special journalism of a profession. If this freedom be not secured to the press, its power will be sacrificed, and it is difficult to see what other force can be found to replace it as a perpetual check on the neglect and wrong-headedness of “authority” and “officialism,” by which the people are in continual peril of being misled.

THE prolonged public inquiry which has been held at Norwich by the Inspectors of the Local Government Board, Mr. HENLEY and Dr. AIRY, has elicited a large amount of information with regard both to the death of certain children as the result of erysipelas following on vaccination, and to the injury of others. In all, thirteen cases were submitted for inquiry, but three of the children in question, having been vaccinated privately, were not deemed to fall within the scope of the investigation, which had reference to the effects of vaccination as carried out at the public vaccination station in the city. The majority of these children have unquestionably suffered from erysipelas after vaccination, and Dr. GUY freely admitted that in his opinion this result was in some way connected with the performance of the operation. The main contention of those by whom the inquiry was brought about has been that the infection leading to the erysipelas was inoculated with the lymph, and hence that vaccination as such was responsible for the death and injury resulting. Until the full official report of the proceedings appears it will be impossible to express a final opinion on this part of the subject; indeed we doubt very much whether the facts elicited at the public inquiry are sufficient to clear up such a point. But before the public inquiry was commenced, a careful medical investigation of the circumstances had been made by Dr. AIRY; and this investigation, unhindered by

the laws of evidence and other legal technicalities, has doubtless elicited points of medical interest which could hardly have been ascertained with the requisite scientific accuracy by the ordinary legal process of examining and cross-examining witnesses. But even at this stage of the proceedings some points of considerable interest have transpired with regard to this subject. The first of these is that in some of the children the commencement of the erysipelas was observed within some twenty-four hours of the performance of vaccination, in others not till after the expiration of eight days from the vaccination. If infective material producing like inflammatory results had been contained in the lymph, the interval between its inoculation into the system and its manifestation could hardly have varied so greatly. And again, the lymph used does not appear to have been all taken from the same vaccinifer; all the vaccinifers whose lymph is alleged to have produced erysipelas have turned out to have been healthy children; and not only so, but of the children vaccinated with the same lymph some few only had erysipelas, whereas in the remainder the process of vaccination was from the beginning to the end quite natural. If therefore we assume, as we fear we must, that there was relation between the vaccination and the erysipelatous inflammation, we are thrown back not so much on the lymph as the cause, as on some accidental poisoning occurring in connexion with the process of vaccination. Hence doubtless the minute inquiry as to the method in which Dr. GUY performed his duties as a public vaccinator, and which elicited the facts that his lancets were regularly washed between each vaccination, that they were frequently reground and polished by a surgical instrument maker, and that Dr. GUY has several times received a Government grant for the efficient manner in which he has performed the various duties attaching to his office. It is true that much was made of the circumstance that Dr. GUY did not proceed to strip the children before he vaccinated them; but quite apart from the fact that it has never been suggested that the children who suffered from erysipelas were otherwise than healthy at the date of vaccination, we are bound to say that the “Instructions for Vaccinators under Contract” nowhere appear to us to refer to stripping as necessary, and that in nine cases out of ten the very necessary regulations calling for examination of certain parts of the body, and especially of the folds of the skin, can be carried out without resort to any such process. But the same “Instructions” contain a caution which is especially noteworthy in connexion with the cases under investigation, and that is, never to vaccinate, except in cases of necessity, “where erysipelas is prevailing in and about the place of residence.” Erysipelas has been prevalent in Norwich quite apart from its incidence on children who were vaccinated at the public station; and the demand that certain cases vaccinated by private practitioners—and this with other lymph than that used by Dr. GUY—should be included in the inquiry, points to the fact that the infective material leading to the erysipelas was of wider distribution than was at first anticipated. Dr. GUY, in his evidence, admitted that towards the end of June, just after the period involved in the inquiry, he became aware that a slight epidemic of erysipelas was prevailing at Norwich. Now, children on the day of vaccination and on the day



when their vaccine vesicles are opened by a lancet for the vaccination of others, present wounds which, though of a very trivial character, afford a means by which such a poison as erysipelas can be received into the system. This poison may have been conveyed by someone, in clothing or otherwise, to the vaccination station; it may have been brought into contact with the children after returning to their homes, some of which were far from healthy; and it certainly seems to have infected some vaccinated infants who never went to the public station at all. Pending the publication of fuller details, we avoid arriving at a conclusion as to the exact channel through which the infection was conveyed, but, by a perusal of the evidence, we are confirmed in our opinion that the lymph of healthy vaccinifers does not of itself produce erysipelas, and that if erysipelas be prevalent in a district, it may by obscure and perhaps as yet unrecognised channels find its way into the human system through the medium of the smallest wounds. Erysipelas has more than once followed in the track of surgical operations which have been necessary to the saving of life, but instead of discrediting these operations on that account, every effort has been made to eliminate even the possibility of so grave a complication. No operation ever yet saved so many lives as have been spared to us by vaccination, and if the inquiry held at Norwich has the effect of disclosing some source of danger, hitherto undetected, with which even this trivial operation may under certain circumstances be associated, the cause of vaccination will, as its result, be in the long run promoted, and not retarded.

THOSE who would intelligently grasp the questions involved in Medical Reform should begin their study of the Blue-book of the Royal Commissioners by reading the paper by the Secretary of the Commission, Mr. WHITE, entitled "Statement in regard to recent attempts at Medical Reform." Mr. WHITE carries his readers back to the Medical Act of 1858, and the purpose of those who passed it. He says the Act was the result of a general desire to establish a central authority in the medical profession; to institute a Register of its qualified practitioners; to impose a sufficiently uniform test of qualification before names were entered upon such Register, and to have a National Pharmacopœia. He shows of course that the Council, consisting of twenty-four eminent men, and with an income of many thousands a year, has done some good; that it has produced a Register, that it has published a fairly good National Pharmacopœia, that it has improved preliminary education, and exercised an influence for good on the several licensing bodies. The Act of 1858 "broke down the territorial privileges of the licensing bodies, and made a licence valid anywhere in the United Kingdom. It further unified the profession by placing the entrances to it under the guardianship of one General Council." With this statement of the good results of the Act, occupying two pages out of sixteen, Mr. WHITE'S illustration of the good working of the Medical Act ceases, and he begins a most striking illustration of the faults and defects of the Act and of the Council which it created, and by which it must be mainly judged. This illustration is given obviously with so little design of injuring the Council, and with such simplicity of detail and history as to be the most convincing proof, if any

were needed, in addition to the evidence now before Her Majesty, of the absolute necessity of a Council differently constituted from the present, if the work of medical education is to be advanced, and if medical boards are to be delivered from the great stigma of acting unequally in the three divisions of the kingdom. Mr. WHITE says: "But it soon became evident in many ways that the Act.....was failing to realise all the hopes of its promoters, or to satisfy the demand for medical reform. Fault was found with the working of particular institutions; defects were shown in the general system established by the Act. The diplomas issued by some of the bodies were said not to prove that amount of fitness for practice which they professed to guarantee. The examinations on which they were granted were pronounced insufficient, and the machinery provided by the Act for putting a stop to such laxity of licensing, when brought to the test of experience, was declared to be ill-constructed. For the Medical Council had been given by the Act no direct control of the licensing bodies," &c. The Council had of course its defence and explanation ready. "But whatever the Council's justification, the fact remained that some of the bodies were generally believed not to examine thoroughly in the subjects in which they licensed. Further, the diplomas were nearly all 'half diplomas,' and the provisions of the Act for encouraging the voluntary combination and co-operation of the bodies in giving complete diplomas were not satisfactory. Even the three bodies which did so combine continued to grant their half diplomas separately." Then comes the great demonstration of the Council's inadequacy to deal with such evils. It became alive to them as early as 1867, and for several years, under the lead of the lamented PARKES, and stimulated from without by Mr. SIMON, passed resolutions and adopted reports setting forth the inequality of examinations, and the *halfness* of diplomas. In 1870, by a majority of seventeen to one—the dissentient being Sir DOMINIC CORRIGAN,—the Council passed a resolution in favour of the establishment of a joint examining board in each of the three divisions of the kingdom. So earnest and unanimous was the Council then, that on its recommendation the Government brought in a Bill making a single board in each division of the kingdom compulsory. Since then the Council has changed its own mind. Under the influence of Dr. WOOD—according to Mr. WHITE—but according to our view, under the influence of a much more dominant intellect and character, that of Sir ROBERT CHRISTISON—all Scotland backed out of its support of the Conjoint Scheme. Ireland followed suit. So that whereas in 1870 only Sir DOMINIC CORRIGAN—a free lance by general consent—voted against compulsory Conjoint Boards, in 1878 ten voted against them. Of the ten, nine represented medical authorities—namely, all the Scotch authorities without exception, and all the Irish authorities except the Apothecaries. The tenth opponent of the resolution was the Crown Nominee of Scotland. On the showing of Mr. WHITE, then, on the main question of medical reform, the Medical Council is a house divided against itself, and too much concerned with local interests and views to put the question of licensing medical examinations on a national basis. In plain terms, the history of medical reform in the last fourteen years has been a history of failure—a history of nineteen bodies out

of sympathy with the profession, several of which are superfluous, striving to perpetuate themselves and all their individual privileges, without reference to public advantage, and the question of justice to those on whom exacting examinations and fees are imposed. In the next few weeks we shall try to give our readers some account of the evidence of the witnesses before the Commission on the principal questions involved in medical reform, and which must soon engage the attention of Her Majesty's Government.

SOME experiments carried on during the past year by Professor H. NEWELL MARTIN, and described by him in a paper published in the Transactions of the Medical and Chirurgical Faculty of the State of Maryland, appear to be of great value in determining the effect of variations of blood-pressure upon the pulse-rate. When it was shown that by increasing the pressure in the arteries the pulse was slowed, it was assumed that the greater force to be overcome by the ventricle entailed a longer systole, and that the result was the direct effect of the pressure upon the muscular tissue of the heart. The discovery that there is in the medulla oblongata a cardio-inhibitory centre which is stimulated by increased blood-pressure, and also a cardio-accelerator centre stimulated by lessened blood-pressure, and that the effects described by MAREY were to be traced to the action of these centres, rendered necessary further investigations to determine whether variations in blood-pressure have any direct influence upon the pulse-rate. The results obtained by such trustworthy observers as HEIDENHAIN, LUDWIG, v. BEZOLD, and others, have been found to vary so greatly that no reliance whatever can be placed upon them. Professor MARTIN has, by eliminating apparently every source of error, arrived at constant and decided results, which also serve to explain the contradictory statements of previous observers. His mode of procedure is as follows. The animal—a dog—having been tracheotomised, placed under curari, morphia, or chloroform, the common carotid arteries are tied, and cannulas placed in their central end. Artificial respiration is then established, the front and sides of the chest removed, and the two subclavian arteries are tied below the origin of their first branch. One limb of a curved metal cannula is then introduced into the aorta, and thus all circulation through the systemic arteries except the coronaries is blocked. The two venæ cavæ and the vena azygos are tied, and a large tube in communication with a flask of defibrinated blood is introduced into the superior cava on the cardiac side of the ligature. The carotids are then opened, and all the blood in the heart and lungs is washed out by the defibrinated blood. While this is being done a thermometer is placed in the left subclavian artery. The animal is then transferred to a warm moist chamber; the superior cava is connected with a MARIOTTE'S flask, from which defibrinated blood under a known and easily regulated pressure enters the vein and the right auricle. The blood flowing from the aorta is collected in another similar flask. The venous pressure can be altered by raising or lowering the MARIOTTE'S flask, and the arterial pressure can be increased or diminished by elevating or lowering the exit point of the tube connected with the aorta. All being ready, arterial pressure, as measured in the carotid, was varied between the limits of 40 mm. and 210 mm. of mercury,

and tracings taken of it and of the pulse-rate. Although this was done repeatedly, and both suddenly and gradually, it was found to in no way influence the pulse-rate, which gradually and uniformly fell. If the venous and arterial pressure were coincidentally greatly increased, the character and rapidity of the pulse were profoundly altered. If while the arterial pressure was kept constant, the pressure in the vein was altered by raising or lowering of the MARIOTTE'S flask, in the same way the pulse-rate underwent no change. The experiments, which were often repeated, curari, morphia, and chloroform being used in turn, so as to exclude any effect of these agents, show that alterations in the blood-pressure, either arterial or venous, do not directly affect the pulse-rate.

In a further series of observations Professor MARTIN maintained the blood-pressure in both vein and arteries at a constant level, but varied the temperature of the defibrinated blood supplied to the heart, and he found that the pulse-rate rose with every increase in the temperature of the blood, and fell as it cooled. The fact that the pulse quickens with rise of temperature has of course long been familiar, but it was explicable upon two theories. The hot blood might act directly upon the tissue of the heart, or, paralyzing the cardio-inhibitory centre in the medulla oblongata, influence the heart indirectly. MARTIN has now shown that a dog's heart, completely liberated from all possible influence of nerve centres outside itself, slows its rate of beat from minute to minute, as the temperature of the blood sent through the coronary artery falls, and quickens its beat as the temperature rises; and it has yet to be proved that the increased frequency of the pulse in the febrile state is in any way dependent on paralysis or excitation of the cardio-inhibitory or cardio-excitator centres in the medulla. In attempting to find the extremes of temperature compatible with cardiac life, it was found that a dog's heart would beat regularly and slowly at 26° C., and regularly, but rapidly and feebly, at 41° C.

Professor MARTIN shows how his investigations explain the results of other observers labouring at the same problem. For example, v. BEZOLD in some experiments on curarised rabbits, with all extrinsic cardiac nerves divided, increased the blood-pressure in one of three ways. He either raised the hind part of the animal, and so pressed blood from the belly to the heart; or, after opening the chest, he clamped the aorta just beyond the origin of the left subclavian artery; or he injected into one carotid calf's blood carefully warmed to 38° C. By each of these methods not only was the blood-pressure increased, but the temperature of the blood in the heart was raised, and so the increased frequency of the pulse was produced. In the first experiment, abdominal blood, nearly 2° C. hotter than that in the external jugular vein, was forced back to the heart in excess. In the second experiment, when the aorta was clamped, the blood forced into the aorta returned from the head and fore limbs much faster than before, and a larger amount of blood flowed through the lungs in a given time, and as only the same amount of cool air was pumped into the lungs by artificial respiration, the blood was much less cooled; or, in other words, the blood then reached the coronary vessels hotter, and so raised the pulse-rate. It has been shown that one effect of curari on the dog is to lower the

temperature of the venous blood 3° C. Assuming that the effect is the same in the rabbit, the calf's blood at 38° C. introduced into the carotid artery in the third experiment, was 3° C. hotter than that in the veins, so that here again the means taken to raise the blood-pressure also raised the blood-temperature. Professor MARTIN has been successful in eliminating this source of error, and has apparently reduced a complex problem to its simplest conditions, and has succeeded in obtaining results of great value and importance.

A RECENT number of the *Saturday Review* in commenting on Professor ATTFIELD's address at Southampton, remarks that it is astonishing how little suspicious even suspicious people are of the drugs which they take when they are ill. They are quite alive to the prevalence of adulteration in other trades, but they will swallow medicines hastily fetched from the nearest chemist's without so much as a misgiving that they are not in all respects what they profess to be. Yet in nothing is adulteration so easy or so profitable as in drugs. The taste will sometimes assist in its detection in articles of food, but in medicines it avails us nothing. Genuine drugs are often very costly, so that the gains derived by substituting other substances for them are great. In no trade are the effects of adulteration so disastrous as in that of the druggist. Adulterated food or drink provokes disease, but the adulteration of a drug snatches away the last lingering hope of recovery from the dying patient. How often is death attributed to the virulence of the disease, or perhaps to want of skill on the part of the doctor, when in reality it is attributable to the use of worthless medicines. The doctor ordered the appropriate remedy, and if actually administered it would in all probability have checked the course of the disease. But what was actually administered was not the remedy at all, but a counterfet of it, and though the patient did not detect the difference, the disease did, and the patient died. How to ensure that drugs shall be what they profess to be is one of the most important problems in practical medicine, and one to the solution of which few contributions have as yet been made.

The strictures of our contemporary are severe but they are just, and we cannot be sufficiently grateful to anyone who calls public attention to a matter which affects us so closely. But it is probable that the *Saturday Review* does not know and even doctors themselves do not realise the extent to which the practice of "sophistication," as it is conventionally called, is carried on. Much information may be derived from a report on the Deteriorations, Adulterations, and Substitutions of Drugs presented to the American National Board of Health. Powdered drugs, we are told, are almost universally inferior in quality, and it is well known that powders are commonly offered at the same price as the crude drug, notwithstanding the cost of labour and the loss occasioned in drying and powdering. Many of the officinal preparations are of such a character as not to bear very close scrutiny. Tinctures vary materially in quality, and are frequently made of inferior strength both as regards drug and menstruum, in order that they may be sold at a lower price. From the report to which we have referred it appears that even crude drugs are frequently adulterated. For example, much of the aconite root sold is partially or entirely tasteless, being first ex-

hausted of its alkaloids and then redried. Of different samples of arnica examined one contained fifty per cent. of the true drug, another only ten per cent., whilst a third contained none at all. Sarsaparilla is found to be frequently adulterated with nut-galls, ipecacuanha, matric-stems, paper, bark, straw, and belladonna leaves. All the high-priced drugs are especial objects of adulteration. Of three specimens of santonine submitted to analysis, one contained mica in large quantities, another twenty-two per cent. of boracic acid, whilst the third consisted almost entirely of picric acid. We know of a case where a patient suffering from rheumatic fever was given powdered sugar flavoured with quinine in place of the salicine prescribed. Quinine itself is most extensively adulterated; in one glaring instance finely picked cotton was introduced into the bottles in order to increase the bulk. It is an undoubted fact that many specimens labeled "sulphate of quinine" are destitute of the slightest suspicion of the presence of any alkaloid derived from cinchona bark. In a leading Continental city there was until recently an extensive establishment devoted entirely to the manufacture of spurious drugs, their preparation giving evidence of consummate skill. This is a subject of the utmost importance, affecting not only the honour of our profession, but the welfare and safety of thousands whose lives are entrusted to our care. No wonder that in certain quarters there is a growing disbelief in drugs when such pernicious practices are resorted to, and adulteration becomes the rule and not the exception. It is a matter calling for strict and impartial investigation, and our thanks are due both to Professor ATTFIELD and our contemporary for having brought the subject so prominently before the public.

WE publish in another column the report of the conviction of an unqualified practitioner for forging a death certificate in the case of a patient whom he had attended. Last week the Coroner for Middlesex held an inquest at the Coroner's Court, Islington, on a man who was seen by Mr. DUDLEY POWER, an unqualified practitioner. Mr. RICKETTS watched the case for POWER, and Mr. PRIDHAM for the Medical Defence Association. POWER seems to have mistaken the nature of the case, and to have diagnosed drunkenness instead of pneumonia, which was afterwards diagnosed by Mr. ROWNTREE, a Poor-law medical officer, and found, post mortem, by Dr. HERBERT JAMES CAPON. Mr. ROWNTREE said that 90 per cent. of such cases, under proper treatment, would recover. The jury, after deliberating twenty minutes, returned a verdict of "Manslaughter" against Mr. POWER for feloniously killing the deceased. The coroner issued his warrant for the accused to take his trial on that charge. The bail was fixed at two sureties in £100 each. It is noticeable that the wife of this unfortunate patient was advised to go to a public-house and get a letter for threepence for a dispensary kept by Mr. POWER. No letter was obtained, but Mr. POWER prescribed.

Yet another case in point. At Worship-street on Sept. 8th, Mr. UPFIELD, assistant to Mr. W. H. DRY, M.R.C.S., of Kingland Dispensary, Kingland-road, was summoned, together with Mr. DRY, before Mr. BUSHBY, at the instance of the Medical Defence Association, charged with having given a false certificate or declaration concerning the death of one HENRY JAMES AULT. Mr. PRIDHAM, solicitor, pro-

secuted for the Association. He said the summonses were taken out under the Births and Deaths Registration Act, 1874, section 40, subsection 2, and each of the defendants was liable to a penalty of £10. In the case of the death of any person who had been attended during his last illness by a registered medical practitioner, it was provided that a certificate of the cause of death should be given by this practitioner. The defendant, UPFIELD, resided at the Dispensary, 235, Kingland-road, where he carried on the business for Mr. DRY, who was a duly qualified medical practitioner, and whose name was used in connexion with it. Mrs. AULT, the mother of the deceased child, went to this dispensary, and UPFIELD attended the child up to within a short time of its death, and to him they paid the fees which would be paid to a duly qualified medical practitioner. The child died, and UPFIELD, on being asked for a certificate, gave one to Mr. EDWIN AULT, the child's father, beginning, "I hereby certify that I attended HENRY JAMES AULT," stating that the child died of scarlatina and diarrhoea, and signed "W. H. DRY, M.R.C.S., L.S.A." Mr. DRY admitted he had never attended the child at all. Mr. BUSHBY said it did not appear that UPFIELD had represented himself to be a qualified practitioner, but at the same time the Act had been deliberately broken by both defendants, and he should impose the full penalty of £10 in each case.

It is amazing, after what happened at the last meeting of the General Medical Council, to find either a practitioner or his unqualified assistant placing themselves in such a position as that of Mr. DRY and his assistant in this case. It is probable that Mrs. AULT was under the delusion all the time that the person in attendance was Mr. DRY. It is a painful fact that, under the sham dispensary system, there is a rapid change of assistants and principals. The poor people who go can only assume that the person they see and who poses as a medical man is the principal and a qualified medical man. The deception practised is a very serious one, especially when death and grave diseases are involved. It is discreditable to our system of public prosecutions that these cases are not much more extensively exposed than they are. They cannot much longer go on without exciting the attention of the Public Prosecutor, not in London alone, but in the provinces. Why should juries and a Medical Association have the sole labour of investigating a system like this? Meantime, in the name of the public, and especially the poor, we cannot but feel grateful to the Medical Alliance Association for so effectively bringing to light an indefensible system of medical practice with which no medical man should identify himself.

DR. DIXON, the Medical Officer of Health for Bermondsey, in his annual report to the vestry, just published, gives the number of uncertified deaths during the year as sixty-six, or 3.8 per cent. of the total deaths. Forty were males and twenty-six females; thirty-eight were children under one year of age, and twelve were between one and five years. He adds: "From the use of such purely professional terms as *spina bifida*, *pyæmia*, *hydrocephalus*, and *tabes mesenterica*, it is evident that the information given to the registrars was supplied by medical students, unqualified assistants, or practitioners who were not on the medical register of persons duly qualified to practise."

## Annotations.

"*Ne quid nimis.*"

### THE HEALTH OF THE PRIMATE.

THE grave apprehensions of the friends of the Archbishop have not been hitherto realised as to the result. The Primate continues to live, and to show a vitality which is apparently natural to his family. We reported on the 2nd instant a state of things which indicated the most imminent danger to his life, but the comatose state which then appeared as about to bring an end to existence has departed, and left the mind of the Archbishop perfectly unaffected. The impervious left lung has become pervious again, without the intervention of crepitation or bronchophony, whilst the pneumonia in the right has developed moderate consolidation. The insufficiency of the cardiac valves, which was very manifest before his Grace's feverish state began, has not been evident since he has kept the recumbent position, but the pulse continues frequent, varying from 90 to 100 daily; whilst the Archbishop's normal pulse was usually 72; it is of fair power, though a beat is lost occasionally. There are no cardiac murmurs now. The respiration has become gradually slower, falling from 40 to 30 per minute. The cerebral character of the respiration has departed. This was very manifest whilst the comatose stage threatened. The thrombi in the legs have nearly disappeared. The skin continues dry, as well as the mucous membrane of the mouth and throat. A few aphthous spots appeared on the tongue and the palate in the early part of the week, causing some uneasiness in swallowing; but these have departed, as well as the accompanying nausea. There is considerable emaciation, but food of an unstimulating character is taken in abundance and without any distaste. The Archbishop sleeps uneasily, but has not been troubled with much pain of any decided kind. The neuralgia in the shoulder, right arm, and back of the neck has left him.

### CHOLERA AND QUARANTINE.

THE rumours of cholera and of the adoption of quarantine measures in different parts of the world remind us of a danger to which Europe is annually subjected at this season of the year, and also of a preventive measure which finds many staunch supporters in the East, but which in this country is every year coming to be regarded with diminishing assurance in so far as its effect upon public health is concerned. For ourselves, the most disquieting rumour has had reference to the presence of cholera in the Red Sea, and to the imposition of such quarantine measures upon vessels entering the Suez Canal as would seriously have hindered our operations in Egypt. The rumour, so far as the cholera was concerned, has turned out, to say the least, to have been greatly exaggerated, and it is indeed doubtful whether true Asiatic cholera was in question; so, also, the prompt intimations of our Government have prevented the adoption of measures which, whilst probably useless in themselves, would have caused a serious hindrance both to England and to other European countries. It must not, however, be forgotten that, as pointed out by Mr. Netten Radcliffe, by the opening of the Suez Canal the Red Sea has become the most ready route for cholera to enter Europe, and it was to have been hoped that some international arrangements might have been made for the proper inspection and regulation of infected and suspected vessels, which, whilst avoiding the needless restrictions attaching to the more antiquated of the so-called quarantine measures, would have provided for the security of Europe from infection by that route. There are, however, now many difficulties to be overcome before any international agreement can be expected with regard to

this question, and, in the meantime, we may in this country fully trust to the sanitary organisation of our ports, if the authorities having control over them rigidly carry out their inspectorial duties as regards shipping, and also provide themselves with means for the isolation of the infectious sick.

#### MECHANICAL STIMULATION OF THE BRAIN.

VARIOUS opinions have been expressed regarding the degree to which the cortex cerebri is excitable by mechanical agencies. Few experimenters have found the mechanical excitability to be well marked. The most noteworthy results thus obtained are those of M. Couty, who described movements as produced by such stimulation of the motor region, the effect closely resembling that following electrical stimulation. He stated, also, that these movements could be increased by causing inflammation in the cortex, either by exposing it to the air for a certain time, or by the action of various irritant substances. The nervous tissue becomes a little more consistent in consequence of the inflammation, and is less easily reduced to a soft pulp by mechanical disturbance. The effects obtained by M. Couty were of two orders: movements first on the opposite side of the body; and, secondly, on the same side as the hemisphere irritated, and in certain cases movements more or less general were produced. The first of these alone are comparable to the results of electrical stimulation of the motor zone, the others must be regarded as of the nature of reflex actions—i. e., of sensori-motor nature. M. Vulpian has recently made a large number of experiments to ascertain the degree and character of the mechanical excitability of the grey cortex of the brain. In mammals, dog, cat, and rabbit, in the normal condition, he could never produce in this way the slightest movement either in the limbs of the opposite side, or in those of the same side. The mechanical stimulation was produced by rubbing the surface of the cortex with a small sponge, or a fragment of amadou, or with the points of dissection-forceps. Thus, in the dog and cat, after having carefully ascertained the points in which electrical stimulation produced movement of the face, or of the fore limb, or of the hind limb, varied mechanical stimulation was applied to the same points, but no movement could in any case be perceived. If therefore movements resulted from such stimulation in the experiments of Couty, the effect must have been purely accidental, or the consequence of some experimental error. The results were also negative when Vulpian repeated the experiments, after having produced inflammation of the surface of the sigmoid gyrus by tincture of cantharides, by essence of mustard, or by nicotine. The stimulation of the inflamed surface by various mechanical agents did not cause the slightest movement in any part of the body. Nevertheless, in Vulpian's experiments, certain effects were observed analogous to those which Couty regards as reflex, and which are produced by the mechanical excitation, not of the motor functions of the cortex, but of the sensory regions. When the sigmoid gyrus of the dog is galvanised or faradised, a certain amount of pain is produced even when the electrodes are placed a long way from the shreds of the dura mater, which are extremely sensitive. The points in this region which seem to be the most sensitive are those in which stimulation causes movement of the fore or hind limb on the opposite side, although these are far less sensitive than is the dura mater. But mechanical stimulation of these regions never, in Vulpian's experiments, caused indications of pain. Nevertheless, similar excitation of the deeper layers of the cortex, or in the subcortical portion of the white substance, usually caused unequivocal signs of suffering. When metallic wires are passed into the motor points of the sigmoid gyrus, and a faradaic current of moderate intensity is passed through them, the movements caused in the limbs on the opposite

side become stronger the deeper the wires are plunged into the cerebral substance, provided they penetrate to the white substance. These movements are absolutely the same as those which are produced by faradisation of the surface of the convolution, and differ only in their greater extent and greater energy. In the same way, the pain becomes more intense when the wires reach the white substance. Thus the sensibility of the cerebrum itself is incontestably low. It is, however, augmented by repetition of the stimulus and thus it is possible that pathological irritation may cause an exalted sensibility, which is evidenced by pain. It is only in the white substance beneath the sigmoid gyrus that mechanical stimuli elicit any evidence of sensibility. Elsewhere the white substance of the cerebral lobes seems to be absolutely insensible, although on this point M. Vulpian's experiments are not sufficiently numerous to enable him to speak with perfect confidence.

#### METROPOLITAN LUNACY.

NOTWITHSTANDING the provision of three large Middlesex County Asylums at Hanwell, Colney Hatch, and Banstead (to say nothing of the Surrey and Kent County Asylums), and of three Metropolitan Asylums for Imbeciles at Lewisham, Caterham, and Darenth, there is constant and increasing complaint among the Guardians of the Metropolitan Unions of the difficulties in which they are placed through want of accommodation for lunatics, now improperly retained in the workhouses. It appears that the subject has been under serious discussion by at least three Boards of Guardians—namely, those of Poplar, Mile-end Old Town, and Wandsworth. The present institution-provision for metropolitan lunatics and imbeciles is evidently insufficient, and bearing in mind the serious evils attending the retention of lunatics (especially new cases) in workhouses, this subject seems to call for full inquiry. It is not disputed that the county asylums are overcrowded with incurable cases, and this renders it the more important that additional accommodation should be at once provided for such cases in order to render available space for the prompt reception and treatment of new cases, a large proportion of which may be deemed curable. With regard to the accommodation provided by the Metropolitan Asylums Board, it may be stated that at the present time about 4000 patients are accommodated in the two asylums at Leavesden and Caterham, whereas not more than about 400 are yet in residence at the third asylum at Darenth. It seems a matter for regret that the Metropolitan Asylums Board do not see their way to relieve the pressure for lunacy accommodation in the metropolis by promptly rendering additional space available at Darenth.

#### SANITATION AT GREENOCK.

HITHERTO we have had little enlightenment in sanitary matters at Greenock, as throughout its existence the town has been chiefly noted for its neglect of all sanitary laws, for its high death-rate, and its enormous rainfall. But better days seem to have dawned of late, and few more complete expositions of the advantages of efficient sanitary legislation have been given than that offered last week by Mr. George Mackay, the Greenock sanitary inspector, in a speech to the Sanitary Association of Scotland. In 1876 the local authority of Greenock obtained special Parliamentary powers, and it has used these to such purpose that the contrast between the health record of the past and present is most instructive, and ought to be so to those armed with, or requiring, such authority in other towns where such proclivities as were found in Greenock may still abound. Taking an average of ten years, there were many densely populated places with a mortality



from 40 to 67 per 1000 of the population; the general rate was higher than that of any other large town in Scotland, the mean during the twenty-one years prior to 1876 being 31·24 per 1000. During the five years immediately succeeding the institution of an improved sanitary system the mortality sank to the less frightful rate of 24 per 1000, while in 1881 it only reached 22·14, being the lowest rate hitherto recorded in this long-suffering town. It was in infectious diseases that the greatest decrease of deaths had taken place, the quinquennial period after 1876 showing no less a reduction than 1123 as compared with the period immediately preceding that date. Mr. Mackay may well give credit to the present administrators of health matters in Greenock for their enlightened policy. It may not be amiss to point to the further fact that this is one of the few towns where the burthen of reporting infectious diseases is thrown upon the householder; and though Dr. Wallace is not satisfied, we can well see that much may be said in favour of a system which gives such excellent results, while leaving undisturbed the feeling of mutual confidence so necessary between practitioner and patient.

#### TESTIS IN PERINEO.

DR. S. BAUDRY has recently met with a case of the rare malformation in which the testicle, instead of descending into the scrotum, passes down into the perineum. The subject of the deformity was a new-born child, in other particulars well developed and well nourished. The right testicle was found two centimetres in front of the anus, and the same distance outside the ano-scrotal raphe; it presented normal characters, being slightly smaller than the one on the opposite side; the vas deferens was readily traceable up to the external abdominal ring. This testicle was covered by normal skin. The right half of the scrotum appeared to be absent; the raphe was seen on the right side, and from it the skin continued without fold or line of demarcation to the thigh. No sign of any dartos could be found to the right of the raphe, for while cold caused distinct contraction on the left side none was observable on the right. The displaced testicle was not movable. In this case differs from others that have been recorded, for in the accounts of such cases it is usually stated that the testicle was readily moved up into the groin, and in some it always assumed this position in sitting and walking, and all the treatment required has been to fit on some form of suspensory bandage to keep it up in the groin. Hunter was the first to draw attention to this rare deformity of the testicle, and the difficulty he experienced in accounting for it has in the opinion of pathologists not yet been satisfactorily overcome. Mr. Curling, who reports more cases than any other observer, attributes it to the action of a gubernaculum testis, of which the middle slip is attached to the perineum instead of to the bottom of the scrotum; and there is certainly much to be said for this view, the strongest piece of evidence in its favour being the fact that in a case in which Mr. Curling attempted to replace the organ he found a very firm band attaching its lower end to the superficial structures of the perineum. On the other hand, some authorities doubt whether the gubernaculum testis is the cause of the descent of the testis, and whether therefore its faulty attachment can lead to a misplaced testicle. In only a minority of the recorded cases has the corresponding side of the scrotum been absent, so that we cannot attribute the deformity to want of development of the normal receiving pouch. More frequently the scrotum is shrunken, and in two cases Mr. Curling and Mr. James Adams attempted to replace the testicle in its proper scrotal pouch. Mr. Hutcheson has seen a boy with both testicles in the perineum. Vidal observed it in two brothers. It is well known that testicles retained in the abdomen usually fail

to secrete spermatozoa. Such appears not to be the case when the organ reaches the perineum; in one case Ledwich dissected a specimen, and although the organ was small and soft, its ducts were found to contain spermatozoa. The most important question is that of the proper treatment. There is no evidence to show that the testicle is in these cases specially prone to become the seat of malignant disease, nor associated with hernial protrusion. When it is movable a retentive apparatus, which keeps it out of the way of injurious pressure during sitting, riding, and walking, answers all the indications. In such a case as Dr. Baudry's, where the organ is fixed, it would be wise to wait to see whether it may not become mobile, but should this not occur it would undoubtedly require excision, as it would be constantly exposed to injury in sitting or riding. A case is recorded in which a perineal testicle became affected with gonorrhœal inflammation, and was almost incised in error for an abscess. Zeiss mentions the curious coincidence of this deformity in a boy suffering from stone in the bladder, and the misplaced testicle—the left—was only discovered when he was about to commence the operation of lithotomy. Its position was such that he was forced to cut on the right side.

#### THE NECESSITY FOR HOLIDAYS.

IF it were strictly true, as Dr. Fothergill assumes in a paper in the current number of that always entertaining and useful publication, *Good Words*, that "some little time ago, not more than a generation, holidays were associated with school children, and rarely did anyone of adult years talk of a holiday," that would go far to prove that the "necessity for holidays" was a demand created by supply. Such, however, is not quite the fact. It is undoubtedly true that holidays are more common than they used to be, and that they are now enjoyed by classes of the people to whom they were until recently unparticipated luxuries; but for all time it has been the practice of brain-workers to rest from their labours for a short time periodically. Those who did not do this, except in rare instances of particularly wisely ordered work or of extraordinary vigour, were compelled by an oft-recurring threat of breakdown to take therest they would otherwise have refused. In short, holidays are a necessity, growing out of the physiological need for periods of store-replenishing, when the reserves of strength can be made up. It is impossible to lay too great stress on the fact that the economising of the buoyancy and vigour of life very much depends on the integrity of those reserves of mental and nervous force which it is the main purpose of the holiday to replenish. Mere "rest" will not accomplish this result. Every part of the organism, the brain and nervous system included, feeds as it works. There must be exercise, or there will not be appetite; and without appetite an abundant supply of food is of little avail.

#### BLUE MARKS AND PEDICULI.

SOME years ago the fact that blue spots or dusky spots are often observed in association with pediculi pubis was pointed out by M. Mourou, a French naval surgeon. Subsequently M. Duguet furnished a demonstration of the relation between the two by producing blue spots by means of inserting beneath the epidermis a small quantity of a sort of paste made of bruised pediculi. Hence it is clear that the pediculi pubis contain some substance having colouring properties. Farther observations by M. Mallet, a pupil of Duguet, make it probable that this substance is contained in the salivary glands. By means of fine forceps the head of a pediculus was torn off and inserted beneath the epidermis of the forearm, and near it the rest of the louse was similarly interred. Next day a blue

mark was distinct around the body of the insect, but not around the head. In another experiment a small mass came away from the body of the insect with the head, and in this case the dusky spot developed around the head and not around the body. Further experiments showed that the colouring agent was situated in the body opposite the anterior pair of legs, and at this level it is known that there are two pairs of salivary glands. M. Duguet has pointed out some curious facts regarding the resistance of some persons to the action of the salivary juice and the influence of season on the colouring power of the insect. The blue spots are far more abundant in February, March, and April than in other months.

#### THE PARKES MUSEUM.

THE Council of the Parkes Museum have just acquired new premises in Margaret-street, Cavendish-square, to which the museum is to be removed from University College as soon as the alterations and additions which are now being made under the direction of Mr. Mark H. Judge, A.R.I.B.A., are completed. The new museum will consist of a central hall, suitable for meetings and lectures, a library and corridors, all lighted from the top, and well suited for exhibition purposes. The meetings and lectures on sanitary and other matters connected with the health of the people, which were only occasional while the museum was at University College, will form a permanent feature of the institution when it is reopened in Margaret-street. Captain Douglas Galton, C.B., F.R.S., presided at the last meeting of the Council, when a letter was read from Mr. Thomas Twining of Twickenham, in which he said: "Much as I regret that University College should lose the advantage of possessing a hygienic collection within its walls, I cannot but rejoice at the prospect now afforded us of developing the Parkes Museum in a central position, with all those educational devices which may unite the benefit of the people at large with that of the medical, architectural, and engineering student. The outset will necessarily involve considerable expenditure, but with such results in view, I should think that many liberally minded friends of sanitary progress might be induced to join in meeting this extra expense." Mr. Twining concluded his letter by offering to contribute a special donation of £100 towards these expenses. In accepting the generous offer of Mr. Twining, the Council passed a vote of thanks to him for the timely help thus rendered to them. It is expected that the museum will be reopened before Christmas. In the meantime communications may be addressed to the Secretary and Curator, Mr. Mark H. Judge, at 8, Park-place Villas, Paddington, W.

#### ISOLATION PROVISION FOR NOTTINGHAM.

DR. SEATON, medical officer of health for Nottingham, strongly urges the provision of a permanent hospital for the isolation of infectious diseases. The present hospital buildings, which are situated in the centre of the borough, were hurriedly erected in the face of an epidemic of small-pox some ten years ago, and they have recently served for the isolation of the same disease. But they are reported as unfit for the isolation of more than one infectious fever at a time; they are not suited to the reception of scarlet fever cases; and, in short, they do not constitute the sort of hospital provision which should be provided for the protection of public health in such a town as Nottingham. Public opinion would now appear to favour Dr. Seaton's contention; and it is to be hoped that a corporation which has already shown itself capable of meeting many public and educational wants in a way that leaves but little to be desired, will no longer defer making this much wanted addition to the means it already possesses of coping efficiently with infectious disease.

#### THE DISTRIBUTION OF THE HOSPITAL SUNDAY FUND.

OUR contemporary, the *Morning Post*, has opened its columns to an expression of complaint on the part of those who are not satisfied with the distribution of the Hospital Sunday Fund. "A Governor of Hospitals" supplies the following table of awards to the principal hospitals:—

Hospital.	No. of Beds.	Sum awarded.	Per Bed.
King's College	200	£1575 0 0	£7 17 6
St. Mary's.....	190	1012 10 0	5 6 6
University ...	200	1012 10 0	5 1 3
Middlesex ...	310	1462 10 0	4 14 4
St. George's...	351	1575 0 0	4 9 8
Charing-cross	180	675 0 0	3 15 0
Royal Free ...	160	562 0 0	3 15 0
Westminster...	215	787 10 0	3 13 3
London .....	800	2812 10 0	3 10 3

The writer very properly says that the Distribution Committee sits as a sort of jury on hospitals, and by its awards expresses a kind of judgment on the administration of each particular hospital. At the last meeting of the Council the inequality of the awards was alluded to in a letter by Sir Rutherford Alcock, and it was understood that the principle of distribution should be again fully discussed. We ourselves have complained occasionally that the awards were not very intelligible. It is to be admitted, however, that they have excited exceedingly little complaint among the great Hospitals themselves. A "Governor of Hospitals" complains that the London Hospital in the recent distribution got less than half what King's College received. It is nevertheless true that Sir Edmund Currie, one of the most devoted friends of the London Hospital, entirely sanctioned the last distribution, and made no complaint on behalf of his favourite institution. The distribution is made on an arithmetical basis, exclusive of legacies over £100, and the Committee are expected to consider the *merits and needs* of each particular institution: a consideration which largely takes the shape of a comparison between the expenditure on the maintenance of patients and that on expenses of management. The Distribution Committee have very ample details of information, and are generally able to give some account of their awards. But they are not likely to be indifferent to any well-grounded complaints of the working of what they are fond of calling "the arithmetical basis."

#### THE URINE IN INFECTIOUS DISEASES.

A SERIES of researches, chiefly by Selmy, Brouardel, Boutmy, and Gauthier, have shown that peculiar alkaloids, to which the term "ptomaines" has been given, develop in dead animal tissues which are in process of putrefaction. They present similar chemical reactions to the alkaloids which are found in poisonous fungi. Bouchard, according to the *Revue Médicale*, has suggested that, since the ptomaines only appear in tissues which are charged with microscopic fungi, it is permissible to suppose that the cadaveric alkaloids are merely the products of the "disassimilation" of vegetable organisms. Further, if bacteria living in the dead animal tissues produce bacteria, it is possible that the same bacteria, growing in a living organism, may produce substances analogous to ptomaines. Bacteria seem to appear in the living body in all infectious diseases. Hence M. Bouchard has endeavoured to ascertain whether, during the course of infectious diseases in the human subject, any trace of these alkaloids can be found in the urine. His observations were made on cases of typhoid fever, "infectious pneumonia," and "infectious pleurisy," whatever the latter disease may be. All were dieted and no medicines containing alkaloids were given to them; and the urine was carefully preserved from putrefaction. An analysis showed

that they contained alkaloids having all the characters of ptomaines. A series of normal urines examined, and specimens from patients suffering from pulmonary emphysema, valvular disease of the heart, presented no trace of alkaloids. The conclusion, however, is not beyond question, since M. Pouchet has affirmed that the presence of alkaloids may be constantly demonstrated in normal urine.

### THE SANITARY CONDITION OF AUSTRIA.

THE Austrian Commission of Statistics, in its annual report upon the sanitary condition of the country, states that the number of hospitals is 505, with 28,466 beds, and that in the course of last year 237,772 patients were received in them, this being in the proportion of one to eighty-four of the total population. The number of lunatic asylums is 26, with 5934 beds, and the inmates last year numbered 8867; showing an increase of 7 per cent. since 1876, the proportion of men to women being as 54 to 46. There are eighteen lying-in hospitals with 1517 beds, and they received last year 16,649 mothers and 14,861 infants. The births in these hospitals numbered 15,241, of which 12 per cent. were twins and one-half per cent. triplets. The proportion of foundlings in Austria is one in 735 inhabitants, the greatest number being in Vienna and Lower Austria generally. There are in Austria fifteen schools for the deaf and dumb, with 1243 inmates, and eight asylums for blind children. It is estimated that there are outside these different hospitals 16,123 insane persons, 13,462 idiots, 20,843 deaf and dumb, and 11,730 blind. The number of thermal establishments is 220, visited last year by 150,496 persons, the Tyrol having 84 of these establishments, Styria 24, and Bohemia and Galicia 21 each. There are in Austria 4603 physicians, 2971 surgeons, 400 veterinarians, and 15,569 midwives and professional nurses, the number of medical men in Vienna being at the rate of one to every 582 inhabitants, while in some of the northern provinces there is not more than one to 10,000. The total number of deaths was 613,661, or 33 in the thousand; and of this total 13,313 died of small-pox, 4354 of measles, 15,819 of scarlatina, 15,257 of typhus, 7791 of dysentery, 348 of European cholera, 56,973 of croup and diphtheria, 56,551 of bronchitis, and 85,457 of consumption, while 10,390 came to a violent end, including 3480 suicides.

### THE TREATMENT OF TYPHOID.

AT the present time the treatment of typhoid fever is an opportune subject to engage the attention of the medical societies of Paris since the French metropolis is threatened with an epidemic of most serious proportions. The subject was brought before a recent meeting of the Académie de Médecine by M. Vulpian, who is applying his experimental skill to the service of practical medicine, and has been recently endeavouring to determine the value of the antizymotic treatment of the disease. The question is one of extreme importance, for it must be admitted that hitherto the advance of bacterial pathology has not resulted in that increase in our power over developed disease which might reasonably have been anticipated from so considerable an addition to our knowledge of the nature of morbid processes. There is strong reason to regard typhoid fever as of parasitic origin, and from this naturally follows an expectation that good may be done by germicide remedies which may reach the intestine without losing their influence. Nevertheless this method of treating typhoid fever has hitherto found little favour at the hands of practical physicians. Proceeding upon these lines, M. Vulpian has tried in turn iodoform, which caused only disgust; salicylate of bismuth, which, although of a certain efficacy, seemed to favour the occurrence of certain complications, such as dyspnoea and nasal

and intestinal hæmorrhages; boracic acid, which turned out as useless as iodoform; and, lastly, salicylic acid, to which M. Vulpian wished to draw the special attention of the Academy. It may be remembered that this was largely tried, especially in Germany, several years ago, but generally relinquished as being either useless or positively injurious. M. Vulpian found that when it was given in small doses, as one, two, or three grammes in the twenty-four hours, the results were almost *nil*, but if a quarter of a gramme was given every half hour, so that the patient took in the day about six or seven grammes of the pure acid, he believed that there followed an amelioration in the course of the disease both marked and lasting. Some patients presented the accidents of salicylism—delirium, which quickly subsided when the drug was discontinued, or a little albuminuria, but these were exceptional. In most cases these doses were well borne, and the beneficial influence of the drug was shown in improvement of the general condition and of the mental state, and especially in a fall of temperature, which had a permanence not observed with other antipyretic remedies, such as carbolic acid. These results are in striking contrast to those obtained by other physicians who have tried salicylic acid in typhoid. M. Germain See, for instance, declared that he had never observed a true and lasting defervescence to be obtained by its use, but only a transient fall of temperature of a few tenths of a degree. It remains to be seen whether the results obtained by M. Vulpian are not due to the series of cases thus treated having been of a mild type. The difference in epidemic severity is a fertile source of fallacy regarding the treatment of typhoid. Experimental physiologists are often apt to draw hasty and untrustworthy conclusions on points in practical medicine.

### DEATH OF A MEDICAL MAN FROM CHLORAL.

THE *Hertfordshire Mercury* gives the report of the inquest on the death of Dr. G. A. Towers, in his eightieth year, of Sele Cottage, North-road, Hertford, the son of Mr. John Towers, an eminent horticultural chemist, and a direct lineal descendant of Dr. Samuel Towers, a distinguished physician and chemist of the seventeenth century. Dr. Towers, after his apprenticeship, tried business on the Stock Exchange, but not being successful, reverted to the study of medicine, and finally graduated at St. Andrews. He was a man of various talent, given to music, painting, photography, horticulture, &c. He was the first resident medical officer of the County Infirmary, and the friend of Drs. Davies, Furnivall, and other physicians of Hertford. It is lamentable to record that Dr. Towers came by his death through an overdose of chloral, a drug to which he was much addicted. Mr. Odell said at the inquest that the deceased had told him that he had taken as many as 180 grains. It is bad enough for any person to drift into such a habit, but in a medical man it is much worse. He must know the tendency of it to be only evil, and his example is likely to be so much the more injurious.

### ALONE.

A DISTRESSING case of suicide committed by a boy ten years of age, while in his bedroom, to which he had been sent as a punishment, draws attention once again to a practice on which we have often commented adversely—namely, that of leaving children, young persons, and the weakly or troubled in mind, *alone*. The solitary state is abhorrent to the nature and mind of man. Whether the brain be immature in its development or morbid in its state, it is wrong in a scientific sense—that is, opposed to the laws and teachings of physiological science—to leave it alone. The possibility—we will even concede the probability—of a subsidence of excitement is not a sufficient set-off against

the dangers of a self-destructive intellectual activity. The mind always works to its own injury when it works alone. Reflection, introspection, and self-examination are essentially abnormal processes. The proper action of mind is on the outer world, or on such conceptions of fact and object as may be readily corrected by present observation or experience. Abstract processes of thought are never safe for the young or the weakly and troubled in mind. Healthy activity, so far as these two conditions of mind are concerned, is directly relative. It is not good for man to be alone in any sense. We would therefore again protest against the recourse to solitary confinement as a punishment for children, and against "seclusion" in any form for the unsound of mind. The two methods of treatment stand on the same footing, and they are both equally bad.

#### THE INOCULATION OF SYPHILIS.

A FEW weeks ago we directed the attention of our readers to the interesting observations which have been made in Germany, of the frequent association of bacteria, fairly definite in characters, with the tissue changes produced by syphilis, and we pointed out that the relation between the organisms and the disease cannot be more than probable until culture experiments and inoculations shall have given some positive results. The subject has been further investigated by a French syphilographer, M. Martineau, but it may be doubted whether it has been advanced by his researches. His search for organisms in the blood, chancrous induration, and cutaneous manifestations of the disease has been fruitless, but another method of procedure has led to results which he regards as more definite. A recently excised chancre was placed in a closed vessel which had been previously heated to a red heat. A concentrated "bouillon" was prepared and boiled for about two hours. It was then placed in a flask with a long neck, the temperature was lowered to 30° C., the chancre was introduced, and the neck of the flask was sealed at the lamp. The liquid was found, next day, to contain numerous bacteria of a special form, and a day later some of it was injected into the peritoneal cavity of a pig five months old. In a month seven or eight prominent papules appeared on the abdomen, followed by others. A few days afterwards conjunctivitis appeared in one eye, and a tumour on the penis. For the sake of comparison another pig was inoculated with pus from a syphilitic chancre, with the result of causing an eruption exactly similar to the first. Some bacteria were found in the blood of the second animal, and were injected into a third pig, a goat, and a monkey, but without result. The blood of these animals presented no bacteria. M. Martineau thinks that the cutaneous affection observed on the first two pigs presented the characters of a syphilitic eruption, and he concludes that syphilis is transmissible from man to the pig, but not from it to other animals, nor to other animals from man—a conclusion for which the facts of his experiments certainly give him only the most slender basis. His operations are to be reported on by a committee composed of MM. Bouley, Pasteur, Fournier, and Lancreaux.

#### DEAFNESS IN SCHOOLS.

THIS is a matter of considerable moment. There seems to be some ground for supposing that deafness is more common among children than the cases recognised would imply. At Washington, in the United States, an inquiry has been instituted with the result of discovering a notable proportion of instances. It would be well if tests were applied in the schools of this country—to ascertain the facts, and, if these should be adverse, to try to discover the reason why, and the mode of preventing what is one of the most troublesome and depressing of common calamities.

#### THE HABITUAL DRUNKARDS ACT.

THE office of Inspector of Retreats under the Habitual Drunkards Act cannot be a very lively or satisfactory one, owing to the want of anything particular to inspect. In the inspector's second report, just issued as a Parliamentary paper, only two establishments were reported on: the original one, Hall Court, Cannock, Staffordshire, and Tower House, Westgate-on-Sea. The first, with accommodation for ten male patients, was closed during the year in consequence of a want of harmony between the licensee and some of his patients; it has been opened since. At the Tower House, Westgate-on-Sea, six patients were admitted and two discharged, leaving four on the books on December 31st. The inspector fears that public-houses in the vicinity of the Retreats will give trouble, especially where there are not extensive grounds for recreation or a sufficiently large staff for purposes of discipline. He reports that some patients have done well up to the day of their leaving the retreats, but that in some cases they have immediately on their discharge given way to their prevailing vice; others have obtained drink during their very residence. Was there ever such an impotent piece of legislation as this? The result may satisfy those who prefer freedom to sobriety; but it can satisfy no one else to know that the habitual drunkard is still his own master, or rather the uncontrolled slave of his own vice.

#### THE CHAIR OF SURGERY AT ABERDEEN.

DR. PIRRIE has for so long a time been such a prominent member of the professional staff of the University of Aberdeen, that his retirement cannot but be regarded as an event of considerable importance. While some will be found to regret that he did not continue labouring in the field in which he had been so successful, we fancy that many more will be glad that he has not put off the day of retirement until the infirmities of age by incapacitating him for his duties have left him no choice. Dr. Ogston, Dr. Forbes Moir, Dr. Ogilvie Will, and Dr. R. J. Garden are candidates for the chair. But it has attractions for others besides "local" men, and we learn that Mr. Canthie, of Charing-cross Hospital, a very distinguished alumnus of Aberdeen University, who is very favourably known in London for his marked ability as a teacher, is also in the field, and will no doubt prove a formidable rival.

#### PRESCRIBING DRUGGISTS.

THE recent address of Dr. Attfield has given rise to various suggestions, not all original, as to the line which should distinguish those who prescribe medicine from those who compound and dispense it. We shall not range ourselves on the side of the unpractical, and say that this line should be absolute. Medical men will not quarrel with it if it be not carried too far. The public must be its own judge in the matter; but the more the public knows and becomes intelligent about disease, the more it will see the real economy of having the best opinion upon it that can be got. The prescribing work of chemists is the foil to set off the more cultivated work of the medical practitioner. We speak in no bombastic spirit. Disease is often puzzling enough to medical practitioners. It must be still more to those who have had no medical education. Of all suggestions on this subject that is the most pernicious which would give chemists a smattering of medical knowledge. Let us have no revival of the inferior half-fledged doctor. Let us have one thing or another—a chemist or a doctor. There is plenty of imperfect medical education already. We do not want any more superficialness or sham. The public would be injured most seriously by the success of any such proposals. If knowledge of disease is thought to come to chemists by reading the pre-

scriptions of others, let it be so; but let us not give any public sanction to the notion that a "smattering of medical information" imparted to a chemist will make him a doctor.

#### RAILWAY WHISTLES AND WHISTLING.

WE quite agree that there is far too much whistling on railways; but it is not true, as stated in a paper read by Mr. Price Edwards before the British Association, that "a low note would be equally efficacious for railway purposes as a high one," because "given the same initial intensity in the production of two sounds—one of low, the other of high pitch—there would be little difference between their penetrating powers at long distances, and none at all at such distances as sounds are required to be heard for the purposes of signalling." There is some begging of the acoustic question in the way the proposition is stated; but setting that aside, it is notorious, and capable of demonstration, that a flat note does not penetrate so well as a full one of the same pitch, and all sounds have a tendency to fall flat as well as to be less distinctly heard as they traverse space. In other words, the trajectory of the sound-wave falls flatter as it is prolonged. It follows that a low sound which has naturally a low trajectory will become flat sooner than a high one. If whistles are to be heard, and it is essential they should be, at great distances, they must be high-pitched. Meanwhile public health and happiness demand that there should be as little use of the railway whistle as possible.

#### DEATH FROM CHLOROFORM.

MR. COLLIER, Deputy Coroner for East Middlesex, held an inquest on the 7th inst. on the body of Mr. Francis Mellish de Putron, aged fifty-eight, a builder, of 3, Lower Gray-street, Silvertown, who had died under the influence of chloroform. It was stated that the deceased had been suffering from cancer of the tongue, and had attended the London Hospital for the purpose of undergoing an operation. Mr. Basil Wood Walker, house-surgeon at the hospital, said that the deceased was admitted on the 16th of August, suffering from cancer of the tongue, and it was decided that, with the consent of the deceased, an operation should be performed. On Sept. 4th chloroform was administered to him by witness, and it was not considered necessary to examine his heart. While under the influence of the chloroform he struggled, which was usual with persons when it was administered. The pulse then stopped, the deceased became livid in the face, and he commenced gasping. Restoration was tried, but without effect, and the operation was not commenced. Death ensued between five and ten minutes from the time the chloroform was first administered. The cause of death was failure of the heart's action, and the jury returned a verdict to that effect.

#### THE THAMES AS A GUTTER.

FILTH is thrown into the gutters of streets running through low-class neighbourhoods by persons having no exalted sense of the duties of good citizenship, and the agents of the Corporation of London and the Commissioners of Sewers discharge the contents of street gullies or gutters into the Thames. That highly respectable, if not very poetical, or even classic river is therefore little better than a gutter for the metropolis, so far as the uses to which it is put by the authorities above mentioned are concerned. It is not much good to protest, because the offenders are corporate bodies, and such organisations work their will at all costs and against all objectors. Nevertheless, we echo the suggestion that the Corporation and Commissioners of Sewers of London should be respectively summoned before the Lord Mayor, and, if possible, fined ten shillings and costs, with the view of bringing them, if possible, to their senses.

#### DR. PUSEY.

DR. PUSEY's condition is less satisfactory. His age is eighty-three, and gradual and increasing debility is the only feature in the case. His mind is perfectly clear.

#### VACCINAL MICROCOCCI.

M. STRAUS presented to a recent meeting of the Société de Biologie a series of microscopical preparations of the vaccinal pustule from the calf, at different stages of its progress, in which the presence of the special micrococcus could readily be observed. The method of preparation adopted was to place the excised fragments of skin in absolute alcohol, to cut sections and stain them by the method of Weigert, which consists of tinting with methylamine violet, and then discolouring them until only the nuclei, the bacteria, and micrococci remained visible. Under a strong magnifying power the latter were visible as extremely minute points, tinted blue, about a thousandth part of a millimetre in diameter, and grouped in colonies. They were seen in the borders of the inoculation wound, and in the Malpighian layer, and subsequently could be traced passing into the subjacent cutis, especially in the lymphatic spaces. The multiplication and extension of the organism seemed to coincide closely with the development of the pustule.

#### LONGEVITY OF AMERICAN DOCTORS.

AT the annual meeting of the Massachusetts Medical Society, held in Boston last June, the secretary read the names of Fellows deceased during the preceding year. They numbered 33. Of those, 13 had attained the age of sixty-five and upwards; 9 were seventy and above; 3 were respectively eighty, eighty-one, and eighty-eight; while the Nestor, Dr. Ebenezer Smith Phillips, admitted a Fellow in 1837, died the 28th of last May, aged ninety.

#### COMPULSORY VACCINATION IN ZULU.

OUR correspondent quotes the *Cape Mercury* as stating that the Zulu King Panda, twenty years ago, had himself and his son Cetewayo and all his subjects vaccinated by a medical man whom he sent for from Natal. We cannot despair of a royal family, even of savages, that can act with an enlightenment that would put to shame some of the members of our own House of Commons.

A CONSIDERABLE addition to the present water-supply of Hawick is all but completed. Some time ago a new system of sewerage was adopted, which necessitated the use of a quantity of water so great that the old supply from the river Allan was insufficient, while the rapidly increasing population of the town demands that prompt measures should be taken. A tributary of the Allan has now been requisitioned, and upon it, at an altitude of nearly 700 feet, a twenty-acre reservoir has been formed. The town will now have a certain daily supply of sixty gallons per head to the present population, so that another extension is not likely soon to be required. The recent operations, without ground charge, will cost over £14,000.

WE observe that Charing-cross Hospital had the honour, on the occasion of the recent examination for commissions in the Indian Medical Service, of turning out the first and second men. Mr. Albert Leahy, F.R.C.S. Eng., at present assistant-surgeon to the Royal Westminster Ophthalmic Hospital, and Mr. W. W. Webb, M.B., C.M., may be congratulated on gaining for themselves and their hospital the first two places out of no fewer than forty-two candidates.



A CAPACIOUS new gallery, erected from the drawings of the College architect, Mr. Alfred Waterhouse, has just been added to the Anatomical Museum of the Medical School at Owens College. The new gallery, in uniformity with the two already constructed, goes entirely round the building, and arrangements will shortly be made for filling it with classified specimens. The building has also been covered with a new roof of skylights, by which means a considerable advantage has been gained by securing additional light throughout the Museum.

THE metropolitan Medical Colleges and Schools will all open on Monday, the 2nd of October. At King's College there will be an address by the Right Hon. W. H. Smith, M.P.; at University College an address by Dr. Marcus Beck; at the Middlesex Hospital Medical School by Dr. Robert W. Lyell; at St. Mary's by Dr. Chambers; at St. Thomas's by Dr. Sharkey; at Westminster by Dr. de Havilland Hall; and at St. George's by Dr. Herbert Watney.

THE Sanitary Authority of Wednesbury has deemed it necessary to open eight of the hospital tents to receive small-pox patients, who are to be attended by a special surgeon from London. During the past fortnight there have been sixty fresh cases and seven deaths. The utmost is being done to stamp out the disease by means of isolation and disinfection.

WE direct attention to an appeal in another column by Dr. A. P. Stewart and Dr. Glover in what seems a very hard case. If ever the providence of medical men is to be excused for being at fault, it is when overtaken by the calamity of insanity as in this case, where two sisters have to maintain themselves and an insane brother.

ADDED to the other discomforts experienced by our soldiers at the Kassassin camp, it is stated that the place is becoming more and more unhealthy, that diarrhoea prevails to a very disquieting extent, and that dysentery is on the increase. Already a large number of men have been sent back to Ismailia.

NOTWITHSTANDING the great extensions that have been made, and the precautions taken by the authorities, small-pox appears to be spreading in Cape Town and its environs. Much alarm is consequently evinced by the inhabitants. The disease has been clearly traced to the docks.

THE phyloxera has been ravaging the vineyards of the Department of Seine-et-Marne, and to such an extent as to lead to the supposition that the vines must have been under attack for the last four or five years.

AN official despatch from Manilla states that 103 persons died of cholera at that place on September 10th, the number of deaths in the province being 237.

**TYPHOID FEVER AT BANGOR.**—At a recent meeting of the Bangor Local Board of Health, it was decided, owing to the extension of the outbreak of typhoid fever in the district, to erect hospital tents, the accommodation provided by the temporary isolation buildings having proved quite inadequate. The Bishop consented to their erection in his park. With respect to the water which has been so strongly condemned by the medical officer of health as containing fever germs, a report was read from Dr. Muter, South London Laboratory, who, on behalf of the Board, had analysed six samples taken at points where the fever was most virulent. All of these, with a single exception, were reported to be of good quality and drinkable.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF INSPECTORS TO THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*Uxbridge Rural District.*—The occurrence of an interesting outbreak of enteric fever at Norwood in the Uxbridge rural sanitary district has been investigated by Mr. W. H. Power. The outbreak occurred in December last in a terrace consisting of thirty artisans' houses, and situated near to Norwood village. Forty years past Norwood had been free from enteric fever, hence a sudden outbreak of this disease in fourteen out of the thirty houses in Harwood-terrace led to some alarm, and it was locally supposed to have been produced by the emanations from a species of manure deposited on the canal side near by, and which consisted largely of the refuse and garbage from London dustbins. But it became at once evident that an outbreak marked by such suddenness and magnitude could not be due to any long-standing cause of this sort, and Mr. Power set himself to work in order to differentiate the circumstances of the houses and persons attacked from those not attacked. The localisation of the disease was curious. Of fifty-one persons living in twelve houses at the lower end of the terrace not one was attacked, whereas out of ninety-seven persons residing in seventeen houses at its upper end as many as thirty-five, or at the rate of 36 per cent., suffered from enteric fever; and, further, a few of the cases were found to have occurred in the previous August and September, and then after an interval of two months there occurred a sudden outburst simultaneously affecting twelve out of the seventeen households. All the various methods by which the infection of enteric fever can be conveyed were then examined in detail, and it became apparent that the infective material from the earlier cases had probably been fostered within the limited area of the upper end of the terrace, and that it had become suddenly operative towards the end of November. The first cases had been treated at home, and their excreta had passed into cesspools, one of which was provided for every two houses, the whole being linked together by overflow pipes. But there was no communication between the interior of the dwellings and these cesspools, and the suddenness of the outbreak pointed rather to milk or to water as the medium of infection. Milk as a cause could readily be set aside, and nothing remained but water. The terrace was said to be supplied from four pumps having four separate wells. One had for some time been out of order, and the houses to which it belonged were supplied from one of the others. But this only reduced the wells to three, two out of which had supplied the infected houses, and it was not easy to see how two wells, separated as they were by a considerable interval and by a brick wall, could have become simultaneously infected. The story, as told by Mr. Power, is a long one; it is illustrated in its very complex details by a diagram of the locality in question, and as a record of a piece of careful scientific work, and of an excellent example of the value of inductive reasoning as applied to investigations of this sort, it is well worthy of study. Mr. Power finally came to the conclusion that the disease could be accounted for if the two implicated pumps drew from one well, instead of from two as he was assured they did, and with a view of being certain as to this, local examination was made, with the result of finding that the suction pipe of the two pumps did, as a matter of fact, lead to one single well. The infection of this single well was soon explained. Just prior to the sudden outbreak a cleaning out of cesspools had been inaugurated, and the contents of one, which had been infected by the early attacks in August and September, were transferred into a newly dug hole distant from the site of a supposed well, but near to and on higher ground than the situation where the now implicated well was actually found to be. Soakage from the cesspit hole would also naturally be carried in the line of natural soakage to the well in question. Thus specific pollution of the well took place, and hence resulted the sudden outbreak of enteric fever in the majority of the houses resorting to it, whilst houses close by and having another supply entirely escaped.

*Ulverstone Urban District.*—The sanitary district of Ulver-

stone, near Morecambe Bay, has some 10,000 inhabitants; and in 1881 there occurred in it fifty-two cases of enteric fever and eight deaths. By far the majority of the cases were concentrated in what is known as the Lightburn district, the remainder being scattered about the town. Mr. Spear, reporting on the outbreak, examined thoroughly into the sanitary circumstances of the population, and arrived at the conclusion that water pollution was the cause of the disease. The town is supplied from the Barrow Corporation Waterworks; but the water thus delivered was so turbid and had been so much complained of that many resorted to other supplies. Close by the Lightburn district, a supply, apparently pure, was available, and it was much resorted to. It was a spring largely fed by surface water percolating the sand and gravel beds of the neighbourhood. But its main feeder was crossed at different points by sewers, and prior to the main outbreak, and during a violent storm of rain, these sewers were known to have been running full under great pressure, so that their contents probably passed into the surrounding soil. And not only so, but this very storm of rain had led to a rush of storm water down a road past a privy containing typhoid evacuations, and thence into the water-supply. Here appeared to be the main cause of the outbreak. As regards the more scattered cases, very similar conditions were found; for many, avoiding the company's water, resorted to suspicious sources—as, for example, a stream, which above the point of intake ran through gardens manured with nightsoil and in close proximity to privies. But at the same time it seems, according to the report, impossible altogether to exonerate the Barrow Corporation water from some share in the mischief, for Mr. Spear reports conditions which fully justify the suspicion with which this water was locally regarded. Thus one reservoir is mainly supplied by streams draining moorland; but they also drain cultivated and manured fields; they are unprotected from chance pollution by man and animals; and the sewage of at least two farmhouses finds its way into them. Grave neglect connected with the privy accommodation of the men employed in connexion with the works is also reported to have led to excrement finding its way into the bed of what afterwards constituted the reservoir. The disclosure of these circumstances has, however, apparently led to their being efficiently dealt with; and it is to be hoped that the Ulverston people may now be able, without any fear of ill results, to resort to the company's water, instead of falling back upon local sources, which appear to be highly dangerous.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Hastings (Urban).*—A report recently issued by the medical officer of health for the borough of Hastings estimates the present population of this urban sanitary district at 44,239 persons, showing an increase of nearly 2000 upon the number enumerated at the census in April, 1881. This report relates to the three months ending June last, and its statistics imply the satisfactory sanitary condition of the borough during the quarter under notice. The gross annual death-rate did not exceed 16·5 per 1000; the medical officer, however, estimates that 14·8 per 1000 would more correctly represent the true death-rate of the town. This lower figure is arrived at by the exclusion of 28 deaths of non-residents, and the addition of 9 deaths of town residents that were recorded in the work-house and sanatorium, situated outside the boundaries of the borough. In order rightly to estimate whether the lower rate more truly represents the mortality of the Hastings population, it would be necessary to know the medical officer's definition of "non-residents," and how their deaths are identified in the death register. It should, moreover, be borne in mind that the enumerated population of such a watering-place as Hastings would always include a large proportion which, on the same principle, would be classed as "non-resident," for which no correction is made in the estimated population used for calculating the death-rate. However, whether judged by the gross death-rate or by the corrected rate, the mortality statistics of this borough for the quarter under notice are of an eminently satisfactory character. If we except the somewhat fatal prevalence of measles and whooping-cough during the spring, the town appears to have enjoyed an almost complete immunity from zymotic fatality. Infant mortality, generally low in Hastings, was, however, above the average during the spring, owing to the excessive death-rate from diseases of the respiratory organs and the fatal cases of measles and whooping-cough. The medical officer does well in his report to impress upon the

resident householders the primary importance of the sanitary arrangements of the individual houses. We have little faith, however, in the individual action of householders without constant activity on the part of the local sanitary authority, including house-to-house visitations. The public, too, would be wise to insist at watering-places upon satisfactory evidence that the sanitary arrangements of lodging-houses are free from obvious defect. One feature of the Hastings report, which affords the strongest evidence of the abnormal constitution of the borough population, is the fact that the birth-rate was so low as 24 per 1000.

*Newcastle-upon-Tyne.*—According to Mr. Armstrong's report, this borough had a population of 145,675 in the middle of 1881; the births represented a rate of 36·6, and the deaths a rate of 21·7, per 1000. Amongst the deaths due to the specific fevers, there were 52 from scarlet fever, 38 from enteric fever, and 20 from typhus. The use of the fever hospital belonging to the sanitary authority is entered into in some detail. It is an old building which has done admirable service; but it is evidently quite unsuited to the requirements of a sanitary authority for such a borough as Newcastle. In deed, it would appear that, apart from a detached shed, there is only accommodation for the safe treatment of one disease, and yet as many as 69 cases of typhus, 30 of enteric fever, and 72 of small-pox have been received into it during the past year. This evidently accounts for the almost entire absence of scarlet fever cases under isolation. Mr. Armstrong heard of 162 cases of this disease, but only eight were removed to the hospital, and he admits that under existing circumstances the isolation of this disease remains a dead-letter. For several years past measures have been under consideration with a view of dealing properly with this question, but the subject has been again and again put off. The value of such an institution need not be pointed out to the inhabitants of a town which was one of the earliest to provide itself with such a hospital; but something seems wanted to do away with the recurring delays which hinder the efficient action which should be taken with regard to infectious disease in the borough. The story of the outbreak of typhus is interesting. As usual, this disease appeared among the destitute in old and ill-ventilated tenements; it appears to have been promptly dealt with, and isolation of the patients in hospital secured either voluntarily, or, in one instance, by compulsory removal under a magistrate's order. The connexion of enteric fever with the condition of old middens-privies, faulty both in point of construction and as regards scavenging, the presence of autumnal diarrhoea as affected by temperature, rainfall, &c., and many other points, are fully dealt with in the report. One special feature has of late years rendered Mr. Armstrong's reports specially instructive; it is the preparation of a map, on which are marked by dots of different colours all the cases of scarlet fever, enteric fever, typhus, small-pox, and whooping-cough, according to the locality in which they are reported; and it is satisfactory to note that nearly all such cases are voluntarily notified to the officer of health. Thus these maps, when studied year by year, afford a valuable indication of the localities in which the various forms of sanitary work are most needed.

#### VITAL STATISTICS.

##### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5660 births and 3222 deaths were registered during the week ending the 9th inst. The annual death-rate in these towns, which had been equal to 22·7 in each of the two preceding weeks, declined last week to 19·9. The lowest rates in these towns were 13·6 in Leicester, 15·6 in Bolton, 16·2 in Bradford, and 16·3 in Huddersfield. The rates in the other towns ranged upwards to 24·2 in Newcastle-upon-Tyne, 26·2 in Liverpool, 28·3 in Hull, and 30·2 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 992, against 1422 and 1307 in the two preceding weeks; 379 resulted from diarrhoea, 81 from scarlet fever, 69 from whooping-cough, 55 from "fever" (principally enteric), 54 from measles, 27 from diphtheria, and 12 from small-pox. The lowest death-rates from these diseases last week occurred in Oldham and Wolverhampton, and the highest in Preston and Hull. The death-rate from diarrhoea showed a generally marked decline last week; although it was again excessive in Hull and Preston. Scarlet fever caused the highest death-rates in Leeds and Nottingham; whooping-

cough in Huddersfield and Blackburn; measles in Hull and Sunderland; and "fever" in Portsmouth and Hull. The 27 deaths from diphtheria in the twenty-eight towns included 17 in London, and 2 both in Salford and Sunderland. Small-pox caused 9 deaths in London, 2 in Newcastle-upon-Tyne, and one in Leeds. The number of small-pox patients in the metropolitan asylum hospitals, which had been 114 and 101 on the two preceding Saturdays, further declined to 91 at the end of last week; only 9 new cases of small-pox were admitted to these hospitals during last week, against 32 and 20 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 199 and 202 in the two preceding weeks, declined to 178, which were, however, 17 above the corrected weekly average. The causes of 79, or 2.5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Norwich, Leicester, and in six smaller towns; whereas the proportions of uncertified deaths were largest in Leeds, Halifax, Oldham, Salford, and Bradford.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 20.0 and 21.1 per 1000 in the two preceding weeks, declined again to 20.1 in the week ending the 9th inst., and exceeded by but 0.2 the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 121 last week, and exceeded the number in the previous week by 2; they included 56 from diarrhoea, 29 from whooping-cough, 14 from diphtheria, 11 from scarlet fever, 6 from "fever," 5 from measles, and not one from small-pox. The death-rate from these principal zymotic diseases averaged 5.2 per 1000, and exceeded by 1.0 the mean rate from the same diseases in the large English towns. The highest death-rate from these diseases occurred in Greenock, Glasgow, and Perth. The 56 deaths attributed to diarrhoea showed a further decline from recent weekly numbers, but included 28 in Glasgow, 11 in Dundee, and 5 both in Edinburgh and Greenock. The fatal cases of whooping-cough, on the other hand, which had been 11 and 22 in the two previous weeks, further rose to 29 last week, of which 22 occurred in Glasgow and 3 in Perth. The 14 deaths from diphtheria were within one of those in the previous week, 8 being returned in Glasgow and 3 in Edinburgh. Seven of the 11 fatal cases of scarlet fever occurred in Glasgow, and 4 of the 5 of measles in Dundee. The 6 deaths referred to "fever" showed a further decline from recent weekly numbers—they included 3 in Perth and 2 in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 60 and 80 in the two previous weeks, declined again to 61 last week, and were 28 fewer than those attributed to the same diseases in the corresponding week of last year.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had risen from 20.1 to 27.3 in the three preceding weeks, further increased to 27.6 in the week ending the 9th inst. During the first ten weeks of the current quarter the death-rate in the city averaged 22.5 per 1000, against 18.6 in London and 17.7 in Edinburgh. The 184 deaths in Dublin last week showed a further slight increase upon the numbers returned in the three preceding weeks; they included 17 which were referred to diarrhoea, 8 to "fever," 1 to measles, 1 to scarlet fever, 1 to diphtheria, and not one either to small-pox or whooping-cough. Thus 28 deaths resulted from these principal zymotic diseases, against 27 and 28 in the two previous weeks; these were equal to an annual rate of 4.2 per 1000, while the rate from the same diseases was 3.1 in London and 2.0 in Edinburgh. The deaths referred to diarrhoea, which had steadily increased from 5 to 19 in the six preceding weeks, were 17 last week. The fatal cases of "fever" (enteric, typhus, or simple), which had been 6 and 3 in the two previous weeks, rose to 8 last week, and exceeded the number returned in any week since March last. The death-rate from fever last week in Dublin was equal to 1.20 per 1000, and was more than seven times as great as that which prevailed in London during the same period. The deaths both of infants and elderly persons almost corresponded with those returned in the preceding

week. The causes of 22, or nearly 12 per cent., of the deaths registered during the week were uncertified.

#### MORTALITY STATISTICS IN THE WEST INDIES.

It is much to be regretted that the vital statistics relating to our West Indian Colonies are not issued collectively and upon some uniform basis. Under present arrangements these statistics are published at various dates and in every variety of form for the numerous islands and provinces which comprise our colonies in the West Indies. So far as may be judged from the desultory, and in many cases most imperfect, statistics which from time to time come before us, it cannot be doubted that the health of these colonies, measured by their death-rate, has materially improved in recent years. A report has been recently issued by the Registrar-General of Grenada which affords the means for estimating the health condition of this island during last year. The island of Grenada had at the census in April, 1881, an enumerated population of 42,403 persons, which had, according to the Registrar-General's estimate, increased to 42,788 by the end of the year; this estimate gives an average density of 321.7 persons per square mile. The birth-rate, calculated on the population at the beginning of the year, instead of the middle of the year, which would have been more correct, appears to have been as high as 43.5 per 1000. This rate is inclusive of still-births, which are registered both as births and deaths. Especial attention is called to the fact that more than half the births (52.3 per cent.) are illegitimate. This large proportion is attributed partly to the overcrowding in houses inhabited by the lower classes of the colony, and partly to "the shameless indecency with which many parents of the peasant class permit their children to go without clothing" in defiance of the law. The death-rate was equal to 27.7 per 1000, and all but corresponded with the mean rate in the preceding ten years. The return as to the causes of death is of the most meagre description, owing in great measure to the difficulty of obtaining satisfactory information on this point. Indeed, in nearly ten per cent. of the recorded deaths the cause was not stated. Zymotic diseases are stated to have caused 221, or 15 per cent., of the deaths; but beyond a vague reference to the fatal prevalence of whooping-cough, and a quotation from some remarks furnished by the colonial surgeon, who says that "the endemic fever of the tropics" prevailed, but not to a great extent, during the latter half of the year, no details of this zymotic fatality are given. With reference to infant mortality, it is stated that the deaths of infants under one year of age was equal to 188 per 1000 of the registered births. Excessive as is this rate of infant mortality, it is not higher than might be expected, bearing in mind the remarkably high proportion of illegitimacy. It is urged that if the production of medical certificates were made compulsory in the case of deaths of children, the rate of infant mortality would be much reduced. There are obvious difficulties in the way of making the production of such a certificate compulsory, but formal inquiry into the cause of all uncertified deaths would probably have an important effect in the desired direction. We have, however, yet to obtain this important reform at home before we can fairly urge its adoption in Grenada.

#### THE SERVICES.

A reinforcement of the Army Hospital Corps, consisting of sixty non-commissioned officers and men, embarked for Egypt in the P. and O. steamer *Nizam* on the 13th inst., Surgeon-Major W. C. Boyd being in medical charge of the troops proceeding thither.

Deputy Surgeon-General Fox has been ordered to proceed from Chatham to Ismailia to superintend the hospital service at the base of operations.

Surgeon-Major W. T. Martin is under orders to embark for Egypt at an early date.

The staff of lady nurses with the expedition is to be increased by five additional sisters.

Brigade-Surgeon G. S. Ogg, Madras Medical Service, has been appointed to officiate as Deputy Surgeon-General during the absence with the expeditionary force in Egypt of Surgeon-General Colvin Smith, M.D.

Surgeon MacGeogh embarked on board the s.s. *Palmyra* on the 13th inst. in charge of drafts ordered to Cyprus.

**ARMY MEDICAL DEPARTMENT.**—Deputy Surgeon-General John Phillips Cunningham, M.D., has been granted retired pay, with the honorary rank of Surgeon-General; Brigade Surgeon Adam Graham Young, from half-pay, to be Brigade Surgeon; Surgeon-Major Alfred Frederick Strafford Clarke, M.D., has been granted retired pay, with the honorary rank of Brigade Surgeon.

**RIFLE VOLUNTEERS.**—1st Huntingdonshire: Surgeon and Hon. Surgeon-Major Dennis Adams and Hon. Assistant-Surgeon George Robinson resign their commissions. —1st Devonshire: George Chapman Steele-Perkins, gent., M.B., to be Acting-Surgeon. —1st Newcastle-on-Tyne and Durham: William Mearns, gent., M.A., M.D., to be Acting-Surgeon. —1st Dorsetshire: Surgeon Henry Tizard, M.D., the resignation of whose commission was notified in the *London Gazette* of July 4th, is permitted to retain his rank, and to wear the uniform of the corps on his retirement. —2nd Gloucestershire: Surgeon Edward Waddy resigns his commission. —3rd Monmouthshire: Samuel Butler Mason, gent., to be Acting-Surgeon. —1st Inverness-shire (Inverness Highland): Acting-Surgeon John Simpson, M.D., resigns his appointment. —1st Kent: Acting-Surgeon Adam Young to be Surgeon. —2nd Lanarkshire: Surgeon James Loudon, M.D., is granted the honorary rank of Surgeon-Major.

**ADMIRALTY.**—The following appointments are announced: Staff-Surgeon Thomas Conroy to the *Dasher*; L. Ffrench-Mullen to the *Garnet*, commissioned; Staff-Surgeon James William Fisher, M.D., has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority of the 2nd inst.

## MEETING OF THE FOURTH INTERNATIONAL CONGRESS OF HYGIENE AT GENEVA.

It must at once be recognised that the Congress has been a great success. It numbered more than 400 members, and no less than twenty-four different nationalities were represented. There were members who came expressly to assist at the Congress from Algeria, Austria, Belgium, Brazil, Bulgaria, Basutoland, Denmark, England, Germany, Greece, Holland, Hungary, Italy, Mexico, Ontario (Canada), Portugal, Poland, Roumania, Servia, Switzerland, Spain, Sweden, Turkey, and the United States of America. Many of the principal Governments—France, Germany, Russia, Austria, Spain, Italy, &c.—sent official delegates; while many leading municipalities—Paris, Berlin, Frankfort, Seville, Madrid, Turin, La Haye, &c.—also appointed special representatives. The Board of Health of Ontario (Canada) was represented by Dr. C. W. Coverton, but not a single English town or administration sent a representative. We noticed that two gentlemen from the Local Government Board were present; but they came in their private, not their public, capacity. Under such circumstances it is not surprising that many complaints were uttered at the lack of friendly feeling on the part of the English nation. As the leaders in sanitary reform, we ought to take an active part in assisting this great effort on the part of European nations to spread and equalise sanitary reform. With such speakers as M. Pasteur and M. Paul Bert, it is impossible to say that even the wisest among us have nothing to learn; while, on the other hand, we have everything to gain by coming to an international understanding on sanitary matters. Thus Professor Brouardel, after a most able paper read in the third section, carried a resolution, subsequently confirmed by the general assembly, that at the next International Sanitary Congress the delegates from each nation should bring a summary of the laws affecting the adulteration of provisions, so that adulterated food, condemned in one country, should not be exported and sold with impunity in another. Our recent experiences with respect to preserved peas imported from France, and coloured with copper, points to the necessity of such international understanding. Dr. Brouardel insisted that falsifications were now carried out with the aid of enormous capital and great chemical knowledge. The employment of salicylic acid to preserve beer, wine, milk, fish, vegetables, &c., was especially dangerous. It might be argued that the quantity used was insignificant; ten centigrammes in a litre were supposed to suffice to prevent wine from turning sour; but he had often found an

entire gramme in the litre. The fact was that the same substance was manipulated by different people. Perhaps the wine-grower himself, feeling a little anxious about his wine, would add a little salicylic acid; then the wholesale merchant would, in his turn, interfere; and finally the retailer came with a third dose, each probably imagining that he alone had resorted to this dangerous expedient. Thus, when the bottle came to the unfortunate consumer it had been thrice dosed, and perhaps thrice overdosed. The effect of this form of slow poisoning was most difficult to trace to its origin, unless some accident revealed the cause. Dr. Brouardel suggested, however, that by the analysis of urine the unconscious absorption of salicylic acid could in most cases be detected. The worst feature in the use of this acid for the preservation of food arose from the fact that there was no uniform rule as to the quantity which could be taken with impunity. A healthy child might take even five grammes in one day without any very serious consequence; whereas an adult invalid, especially if suffering from any renal complaint, would require eight days to eliminate such a dose. This was but one illustration of the dangers attending the unscrupulous use of scientific means to promote the interests of certain traders; and it was of little use checking the evil in one country if the suspicious articles could be sold with impunity on the other side of the frontier.

This is but one example of the style of discussions that prevailed, and of the practical advantages to be derived by a nation such as England, when represented at congresses of this description. The discussions were divided into five separate sections, and the work and pleasures of the Congress lasted every day from nine in the morning till midnight, with barely time allowed for meals. We cannot now give a summary of the debates. We may, however, express in the name of the English members who were present our high appreciation of the cordial and most hospitable reception accorded by the organisers of the Congress and the Swiss Government. It was scarcely possible to believe that a nation so restricted in its area, so limited in its population, could have given its foreign guests so magnificent a welcome. The first night there was an official reception and concert in the vast saloons of the new theatre—one of the model theatres of Europe so far as ventilation is concerned. On Tuesday evening, Professor A. de Candolle, son of the renowned botanist, and himself a man of high scientific attainments, received the members of the Congress at his mansion, near Geneva. The vast gardens and their botanical treasures were brilliantly illuminated, while within the members of the Congress joined with the *élite* of Geneva society in the enjoyment of a bountiful supper. The following evening there was a similar reception at the hydrotherapeutic establishment of Champel-sur-Arve on the outskirts of Geneva. But of all days Thursday was the most enjoyable. The Swiss Government had provided the finest steamer of the lake, the *Mont Blanc*, and three hundred and fifty members of the Congress embarked at nine in the morning, following the southern coasts of the lake till we reached Evian-les-Bains. Here a sumptuous lunch was provided by the directors of the establishment; and, after a few speeches and a stroll, the Congress once more went on board. But even at this moment business could not be altogether forgotten. In spite of the loud tones of the band which accompanied the expedition, and the general desire of the company to enjoy the unrivalled surrounding scenery, the Italian delegates insisted on holding a meeting in the principal cabin to discuss cremation. Fortunately the speeches were short. The effects of the lunch and the joys of the holiday were scarcely in harmony with this gloomy subject. After visiting the extreme end of the lake, where the Rhone brings the mud of the mountains into the clear waters, and then stopping a moment to contemplate the historical castle of Chillon, we landed at Montreux, saluted by peals of artillery. At the Kursaal the theatre was converted into a banquetting-hall, the stage being occupied by local bands and glee societies, who played and sang alternately during the dinner and between the speeches, in which the members of the Swiss Government, the Federal Council, and the local administration took a prominent part. When the banquet was over it was already dark, and the members of the Congress were agreeably surprised to find the whole line of the coast illuminated in their honour. The steamer also was gaily bedecked with garlands of lamps of many colours, while on the still waters smaller

craft flitted here and there, burning Bengal fire or carrying numerous lamps that reflected their colours on the transparent lake. The Congress once on board, the steamer put off a little distance from the pier, and then commenced a display of fireworks, starting simultaneously from the gardens of the hotels that line the shore, and from points high up in the mountains. Against the dark background of the black mountains, the Bengal fire enabled us clearly to discern the elegant hotels and villas poised some three thousand feet above us at Les Avants and at Glion. The church steeple of Montreux was brightly lit. Vevey and the surrounding villages joined in the festivities. For some two or three miles along the coast it was one blaze of light, and rocket after rocket shot up towards the sky; while the roar of the cannon, the stirring strains of the British national anthem (played by a powerful brass band), the cheers from the ship and the shouts from the shore, all helped to conclude a reception unsurpassed for its cordiality, and which will for ever remain deeply impressed in the memory of the guests. Nothing could have more conclusively proved the public spirit of the Swiss population, the interest they have taken in the work of the Congress, and the high honour they wished to confer on their distinguished visitors. Another evening reception, concert and supper, on the Friday, at the mansion of Mde. Eynard, and a farewell banquet on Saturday evening, concluded the festivities of the Congress; and certainly, whatever services the members may have rendered by their work during the week, they have been amply rewarded by the cordiality and unbroken harmony of the reception accorded to them. If sanitary science can always be propagated under such auspicious circumstances, it will certainly become the most popular of all sciences.

### PROSECUTION FOR FORGERY OF PRACTITIONER'S NAME TO CERTIFICATE OF DEATH.

AT the Thames Police Court, on September 2nd, before Mr. Lushington, William Henry Viner, of 123, St. George's-street, East, appeared to answer a summons issued at the instance of the Medical Alliance Association, charging him with the wilful forgery on the 21st August ult., of a certificate concerning the death of a child named Annie Niendorff. Mr. C. J. C. Pridham, solicitor to the Association, appeared for the prosecution; and Mr. Besley, barrister, for the defendant.

Mr. Besley took a technical objection to the summons on the ground that no one but the Superintendent Registrar of the District had the power to issue the same under the Act; but after a lengthy argument from the learned gentlemen engaged, it was over-ruled by the magistrate.

The facts of the case as proved disclosed a very serious offence, and Mr. Pridham, in opening the case, stated it was the gravest charge of the kind in which he had ever been instructed to prosecute. It appeared, from the evidence of the mother, that the child Niendorff fell ill about the 17th or 18th August, and was taken by her to a medical hall and dispensary at 123, St. George's-street, East, kept by the defendant in the name of a registered medical practitioner named Berdoe. The child was seen there on two occasions by the defendant, who represented himself to the mother as being properly qualified, and whom the mother believed to be Dr. Berdoe, as that name appeared over the door. On the 21st August the child died, and the mother applied at the dispensary for a certificate of its death. The defendant thereupon wrote and signed in the mother's presence a certificate, in which he stated that he had attended the child Niendorff, certifying the cause of death as pneumonia and convulsions, and signed the name of Edward Berdoe, M.R.C.S., L.S.A., 123, St. George's-street, East, and gave the same to the child's mother.

Formal evidence was given by the district registrar of the receipt of the certificate from the mother, and of his having entered the death in the register as certified by Dr. Berdoe.

Dr. Berdoe was then examined, and stated that he had never seen or attended the child Niendorff, or certified the cause of death. The signature to the certificate was a forgery.

In cross-examination the witness stated he had sold the

business of a chemist and druggist, at one time carried on by him in connexion with his medical practice at 123, St. George's-street, East, to the defendant in October, 1879. Since that time his connexion with the place and the defendant had entirely ceased. He had desired the defendant on several occasions to remove his name from the fascia, which he promised to do, and was unaware of the fact that it was still up there until so informed by the solicitor for the prosecution. He had never given the defendant on any single occasion any authority to act for him or to use his name. The defendant had made overtures to him to attend there and see patients, which he declined.

Mr. Lushington, in giving judgment, said the defendant had committed an offence of a most serious kind. It had been suggested by the defendant's counsel that he had no power to deal with the summons. He felt some difficulty in doing so, not on the technical ground put forward by Mr. Besley, but because he was in some doubt whether he ought not to commit the defendant for trial. However, as he had not been requested to do so by the prosecution, he should impose the severest penalty he had power to inflict. He ordered the defendant to pay a fine of £10, and £5 5s. costs, or to be imprisoned for three months in default.

## Correspondence.

"Audi alteram partem."

### THE ABSENCE OF SCURVY IN THE "EIRA" ARCTIC EXPEDITION.

To the Editor of THE LANCET.

SIR,—I cannot help thinking that the suggestions which have been made as to the probable explanation of the absence of scurvy in the *Eira* expedition are founded upon a misapprehension of the circumstances in which the crew were placed. If Mr. Neale's most interesting narrative in THE LANCET of August 26th be carefully read, it will be seen that the crew were abundantly supplied with vegetables to eat along with their ample allowance of meat. They averaged half a pound of vegetables to each man per diem. I suppose there are few of us who eat more than this. The experience of the *Eira* expedition, therefore, so far from being in the least degree contradictory of the generally received opinion as to the cause of scurvy, lends the best possible support to its correctness. Had scurvy occurred in the circumstances described, the fact would indeed have been very remarkable.

Mr. Neale has been good enough, at my request, to record (THE LANCET, Sept. 2nd) certain particulars respecting the mode of preservation of the vegetables which were saved, and the state in which they were consumed. These details appear to me to be of great importance, and will need to be carefully noted in the preparations for any future expeditions.

I am, Sir, yours faithfully,

Grosvenor-street, W., Sept. 1882.

THOMAS BUZZARD.

### AUTUMNAL DIARRHŒA.

To the Editor of THE LANCET.

SIR,—Allow me to call the attention of medical men to the prevalence, in autumn, of sickness and diarrhœa, which is put down to fruit. Autumn is the time for ripe fruit, but because diarrhœa is also prevalent at the same time we must not blame fruit for it. If we carefully examine each case which comes before us, we shall find that fruit plays a very small part in it. The real cause is the heat of the weather and the animal food taken. I will now describe an ordinary case and its usual cause. The patient goes to bed all right and in his usual health; he is awake about two or three hours after retiring by a sharp gripping pain across the abdomen, he also feels blown up, and keeps eructating mouthfuls of flatulence and acid fluid. Purging soon sets in and offensive liquid stools are passed. Vomiting next occurs of an acid acrid fluid. There may be cold shivers and hot flushes, which are followed by a feeling of great prostration. This continues during the night and best part of next day. Food, especially if warm, only makes matters worse.



We are called in, and find the patient has a quickened pulse, foul tongue, yellow conjunctivæ, a dejected look, and he complains of feeling very low. Cross-questioning nearly always brings out the fact that at supper-time he had a good meal, consisting of f-i-h, flesh, or fowl. The most offending meat is pigs' flesh in some form, chiefly as pork; then comes veal, and lastly plain beef or mutton. The fish most commonly giving rise to this sickness are salmon, mackerel, lobster, and crabs. A few cases can be traced to high cheese or to eggs. Cucumber may help, especially if dressed in the usual way with salt and pepper. But never have I seen a case where a purely vegetarian supper has been taken. The treatment is very simple: allow spoon food every four or five hours, it must not be hot, but lukewarm; enjoin rest, and give a mild sedative of some kind. I am, Sir, your truly,

T. R. ALLINSON, L.R.C.P. Ed.

Kingsland-road, E., Sept. 12th, 1892.

## VOLUNTEER AMBULANCE SERVICE.

To the Editor of THE LANCET.

SIR,—As I have had numerous inquiries as to the formation and equipment of volunteer ambulance detachments, I shall feel obliged by your insertion of the following particulars in your journal, for the information of those who have not already formed such detachments, and who are desirous of doing so.

The senior regimental surgeon, before instructing his class, should first make himself efficient by passing the Examination for Volunteer Medical Officers. The books required for this examination are: (1) "Parkes' Hygiene," by Professor De Chaumont; (2) "The Surgeon's Pocket-book," by Surgeon-Major Porter; (3) "Gunshot Injuries," by Professor Longmore; (4) "Manual of Instructions for Army Hospital Corps;" (5) "Manual of Exercise for Stretcher-bearers and Bearer Company;" (6) "Army Medical Regulations."

As soon as the medical officer feels himself prepared for the examination he must apply, through his adjutant, to the commanding officer of the regiment to be examined. In due course he will receive an intimation from the principal medical officer of his head centre to appear for examination. The examination is conducted by three officers of the Army Medical Department, *vis à voce*, thoroughly practical, and embraces the prevention and treatment of diseases peculiar to soldiers in camp and on field service. The following are the most important points:—(1) Sanitation of camp and precautions against disease; (2) sanitation for troops on the line of march; (3) general treatment of diseases common in camp and on field service; (4) first assistance to wounded on field of battle; (5) their removal and transport to field hospitals.

On passing this examination the medical officer will receive a certificate of proficiency in the following words:—"We certify that —, of the — (who is registered under the Medical Act of 1858 as qualified to practise medicine and surgery in Great Britain and Ireland), is well acquainted with the nature and intended application of the various articles composing the equipment of army hospitals in the field, and with the authorised means for the transport of sick and wounded soldiers, and the proper modes of employing them. We also certify that he has a competent knowledge of the treatment of the wounds and injuries to which troops are liable in the field, particularly with regard to the special circumstances of campaigning; and that he is acquainted with the duties to be performed by army medical officers in camps and bivouacs, and during marches, as detailed in the Regulations for the Army Medical Department, Revised Army Regulations, vol. vi. Signatures of Board of Examining Officers— Station— Date—"

I may here mention that medical officers by thus obtaining this certificate of proficiency will earn for their respective corps the special capitation allowance of £2 10s.

Assuming, then, that the medical officer has obtained his certificate of proficiency, and wishes to form bearer detachments, his first duty, of course, is to obtain the permission of his commanding officer, then to select two men from each company in his battalion to be trained as stretcher-bearers.

Thirteen lectures must be given of not less than an hour and a half's duration each, at which each bearer must be present not less than eleven times. The lectures are given in accordance with the instructions issued by the Volunteer Ambulance Department, a synopsis of which can be obtained by applying to Lieut. Maclure, Volunteer Ambulance Department, Army Medical Department, 6, Whitehall-yard, London, S.W., and from whom also can be obtained the stretchers and diagrams required. The field companion, haversack, and water-bottles are obtained from Messrs. Savory and Moore, New Bond-street, London. As soon as the class has been duly trained the surgeon must apply to the principal medical officer of the district, who will cause the bearers to be examined, and if found proficient, will each receive a certificate on Army Form, E. 596. Two volunteers from each company who have so qualified will be selected by the commanding officer of the corps, on the recommendation of the medical officer, to be the stretcher bearers of the corps and to wear the Geneva Badge on their right arm. These badges can be obtained from Lieutenant Maclure also. I believe, as a rule, commanding officers are glad to do all in their power to forward this movement, and I can only speak of my own good Colonel Sir William Worsley, Bt., and his able adjutant, Major Hedley, as patterns in this respect.

I cannot conclude these few remarks without gratefully acknowledging the great assistance and information I received from Surgeon W. H. Platt, Treasurer, and Lieutenant Maclure, Secretary of the Volunteer Ambulance Department, when I was commencing this work myself.

I am, Sir, yours truly,

JOHN WM. TAYLOR, M.D., D.Sc.,  
Surgeon 2nd Battalion North York Rifle Volunteers.

Scarborough, August 28th, 1892.

## A CASE FOR HELP.

To the Editor of THE LANCET.

SIR,—May we ask your readers to consider an appeal which we have to make on behalf of a medical man, late of Buntingford, Mr. Charles Gaffney, who has to be maintained in an asylum by two sisters, who have much difficulty in supporting themselves by a lodging-house in the Fulham-road. If some means of helping them is not quickly forthcoming, no alternative will remain but that of making him a pauper lunatic. Their case is the harder now as one of the sisters is ill with bronchitis, and their principal apartments are unoccupied. The merit of the case is further illustrated by the fact that two kind grants have been made by the British Medical Benevolent Fund—one of £30 in 1881, and one of £18 in 1882. The mental disease which has disabled Mr. Gaffney has existed for nearly fifteen years. During part of this time he has been supported out of some means of his own, which have long been entirely exhausted, and he is now dependent on two sisters, who are themselves very hardly pressed and confronted with the workhouse. A few kindly subscriptions at this adverse moment might help two good sisters to keep an insane brother, and brighten what seems a very dark look-out.

We are, Sir, your obedient servants,

A. P. STEWART, M.D.

J. G. GLOVER, M.D.

Subscriptions already received:—

THE LANCET	...	...	...	...	£2	2	0
Dr. Stewart	...	...	...	...	2	2	0
Dr. Glover	...	...	...	...	2	2	0

## HOMES FOR INEBRIATES.

To the Editor of THE LANCET.

SIR,—In his second annual report the able Inspector of Inebriate Retreats strongly urges the need for the opening of the proposed Dalrymple Home for Inebriates. Though indefatigable in their efforts, the committee have received very limited pecuniary support. They, however, hope to be able to commence operations before the end of this year. The triumphant progress of temperance missions is daily recorded by the Press, and it is to be hoped that the unselfishness and devotion which ought to be the motive power of such a crusade will be attested by liberal financial support to the projected Dalrymple Home as an attempt at

the reformation and cure of the many habitual drunkards whose whole system has become so diseased by alcohol that absolute seclusion from temptation is essential to restore their shattered nerves and their utterly broken down will power. Among the office bearers of the proposed Home are the Archbishop of Canterbury, the Duke of Westminster, Lord Shaftesbury, Sir Thos. Watson, Sir Henry Thompson, Dr. Andrew Clark, and Dr. B. W. Richardson. £3000 is still needed. Donations and also annual subscriptions will be thankfully received by the chairman, Canon Duckworth, Dr. Alfred Carpenter, J.P., Croydon.

I am, Sir, your obedient servant,

NORMAN KERR, M.D.,

Hon. Sec., Dalrymple Home.

Grove-road, Regent's-park, N.W., September 9th, 1882.

## CLINICAL THERMOMETRY.

To the Editor of THE LANCET.

SIR,—I wish to call your attention to a possible source of error in clinical thermometry. I have one of Maw's seven-inch hospital thermometers, and I accidentally discovered that by gentle compression of the mercurial bulb I was enabled to make the index rise some three or more degrees; such pressure the bulb might easily be subject to in the axillary space, especially if the arm be pressed close to the side.

I am, Sir, yours truly,

Brighton, Sept. 5th, 1882.

J. M. E. SCATLIFE, M.D.

## NERVE-VIBRATION: A CAUTION.

To the Editor of THE LANCET.

SIR,—Will you permit me as the originator of the method of "Nerve-vibration by precise percussion" in the treatment of certain forms of nervous disease and disturbance to warn the profession against the conversion of this method into a "cure" or "system"—of which we have already too many mischievous specimens—by placing my percuteurs in the hands of patients and their friends. As well, and more safely, might those gentlemen who are pursuing this course supply their clients with scalpels, galvanism, electricity in its various developments, and hypodermic injections, which have been reduced to the level of nostrums by this reckless procedure.

I must earnestly protest against the abuse of nerve-vibration by a like policy. My protest is made not less in the interests of the sufferers from diseases than in that of professional propriety. Nerve-vibration is a potent agency for good or evil, as it happens to be applied. It is exceedingly difficult of application, and requires to be employed with the greatest care and intelligence. A thorough knowledge of the anatomy and physiology of the nervous system is indispensable for its safe and successful use. If medical men have not the time or do not care to administer it themselves, they will do wisely to leave it alone.

Already I have seen harm ensue from its misuse, and I therefore feel bound to give this warning to medical men who having heard of cases which have been benefited are purchasing or borrowing instruments for their patients to use! Nothing but disappointment can result from this indiscretion.

I am, Sir, yours truly,

Welbeck-street, W., Sept. 1882. J. MORTIMER GRANVILLE.

## GLASGOW.

(From our own Correspondent.)

MR. GEO. A. D. MACKAY read an interesting paper at the recent annual meeting of the Sanitary Association of Scotland, in which he reviewed the improvement which had been effected in the public health in Greenock since the local authority had obtained special Parliamentary powers. Before 1876 the general mortality of the town was higher than in any other town in Scotland; while the special mortality in certain of the closes and blocks of buildings was appalling—40 to 67 per 1000 of the population on an average of ten years. The removals to the hospital and fever-house were so numerous that they were equivalent to

the whole population of the locality being sent there in the space of twenty-five years. The mean annual death-rate during the period 1875–75 was 31·24 per 1000; while in the five years 1876–80 it was 24 per 1000, and last year 22·14. Contrasting the mortalities of these periods, this improvement is equal to 621 lives saved. This change has taken place notwithstanding the many physical drawbacks from which Greenock suffers—a bad site, a proverbially rainy climate, irregular and narrow streets, extreme concentration of population, and a smoky atmosphere. The figures I have quoted are excellent, and show that the Greenock authorities have not fallen behind in the march of sanitary progress.

The position of surgeon to large industrial establishments is becoming anything but an enviable one in this part of the country. This is in part due to the assertion by the workmen, in many quarters, of their right to elect their medical officer themselves, in consideration of the fact that he is paid by sums retained periodically from their wages; power is thus transferred from the masters to the men, a change which does not seem to have a very elevating influence on the tactics adopted by contending medical candidates in many instances. For example, we have at present a contest going on in Glasgow for the surgeons for certain iron-works, a place of some pecuniary value, for which about forty applicants are striving, some of them after a fashion hitherto supposed to belong exclusively to parliamentary or municipal elections; thus, the works are placarded with bills advising the men to "Vote for ———"; and handbills are circulated asking "Why vote for ———? Because he is a gentleman; because you all know him" and so on. It is to be hoped that it is the injudicious friends of the candidates, and not the candidates themselves, who are at the bottom of all this.

Sounds of preparation for the coming winter are heard in all our numerous local medical schools. At the University there is no change of any importance to chronicle. At the Royal Infirmary the managers have shown by their laudable energy and liberality that they have the good of their medical school at heart, the new block of buildings which has been erected, to be devoted entirely to the purposes of the school, providing almost a superabundance of accommodation for the lecturer. Such enterprise indicates faith in their future. The staff of the Western Medical School has been increased by the appointment of Mr. W. Limont as lecturer on Physiology. At Anderson's College things remain pretty much as they were last year. The calendar just issued by this college is, in a certain sense, very instructive reading. The interest lies, as usual, in the statistics. On looking at the statement of the number of students in attendance last year, winter and summer, it is found that the grand total amounts to 2405. These figures are startling, and to the uninitiated give the impression of a very extensive concern. Even after deducting nearly 900, the number attending the popular evening classes, and about 1100, the number said to attend the non-medical classes, we have a medical school with an alleged strength of over 400, a statement which we in Glasgow know to be utter nonsense. And the manner in which this result is achieved is delightfully simple; it is the old trick (for it is nothing else) so familiar to country theatrical managers who have to make a handful of "supers" do duty for the British Army by effecting numerous entries and exits; each student is reckoned in once for every class he attends, both summer and winter. A student, therefore, who takes, say four classes in winter and two in summer, finds that he plays rather an important part in these statistics. This ready method of "magnifying one's office" is really a credit to the author.

There was another unfortunate death from chloroform in the Royal Infirmary the other day. The operation for which it was given was, as is most commonly the case, a very trifling one, the removal of some smashed toes. Doubtless a report of the case will be forthcoming.

The salary of Dr. James B. Russell, medical officer for the city, has been raised from £700 to £850 per annum, and is thus brought more into accord with the many and important duties of the office and the services Dr. Russell has already rendered to the city.

It is freely reported both here and in Aberdeen that Dr. William M'Ewen of this city is standing as a candidate for the vacant chair of surgery in Aberdeen University. I believe I am right, however, in saying that Dr. M'Ewen has given up all intention of joining in the contest. Possibly the loss of hospital practice which such an appointment

would, in the first instance at any rate, involve, may prevent such outsiders as wish to practise as pure surgeons from applying for the vacant post.

### SCOTTISH NOTES.

(From our own Correspondent.)

SINCE I last wrote, the vacancy in the surgery chair at Aberdeen has given rise to much speculation in the North of Scotland, and quite a crop of candidates is spoken of. It is not too much to say that some of the local gentlemen who have come forward, or allowed their names to be mentioned as candidates, have no claim whatever to such an honourable position, their surgical fame being quite imaginary. When it is mentioned that Dr. Ogilvie Will is not in the field to oppose Dr. Alex. Ogston, it will be understood that the latter gentleman has the almost undivided support of the local profession, and I know that Dr. Ogston has the enthusiastic support of almost the whole professorial staff, though the minority, from its activity and position, is by no means powerless. It is gratifying to hear that Dr. Ogston has returned from his holiday much improved in health, and feeling quite fit for the duties of the chair. If his fitness as a teacher equals the testimony offered by his students at the infirmary and others, his scientific labours should render it difficult for the Home Secretary to overlook his claims, as compared with the other candidates now in the field. So far, the only declared candidate out of Aberdeen is Dr. Cantlie, Demonstrator of Anatomy and assistant-surgeon at Charing-cross, and if the partiality shown by the Charing-cross authorities for Aberdeen graduates can be reciprocated, an opportunity is now offered. One reason for the paucity of strong candidates from a distance is the fact that Dr. Pirrie's place has been already filled at the infirmary, and the directors do not guarantee a place on the staff for the professor if he is not already there. This is peculiarly unfortunate in the interest of the university, as it is not unlikely that the distinguished surgeon of whom I have already written, and possibly other suitable men, may decline to compete for this particular reason. The arrangement may not have been preconcerted, but it has a very suspicious aspect.

It has been arranged for Professor Young of the Glasgow University, to deliver the course of lectures at Aberdeen during the ensuing session, under the Thomson bequest. The course, addressed chiefly to students of divinity at the Free Church College, is also open to the public, and deals with some special branch of natural science. Hitherto the lectures have been successful, and are now looked forward to with considerable interest.

The Asylum Board at Montrose have commissioned a local well-known artist to paint Dr. Howden's portrait, as a memento of the late centenary celebration, and as an evidence of the esteem in which he is held by his directors.

From the report of the Tweed Commissioners, it appears that the fungoid disease has, during the past year, affected an enormous number of salmon in that river. As compared with what was in 1880 considered an excessive mortality, the number of dead fish removed during the past year is grievously disappointing. The 2907 in 1881 seemed favourable after 5222 had been extracted in 1880, but this year the total is 14,627. The proportion of spawn and unspawned fish has varied largely during each year. The amount of river pollution from the various works is still undiminished, and in one case a prosecution has been instituted against the offending proprietor. As the disease has now spread to the Tay and other salmon streams, its prevention has become a serious question for the Fishing Board.

A boy about four years of age is said to have died at Stirling a few days ago from having eaten, while at play, the fruit of the deadly nightshade, *atropa belladonna*. Vomiting and delirium were present, and the boy was removed to the infirmary, where he died at the end of about twenty hours.

The highly fatal epidemic of scarlet fever at Cupar is now lessening in intensity, and the cases are rapidly decreasing in number. I was misinformed as to the presence of typhoid fever, and on direct inquiry learn that since the introduction of a system of water-supply, a few years ago, this disease

has been seldom present, notwithstanding the insanitary state of many parts of the town, and notably that in which the present epidemic of scarlet fever has most located itself. Dr. Whitelaw's action and intelligent interference have been quite exemplary.

### IRELAND.

(From our own Correspondent.)

THE examinations in the Faculty of Medicine of the Royal University of Ireland commenced last Monday in the Exhibition Palace, Dublin, the subjects being Anatomy and Physiology on the first day.

Surgeon-Major George Shaw, who was killed on the 28th ult. at Kassassin Lock, Egypt, was the second son of the late Mr. Christopher Shaw, a Dublin surgeon. The deceased, who was unmarried, was only thirty-five years of age; and his loss is much regretted by a very wide circle of friends both at home and abroad, to whom he was endeared by many deserving qualities.

By the lamented death of Professor Leith Adams, F.R.S., a vacancy has taken place in the Chair of Natural History and Botany in the Queen's College, Cork. Applications for the office will be received up to the 20th inst., the emoluments of which are partly obtained from the fees of students attending the classes and an endowment fund of £292 yearly to the chair.

The First Professional Examination of the Royal College of Surgeons under the new scheme will be held at the College on October 23rd next and following days. All students who commenced their medical studies on or after October, 1880, can present themselves for this examination on producing evidence of having passed the Preliminary Examination, and of having been engaged in medical study for at least nine months subsequent to registration as medical students. The examination will include Physics (if not passed at the Preliminary Examination), the Elements of Chemistry, Botany, Anatomy (Human Osteology), and Practical Pharmacy. The fee for this examination will be ten guineas.

No examinations for the licences of the College of Physicians took place last month, and it is not expected that any will be held this month either, even should a special examination be applied for. The annual election for president, vice-president, and other office-bearers will be held on St. Luke's day, the 18th proximo.

An "unfortunate" named Smith was killed last week in Dublin by a soldier who knocked her down and then made a thrust at her face with a short stick. Deceased was admitted into hospital in a state of insensibility, from which she never rallied. A post-mortem examination showed that there was a punctured wound of the left eyelid which passed through the orbit and into the brain almost to the back of the head. A somewhat similar accident took place in Dublin some twenty years since, when a medical student named Myles was killed by the thrust of an umbrella, the point of which pierced the eyelid and penetrated the brain.

The Annual Report of the President of the Queen's College, Belfast, shows that the aggregate number of students in attendance in the several faculties during the past session was much greater than in previous ones. There were in Arts 177, Medicine 364, Law 23, and Engineering 11, or a total of 575, as against 515 in the session of 1880-81. Hitherto a knowledge of Greek was rigidly enforced in the Matriculation Examination, but now as it is desirable to admit matriculated students of the Royal University *ad eundem*, and as that University allows a modern language to be taken as an alternative for Greek, the College has been compelled to adopt the same course.

The Senate of the Royal University elected five professors of the College to Fellowships, and also nominated three of the medical professors to the important office of examiners in the University. These appointments are of advantage not alone to the College honoured, but further to the general interests of education. The deficiency of accommodation in the College buildings has been more severely felt during the past session than in previous years, owing in part to the great increase in the number of students, and in part to the urgent demand for practical instruction in chemistry, natural philosophy, physiology, and histology. The deficiency has

become so urgent, that unless new buildings and laboratories are immediately provided the progress of the College will be seriously checked and its efficiency endangered. During the present session a beautiful series of microscopical preparations, showing in an admirable manner the whole texture of many organs of the body, was presented by Dr. Thiersch of Leipzig to Dr. Redfern, Professor of Anatomy, who has placed them in the Anatomical Museum.

The death is reported of Dr. W. Nassau Irwin, J.P., of Tirkeenan, county Monaghan, aged seventy-six.

Joseph Byrne, M.D., has been placed on the commission of the peace for the county of Londonderry.

## PARIS.

(From our Paris Correspondent.)

THAT there is an undercurrent in favour of the revival of bloodletting in the treatment of disease is evident from its having been so frequently referred to lately in the Continental and British Medical journals. The question had been raised at the last meeting of the British Medical Association, and it has been lately referred to in THE LANCET, and if I revert to it here it is to give your readers the benefit of the opinions of two eminent physicians of Paris. Marshall Hall, Sir Thomas Watson, and Hughes Bennett, on the English side of the Channel, and Professor Trousseau and others on this side, had by their writings and practice contributed in a great measure to the almost entire suppression of this remedial agent, and by a singular contradiction Professor Peter, who was one of Trousseau's most fervent disciples, and present editor of his clinical work, uses it most freely—that is, in the form of venesection, leeching, and cupping. He employs venesection on rather a large scale, particularly in cases of apoplexy and epilepsy, in which Professor Trousseau condemned it altogether. At his clinical meetings and in his lectures at the School of Medicine Professor Peter teaches that, with all deference to his former master, he has found by experience that bloodletting, if judiciously employed, is invaluable in some cases, and apoplexy is just one of those in which it would be found useful. As in the days before the publication of Professor Trousseau's clinical works, Professor Peter practises bloodletting at the moment of the attack, with the hope of cutting it short, and he does so at a later stage with the view of facilitating the reabsorption of the clot of blood formed at the seat of the lesion, and to moderate the congestion in its neighbourhood. On the strength of this theory, Professor Peter, at his Clinic, lately bled a patient who was upwards of sixty for an attack of apoplexy and hemiplegia of the left side, by which he declared, at a meeting of the Medical Society, that this bleeding had been the means of saving the patient from imminent death. He employs general depletion even in the convulsions following apoplexy, with great benefit to the patient, as he had noticed that, notwithstanding the presence of a large quantity of albumen in the urine, the convulsions and the albumen had entirely disappeared after a small bleeding from the arm. Professor Vulpian employs bloodletting in its various forms in all cases of inflammation, and he has found it invaluable in peritonitis, whether from puerperal or other causes. At the Clinique d'Accouchement, Professor Depaul scarcely employs anything else in puerperal convulsions. He bleeds the patients largely and repeatedly until the most urgent symptoms are relieved, and he has frequently stated at the Academy of Medicine and at other medical societies that the results of the practice that he has carried out for more than a quarter of a century can bear comparison with any other method of treatment adopted by other physicians in similar cases: in fact, the mortality among his patients has always been considerably less.

M. Dumas, the eminent chemist, has been trying some experiments with a concentrated solution of alum, the results of which he lately communicated to the Academy of Sciences. He proposes this substance as an extinguisher of fires, as it renders non-inflammable all substances with which it is placed in contact. He recommends its use for putting out fires in the streets, &c. One of the members present observed that in theory the idea was plausible enough, but that its execution would be simply impractic-

able, owing to the enormous quantities of alum that would be required to meet the demand. It was, however, suggested that several articles in theatres, private houses, shops, &c., might be rendered non-inflammable by having them saturated in a solution of alum, and thus reduce the risk of spreading fires to a minimum.

Those who have been to Paris will recollect the hand balloons started some few years ago by the *Louvre* as a means of advertisement. These, however, have proved somewhat dangerous to the public, several accidents having occurred by the bursting of the balloons. It has been found that they are frequently filled with impure gas, consisting principally of sulphuretted hydrogen, and even arsenic has been found in them. The existence of this danger has been pointed out to the police, and strict measures have been taken to see that the balloons are filled with pure gas.

## NEW YORK.

(From our Correspondent.)

I HAVE noticed several interesting communications in THE LANCET on the subject of "Anæsthetics." Perhaps some notes of recent discussions on this subject in the United States may be welcome.

Dr. J. G. Johnson, in a recent paper before the Medico-Legal Society of New York, in introducing a paper on "Anæsthetics medico-legally considered," referred to the fact that mankind in all ages and in all climes have sought relief from pain. The Egyptians produced sleep by inhalation. Pliny describes a powdered mineral which was applied to wounds to destroy pain; and the power of the mandragora wine used by the ancients was said to be sufficiently potent to render the patient insensible to even the pain caused by amputations. Dr. Johnson gives credit to Morton of Boston, Mass., as the benefactor of mankind, who first made use of an anæsthetic in surgical operations. This was in 1846, just one year before Dr. Simpson discovered the anæsthetic power of chloroform at Edinburgh. He then mentioned Austin's exhaustive experiments, carrying chloroform narcosis even to death, when it was demonstrated that the ano-genital region was the last to give up its sensitiveness. This accounts for the fact that, next to deaths in the dentist's chair, the frequency of deaths during operations for piles and other operations of the rectum has been noticed. Certain portions of the skin and subcutaneous tissue also retain their sensibility with extraordinary tenacity, these being the matrix of the big toe-nail, the margin of the anus, and the whole of the skin of the organs of generation. Dr. Johnson then briefly stated that, with these facts demonstrated, the explanation of those grave charges made by females of respectability became easily enough understood. Those parts conveying sensation after all other parts have had the sensibility overpowered, the pressure of her clothing against the parts stimulating them as she is struggling under the influence of chloroform, and her being held, naturally convey to her the idea of something wrong, not knowing beforehand that the effect of chloroform will make her resist, and that she may forcibly be held down. As to the possibility of administering chloroform to persons while asleep, the question was raised at a recent trial for murder, when a woman, who was found by the side of her murdered husband, claimed that she had been "chloroformed" during her sleep. At the trial Dr. Quimby was called as a witness, and stated that he had tried the experiment, and had been successful in the case of one man and two boys, one of whom was ten and the other twelve years of age. It took about seven minutes to chloroform the man. Dr. Johnson states that the experiment has since been repeated, and that it has been found that with children it can be done by a skilful hand after a little practice, but with adults it is a matter of great difficulty, and unless the person using the chloroform is an expert it is an utter impossibility. The same rules for the use of nitrous oxide should be followed as employed with chloroform—namely, a reclining posture and loose dress. It also stimulates the sexual functions of both sexes; and the precaution should be observed to have a third party present. The following medico-legal points were made:—

1. Anæsthetics do stimulate the sexual functions. Charges made by females under the influence of anæsthetics should be received as the testimony of an insane person; it cannot be rejected, but the *corpus delicti aliunde* rule should be insisted on. 2. Death from administration of chloroform after a felonious assault, unless the wounding was an inevitably fatal one, reduces the crime from murder to a felonious assault. 3. The surgeon has no right to use chloroform to detect crime against the will of the criminal. 4. Gross violations of the well-known rules of administering anæsthetics, life being lost thereby, will subject the violator to a trial on a charge of manslaughter. 5. A surgeon allowing an untrained medical student to administer anæsthetics, and life being therefore lost, will subject the surgeon himself to a suit for damages. 6. The physician who administers an anæsthetic should attend to that part of the work and nothing else; he should have carefully examined the heart and lungs beforehand; he should have the patient in a reclining position, with clothes loose, so as not to interfere with respiration; should have his rat-tooth forceps, nitrite of amyl, and ammonia, and know their uses and when to use them, and artificial respiration. 7. In operations on the ano-genital region, and the evulsion of the toe nail, complete loss of sensation in these parts should never be allowed, and no operation on these parts at all should be performed, under an anæsthetic, unless by approval of a full consultation.

In the discussion which followed Drs. Fennell and Girdner both gave as the result of their experiments that it was next to impossible to chloroform persons in their sleep, as they always found such persons awoke with a slight cough and indications of alarm.—Dr. W. J. Morton spoke of the safety of ether as against chloroform, and considered the choice of an anæsthetic as the most important medico-legal point after all. He said that with chloroform it was always a "toss up" with death, and that it was not carelessness of administration that kills—it was chloroform. True, chloroform had the advantage in agreeableness and amount. As to rapidity there was little difference. Chloroform, according to statistics—and we all know how many deaths are not recorded—is stated to be eight times more dangerous than ether. Richardson placed death from chloroform at 1 in 2500; Andrews, that from ether at 1 in 43,000. Chloroformists were blind to the weight of scientific evidence against this agent. France had used ether from the beginning, and he was glad to find that in England it was coming more into use. Dr. H. McNaughton's report showed that ether was used in a greater number of hospitals than chloroform.—Drs. Bermingham and Miller both spoke of the danger of chloroform, and gave evidence of its fatal effects in their experience of its use.—Dr. Sayre the younger objected to the general denunciation of chloroform, and appeared alone in that opinion. He did not think it was dangerous; on the contrary, he thought it was safer than ether. In his experience with chloroform he had never seen a death from it.—In reply to this, Dr. Morton inquired if it was not an extraordinary argument that each chloroformist must "kill his man," so to speak, before being willing to see any danger in his preferred anæsthetic. According to such a view the experience of others and the science of the times had no value.—Dr. Johnson, in closing the argument, said that the whole question as to which anæsthetic should be used was settled by the fact that chloroform kills without warning; ether does not: therefore the physician is criminally responsible who uses chloroform. He considered that a physician who pursues a course of treatment which is no longer orthodox is in the same position as one who meditates a homicide. That was the law in the United States on this point.

Aug. 11th, 1882.

PARIS ACCLIMATISATION SOCIETY.—Among the medals and prizes awarded by the Acclimatisation Society of Paris at its annual meeting were a gold medal to Sir James R. G. Maitland of Sauchie, near Stirling, for his establishment of fish culture; a silver medal to Mr. James E. Harting, for his work on "Ostrich Farming and Historical Researches on the Extinct Animals of Great Britain"; a silver medal to Mr. Harvie Brown, for his work on "The Reintroduction of the Capercaille into Scotland"; and a sum of 300 francs to Mr. Alfred Wailly of the Clapham-road, for his successful labours in breeding and crossing exotic silkworms.

## Obituary.

### DR. CHARLES MOREHEAD, C.E.I.

THIS distinguished member of the medical service of India died at Wilton Castle, Redcar, Yorkshire, on Aug. 24th, in the seventy-fifth year of his age. Dr. Morehead was the youngest son of the late Reverend Robert Morehead, D.D., Rector of Easington, Yorkshire, who for many years before had been the incumbent of one of the largest episcopal churches in Edinburgh, where the subject of this notice was born and educated. Charles Morehead was from boyhood an earnest student. After receiving an excellent general education, he began his medical studies in the University of Edinburgh, where he soon distinguished himself in every branch of science. From an early period of his career he attracted the attention of Professor Alison by his zeal in the prosecution of clinical medicine, and to the end of his university career was a favourite pupil of that much-loved physician, whose clinical clerk he became. Having taken his degree, Dr. Morehead proceeded to Paris, and for more than a year pursued his clinical studies under Louis, keeping up intimate intercourse with that great physician until his death. In 1829, he entered the Bombay Medical Service, and after the usual probationary course served on the personal staff of Sir Robert Grant, Governor of Bombay. From an early part of his career Dr. Morehead was a contributor to the *Transactions of the Medical and Physical Society of Bombay*, of which he became President in 1837, a position he retained until the year 1859. On the death of Sir Robert Grant, in 1838, Dr. Morehead was appointed to the European and Native General Hospitals of Bombay, and in 1845 became the first principal in the Grant Medical College, and Professor of Medicine in that institution. On the establishment of the Board of Native Education in 1840, he was appointed secretary to the Board, an office he held for five years. Dr. Morehead continued to hold his position as principal of the Grant Medical College and physician to the Jamsjee Jejeebhoy Hospital until 1859, when he returned to Europe, and finally retired from the service in June, 1862. He was appointed honorary surgeon to the Queen in 1861, and, somewhat late in the day, his eminent services to the State were recognised by his being created a Companion of the Indian Empire. The work by which Dr. Morehead was best known in Europe was his "Researches on the Diseases of India," a work of rare merit, built on the sure foundation of careful clinical experience. From his youth upwards he was a painstaking case-taker. Trained, as we have seen, in clinical studies by such great diagnostic physicians as Alison and Louis, he was *facile princeps* in this difficult part of the physician's art, and not in tropical diseases only, but also in cardiac and pulmonary affections; he could always in this particular hold his own in consultation with physicians in any part of the world. As a teacher Dr. Morehead will long be remembered in the school he may be said to have founded in Bombay. In the hospitals fortunate enough to have had him as leading physician, the diagnostic faculty of which we have spoken had an ample field for its exercise, of which his pupils had the benefit; to their service he gave his time, his great abilities, and his vast experience without stint or measure, and we cannot wonder that the native and Eurasian community of Bombay, to whose service he devoted his life, held him in high esteem, and will, now that he rests from his labours, cherish his memory as that of a friend to the best interests of their respective races. Whatever may be the future of the Medical Service of India, it has a past of which its surviving members may well be proud. In the long list of those who in India did honour to our profession, there are few names more deserving of fame than that of Charles Morehead.

### THE SCARLET FEVER EPIDEMIC AT ACCRINGTON.—

This outbreak is assuming still more alarming proportions. This week between thirty and forty new cases have been reported to the local authority, and there have been four more deaths, making about forty fatal cases since the beginning of August. The fever has extended to Oswaldtwistle, where several cases are reported to have occurred.



## Medical News.

**BRITISH MEDICAL SERVICE.**—The following is a list of the candidates who were successful for appointments as Surgeons in this Service at the competitive examination in London, on Aug. 21st:—

Marks.	Marks.
Macpherson, W. G. .... 2365	Stuart, J. R. .... 2015
Simpson, R. J. S. .... 2305	Morse, T. R. .... 1975
Reld, F. W. .... 2233	Deeble, W. B. C. .... 1960
Phippa, E. V. A. .... 2180	Prendergast, J. M. .... 1935
Hunter, V. E. .... 2160	Bond, R. P. .... 1905
Baird, A. .... 2155	Stewart, J. McD. .... 1890
Hamilton, T. W. O'H. .... 2065	Thomas, G. T. H. .... 1870
Semple, D. .... 2030	

**INDIAN MEDICAL SERVICE.**—The following is a list of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington-house, on Aug. 21st and following days. Thirty-nine candidates competed for eight appointments. All were reported qualified:—

Marks.	Marks.
Leahy, A. W. D. .... 2960	Davis, R. E. S. .... 2840
Webb, W. W. .... 2530	Fuller, H. K. .... 2320
Weir, R. R. .... 2510	Nelson, W. H. .... 2220
Burke, W. H. .... 2377	Crimmin, John .... 2185

**NAVAL MEDICAL SERVICE.**—The following is a list of the successful candidates for appointments as Surgeons in the Royal Navy at the competitive examination at Burlington-house on Aug. 21st and following days. Eight other candidates were reported by the examiners as qualified:—

Marks.	Marks.
Logan, J. S. .... 2090	Martin, J. M'C. .... 1850
Lawson, R. J. .... 2030	Bagnall-Oakeley, J. L. .... 1770
Cashin, J. .... 2025	Woores, F. .... 1755
Nunan, T. .... 1980	Craig, W. M. .... 1740
Norman, W. H. .... 1970	Jackson, H. S. .... 1700
Todd, P. E. .... 1950	Phillips, J. M. .... 1695

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 31st:—

Batt, Richard Bush Drury, Camden-road.  
Kirk, Thomas Deck, Creavory, Antrim, Ireland.  
Serres, John James, Colchester House, Ankerly.  
Whitcombe, Philip Percival, Gravesend.

The following gentleman also on the same day passed the Primary Professional Examination:—

Llewellyn, James Davies, London Hospital.

The following gentlemen passed and received certificates to practise, on Sept. 7th:—

Church, William, Hereford-road, Bayswater; Hull, Walter, Acton, Middlesex; Larder, Herbert, Denmark-hill, Wimbledon.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Bullock, Thomas Warren, St. Thomas's Hospital; Jefferies, Horace, Queen's College, Birmingham; Plummer, Henry Geo., Guy's Hospital; Mander, Percy Robert, Westminster Hospital.

The late Dr. John Boyd Baxter, for many years Procurator Fiscal in Dundee, has bequeathed the sum of £10,000 to the College in Dundee, and £1000 to the Royal Infirmary.

The population of Iceland, which has already suffered severely from famine, is being decimated by an epidemic of measles.

The alleged pollution of the river Derwent at Buxton is about to be made the subject of a public inquiry by the conservators of the Trent.

MR. CHRISTOPHER COOKE, late of 51, Lincoln's-inn-fields, has bequeathed £10 each to the Cornwall Infirmary, the Hampshire County Hospital, and King's College Hospital.

**TYPHUS FEVER.**—Three Roman Catholic Priests have recently died from typhus fever at, or in the neighbourhood of, Liverpool, within a comparatively short period of each other, having, it is supposed, caught the infection while visiting members of their congregation who were stricken with the disease.

**MEDICAL MAGISTRATE.**—H. S. Gaye, M.D., of Newton Abbot, having resigned the coronership, has been placed on the Commission of the Peace by the Lord Lieutenant of the County.

It is asserted that in consequence of the prevalence of foot-and-mouth disease in Staffordshire, the County Agricultural Society has abandoned its annual show, which was to have been held at Lichfield at the end of the present month.

**PRESENTATION.**—A few members of the Lily of the Vale Lodge, A.O. Free Gardeners, recently waited upon Dr. Cairns at his residence and presented him with a handsome eight-day clock as a mark of esteem on the occasion of his marriage. Dr. Cairns thanked the members for the kindly feeling manifested towards him.

**DIPHTHERIA.**—At Port Washington, Long Island, U.S.A., ten persons in one family are said to have been suffering from diphtheria, which is supposed to have been contracted by drinking from a tin dipper which had been used by a boy in a neighbouring family who had the disease.

At Crediton, typhoid fever has made its appearance with such severity that the authorities have prohibited the reopening of the public schools of the town, and the scholars, on presenting themselves, were ordered to return to their homes.

A LETTER was read at the meeting of the monthly board of the Bucks Infirmary on the 6th inst. from Mr. Ceely, tendering his resignation of the post of surgeon to this institution, which he has held for a period of fifty years. The board expressed in a resolution its deep sense of the valuable services rendered by Mr. Ceely to the infirmary during the past half-century.

THE Aberdeen University Authorities have just received from Mrs. Marr, widow of the late Mr. John Marr, music-seller, of Aberdeen, a gift of £2000 to provide for the foundation of medical bursaries in such department as the Faculty and Senators may advise. This is the first step towards the establishment of medical bursaries in Aberdeen, and the gift has been made in response to a public desire that the bursaries should not be exclusively confined to the Arts and Divinity Faculties.

At a recent meeting of the Liverpool City Council the Health Committee presented a request that they might be empowered to take the necessary steps for procuring a provisional order for amending the Local Sanitary Acts by providing for the notification of infectious diseases. Mr. A. B. Forwood moved the confirmation of the committee's request, and stated they had in contemplation to recommend the compulsory registration of all cases of infectious disease. The Council ultimately agreed to the Health Committee's request.

**ANTI-VACCINATION.**—At the Leicester Borough Police-court, a few days ago, nineteen persons were summoned for refusing to comply with the Compulsory Vaccination Acts by not having their children vaccinated. There are several thousand unvaccinated children in the town, and the number is increasing at a very rapid rate, although there are more prosecutions under these Acts in Leicester alone than in all the other large towns in the kingdom put together. Notwithstanding this state of things, the town is perfectly free from small-pox. Eighteen of the defendants were fined 10s. each or seven days' imprisonment, and the other case was adjourned.

**MEDICAL PRIZES.**—At the recent meeting of the British Medical Association, the Stewart prize, of the value of 50 guineas, founded by Dr. A. P. Stewart, F.R.C.P., was awarded to Dr. Vandyke Carter, M.D. Lond., Surgeon-Major, Indian Medical Department, for his work entitled "Spirillum Fever." At the same meeting the Middlemore prize, of the value of 60 guineas, was awarded to Mr. William Adams Frost, F.R.C.S., Assistant Ophthalmic Surgeon to St. George's Hospital, for his essay on "The Scientific and Practical Value of Implements in Ophthalmic Medicine and Surgery made or published during the past three years."



## Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

**BARROW, ALBERT BOYCE, M.B.Lond., F.R.C.S.Eng.**, has been appointed Assistant-Surgeon to the West London Hospital.

**BIRDWOOD, ROGER ALAN, M.A.Camb., M.R.C.S.**, has been appointed Surgeon to the Wynad Medical Board, Pundalur.

**BUSH, J. PAUL, M.R.C.S., L.S.A.Lond.**, has been elected House-Physician of the Bristol Royal Infirmary, vice Dr. Watson, resigned.

**COBOLD, C. S. W., M.D.**, Assistant Medical Officer at Colney Hatch Asylum, has been appointed Medical Superintendent of Earlswood Asylum, vice Grabham, appointed Commissioner in Lunacy for New Zealand.

**COLLINS, G. H., M.R.C.S.**, has been appointed Resident Medical Officer at the Wednesbury Small-pox Hospital.

**COURTENAY, JOHN HOYSTED, M.K.Q.C.P.I., L.R.C.P.Lond., L.R.C.S.I., L.M.**, has been appointed Honorary Surgeon to the Echuca District Hospital, Echuca, Victoria, Australia.

**CRADDOCK, FREDERICK HURST, B.A.Oxon., M.R.C.S., L.S.A.Lond.**, Senior Assistant Medical Officer and Deputy-Superintendent of the Worcester County and City Asylum, has been appointed Medical Superintendent of the Gloucester County Asylum.

**DOUDNEY, G. H., M.B.**, has been appointed House-Surgeon to the Seamen's Hospital, Ramsgate, and Visiting Surgeon to the Ramsgate and St. Lawrence Dispensary, vice E. W. Farmer, M.R.C.S., resigned.

**GARMAN, JOHN C., L.R.C.P.L., M.R.C.S.**, has been appointed Medical Officer for the Workhouse of the Hackney Union.

**HENDLEY, HAROLD, M.R.C.S.**, has been appointed House-Surgeon to the West London Hospital, vice Rickard W. Lloyd, M.R.C.S., resigned.

**HEY, Mr. GEO.**, has been appointed Vaccination Officer for the Bradford Union.

**HOPKINS, JOHN WALTER, M.R.C.S.**, has been appointed House-Surgeon and Secretary to the Royal Isle of Wight Infirmary, Ryde, vice T. M. Kendall, L.R.C.S.Ed., L.R.C.P.Ed., resigned.

**KENNA, DENIS P., L.R.C.S.I.**, has been appointed Resident Surgeon to St. Vincent's Hospital, Stephen's-green, Dublin; also Visiting Surgeon to St. Vincent's and Mullen's Convalescent Homes, Black-rock, co. Dublin.

**MITCHELL, H., M.D.Ed.**, has been appointed Medical Officer for the First District and Workhouse of the Cokermonth Union.

**MOORE, Mr. E. H.**, has been reappointed Analyst for the Eastern Division of the County of Sussex.

**PENNY, H. J., L.K.Q.C.P.I.**, has been appointed Medical Officer for the Third District of the Barnet Union.

**PROCTOR, SAMUEL FITZGERALD, M.R.C.S., L.R.C.P.Ed.**, has been appointed Assistant Colonial Surgeon to the Colony of St. Lucia, West Indies.

**RAWLE, FRANCIS, M.R.C.S., L.S.A.Lond.**, has been appointed Medical Officer for the Titchfield District of the Fareham Union.

**SIDDALL, GEORGE, M.R.C.S., L.S.A.Lond.**, has been appointed Vaccination Officer for the Cleckheaton District.

**SWABY-SMITH, C., M.R.C.P.Ed., M.R.C.S.**, has been appointed Honorary Surgeon to the West Metropolitan Fire Brigade.

**THOMPSON, C. EMILIUS, M.R.C.S.**, has been appointed Medical Officer to the Yatala Labour Prison, Salisbury, S.A.

**THOMPSON, JAMES, M.D., M.K.Q.C.P., L.R.C.S.I.**, has been elected Surgeon to the Surgical Appliance Society, Finsbury-circus.

**WARREN, WILLIAM, L.R.C.S.I., L.M.K.Q.C.P.I.**, has been elected Honorary Physician to the Alfred Hospital, Melbourne.

**WEST, JOHN A., M.R.C.S., L.S.A.Lond., A.K.C.**, has been appointed Clinical Assistant and Registrar to the North-Eastern Hospital for Children, Hackney-road.

**PENRUDDOCKE**.—On the 5th inst., at Winchcombe, Gloucestershire, the wife of Charles Penruddocke, M.R.C.S., L.R.C.P.Ed., of a son.

**REID**.—On the 5th inst., at 12, Bridge-avenue, Hammesmith, the wife of John Reid, M.D., of a daughter.

**SEMON**.—On the 9th inst., at Welbeck-street, Cavendish-square, W., the wife of Felix Semon, M.D., M.R.C.P., of a son.

**THOM**.—On the 10th inst., the wife of Alex. Thom, jun., M.A., M.D., & C.M., of a son.

**WITHINGTON**.—On the 4th inst., at Rodney-street, Wigan, the wife of Herbert Withington, L.K.Q.C.P.I., of a daughter.

## MARRIAGES.

**CLARKE—JUKES**.—On the 12th inst., at St. Stephen's Hamstead, Fincastle George Barlow Clarke, M.D., second son of Major-General Wm. Calcott Clarke, late Madras Staff Corps, to Kate Blanche D'Almeida, second daughter of Miles Prendergast Jukes, Esq., of Belaise-park, N.W.

**CLOUGH—CREE**.—On the 7th inst., at St. John's Church, N., Morley, Edision Clough, of Hambledon, Hants, to Annette Cree, only daughter of Edward H. Cree, Esq., M.D., Deputy Inspector-General of Hospitals and Fleets (retired).

**FLANAGAN—HILL**.—On the 26th July, at the Pro-Cathedral, Georgetown, Demerara, H. E. B. Flanagan, Army Medical Department, only son of Lieut.-Colonel J. B. Flanagan (late 81st Regt.) to Marian Emily, only daughter of the late James Hill, Esq., of Demerara.

**HALLETT—PRICE**.—On the 6th inst., at the Parish Church, Kimbolton, Henry Arthur Hallett, M.D., son of the late Colonel Hallett, C.B., to Mabel, third daughter of the Rev. E. H. Price.

**HOWE—LE FEAX**.—On the 30th ult., at the Parish Church, Llanidloes, Jonas Howe, L.R.C.S.E., of Castle House, Llanidloes, to Emma Elizabeth (Emmie), youngest daughter of William Le Feaux, Esq., of Penrallt House.

**LIEBSTEIN—FLETCHER**.—On the 2nd inst., at the Congregational Church, Bournemouth, Hermann Liebstein, M.D., of Drayton-park, London, to Jeanne, younger daughter of the late Rev. Joseph Fletcher, of Christchurch, Hants.

**MACCULLOCH—ROBERTS**.—On the 29th ult., at the Church of St. John the Baptist, Islington, S. H. Macculloch, M.B.Ed., C.M., of Sydney, N.S.W., to Jane, daughter of Edward Roberts, Esq., of Downham-road, N.

**MOLINEUX—FINCHER**.—On the 2nd inst., at Hastings, Sussex, Edward Molineux, M.R.C.S., L.R.C.P., son of Geo. James Knapp, of Clifton, to Isabella Rosalind, eldest daughter of the late Rev. J. Guillemard Fincher, Rector of St. Alban's, Manchester.

**MURRAY—MACKAY**.—On the 30th ult., at the Cathedral, Inverness, R. D. Murray, M.B., Surgeon H.M. Bengal Army, to Mary M'Innes, eldest surviving daughter of Deputy-Surgeon-General Mackay, M.D., Indian Army.

**PAYNE—MACPHERSON**.—On the 2nd inst., at St. Mary Abbott's, Kensington, Joseph Frank Payne, M.D., Fellow of Magdalen College, Oxford, and Assistant-Physician to St. Thomas's Hospital, to Helen Curtis, eldest daughter of John A. Macpherson, of Umina, Toorak, Melbourne, and Pembroke-crescent, Bayswater.

**PEIRCE—FEARNLEY**.—On the 5th inst., at Christ Church, Moreton, by the father of the bride, Francis Peirce, M.D., Hoylake, Cheshire, son of John Peirce, M.D., F.R.C.S.I., late of Newcastle West, Limerick, to Rosa, second daughter of the Rev. M. Fearnley, Rector of the Parish.

**PENDAVIS—GODEFROY**.—On the Feb. 9th, at San Pablo, Iquique, S.A., William Frederick Pendavis, L.R.C.P.Ed., M.R.C.S.Eng., &c., son of the late Rector of St. Peter's Manchester, to Luisa, daughter of the late Mons. Emile Godefroy, of Bordeaux, France, and Lima, S.A.

**PERRY—DONALDSON**.—On the 5th inst., at St. Saviour's Church, Bath, Deputy Surgeon-General W. Perry, late Royal Artillery, to Adeline Louisa, third daughter of the late Rev. J. W. Donaldson, D.D.

**PILLEAU—JOHNSTONE**.—On the 5th inst., at St. George's, Hanover-square, Henry Pilleau, Deputy Inspector-General of Hospitals, to Mary, widow of H. E. Johnstone, late of Broncroft, Salop.

**ROWE—WHEELHOUSE**.—On the 7th inst., at the Parish Church, Leeds, by the Rev. John Gott, D.D., the Vicar, George Herbert Rowe, M.R.C.S., to Caroline Agnes, eldest daughter of C. G. Wheelhouse, F.R.C.S., of Hilary-place, Leeds.

**SOUTHAM—HUGHES**.—On the 7th inst., at the Parish Church, Staverton, S. Devon, Frederic Armitage Southam, F.R.C.S., of Pendleton, Manchester, to Amy Florence, daughter of the Rev. J. B. Hughes.

**STEWART—BREMNER**.—On the 5th inst., at the Manse, Portsoy, William Lemmon Stewart, M.A., M.D., of Portsoy, to Jessie Anne, eldest daughter of the late Alexander Bremner, Esq.

**WILSON—WARD**.—On the 29th ult., at St. Luke's, Maidenhead, Joseph Wilson, M.D., 42nd A.L.I., to F. Gertrude, daughter of R. A. Ward, Esq.

## DEATHS.

**BADDELEY**.—On the 8th inst., at Gnosall, Staffordshire, George Augustus Baddeley, M.R.C.S., aged 58.

**GROSS**.—On the 5th inst., at St. Saviour's Infirmary, Westmoreland-road, Walworth, S.E., Constance, infant daughter of Charles Gross, L.R.C.P.Lond. &c., Medical Superintendent.

**HAWARD**.—On the 28th ult., at Little Blakenham, Ipswich, Deputy Surgeon-General Wallace Haward, aged 51.

**PITMAN**.—On the 1st inst., at his residence, Wyborne, Cheltenham, Henry Pitman, Deputy Inspector-General of Hospitals, Indian Army, retired, eldest son of the late Captain Pitman, of H.M.'s 59th Regiment, aged 64.

**RAYNER**.—On the 8th inst., at New Hall, Birstal, near Leeds, Robert Rayner, M.R.C.S.E. & L.S.A.Lond., aged 57.

**REDWOOD**.—On the 30th ult., at the Lawn, Rhymney, Monmouthshire, Lewis Redwood, M.R.C.S., L.S.A.Lond., for 45 years Chief Surgeon of the Rhymney Iron Works, aged 73.

**STUMMER**.—On the 4th inst., at Craiglands, Ilkley, Yorkshire, Dr. Leopold Stummer, aged 73.

**N.B.**—A fee of 6s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## Births, Marriages, and Deaths.

### BIRTHS.

**BARR**.—On the 6th inst., at St. Domingo-grove, Everton, the wife of James Barr, M.D., of a son.

**BEAMAN**.—On the 1st inst., at Bedford, the wife of Brigade-Surgeon A. H. Beaman, of a daughter.

**DINGLE**.—On the 4th inst., at 61, Bunhill-row, Finsbury, the wife of William Alfred Dingle, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., of a daughter.

**EDWARDES**.—On the 5th inst., at Stanley House, Bath-road, Hounslow, the wife of W. Whitfield Edwardes, M.D., of a son.

**JACKSON**.—On the 12th inst., at Lansdowne House, Tottenham, the wife of G. H. Jackson, jun., Esq., Surgeon, of a son.

**KESTEVEN**.—On the 6th inst., at Holloway-road, N., the wife of W. H. Kesteven, M.R.C.S., of a son.

**MEARNS**.—On the 1st ult., at Prince Albert, Cape of Good Hope, the wife of J. Herbert Mearns, M.D., J.P., of a daughter.

**NICHOLSON**.—On the 6th inst., at Benalla, S.A., the wife of John Nicholson, M.D., of a son.

**OSWALD**.—On the 1st inst., at 43, Clapham-road, S.W., the wife of Robert J. W. Oswald, L.R.C.P.Ed., L.R.C.S.Ed., M.R.C.S.E., &c., of a daughter.

**PARSONS-SMITH**.—On the 30th ult., at Park-Hyatt, Addiscombe-road, Croydon, the wife of Dr. Parsons-Smith, of a son.



## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### "THE STUDENTS' NUMBER."

We have received several communications from the authorities of hospitals omitted from the Students' Number of THE LANCET. We endeavoured as far as possible to insert all hospitals associated with medical schools or having educational classes. Hospitals possessing neither of these qualifications were in many instances unavoidably omitted. Respecting the mistakes referred to, we have to state that the lists were prepared from "copy" officially supplied.

*F.R.C.S. Edin.*—There is no examination for this title. Next to holding a diploma from one of several corporations, the principal condition of fitness is that the candidate shall be able to pay £25 "to the college funds." Attempts are, we know, made to palm off "F.R.C.S. Ed." as equivalent to and equally honourable as "F.R.C.S. Eng.," but these attempts, it is needless to say, are dishonest.

*A Beginner* will find the information he asks for in the Address to Students, contained in our last issue.

### URTICARIA AND MOSQUITO-BITES.

*To the Editor of THE LANCET.*

SIR,—In your issue of August 19th, "L.R.C.P." asks for a suggestion as to the treatment of a case of urticaria. My experience of the subject being small, I feel the greatest diffidence in venturing upon an opinion, and only do so because no response has hitherto been forthcoming from more competent authorities. I read recently in a medical paper that Dr. Schwimmer treats urticaria by the internal administration of atropine. I cannot say that I have had the opportunity of verifying the efficacy of the remedy in the ordinary form of the affection, but I can testify to its value in the variety produced by the bites of gnats and mosquitoes.

The past summer, notwithstanding the moderate degree of heat, has been remarkable in Paris for the number of these insects, and I for one have been severely visited by them. In my case each bite gives rise in the course of a few minutes to a raised white lump, which disappears after a variable time, leaving an irritable papule, lasting for some days. I find that the application of a solution of atropine shortens the whole process, and instantly relieves the itching. The solution I have used is one part in a thousand.

"L.R.C.P." does not say what are the remedies he has employed. I take it that, with the exception of the sluggishness of the liver, all other likely sources of reflex irritation have been eliminated. Whether there be any gastro-intestinal disturbance or not, this condition of the liver might be benefited by a course of rhubarb and quinine. If all means of removing and allaying irritation fail, there still remains the possibility of inhibiting the morbid reflex by bromide of potassium; and if it comes to this, it would be well to associate it with arsenious acid.

I am, Sir, yours faithfully,

Paris, August 31st, 1882. OSCAR JENNINGS, M.D.

*To the Editor of THE LANCET.*

SIR,—Having met with a number of cases similar to the one described by "L.R.C.P." in your issue of August 19th, I should recommend him to try mercurial treatment, which has proved the most successful in my hands. For a child four years old I would advise one grain of mercury with chalk, to be given three times a day, combined with the same quantity of compound cinnamon powder in order to prevent griping. One week of this treatment has generally sufficed in my hands to subdue the more severe symptoms, and I have then allowed the eruption to take its own course, which has usually been to die away gradually. Acetate of lead ointment may be used externally to relieve the itching, and an aperient of tartrate of soda (say, thirty or forty grains in his case) may be given in the morning before breakfast once or twice a week. Many of the cases are, I believe, syphilitic.

I remain, Sir, yours obediently,

Oldham, August 29th, 1882. ANACHARIS.

### HABITUAL DRUNKARDS.

*M.D.*, writing to the *Standard*, makes the following suggestion:—"There is one way of dealing with habitual drunkards which has not yet been noticed—that is, to send them for a voyage in a teetotal ship. If a 'retreat' could be established on a small island—say one of the Channel or Scilly Isles—there would be no difficulty from neighbouring public-houses, and no necessity to send a guide with the patient when he goes out."

*Dr. Campbell Black* (Glasgow).—The blocks have been received.

*Mr. Wm. Anderson* (Welbeck-street).—The article will appear next week if possible.

*Mr. H. Kesteven* (Holloway-road).—We may probably notice the production enclosed in our correspondent's note.

### "DIGITATED SOCKS."

*To the Editor of THE LANCET.*

SIR,—I was glad to find in a recent number of THE LANCET a notice of the above, which appear to be very little used at home, as they are almost unknown abroad. After wearing them constantly for many years, I have formed a very high appreciation of their value, especially in the tropics, where the trifling additional expense and trouble which their use involves are much more than compensated for by the cleanliness and comfort which are thereby insured. Whilst the barbarous and cruel custom which prevails in China of contracting the female foot finds imitators among a large portion of the British public, and deformity, with a halting gait, is vainly supposed to secure more admirers than natural ease and grace of deportment, these invaluable foot coverings will of necessity be disregarded, because the breadth of the shoe or boot must contain ten thicknesses instead of two of silk, thread, or other material. Except in the naval and military services, boots and shoes are, as a rule, made too narrow. Too little pains are bestowed upon the fitting of children's feet, and the injury resulting from compression of the toes in infancy and childhood can never be repaired. The veterinary surgeon gives much attention to the shoeing of horses, whilst the family doctor pays little or no regard to the children's feet or shoes. They have to put on the number which is nearest to their size, when perhaps the whole thing is a misfit; whereas a farrier will rarely, if ever, put a shoe upon a horse without heating and shaping it a little. The importance of being "kind to our old age" is well illustrated in the treatment of the feet. All the adages about "poor feet," "treading on corns," "as easy as an old shoe," &c., doubtless have their rise in the needless suffering which is inflicted by parents upon children, and by ignorant and foolish people on themselves. Why should not a new shoe be just as comfortable as the old one? Most certainly it ought to be, and more so. Let us abandon the silly and most injurious high heel, add to the breadth of the sole, let the toes be entirely free from pressure or restraint, use digitated socks, bind the shoe firmly upon the instep, and so soon as the necessity for an unnatural covering ceases, put off the leather shoes, and habitually wear indoors something lighter and more pervious to the moisture of the skin. As much as possible let children run about in the house without any covering on their feet at all, putting them on and off at the threshold like the Japanese. Their straw sandals, without any socks, are admirably adapted for indoor use, and a beginning might very well be made with the young people. These sandals, when lined with cloth or leather, are also an invaluable accompaniment of the digitated socks.

The human foot in England has been so long neglected and concealed in dark, dismal recesses, never seeing the air and light, that its persistent maltreatment has resulted in deformity and degradation. Why should it not receive the same consideration as the hand? We are so accustomed to view the foot, as a whole, encased in its often ill-chosen covering of patent leather, that to display it in its natural form would be deemed an impropriety, as the growth of hair upon the face was considered in England twenty-five years ago. In due time, however, common sense must prevail over ignorance and prejudice.

I am, Sir, yours faithfully,

Hong Kong, July 12th, 1882.

W. J.

*Inquirers* should apply at the Admiralty, Whitehall, for the requisite information.

*H. C. J.*—We cannot oblige our correspondent.

*Mr. E. N. Edmunds.*—The subject shall not be lost sight of.

*Mr. J. W. Stedman* (Godalming).—Next week.

### NORTH-WEST LONDON HOSPITAL.

*To the Editor of THE LANCET.*

SIR,—In your issue of Sept. 2nd it is stated that the committee of this hospital are in treaty for the purchase of two houses in Bell-street, Edgware-road, for a children's hospital. I beg to state that my committee have no intention of giving up the houses they now hold in the Kentish-town-road, where twenty-six beds are provided. On the contrary, they are about to build a large waiting-room and additional consulting-rooms, &c., on these premises. Will you kindly give this correction in your next number?

I remain, Sir, your obedient servant,

ALFRED CRASKE, Sec.

North-West London Hospital, Kentish-town-road, N.W.,  
Sept. 5th, 1882.

**Mr. H. C. Moore (Hereford).**—In THE LANCET of the 26th ult., at page 337, will be found a letter on the subject containing the address, and offering assistance to any medical man desirous of experimenting.

**Mr. R. W. Western.**—Certainly not.

### "BICYCLE AND TRICYCLE RIDING."

To the Editor of THE LANCET.

SIR,—I have watched with considerable interest the letters which have appeared from time to time on the above subject, and as I differ in opinion partly from those gentlemen, I should feel obliged if you will insert the following. I have had considerable experience both as a rider and also of observing others who make use of the bicycle, both as means of exercise and in the capacity of racing. I also hold the post of honorary surgeon to one of the largest clubs out of London. Numbers of bicyclists in my own club and also in neighbouring clubs have consulted me as to their chance of becoming affected either with hernia or varicose veins. I have always been very careful in giving my opinion.

1st. Those who already have a hernia should be extremely careful in not fatiguing themselves, as I find that during the taking of undue exercise—as, for instance, racing or hill-climbing—on the machine, the tendency is to the coming down of the rupture. I have seen a case of this where a competitor had to be lifted off his machine. I returned the hernia without any difficulty, but he was violently sick. Also a truss should constantly be worn, as a well-fitting truss can be kept in position without any difficulty.

2nd. Those who are likely to be affected with hernia should observe the above precautions (with the exception of the wearing of a truss, which is unnecessary), as there is a distinct predisposition in some persons.

3rd. As to bicyclists and tricyclists suffering from varicose veins, they are few and far between, and the malady is seldom caused by the use of either the bi or tri order. It is most noticeable in those who do any large amount of running or walking, and in this fact there are numerous instances, more or less severe.

There is also another disease which is not mentioned by any of your correspondents—e.g., varicocoele. I have known this brought on or aggravated in a few instances by long distances, constantly repeated, on either machines or in walking. This disease is far more common than is at present anticipated; still, I do not mean to say that it is caused by the use of the bicycle only where undue exercise is taken for great distances; but when present it is certainly made much worse if the person so affected takes an undue amount of exercise, but not so under any moderate amount.

As to whether the bicycle or tricycle is most likely to cause rupture, or, if present, aggravate it, I should think that the tricycle is the most likely, owing to its more open structure as compared with the bicycle, and also to the different action required by the muscles. But, taking the exercise as a whole, in moderation it is perfectly safe, and the good derived from it speaks for itself when we look at a collection of bicyclists making their way along the country roads, looking, without exception, as jolly and in as perfect health as anyone could wish to be; and in truth they are, on the average, the healthiest set of athletes in existence.

I am, Sir, yours very truly,

CHARLES WM. ROBINSON, M.R.C.S. Eng., &c.

North Shields, Sept. 6th, 1882.

To the Editor of THE LANCET.

SIR,—Mr. Westropp is quite right in supposing that his racing friends are suffering from varicose veins through bicycle-riding. In fast riding it necessarily follows that the veins of the lower extremity are filled faster than the saphena can empty them, and as racing men are of necessity much on the track even when not actually competing, it follows that a permanent over-distension of the veins ensues, which will often in these cases be found well marked as far up as the saphenous opening itself. Such a condition may of course happen to men of weak fibre who only ride moderately, and is naturally incidental to tricycle riders as well as bicyclists.

With reference to the statement that Mr. Westropp knows some persons suffering from hernia who dispense with their trusses when riding tricycles, it is only necessary to suggest that if he is their surgical adviser, he should inform them of the urgent need of their trusses being worn at all times except when lying down, since even tricycle-riding can hardly be a good alternative for truss wearing.

I am, Sir, your obedient servant,

W. G. CRESWELL, L.R.C.P. Edin.

Birmingham, Sept. 3rd, 1882.

To the Editor of THE LANCET.

SIR,—Whilst on the subject of bicycle riding, it may be interesting to some of your readers to be informed of a peculiarity which occurred to me some years ago, when practising on the then newly invented machine. It was this. When I became tolerably expert at the exercise, I invariably noticed, after being at it for about twenty minutes, that my left thigh swelled enormously—so much so that my trousers were distended to the utmost, without my feeling any pain whatever. I thought it prudent, however, to discontinue the recreation, which I was very fond of, and so cannot say whether a similar result would happen with the improved bicycle now in use. I may add that I am a fair athlete, a good pedestrian, and I ride a great deal; but in none of these pursuits have I experienced even a tendency to the discomfort above mentioned.

I am, Sir, yours truly,

M.R.C.S.

Southsea, Sept. 13th, 1882.

### EXTRAORDINARY SURGICAL OPERATION AT ENNISKILLEN.

NEWSPAPER accounts of surgical operations, especially when full of details, imply a very great responsibility of the operator. Either he or some injudicious friend, whom he should disclaim with decision, must supply particulars. The professional feeling against such reports in lay papers is very strong.

**Bibliophile.**—The Library of the Royal College of Surgeons contains about 40,000 volumes, as also the Young collection of medical portraits, and some of those collected by Mr. William Wadd, a former member of the Council of the College; the remainder were obtained by the Royal Medical and Chirurgical Society, and Mr. T. M. Stone, of the College of Surgeons.

**H. F. P.**—We cannot discuss such absurdities.

### "SUCCESSFUL PRECAUTIONARY MEASURES AGAINST PUERPERAL FEVER."

To the Editor of THE LANCET.

SIR,—In your issue of August 19th, a letter appeared under the above heading in which the writer describes having used various antiseptic measures with a view of preventing the occurrence of puerperal fever in a woman who was delivered in the same room where there was a child suffering from scarlet fever; and apparently he is in doubt as to whether the non-occurrence of the disease was due to the measures adopted or not.

In order to show him that as favourable a result may follow without using any precautions whatever, I may mention that in December last year I attended a Mrs. N—, who was delivered of her eighth child; on coming downstairs from the bedroom I was asked to see Mrs. N—'s seventh child, who was suffering from a severe attack of scarlet fever, the rash being fully developed, with sore-throat, and a temperature in the axilla of 104°. Before leaving the house I gave special directions that on no account should the child be taken upstairs, that she should be kept in a separate room downstairs, and that the monthly nurse in attendance on Mrs. N— should not be permitted to enter the room in which the child was to have been placed. I say was to have been placed because my directions were entirely ignored, so much so that on my visit to my patient on the following day, not only was my scarlet fever patient in the same room, but to my great surprise was in the same bed with her mother, and continued so until the latter came downstairs five days after delivery; the excuse for her being with her mother was that they were unable to get her to rest elsewhere. The little girl skinned freely and made a good recovery; the mother and infant did well; not a single occurrence took place to mar their convalescence. Subsequent to the mother coming downstairs, a second child took the disease and recovered. At no time were antiseptic or precautionary measures of any kind used.

I am, Sir, yours faithfully,

JOSEPH W. HILLES, L.R.C.P. & S.E.D.

Gargrave, Yorks, Sept. 4th, 1882.

**St. George's.**—Mr. Timothy Holmes, F.R.C.S., is surgeon-in-chief to the Metropolitan Police. Application should be made to him for the local appointment.

**W. E. B.**—Weiss and Co., 62, Strand.

**F.R.S.**—Fraser Brothers, Commercial-road East, London.

### "VENESECTION: WHY IS IT SO RARELY PRACTISED?"

To the Editor of THE LANCET.

SIR,—In your issue of the 26th ult. Mr. Reynolds scarcely answers the question, but I will presume to try. Because the actual operation of opening a vein is never witnessed by the student. Few men now probably doubt its value any more than I who graduated eight years ago, and merely saw it described minutely by the class tutor. One does not like to bungle in so simple a matter, and as the friends of the patient might not like the novelty of the proposition, a man would naturally wish to feel that he could do it nicely. I never, knowingly, met anyone who cared to attempt it, and am constrained to admit my own stupid feeling about it, though I never let minor operations pass me.

I am, Sir, yours faithfully,

BOTHERED

Sept. 11th, 1882.

**Perplexed.**—The course of gestation, and eventually of parturition, will not necessarily be influenced by the injury to the head. The safest attitude is one of cautious expectancy.

**Prof. Maclean** is thanked.

**Enquirer.**—The report appeared in the *Surrey Advertiser*.

### "THE POSITIVE TREATMENT OF GONORRHOEA."

To the Editor of THE LANCET.

SIR,—In an article on the above subject in THE LANCET, Sept. 2nd, your correspondent, "M.R.C.S. Eng." omits to state the method of exhibiting the infusion of cubeb and iodide of potassium, &c., as to the quantity and time of administering each dose. In publishing so obviously valuable a prescription, I venture to state that "M.R.C.S. Eng." would benefit many of his brother practitioners by rectifying this omission.

I am, Sir, yours, &c.,

H. B.

Sept. 4th, 1882.

## "MORBUS CORDIS."

To the Editor of THE LANCET.

SIR,—Mr. H. M. Tuckwell will find the lines published at 377 in THE LANCET of August 26th in *Punch* (last volume of 1880), in one of the last numbers for November or first number of December for that year. I remember reading them in a *Punch* that arrived about Christmas of that year at a station in India I was then living at. The "lines" were accompanied with an illustration in which a gentleman patient was sitting in an arm-chair in a dressing-gown spouting the verses, with his hand tightly grasping the region of the heart when his lady doctor came to see him with her phials of drugs. On his countenance was also depicted a very earnest, supplicating expression. I am afraid his patient, the ship's engineer, if he means to appropriate them to his own genius, is guilty of plagiarism (unless he contributed them to *Punch*). I have no volumes of *Punch* by me, but the verses, if not word for word, must be very nearly what appeared in that journal about the time I have specified.

I am, Sir, yours, &c.,  
Leeds, Sept. 4th, 1882.

E. HOPKINS, Surg.-Major.

To the Editor of THE LANCET.

SIR,—A friend, who has read the lines on the "lady doctor," in last week's number of your journal, calls my attention to the fact that they have already appeared in *Punch*. It seems, therefore, that they must be taken rather as an instance of good memory than of original power of composition in right-sided hemiplegia.

I am, Sir, your obedient servant,  
Oxford, Sept. 5th, 1882. H. M. TUCKWELL.

Australian (Liverpool).—E. L. Crowther, M.D. Aberd., L.R.C.P. Ed., referred to in THE LANCET of the 2nd inst. as having been re-elected Member of Parliament at Hobart, Tasmania, is also a M.R.C.S. Eng., and is a son of another member of the Legislature—viz., Mr. Wm. Lodwyk Crowther, F.R.C.S. Eng., to whom the Council of the Royal College of Surgeons presented the Honorary Gold Medal in 1869 for his many and valuable contributions to the Museum of the College. Of the six recipients of this medal since 1800, only two remain—viz., the octogenarian, George Bennett, M.D., F.R.C.S., and Dr. Crowther.

N. A. P.—The fee should be equally divided.

Mr. Kenneth W. Millican (Kineton).—The manuscript has been received.

## "DISINFECTING DUSTBINS."

To the Editor of THE LANCET.

SIR,—I have read the article in your journal published on Sept. 2nd, page 363, on the above subject. I would most respectfully call your notice to the enclosed circular. It was from the constant complaints of nuisances arising from the non-emptying of dustbins that led to the manufacture of the "Combination Dustbin and Sifter." By its use all the troubles mentioned in your article are done away with. It is made entirely of galvanised iron, so that fires caused by hot cinders (a frequent occurrence) is impossible. It is intended to be wheeled off the premises every day to the dustman's cart and there emptied of its contents, which is a great saving of labour to the dustman and of litter caused by his repeated journeys with his basket. I may mention that eight of these machines are now in use in Greenwich Workhouse, and, with two on order, there will shortly be ten; and I am quite sure that Mr. Kelly, the master, will be pleased to show them to anyone in operation. The stationary dustbins on this establishment have been entirely dispensed with.

I am, Sir, your obedient servant,  
London, Sept. 6th, 1882. THOS. P. COOK.

\*. From the diagrams in the circular, the "Combination" Cinder-bin and Sifter appear to answer the purpose intended.—ED. L.

Mr. C. A. Jones, L.R.C.P.—Our correspondent will get all information he desires on application to Mr. H. S. Carpenter, 130, Stockwell-road, S.W.

E. Tery (Liverpool).—The London University.

## DRINKING WATER—PURE OR IMPURE?

To the Editor of THE LANCET.

SIR,—In the *Daily Telegraph* of Friday last I read the following under the head of "Bangor":—

"With respect to the water, which has been so strongly condemned by the district officer of health as being impregnated with fever germs, a report was read from Dr. Muter, South London Laboratory, who at the request of the board had analysed six samples of the water taken at points where the fever was most virulent. All these, with one exception, were of good quality and drinkable."

In a large establishment I know well, typhoid has been prevalent for a long time, and the water has been analysed by two eminent men, one of whom said the water was pure, the other condemning it in toto. Now, I would ask, if these things be so, how are we to determine accurately whether or no our water is pure? Are we not drifting into greater difficulties and troubles on these matters when we find eminent analysts totally differ than when we knew less, and probably took as much or more care, but in a less scientific manner.

I am, Sir, your obedient servant,  
Sept. 11th, 1882. AQUA.

## MILK ANALYSIS.

THE magistrates of Great Yarmouth had recently before them a milkman who had refused to sell milk to an officer of the local sanitary authority for the purpose of analysis. The case having been proved, and the defendant having been convicted for selling adulterated milk last year, he was fined 40s. and costs.

O. (St. Bartholomew's).—No introductory has been delivered at this hospital for some years past, instead of which the "old students" annual dinner" will take place, by permission of the governors, in the Great Hall of the hospital, on the evening of Monday, Oct. 2nd, when Dr. R. Martin will occupy the chair, to which several visitors have been invited.

Mr. Chalmers (Liverpool).—The chief medical officer to the General Post Office is Dr. Waller Lewis; Mr. G. Carrick Steet, F.R.C.S., is the second.

L.R.C.P. (Edinburgh).—The late Mr. Liston died before his turn came to be elected President of the College.

THE letters of Dr. Henry Walker and Mr. E. D. Tomlinson arrived too late for insertion.

L. S. D.—Yes. Our correspondent has the right to give a certificate.

Mr. Edward Ward.—The blocks should be sent with the reports.

Dr. Haughton's letter shall receive attention.

## "AN EXTRAORDINARY CASE OF EARLY PUBERTY IN A BOY."

To the Editor of THE LANCET.

SIR,—It has occurred to me that the extraordinary child, described by Mr. T. Woods in THE LANCET of Sept. 2nd, might have expressed himself at birth somewhat in the following style.—I am, Sir, yours, &c.,  
Sept. 6th, 1882. TOPSY-TURVY.

Doctor, I this world have entered  
At the wrong end of my life;  
All my thoughts on crime are centred,  
And my tongue's with curses rife.

Doctor, can your deed be pardoned?  
Could you ever have done worse?  
Here you've brought me—old and hardened,—  
I've assassinated nurse!

Doctor, as the years roll over,  
I can only younger get;  
Dotard, warrior, and lover,  
Each in turn I must be yet.

Crutch and toothpick left, the dandy  
Unto marbles must descend;  
And at sixty, sugar-candy,  
Measles, pap, and milk will blend.

Till a bearded baby ending  
After threescore years and ten,  
Folks will bless me, o'er me bending,  
For I shall be guileless then!

John Jackson.—The prizes are confined to members of the College, who alone can compete for them. Write to the secretary.

Oculus should consult the article in the new number of the Royal London Ophthalmic Hospital Reports, just published.

Inquirer.—Next week.

Query.—Yes; legally bound to give a certificate without charge.

OUR correspondent from Stockport has omitted to enclose his address.

## "OUGHT DISEASED MEAT TO BE USED AS HUMAN FOOD?"

To the Editor of THE LANCET.

SIR,—In reply to your correspondent on the above subject, I venture to say there can hardly be two opinions as to whether he was justified in condemning the meat under the circumstances described. A strong point in favour of the cow being diseased was the fact of slaughtering so soon after parturition. The prosecution, in cross-examination, might have elicited a reason for this, and should also have objected to the admission of the medical evidence for the defence, the witness never having seen it, and therefore unable to judge. It would have been interesting to know the condition of the calf—whether still-born, ill-nourished, or the like. It is always advisable to examine as much as possible both the flesh, including fat, and the offal, since, as in the last case occurring in my district, the "most marketable" pieces are retained for sale, while the rest are thrown along with the offal or buried in the manure heap, the offal most frequently affording the best evidence of disease. It has been my practice to advise the local authority to procure the additional opinion and evidence of some duly qualified veterinary surgeon, which materially aids the "case for the prosecution." Wilson's Handbook of Hygiene (sixth edition) contains some useful information on this subject. May not the result in this instance be looked upon as a "miscarriage of justice?"

I am, Sir, yours respectfully,  
Sept. 6th, 1882. NATHAN HANNAH.





## Lectures ON THE

# MECHANISM OF RESPIRATION IN PHYSIOLOGICAL & PATHOLOGICAL CONDITIONS.

*Delivered before the Faculty of Physicians and Surgeons of Glasgow.*

By D. O. McVAIL, M.B.,

FELLOW OF THE FACULTY, AND LECTURER ON MEDICINE IN THE GLASGOW WESTERN MEDICAL SCHOOL.

## LECTURE I.—PART I.

MR. PRESIDENT AND GENTLEMEN,—In the year 1816—the year after Waterloo—a circumstance occurred in Paris that in its results has been of greater and more enduring importance to mankind than any or all of the turbulent events which that city had witnessed in the preceding forty years. That circumstance was the appointment of Laennec to be physician to the Necker Hospital. He was then in his thirty-seventh year. He had undergone a training in professional subjects, and in the physical sciences collateral thereto, of a kind that in his new position enabled him to observe and to reason on the phenomena of disease which then came under his notice with a comprehensiveness and exactitude that have never been surpassed in the long history of medicine. In the first two years of his hospital work he made that marvellous application of mediate auscultation as interpretive of pulmonary conditions that still fills the mind of every reader with amazement. The breath-sounds of health and disease revealed to him by his newly-invented cylinder or stethoscope he explained and classified so truthfully, and in language so simple and accurate laid his work before the profession, that it at once almost became common property, and physicians everywhere have listened and spoken of pulmonary sounds just as Laennec did, hearing what he taught them to hear, and talking and writing of their cases in the terms that he first employed. So completely have his views been established, and so universally in the profession have they been received, that at the present day the hospital physician and general practitioner with almost equal facility and exactitude ascertain whatever of functional or structural change can be deduced from the respiratory sounds. But during all those years, while the *acoustics of respiration* have led the physician, by formerly untrodden ways, to new regions of knowledge, even more and more sharpening the accuracy with which he can observe and practically deal with many of the pathological changes that occur in the minute recesses of the pulmonary structure—in all those eventful sixty years how small has been the aid afforded to clinical work by the mechanics of respiration. And this extraordinary discrepancy is all the more wonderful that for years past so many of the physiological mechanisms have been subjected to most searching investigation by methods and appliances as rigorously exact as have been used in any department of scientific inquiry. The rate at which the blood travels in the arteries, the speed of the pulse-wave, the rapidity with which a stimulus is carried along a nerve-fibre, have all been determined with very great accuracy. The weights respectively that press on the aortic and pulmonary valves, the number of impulses that in a second flow from the nerve-centres to a muscle that is in action, the minute fraction of time that is required for the molecular changes in the cells of nerve-centres concerned in reflex acts,—all these we can express in exact arithmetical terms. But I need not in this hall adduce instances of physiological triumphs in the investigation of the living mechanical processes, as we have a most perfect recollection of the brilliant description and demonstration of these given us by Dr. McKendrick in the first course of Faculty lectures. And many of these discoveries are now of more than mere speculative scientific interest, having already been waited for by the physiologist's laboratory to the wards of the physician, and taken permanently on the yoke of practical service in the healing art.

Very wonderful, then, it must appear that in the clinical  
No. 3082.

work of the most highly cultured and most advanced physicians in this country at the present day scarce more aid is received from respiratory mechanics than was the case thirty or even forty years ago. But this department of inquiry has by no means been entirely overlooked. At various times, by different forms of stethometers, the breath movements have been measured, and lengthy tables of such measurements in health and disease have been with great patience and care constructed. And of late years instruments for recording by the graphic method in various ways these movements have been called in aid, and many interesting observations have been made. One of the very earliest of these I had the pleasure of exhibiting, at a conversazione of the Faculty in 1868, and I then did not doubt that from its use important practical results would speedily come. But ere long I saw that before the graphic method could become of any great practical value to the physician, in so far as respiration is concerned, a prolonged and patient inquiry must first be made into many of the fundamental phenomena of the mechanism of breathing. In this field I have worked, as opportunity has offered and the exigencies of other duties have permitted, and in these lectures I shall have the privilege of bringing under your notice whatever of serviceable result I have obtained, or suppose I have obtained.

The Calendar of the University of Glasgow informs us that the present professor of chemistry is the ninth teacher who has there lectured on that branch of the medical curriculum. His seventh predecessor was Dr. Joseph Black, the discoverer of latent heat, whose portrait adorns the hall in which we are now assembled. But although Dr. Black owes his popular fame to that celebrated discovery, he made another contribution to science that concerns us much more nearly. He, in the year 1755, isolated and experimented on carbonic acid. He did not call it by that name, but spoke of it as "fixed air," from the circumstance that it could be absorbed and retained or "fixed" by quick lime and other bodies. Necessarily he was altogether ignorant of its chemical constitution, for the discovery of oxygen by Priestley was then nineteen years away in the future. Yet does his work form an epoch in the history of science, for he showed this gas to be different entirely from common air, that it might be united with certain bodies greatly altering their qualities, and set free from them again by appropriate means; and among other facts regarding this gas first disclosed by him were these, that it is expired from the lungs of animals, and that in the lungs common air is partly converted into fixed air. He thus prepared the way for the final exposition of the chemical composition of this gas by Lavoisier, and the further brilliant demonstration by that great philosopher of the essential chemical change that occurs in respiration.

Prior, then, to the time when, by the genius of Black, a glimmer of true light was thrown on the chemistry of respiration, what could have been the views entertained with regard to the mechanism of breathing? At that time, the middle of last century, although microscopic anatomy could scarcely be said to have any existence, macroscopic anatomy was not so very much in arrear of what it is at the present day. That generation, and their predecessors, for nearly four hundred years had been enthusiastic dissectors of the human body, and in 1727 there was sufficient anatomical and physiological material to enable Hamberger to lay a sure foundation of respiratory mechanics in the celebrated essay which in that year he published. But to understand clearly the work done by him and since his time, it is necessary to glance briefly at the labours of the greater of his predecessors, and the investigations that up to his day had been made.

In those first writings in medicine—the works of Hippocrates—we find but a passing allusion to the respiratory mechanism, where he speaks in his book on the "Articulations" of the "cavities which inspire and expire the breath." A century later an attempt at a scientific theory of respiration was made by Aristotle, who taught that in the heart heat was constantly being produced, and as heat causes whatever it acts on to expand, the heat of the heart made the lungs that surround so much of its surface to expand to a very notable degree, so much so as to push outwards the thoracic walls, and so he said inspiration was effected; but the lungs being expanded cold air from without entered them, reducing the temperature, and so causing the lungs again to contract, and thus the return movement of expiration came about.

The views that Aristotle expressed on this and other biological subjects led, in that brilliant period of intellectual

activity, to considerable attention being devoted to human and comparative anatomy; and soon after his time Erasistratus discovered the connexion of the trachea with the lungs, and its use in the conveyance of air into them; and Herophilus discovered the pulmonary artery and the pulmonary vein, and their connexions with the heart and lungs, calling the pulmonary artery of modern anatomy the "arterial vein," and the pulmonary vein the "venous artery." Pondering over these new anatomical revelations, Erasistratus propounded a most ingenious theory of breathing. Still assuming, with Aristotle, that the lungs were caused to expand by heat generated in the heart, he said the air entered by the trachea into the lungs, and then found its way along the ramification of the air-passages to their ultimate terminal twigs, from which it passed into the minute terminal branches of the pulmonary vein—"venous artery," as he termed it—and thus was conveyed to the left side of the heart, to be by it sent into its own system of vessels, the arteries or air-ducts, to feed the textures of the body with vital spirits, which vital spirits in the tissues, meeting with the blood brought by the veins concocted with the blood, and by due concoction gave rise to bile, black bile, phlegm, and all other necessary animal products.

This theory of respiration was universally received for five hundred years, until exploded by Galen, for the anatomists during that long period made no special investigation of this department of the science. Marinus dissected in Rome in the century before Christ, Aretæus a hundred years after Marinus, and Rufus of Ephesus again after Aretæus; but there is no record of their having done anything to elucidate further the phenomena of respiration, although undoubtedly demonstrations made by Marinus regarding the structure and functions of certain of the glands throw very valuable side-light on the subject. But in the second Christian century was born Galen. He made himself master of all that had been done in science prior to his time, and by dissection, experiment, and observation he added so much thereto that his position in medicine was, in the estimation of men for hundreds of years, scarcely second even to that of Hippocrates himself. In his writings for the first time we are taught that the increase and diminution of the thoracic cavity in respiration, are owing to movements of the thoracic walls due to muscular action, and not to expansion of the lung by heat, as was fancied by Aristotle. This correction by Galen was an enormous step in advance, and thenceforward nothing more is heard of the older view of the Greek philosophers. By Galen also for the first time were described the intercostal muscles in their two layers. To the external set he attributed an expiratory function, and to the internal an inspiratory function—a view of the matter that remained undisputed for fourteen hundred years, until in the sixteenth century it was modified, as we shall presently see, by Vesalius.

In the theory of respiration given to us by Erasistratus the arteries are described as carrying air only. Galen now showed that the arteries contained blood, were filled with blood. He seems to have believed that the arterial and venous systems equally received vital aerial spirits at the lungs—the one by the venous artery, the other by the arterial vein; and he supposed further that the arteries contained a purer blood than the veins, this purer blood being for the supply of the more important parts, such as the brain; and he also taught that the arterial and venous bloods were confined for the most part to their respective systems of vessels, but that a communication or mingling of them to a limited extent took place through the muscular septum of the heart; and his imagination was strong enough to show him pores in the cardiac septum through which the blood passed from the one side to the other; and this power of imagination became hereditary, for all the anatomists who succeeded him saw these pores for fourteen hundred years, until Vesalius showed that such did not exist. In spite of errors that at the time in which he lived were inevitable, his labours form an epoch in the history of medicine; in anatomy and physiology, especially, the advances made by him were great, and doubtless he expected that those coming after him would rapidly improve on what he had done. But the spirit of scientific research became for the time extinct with Galen, and for nearly a thousand years no one made any additions to our knowledge of anatomy or physiology, whether human or comparative. During this dark period the Arabians alone retained some slight relish for scientific subjects. They preserved, and in their own way revered, the writings of Galen and Hippocrates; but their minds were chiefly given

to the study of astrology and alchemy, and endeavours to find the philosopher's stone and the elixir of life. These matters were what chiefly engrossed the attention of the scientists of Bagdad. But in the eleventh century there came to Bagdad a stranger from Carthage, in Africa, who, in the Arabic metropolis, for thirty years studied diligently all that was known of the sciences in general, and medicine in particular. This student, Constantine, subsequently found his way to Sicily; carrying back with him to the west the learning which the Arabians had originally obtained from it, and in the medical school of Salerno, that had been founded in the seventh century by Benedictine monks, he became a diligent teacher of medicine. He was the author of two medical works that were printed five hundred years afterwards, and of which the Faculty library possesses copies in excellent preservation. The seed of knowledge he sowed in Sicily did not immediately bear fruit, but it did not die, for after a germination period of fully three hundred years it resulted in the revival of anatomy in Europe by Mundinus, who was professor in Bologna in 1316, who made dissections of the human body, and who began those demonstrations to students in practical anatomy that have been continued down to the present day. He wrote a book on the subject that afterwards, in 1478, was printed in Pavia, and which, so far as I can make out, was the second medical work ever printed, and of which I am sorry to say our own library has not a copy. The University of Glasgow possesses a copy of the first and of several succeeding editions. This book, in transcriptions at first, and subsequently in print, became the general text-book of anatomy, and from his time onwards in most universities in every session dissections were made and the parts demonstrated according to Mundinus. This author did nothing for the anatomy or physiology of respiration, and seems to have attached but little importance to the investigations of Galen regarding the intercostal muscles. For about a hundred years anatomy remained as Mundinus left it, until towards the end of the fifteenth and the beginning of the sixteenth centuries important contributions were made to it by De Zerbi, De Carpi, Achillinus, and Montagnana. As directly bearing on respiration, the labours of these men amounted to little, except in the case of De Carpi, who in 1518 discovered the tricuspid valves and the semilunar valves at the origin of the pulmonary artery. In 1536 Charles Etienne discovered the valves of the veins.

In the year in which the work of Mundinus was first printed (1478) was born one of the most celebrated of the anatomists of the period of which I am now speaking—James Du Bois Sylvius, who became professor in the College of Tricquet, founded in Paris by Francis I., and in it taught anatomy with an enthusiasm and success far beyond that of any of his predecessors. He published two works that in their day attracted much attention, and he also took part in a disputation with his greatly celebrated pupil Vesalius. The Faculty possesses his publications in the form of a quarto volume, published at Geneva in 1630.

Contemporary in anatomical work with Sylvius, although in age twenty-six years his senior, was a man who in another walk of life attained to the foremost rank of fame—Leonardo da Vinci. He made many dissections, and of these he made drawings to illustrate demonstrations on anatomy by Marco Antonio della Torre, who was professor at Pavia. These drawings, which are in red chalk and touched up by a pen, were in the time of Pilkington in the possession of George the Third; and in 1790 some of them were engraved and published in London by Joseph Chamberlain. Our library has no copy of this.

In 1514, at Brussels, was born the greatest of all the anatomists of this period—Vesalius. He studied anatomy in Paris under James Sylvius. He possessed great mental originality and daring, and was the first who had the courage to differ in some important matters from the teaching of Galen, whose word on all points on which he had spoken until then was regarded as infallible. So able were the observations made by Vesalius, and so famous did he become, that he excited the jealousy and animosity of his master, Sylvius, who controverted the new views, arguing that all was true that Galen had taught. This celebrated discussion had reference chiefly to the structure of the sternum, the bones of the arm, the presence or absence of pores in the cardiac septum, and the action of the intercostal muscles. He was a most accurate dissector, and especially did he give great attention to the muscular system. In 1535, and again in

1543, he published a series of anatomical plates, that were drawn for him by no less a personage than Titian, who, like Da Vinci, was an accomplished anatomist. Our Faculty library has no copy of these early editions, but has one edited by Boerhaave and Albinus, and printed in 1725.

In these writings, after a lapse of fourteen centuries, the views of Galen regarding the actions of the intercostal muscles were called in question. Galen taught that the external layer was expiratory, and the internal layer inspiratory. Vesalius objects to this, and says both are inspiratory, and act simultaneously. But his idea of their action is certainly far from clear, for he says they act by drawing the contiguous ribs towards one another, the external layer drawing the lower of two ribs towards the one above it, and the internal layer drawing the upper towards the lower. Between the costal cartilages he also supposed there were two layers of muscular fibres decussating with one another, and of these he says the external layer draws the higher cartilage to the lower, and the internal the lower to the higher.

Following Vesalius came his pupil Fallopius, who in Pisa was professor of anatomy for many years. His observations were extremely accurate, and he corrected many of the errors of his predecessors. Among others, he first showed that between the costal cartilages there is but one layer of muscular fibres, and not two, as until then had been supposed. He published two important anatomical works in 1561 and 1571, and of these the Faculty has a reprint dated 1600.

In the time of Fallopius there lived a man who in an erratic way gave considerable attention both to theology and medicine—Michael Servetus, a native of Aragon, born in 1509. In a very extraordinary book, entitled "*Christianismi Restitutio*," that he published in 1553, he for the first time gave a true account of the circulation of the blood through the lungs, asserting that all the blood passed from the right to the left side of the heart by a long and marvellous course through the lungs. This great discovery, however, received then but little attention, and as he had given utterance to some religious opinions that Protestants then deemed heterodox, Calvin burned both him and his book at Geneva, where he had incautiously come, although previously warned to keep as far from the clutches of that religious reformer as he possibly could.

Contemporaneous also with Fallopius, who taught at Pisa, was the great Eustachius, who was professor at Rome. Most comprehensive and precise were his dissections, and his descriptions of them. In 1563 he published his "*Opuscula Anatomica*." In this work, that was held in great esteem, he speaks of a large series of drawings he had made, and was engaged in engraving with his own hand on copper. At his death, to the great regret of all, these could not be found, and they remained lost for 150 years, when they were discovered, and under the editorship of Luncini, physician to Pope Clement XI., were for the first time published in 1714. Of this celebrated first edition the Faculty library has a copy in splendid preservation. An examination of these plates shows that, with the exception of the lymphatic system, Eustachius was, in the middle of the sixteenth century, almost as well acquainted with the leading points of the ordinary anatomy of the body as we are at the present day, and more especially was his knowledge of the muscles, and many of their actions, wonderfully accurate; the intercostal muscles he represents most truthfully. It was not, however, until 1597 that the muscles generally received from Gaspard Bauhin the names by which they are known to us. Until then they were chiefly spoken of as in layers and pairs, each of these layers and pairs having a special number.

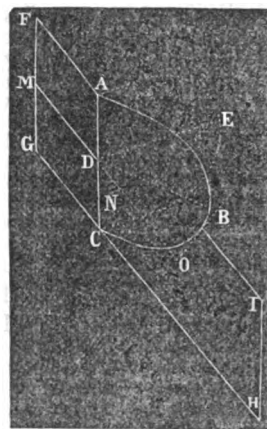
So thoroughly had Eustachius and his contemporaries of the sixteenth century and their predecessors investigated and described human microscopic structure, that in the following hundred years almost the only additions made to anatomy were the discovery in 1621 of the lacteal vessels by Asselli, and the thoracic duct and general lymphatic system by Picquet in 1654. So very complete, indeed, had this science become, that the "*Institutes of Anatomy*" by Caspar Bartholinus, published in 1611, continued to be the general text-book of the subject until 1693, when it was pushed out of the field by a new work by Philip Verheyen.

By the labours, then, of the distinguished men of whom I have spoken, continued during hundreds of years, the science of anatomy by the beginning of the seventeenth century was so advanced as to afford materials for the foundation of a

rational and exact system of physiology; and soon by a master hand was laid the cornerstone, for in 1619 Harvey announced his discovery of the circulation of the blood.

From this time the various physiological actions received very special consideration, and the mechanism of respiration soon engaged the attention of three of the most eminent members of the profession in the century of Harvey—namely, Thomas Willis, John Alphonso Borelli, and John Mayow. Thomas Willis was a native of Great Bedwin in Wiltshire. He studied medicine in Oxford and practised his profession in that city, and subsequently was appointed Sedleian professor of natural philosophy in the university. His medical writings are numerous and important; more especially is he

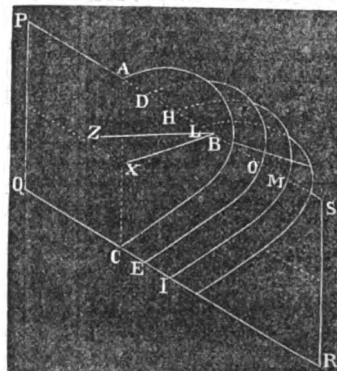
FIG. 1.



remembered for his great work on the nervous system. But he also made a most important contribution to respiratory mechanics, for in his *Pharmaceutice Rationalis*, printed in 1673, he, for the first time, advocated the view that the external intercostal muscles are inspiratory, and the internal expiratory, which led in the following century to the famous discussion between Hamberger and Haller.

At Castlenuovo, in Naples, was born, in 1608, Borelli, who became an accomplished mathematician and physiologist, and employed mathematical principles and reasoning in explaining the functions of the animal body. In 1656 he became professor at Pisa. He published many works, the most celebrated, "*De Motu Animalium*,"

FIG. 2.



being printed in 1680, the year after his death, at the expense of Queen Christina. In this treatise for the first time is explained, with anything of scientific exactitude, the manner in which by elevation of the thoracic walls the internal capacity is increased. Here I reproduce a drawing that he gives in explanation of this. (Fig. 1). He represents the costal arch as articulating with the spine, the upper angle of articulation, A, being more, and the inferior angle, B, less than a right angle; and he argues that necessarily on the arch, A, B, C, being elevated towards a right angle, the antero-posterior diameter is increased. He enunciated this pretty much in the following manner:—1st. If in two extremities, A and C, the

semi-elliptical arc, A, B, C were fixed to the wall F H; if the arc were drawn upwards to the perpendicular, from B to E, then E has more receded from the wall than B. 2nd. If (Fig. 2) of several semi-elliptical arcs the extremities A, D, H are fixed to the firm column P S, and the extremities C, E, I to the immovable wood, Q R, and the planes of the equidistant arches form acute angles with the plane P R; if the apices of the arches, B O M, are drawn in the direction M B, so that the acute angles become more obtuse, the semi-cylindrical cavity, A, B, C, I, M, H, is made greater. That anatomists until his time had most obscure views of this matter is beyond doubt, for in the general textbook of anatomy then in use, that by Caspar Bartholinus, published in 1611, and in which the author evidently supposes (although erroneously) that he gives the views of Vesalius, he says of the external intercostals that by elevating the thoracic walls they constrict the chest, producing expiration, and the internal intercostals widen the intercostal spaces, and produce inspiration. Borelli certainly, for the first time, gives a rational explanation of the effects of elevating and depressing the chest walls. As regards the intercostal muscles themselves, he supposed both layers to be inspiratory, and never expiratory.

### ON THE INVISIBLE CORPUSCLES OF MAMMALIAN AND OVIPAROUS BLOOD, AND THEIR RELATION TO FIBRIN FORMATION AND COAGULATION.

BY RICHARD NORRIS, M.D., F.R.S.E.,  
PROFESSOR OF PHYSIOLOGY, QUEEN'S COLLEGE, BIRMINGHAM.

(Concluded from page 431.)

THE question as to whether the blood of the ovipara possesses a corpuscle which is the analogue and equivalent of the invisible disc of the mammal blood has received at my hands a great amount of attention. I have examined the point not only in the blood of batrachians, but in that of fishes and birds, and I have arrived at the conclusion that in all ovipara a corpuscle exists which corresponds precisely, in its anatomical characteristics, in its developmental position, and in its disintegrative modifications, with the invisible disc of the mammal blood. Such bodies will be found to be treated of in my work on the "Physiology and Pathology of the Blood," sections xi. and xii., p. 184, under the head of Colourless Nucleated Ellipsoids, and it is there explained that these are the analogue of the advanced lymph, splenic, and bone-marrow corpuscles, and therefore of the invisible colourless discs, of the mammal. I have also pointed out that these bodies may be seen developing in the spleen and bone-marrow of the ovipara as their obvious products.

At the time Professor Legge wrote his memoir I do not think he could have read my second letter in THE LANCET in reply to Professor Bizzozero, and certainly he could not have seen my book, in which I have shown that all the conditions of error to which he refers have been avoided. It is unnecessary to follow this author into the question of the effects of water or water-vapour upon the blood-corpuscles; they are well known, and have been fully treated of in my work, and their influence has been absolutely excluded from all my experiments. I should never have dreamed of using to dilute blood in which I desired to make a demonstration any artificial solution whatever, not even the so-called physiological solution used by Professor Legge, which I presume to be a three-quarter per cent. solution of sodium chloride, a solution which I have found to be very active in decolourising mammal discs. Every physiologist knows that the serum of one blood will dissolve the corpuscles of another, and surely with such a fact before us we should refrain from adding any foreign solutions to the blood. The bodies which Professor Legge has seen in the oviparous blood, which he has taken from the moist skin of the animal, or after the addition of water or of his physiological solution, are, as he truly states, nothing more than decolourised red corpuscles; but they have nothing in common nor anything to do with the invisible oviparous corpuscles (the existence of which in

oviparous as in mammal blood I am the first to make known).<sup>1</sup> In order to demonstrate the existence of the invisible corpuscle of the mammal or of the ovipara, the blood should be examined immediately after it is shed, and without the addition of any foreign liquid whatever to it, and as an additional security it should be taken, not from the moist skin, but from the left ventricle of the heart. If under these conditions persons fail to find these bodies, it will be because they have not acquired the necessary technical skill which springs from prolonged study of a subject, and which experiment and trial can alone furnish them with.

The elements which Professor Legge has seen in oviparous blood, and which he believes to be analogous to my invisible discs in mammal blood, are, as I have before stated, corpuscles which he has decolourised by his inadmissible methods of investigation. The real invisible corpuscle is, of course, neither to be seen either in the circulating blood or when that blood is shed, but is capable of being rendered obvious by various indirect methods, which do not and cannot involve decolourisation of red corpuscles; and, further, red discs or oviparous corpuscles, which have been purposely deprived of their hæmoglobin, can readily be distinguished by certain definite characteristics which they possess from the true invisible disc or corpuscle. To the statement of Professor Legge, that the invisible corpuscle cannot escape observation in the circulating blood on account of its excessive delicacy, "because when we are forewarned it is possible to observe a detail, however delicate," I entirely demur. This might be true of a body or of details which could barely be seen, or be seen only with great difficulty, but it is absolutely inaccurate in the case of elements or substances, which have precisely the same colour and refractive index as each other. The material which forms the invisible mammal disc and the invisible cell body of the oviparian corpuscles cannot be seen by the most careful management of lenses and illumination, neither can it be photographed<sup>2</sup> either in the circulating blood or when this has been shed, and yet, being substantive, can be rendered obvious by packing other highly plastic bodies, such as their fellow red corpuscles, around them; but, as I have elsewhere pointed out, this can only be done when they have effected adhesion to the slide, for under other circumstances their limpid, liquid, flowing character is so marked, and the shapes they take on so protean and multiform, that they cannot be detected from pure liquid matter. Under these circumstances other and unobjectionable methods are open to us, of which I will shortly speak. Because, therefore, we cannot see these corpuscles in the circulating blood of the mammal or ovipara, we are not justified in assuming their absence, for if they could be seen our position respecting their nature would be vitiated. We shall, in fact, never see them in the circulation, unless some staining agent can be found which, when introduced, affects them preferentially and leaves the red discs uninfluenced, or unless certain pathological changes of the blood reveal them by rendering them granular or altering the relative refractive indices of the corpuscles and liquor sanguinis, or unless some exceedingly fine deposit can be introduced into the blood which will adhere to them; or it may be that they may ultimately be observed inside the vessels, by bringing about packing in small capillaries, but this is scarcely likely, for unless, as I have previously pointed out, they adhered to the walls of the vessels, their circular shape would not be retained. What can, however, be observed in the circulating blood, both of the mammal and of the ovipara, is that the red discs are not all of one standard degree of colour, and that some are so pale as scarcely to be visible. Such pale corpuscles of course cannot be said under these conditions to have lost their hæmoglobin by manipulation or moisture, and the inference is warranted that such corpuscles are either gradually losing or attaining colour in the circulation, and, in either case, such a state of things would lead to the assumption that there were corpuscles in the blood too pale to be seen. Of course, it may be argued that the corpuscles do not necessarily attain to a given standard of colour; but it must be admitted that this is most likely to be the case, and if the corpuscles do acquire colour gradually in the blood, the whole case is made out; for as some are scarcely visible, there must then be also a colourless and invisible stage. We see therefore how illogical is the assumption that because these bodies cannot be seen in the circulation they are therefore absent. If

<sup>1</sup> Physiology and Pathology of the Blood, p. 184. (Smith, Elder, & Co.)

<sup>2</sup> Bodies which cannot be seen may, notwithstanding, frequently be revealed by photography.



conditions could be obtained in the circulation similar to those which can be obtained externally, they would be equally obvious.

It is, of course, most desirable to possess absolute proof of the existence of these bodies in the circulating blood, because the question of the normal existence of the invisible corpuscle would then be completely set at rest, and the various theories as to loss of hæmoglobin by visible corpuscles for ever disposed of. Fortunately, although this cannot be had at present with the invisible disc of the mammal, it can be obtained in the case of its analogue and equivalent, the invisible corpuscle of the ovipara; for while the cell-body of this corpuscle is absolutely invisible both in the circulation and outside the vessels, its nucleus can be far more easily seen than that of its fellow, the red corpuscle, under either of these circumstances; and therefore all we have to do is to identify this nucleus in the circulation, which here appears to be altogether free, and having ascertained that by no means at our command can we detect the slightest indication of a cell-body in connexion with it, we can again examine the same blood when shed, re-identify the nucleus, and again assure ourselves that we are unable to see the cell-body, although around some nuclei of a precisely similar appearance we can recognise a barely visible cell-body, and around similar nuclei other more strongly-tinted cell-bodies, which form the link between these and the ordinary full red corpuscles. Now, observe, we have here exactly the converse of a case of decolourisation. In the circulation and outside it we have certain oval or elliptical nuclei, which are granulated and highly refractive, and which we have not the least difficulty in identifying, either within the vessels or outside them, and the cell-body of which is absolutely invisible under both conditions, and so limpid and liquid-like that it offers no obstacle whatever to the pressure exerted by any other corpuscles allowing such to come into contact with its nucleus; in fact, behaves to all appearance like a free element, for which indeed it has always been taken. Now we will render this cell-body and the fibrin which it gives rise to (for it is the true fibrin factor of oviparous blood) obvious by a simple experiment, in which no pressure, no manipulation, no violence, no moisture, or solution of any kind is involved. Place upon a slide a drop of alcoholic solution of magenta, spread it with a glass rod, and allow it to dry thoroughly; you have now a delicate layer of magenta pigment. Place a drop of the blood intended for examination upon the cover-glass, and lower it very gently upon the slide; if this is not done gently, all your delicate cell-bodies will be converted by the motion into fibrin. In a little while the blood liquid will dissolve some of the magenta; the delicate cell bodies around the nuclei remain unstained, but the stained liquid around them and in contact with the slide differentiates them by contrast: the nuclei themselves become stained; the red corpuscles and their nuclei, even the palest visible kind, remain unaffected, or if affected at all the nuclei of the very palest become stained to a slight degree, thus affiliating themselves to those of the invisible ones. Nothing has been added to the blood calculated in any way to alter the red corpuscles; nor are they altered, not even stained by the magenta, for the amount of magenta dissolved by the blood liquid is either too inconsiderable to colour the red corpuscles, or is absorbed as rapidly as it is dissolved into the serum by the nuclei of the invisible corpuscles. In the ovipara, therefore, all the bodies which can be seen in the circulation can also be seen externally to it; but one of these can be shown to possess a cell-body, which is neither visible before or after the blood is shed, till brought into view by appropriate means. The blood of the triton and salamander, in fact of the ovipara generally, contains in the shape of morphological elements—1. Red nucleated corpuscles, which exist in various grades of colour, from very pale scarcely visible ones to full red. 2. Ordinary white corpuscles, which, being derived from the primary lymph, splenic, and bone-marrow corpuscles, contain one or several nuclei, and which correspond to the white corpuscles of the mammal. 3. Free shed nuclei of the above white corpuscles, which correspond to the shed nuclei of the white corpuscles of the mammal, which give rise to the invisible discs connected with its minor mode of development. These shed nuclei in the ovipara are nucleated, and develop into red corpuscles through the stage of Hayem's corpuscle (so-called oviparous hæmatoblasts). 4. Hayem's corpuscles (so-called oviparous hæmatoblasts), in their more developed state of visible oval nucleated corpuscles, free from

hæmoglobin. 5. Elliptical nuclei (apparently quite free), which belong to the invisible corpuscles of the ovipara, which correspond to the invisible corpuscles of the mammal, and, like them, are derived from the spleen, lymphatics, and bone-marrow. I have verified these results on the triton, fish, fowl, &c. The body which corresponds to the primary lymph disc of the mammal, and therefore to the blood-plates of Bizzozero, is a smaller nucleated body which comes over in small quantity into the blood from the lymphoid organs and develops in the blood, first into the uni-nuclear, and secondly into the multi-nuclear varieties of the white corpuscle. The greater number of these bodies yield by capsular disintegration free nucleated nuclei, which, growing in the lymphoid organs, pass into the blood as the fully-grown, colourless, nucleated ellipsoids.<sup>3</sup> This is what I have designated the major mode of development in oviparous blood, the minor mode being, in adult life, that described by Hayem and Pouchet. All this is made plain in Table I. and Plate 20 of my work.

There is a perfect analogy between the development of mammalian and oviparous blood—they both begin their career in a primary lymph corpuscle, the direct mode of development in which sets free a nucleus, which is simple in the mammal but nucleated in the ovipara. In the former, this nucleus passes into the blood, becomes its invisible disc, and ultimately gets colour, and shows itself as the pale red disc; in the latter case, the nucleated nucleus grows in the lymphoid organs, and having attained a certain size enters the blood, becomes invisible so far as its cell-body is concerned, while the nucleus remains visible; this body gradually attains colour, and presents itself as the palest order of oviparous corpuscles; this is the major mode of development. In addition to this, it happens that a few of the primary lymph corpuscles come over into the blood before they have undergone their usual development in the glands; these develop into white corpuscles, the nuclei of which are shed, and in their turn develop into red discs or oviparous red corpuscles, as the case may be. Hayem's hæmatoblast (so-called) is the intermediate stage of this process in the ovipara. The corpuscles of the ovipara, like those of the mammal, are divisible into a fugitive and permanent group, and the changes which occur in the fugitive group in this case also yield the fibrin and determine coagulation.

The identity of the corpuscles seen by Bizzozero and the invisible discs rests in the fact that they both represent stages in the development of one and the same body; they are identical in the same sense as the boy and the man, and in no other; that is to say, the primary lymph discs are developed into the invisible discs. Now that the existence of the invisible disc of the mammal has been verified by so many observers, its opponents are driven to take refuge in the facile hypothesis that it is a decolourised red disc, and they are content to make this assertion without noticing, much more disproving, the many facts which I have brought forward to show the contrary. At a very early period I proved that these corpuscles were the producers of fibrin, and a recent writer<sup>4</sup> has by the use of my methods verified this conclusion, at the same time adhering to the view that these corpuscles are decolourised discs. This paper has been reported upon and its conclusions endorsed by no less an authority than Professor Klein;<sup>5</sup> hence both writer and reporter are committed to the opinion that coagulation and fibrin formation are due to changes in decolourised red discs.

Few physiologists will be disposed to accept this view and its consequences. Again, on those who deny the existence of the invisible colourless discs of the mammal rests the responsibility of discovering the equivalent and analogue of the invisible corpuscle of the oviparous blood, the presence of which can be demonstrated in the circulation owing to the fact that it possesses a visible nucleus. The latter corpuscle is without doubt a true constituent of

<sup>3</sup> Although usage makes it convenient to speak of the oviparous corpuscle as a cell, and sanctions the phrases cell-body, nucleus, &c., it must never be forgotten that its mode of development shows it to be in reality a nucleated nucleus, which has been shed by a true cell. In both mammals and ovipara the hæmoglobin is associated with nuclear matter, and in both cases the same nuclear matter before it becomes converted into hæmoglobin is the source of true fibrin. All red blood corpuscles therefore are modified nuclei, which in the case of the mammal are simple, but in the ovipara nucleated; hence there is no break-down in the analogy as generally supposed.

<sup>4</sup> Note on the Formation of Fibrine, by Mrs. Ernest Hart. *Quarterly Journal of Microscopical Science*, July, 1882.

<sup>5</sup> *Medical Record*, July, 1882.

normal living blood, and its fibrin factor when shed; and the mammal blood ought to, and does, possess its counterpart, and if this is not the invisible mammal disc it still remains to be discovered. In his third special morphological element Professor Legge has confounded together several distinct bodies, and as a consequence he has noticed inexplicable variations; thus he can occasionally stain up a nucleus, but generally not. In the former case he is dealing with the so-called oviparous hæmatoblasts of Hayem, which may exist either in the circular or fusiform state, and in the other with the nucleus of the invisible corpuscle. There are, in fact, in oviparous blood, no less than four colourless elements instead of, as supposed by Professor Legge, two only: 1. The uni-nuclear and multi-nuclear white corpuscles. The former in its least developed state corresponds to the primary lymph disc of the mammal; the latter to its ordinary white corpuscle. 2. The liberated nucleolated nuclei of the white corpuscle. 3. The so-called oviparous hæmatoblasts of Hayem, which correspond to the invisible disc yielded by the white corpuscle of the mammal, which is body No. 2 in a more developed condition, often possessing considerable colour before it is much grown, or markedly ovoid in form. 4. The invisible nucleated ellipsoid furnished to the blood, in a perfect state as to size and form, by the lymphoid organs. This corresponds to the invisible disc yielded by the lymphoid organs of the mammal, and like it becomes gradually coloured in the blood. In addition to the elements above enumerated are the ordinary coloured elements of the blood, which present all gradations of tint. The morphological elements of oviparous blood may therefore be regarded as five in number. The special element of Professor Legge includes three bodies: 1. The earliest or uni-nuclear state of the white corpuscle. 2. The liberated nucleolated nuclei of the white corpuscle, and its more developed forms, the so-called hæmatoblasts of Hayem. 3. The nuclei of the invisible oviparous corpuscles. As Professor Legge does not mention the important researches of Hayem and Pouchet in connexion with these colourless elements, I presume he is unacquainted with them.

#### CONCLUSIONS.

I. The corpuscles recently observed in the circulating blood of the lower mammals by Professor Bizzozero, and called by him "blood-plates," are not newly discovered bodies, having been previously described by Professor Gulliver in 1846, and later in 1872 by Professor Hughes Bennett, and more fully by myself in 1878 under the designation of "lymph discs." I have also shown that this corpuscle possesses its fibrin-forming powers by virtue of being one of a series of corpuscles which I have distinguished under the title of the "fugitive group," some of which are visible and others invisible in the blood. Of this series of corpuscles it is the earliest, and the one which yields the smallest amount of true fibrin, contributing more to the substance of the clot by furnishing granules, which adhere to the true fibrin and assist mechanically in the production of fibres, than in any other way. The true fibrin is not deposited, as usually held, from the liquid of the blood, but is the viscous, slimy, glairy, transparent material furnished by the fusion and coalescence of the more developed corpuscles of the group—viz., by the invisible, colourless, and barely visible, slightly coloured discs, which after the blood is shed undergo conversion into the well-known fibrin forms.

II. The elliptical corpuscles of the ovipara, like the discs of the mammal, are divisible into a permanent and fugitive group. The latter includes those ellipsoidal corpuscles the nuclei of which alone can be seen, and the cell-bodies of which are invisible both while the blood is circulating and after it has been shed, and also a few of those corpuscles the outlines of which have become visible by the delicate tinting of their cell-bodies with hæmoglobin. It is the cell-bodies of these corpuscles which furnish the true fibrin—i.e., the material which gelatinises when the blood is shed. As in the case of the mammal blood, these corpuscles are the product of a gradual development of a colourless element which can be traced back as far as the spleen, lymphatics, and bone-marrow, and which is the true analogue of the primary lymph disc, from which all the morphological elements of mammal blood are directly or indirectly derived. This parent colourless element of oviparous blood, therefore, corresponds to the so-called blood-plates of Bizzozero.

III. In his recent investigation, Professor Legge, having overlooked the invisible cell-body of the transparent, colourless ellipsoid of the ovipara, has seen its nucleus both in the

circulating blood and in blood removed from the vessels, and has described it as an independent body and the analogue of the plates of Bizzozero, never dreaming (as well he might not, for no one unacquainted with the analogies of development in mammal blood would be led to look for it) that there existed around, and enclosing it, an unseen cell-body as large in most cases as that of the full-grown red corpuscle. No stronger proof could be afforded of the truth of my views than such an oversight, or of the incorrectness of Professor Legge's statements that no objection can be made to his conclusions "on the ground of excessive delicacy, because when we are forewarned it is possible to observe a detail, however delicate." Professor Legge has unwittingly demonstrated the truth of the position as to the absolute invisibility of these corpuscles under the conditions in which they normally exist.

IV. With the well-known fact that water or aqueous solutions will remove the hæmoglobins from the red corpuscles and render them so pale as to be scarcely visible I have nothing whatever to do. These conditions are never present in any of my experiments, in addition to which there exist unmistakable characteristic differences, which enable the technically educated to distinguish at once between decolourised corpuscles and such as have never possessed hæmoglobin.

V. Although the invisible disc of the mammal has not yet been detected in the circulating blood, its equivalent and analogue in the lower vertebrata is, under these conditions, readily demonstrated; for, notwithstanding that its cell-body is as invisible as the mammal disc, its nucleus is distinctly visible, and forms the means of its identification both within and outside the vessels, and the problem before us is precisely the reverse of one of decolourisation, for we have to bring into view, around a body which in the circulation and outside it presents itself and has been described as a free colourless element, a cell-body having the size and form of the cell-bodies of the ordinary red corpuscles, but devoid of hæmoglobin. Of the existence of the invisible corpuscle of oviparous blood we have therefore the crucial evidence furnished by its detection in the circulation.

## THE TREATMENT OF DEFLECTION OF THE NASAL SEPTUM.

By W. J. WALSHAM, F.R.C.S.,

ASSISTANT-SURGEON TO, AND DEMONSTRATOR OF PRACTICAL AND ORTHOPÆDIC SURGERY AT, ST. BARTHOLOMEW'S HOSPITAL; SURGEON TO THE METROPOLITAN FREE HOSPITAL; ETC.

THE treatment of deflection of the nasal septum, judging from the cursory way in which, even if mentioned, it is dismissed in the text-books and other works on surgery, does not seem to have received much attention from surgeons. This may in part be ascribed to the deformity being held as trifling. No doubt the mere bending of the septum to one or other side, and the slight lateral deviation of the nose which commonly accompanies it, are not in themselves very grave inconveniences, and were it not that the more or less complete blocking up of the nostril on the side to which the septum is deflected is apt to be followed by a train of very unpleasant symptoms, need not call for surgical interference. The symptoms most commonly complained of when the deformity has existed for some time are the disagreeable nasal quality of the voice, the stuffy feeling in the nose, the constant recurrence of colds in the head, and, when the lower part of the septum is affected, the unsightly red prominence visible just within the nostril. If the deviation is extreme, the symptoms are more distressful. The complete blocking up of the affected nostril may set up a chronic nasal catarrh, and this, together with the pressure of the bent portion of the septum, may cause obstruction of the frontal sinuses, nasal duct, or antrum of Highmore. Hence the dull pain or sensation of weight in the forehead, the running of the tears over the cheek, or, in extreme cases, dropsy of the antrum. Or the chronic catarrh may spread to the naso-pharynx and involve the orifice of the Eustachian tube, giving rise to deafness or noise in the ears. In one patient under my care the chief inconvenience was the peculiar noise made while eating, which rendered it, his parents said, most unpleasant to sit with him at table. In two cases, one under my own care and one under the

care of my colleague, Mr. Butlin, complete occlusion of one nostril had been produced by the adhesion of the deflected portion of the septum to the side of the nose, an adhesion apparently following ulceration of the adjacent surfaces induced by mutual pressure. In the first of these patients the nasal quality of the voice was especially marked, and considerable redness and œdema, probably due to obstructed venous return, existed at the junction of the lateral cartilages and the nasal bones, giving the lad the appearance of having recently had a blow upon the nose. Severe pain and frontal headache referable to the obstruction of the frontal sinuses were also complained of. The deflection is generally (in all the cases but one that have come under my notice—eight) the result of a blow or fall upon the nose, and is limited to the cartilaginous portion of the septum. It may, however, be congenital, and affect the bony part as well as the cartilaginous. Indeed a slight lateral deviation of the bony septum to one or other side of the middle line is, one may say, of almost normal occurrence, but is of course not attended with any inconvenience. Deflections may also occur in consequence of pressure from polypi, but to such the present remarks do not apply. When the result of accident, it is nearly always attended with some external deformity of the nose, generally a slight leaning to one or other side; in some instances, however, the lateral cartilages, in addition to a lateral deviation, are either depressed at their junction with, or partially dislocated from, the nasal bones, giving the nose an unpleasantly marked *retroussé* appearance. A dislocation of the septal cartilage from the anterior nasal spine to one or other side may also accompany the deviation. The affection is readily recognised. On looking into the nose a red fleshy mass may be seen partially or completely, according to the severity of the case, stopping up one nostril; whilst in the other there is a depression of the septum corresponding to the projection on the opposite side. The affection has been mistaken for a polypus or growth from the septum; but this can hardly happen if the precaution be taken of looking into the opposite nostril, or, when the deflection is high up, of searching for the depression with a bent probe.

The earlier operations undertaken for the remedy of the affection seem of a severity disproportionate to the inconveniences they were intended to relieve. Thus the nose has been split in the middle line, or the ala detached from the cheek, and the deflected portion of cartilage exposed by one of these means cut away. Chassaignac modified these procedures by performing what he calls subperiosteal resection. He made an incision along the lower border of the columnella, reflected back the mucous membrane from the septum, and shaved off successive pieces from the projecting portion until a sufficient suppleness was attained to allow it to be forced back into the middle line. He then reapplied the mucous membrane, and introduced a sponge into the nostrils to keep the parts in their new position. Blandin cut out a portion of the deflected part by means of an instrument somewhat resembling an ordinary leather button-hole punch. Zupprecht speaks in high praise of this method of removing the obstruction, and relates several cases in which it was successful. Dr. Goodwillie also recommends punching out a piece of the septum, and has had an instrument, a modification of Blandin's, made for the purpose, which he calls excising nasal forceps. Dr. Glasgow, of St. Louis, however, condemns the proceeding, affirming that it is liable to be followed by depression of the nose in consequence of the nasal cartilages falling in from want of the support of the septum; and that the nasal secretion, especially in scrofulous subjects, is apt to hang about and scab over the edges of the hole. No doubt when large portions of the septum are removed there is a tendency, as is seen in disease, for the nose to fall in. But this is not the case when the perforation is small. All must be cognisant of instances in which even a very considerable communication exists between the nostrils, and yet there is no deformity whatever. I have at the present time two cases of perforation of the septum from syphilis under my care in which two fingers could be passed through the perforation, but still no external deformity exists. Nor is there any other trouble experienced in consequence. But the removal of a very small portion of the bent cartilage suffices to restore respiration through the affected nostril; and when granulation has taken place, a still less aperture remains—much too small to induce any falling in of the nose. As a rule, however, it is not necessary to perforate the septum. Forcible straightening, and then keeping it in position by means of retentive apparatus, will suffice. The forceps

devised by Mr. Adams have in my hands answered admirably for the purpose. If there is any lateral or other deviation of the lateral cartilages, this can also be remedied at the same time as the septum is straightened by forcible manipulation with the forceps. Having straightened the septum and rectified the faulty position of the cartilages, these parts are well held in place by Mr. Adams' screw retentive apparatus. This little instrument, which consists of two lateral steel plates adjusted by a screw, can be worn for two or three days with little or no discomfort; and on its removal ivory plugs, properly shaped to the cavity of the nose, can be substituted for another week or two till the septum has been fairly consolidated in its rectified position. I have found the retentive apparatus as devised by Mr. Adams apt to produce ulceration of the lower part of the columnella in consequence of the pressure of its arms. This I have overcome by a slight modification in the form of the instrument—viz., by having the arms made a little longer, and with a lateral outward bow, so that when placed in position they do not touch the columnella. I have rectified six cases by these means, and in all except one, where there was great resiliency, with good results. The septum retains its median position, and nasal respiration in the affected side is free. When the cartilage is too resilient to be kept in its place, a portion of the bent part may be cut out by one of the forms of punch, or by the instrument suggested by Dr. Steele of St. Louis, which is a modification of the forceps of Adams and Blandin. It consists of a stout forceps shod on one blade, with knives set in a stellar form; the two blades are united, after the manner of obstetrical forceps, to facilitate the introduction of the instrument, and the cutting-blade is covered by a thin sliding shield, to protect the nostril during the introduction. With this little instrument a stellated division can be made through the mucous membrane and cartilage, and the divided septum be forcibly pushed into the middle line, and kept in position by retentive apparatus. Dr. Steele says that he has operated on two cases in this way with perfect success. The advantages claimed are, that perforation is avoided, and the resilience overcome by allowing the stellated divided cartilage to overlap. But the punch of Dr. Steele, like all instruments of the sort, is open to the objection that it causes more or less bruising of the soft tissues, and wounding of the mucous membrane on the sound side, and, should sloughing and necrosis follow, produces what it is intended to prevent. To obviate this I make the stellar division subcutaneously—i.e., insert a small knife, which I have had made for the purpose, under the mucous membrane, with the flat of the blade to the septum, and after moving it to and fro so as to detach the soft tissues from the cartilage turn the edge to the septum and make in it a stellar or other division. By this means all the advantages of Dr. Steele's stellar incision are gained without crushing or wounding the soft parts, except at the point of entrance of the knife, or wounding the mucous membrane of the opposite side. If the cartilage yields before the knife, it may be supported by the finger or any blunt instrument introduced into the hollow of the deflection through the opposite nostril.

In a case where much resiliency was present, Mr. Smith tells me that he succeeded in overcoming it by shaving off the mucous membrane and several thin layers of cartilage, but avoided a perforation by leaving the mucous membrane untouched on the sound side.

In cases in which the deviation depends upon the dislocation of the septal cartilages from the anterior nasal spine and contiguous portion of the nasal crest, I have found forcible straightening to succeed. In a patient in whom such a dislocation seemed to have occurred the cartilage was bent into position with an audible snap. It was then retained in the way above described. Should this method not succeed, that suggested by Dr. Goodwillie might be tried—i.e., to deflect the mucous membrane and periosteum, and then excise the dislocated end of the septum. From the ease with which the dislocation was reduced in my own case, notwithstanding the length of time it had existed, I should imagine that the cutting away of the dislocated portion can seldom be necessary.

A DRUGGIST in Hull was last week fined £10, with costs, for "illegally selling paregoric in the preparation of which methylated spirit had been used." Defendant admitted the charge, but alleged that the offence was committed in error.

## THE PATHOLOGY OF HEPATIC TUMOURS.

BY W. ROBERT SMITH, M.D., F.R.S. ED.

(Concluded from page 435.)

*Carcinoma telangiectodes* is distinguished by the great development of the smaller bloodvessels of the stroma, which frequently rupture, causing more or less extravasation. These tumours contain a large quantity of blood, are of a bright vermilion colour, and very soft in consistence.

*Colloid cancer* of the liver, which perhaps it will be convenient to notice here, is always a secondary growth, occurring either metastatically to a similar growth in the stomach and intestines, or as an extension from the peritoneum. In the one case, the nodes are distinctly seen to have originally been ordinary cellular cancer; in the other, the advance of the growth from the peritoneum is seen to have been principally through the subserous lymphatics, which under the peritoneal investment of the liver and gall-bladder are found filled with gray transparent colloid material. It is very important to remember that secondary cancer of the liver repeats all the histological characteristics of the pre-existing primary tumour; but although in the general characters of their constitution the nodes agree, yet they differ widely from each other both as regards the stroma and cancer cells. For example, the stroma may be well developed, forming a large proportion of the entire nodule, or it may be present in such small quantity that the bloodvessels appear to course nakedly through the pulpy cell mass; the cells also show the greatest variety in their number, shape, size, and arrangement; the number and arrangement will of course vary with the amount and character of the stroma, and being an epithelial growth, the cells may present all those forms which epithelial cells assume. The bloodvessels form a more or less close network, which is supported by the trabecule of the stroma; it varies in size and compactness, and for the most part the finer vessels which compose it are newly formed. According to Frerichs, this network receives its blood-supply from the hepatic artery. The original portal network is lost; only the larger branches of the hepatic and portal veins remain, and even these are often compressed and obliterated; whilst, on the other hand, the branches of the hepatic artery become dilated.

As regards the histogenesis of secondary hepatic carcinoma there is of course the greatest variety of opinion. One observer believes the cancer cells are derived from the hepatic cells and the epithelial cells of the biliary ducts; another, that they arise in the endothelial cells of the bloodvessels; a third, that they originate in the cellular elements of the connective tissue; but most probably the germs which were previously cellular elements of the primary cancer have been carried to the liver either through the bloodvessels or lymphatics, and there continue an independent existence, dividing and subdividing, and by successive encroachments on the liver parenchyma displacing the normal tissue, thus forming the nodules with which we are so familiar, and which may or may not undergo one of the forms of degeneration I have described.

(b) *Melano-sarcoma*.—Until very recently pigmentary tumours of the liver were classed with the carcinomata, but Virchow pointed out very clearly that this was an error, and demonstrated beyond doubt that these growths were really sarcomatous. He proved that the cells of which these growths are composed were not of epithelial origin; and if we are to consider the epithelial origin of cancerous growths to be their one great characteristic, then clearly these tumours do not belong to that class. They appear as primary growths in the liver with such rarity that observers have been found to question whether it ever occurs, though, as I think, without sufficient grounds. Both Bluck, in *Archiv d. Heilk.*, xvi., 1875, s. 412, and Frerichs, in *Klin. d. Leberkrankheiten*, ii., s. 319 *et seq.*, have recorded undoubted cases. But, as a rule, melano-sarcoma is due to a process of metastasis, the infecting source being, as we all know, in or about the eye or skin; it appears in the liver either as multiple nodes or as an infiltration, or both forms may be combined in varying proportions. Owing to the presence of these nodes the liver is increased both in size and weight, but in spite of this the hepatic tissue between the nodes is often reduced in volume.

The peculiar structure of these tumours is due to the fact—as will be noticed presently—that the capillary vessels, as far as their junction with the hepatic veins, are completely filled with black cells, and hence the characteristic whorled appearance of this portion of the vascular apparatus is manifested in black radiate figures of all sizes. In section under the microscope can be distinguished both stroma and nests or accumulations of cells. The stroma here and there is found to contain liver cells, which are in many cases distorted and stained with pigment. The real nature of these may be at once detected, not only by their peculiar characteristics, but by their direct continuity with the secreting network. In the finer trabeculae, spindle-shaped or stellate cells are seen, but these have no connexion with the hepatic cells proper. Surrounding the cells will be noticed the capillary membrane; and according to Rindfleisch the cells of this growth originate in these vessels, owing to a proliferation of the endothelium; the nodes are rich in delicate newly formed bloodvessels, which most likely proceed from the hepatic artery; whilst the vessels connected with the portal and hepatic veins are probably destroyed.

In the infiltrated form of melano-sarcoma the liver increases remarkably in size in a very short time, but undergoes no very striking alteration in shape; the external surface is smooth, although flattened protruberances appear where the growth has become dense and compact. On section the organ is seen to have preserved its characteristic acinous structure, but the acini are enlarged, and have a mixed colour composed of the normal hepatic brown and of the white and black of the new growth; the variable quantity of blood in the part also occasions a difference in the colour. Small nodules, more or less circumscribed, are diffused throughout the structure, and in consequence of many of the cells of the growth being free from pigment, or containing but little, a peculiar spotted appearance is presented, very much resembling granite, and hence the familiar name of "granite-like cancer." As regards the histology of infiltrated melano-sarcoma, Schuëppel relates a very interesting case in the *Archiv d. Heilk.*, ix., 1868, page 389, in which, at the autopsy of a patient who had suffered from melanotic growth of the choroid, he found both the liver and spleen enormously enlarged from the deposit of infiltrated melano-sarcoma; in the liver the capillaries of the portal system were everywhere crowded with cells of this pigment-growth, being at the same time absolutely devoid of blood; the capillaries were dilated, and the hepatic cells between them compressed and atrophied. In other cases in which the infiltration was very great the hepatic cells had completely disappeared. In this case there can be no doubt the germs of the disease wandered through the portal vessels from the spleen, and also that the infiltration was intra-capillary; it is still a matter of doubt whether in other cases the disease is transmitted through the capillaries of the hepatic artery.

(c) *Sarcoma*.—This growth has generally been regarded as carcinomatous, and there is perhaps some excuse for this as it is almost, if not quite, impossible during life to diagnose sarcoma or to distinguish it from true cancer. It is by no means a rare growth, and occurs for the most part metastatically. The nodes are so small in size or exist in such small numbers that they are often quite overlooked until revealed at the autopsy. In other cases these secondary deposits are found in such numbers or attain such a large size that the liver is enormously increased in volume. The growth occurs in one of two forms: either as deposits which appear as rounded elevations on the surface, or as a diffuse infiltration, which is generally the form with medullary lympho-sarcoma. The ordinary characters of hepatic sarcoma vary with the peculiarities of the original growth. Fibro-sarcoma and myo-sarcoma are both firm growths of a whitish tint, which exude on pressure a clear mucous liquid. Osteo-sarcoma is soft and of a medullary character, in contradistinction to the primary growth. Secondary lympho-sarcoma occurs most frequently as a soft medullary growth, rich in cells, and discharging on section a thick creamy juice.

(d) The last class of malignant tumours to which I shall briefly direct attention is the *adenomata*. They are very rare growths, but always primary, and occur as multiple tumours varying in size and scattered irregularly throughout the liver, more particularly near the surface. The larger nodes are distinctly encapsulated; the smaller ones, although circumscribed, are in immediate contact with the hepatic substance; they project a little above the surface, are yellow green or reddish in colour, are rather softer and more succulent than the liver substance, and discharge

on pressure a clear serous fluid. As a rule, adenoma of the liver is always a local disease, implicating neither the lymphatic glands nor distant organs. In a case, however, recorded by Professor Greenfield in the 25th volume of the *Pathological Transactions*, the lungs and mediastinal glands were both affected.

Microscopically adenoma is seen to be constructed on the type of genuine glands, especially of the tubular variety. The tubules of which it consists lie more or less parallel to each other, although in some parts they form a network and are connected with the hepatic ducts; transversely they are seen to possess a marked similarity to the convoluted tubes of the cortex of the kidney; they are lined with epithelium, whilst the lumen is filled with a tough mucoid mass of a yellowish or greenish tint. These tubules are held together by delicate connective tissue, which serves as a support to the delicate network of capillary vessels; the smaller ones, according to Schueppel, getting their blood-supply from the portal vein, whilst Rindfleisch believes it comes from the hepatic artery. The growths are more deeply stained with carmine than the surrounding tissues, and they appear merely to replace the ordinary hepatic cells. The tubuli of which adenoma are composed appear to arise from the rows of hepatic cells, whilst the glandular cells arise from the hepatic cells themselves; they increase in number by a process of division and subdivision, and then arrange themselves in a circular manner round a biliary capillary vessel, thus forming a glandular tubule. These tumours increase in size partly by offshoots from the original tubules, and partly by the coalescence of nodules which have arisen from the transformation of the trabeculae of hepatic cells. The nodules generally undergo softening, the cells becoming fatty and the serous capsule producing a certain quantity of pus, so that ultimately an abscess cavity may be produced which is liable to burst into the peritoneum, producing fatal peritonitis.

Cheltenham.

## ON A CASE OF EMPYEMA, WITH REMARKS.

By G. H. DARWIN, M.D., M.R.C.P.

THE teaching of Trousseau has of late years largely modified the treatment of both acute and chronic pleuritis, and has brought a class of severe and dangerous disease, more immediately within the reach of art, to the saving of many lives and the prevention of much and very serious deformity and loss of function. The grave results which follow from the distension of the pleural sac with fluid are not confined to the loss of power of expansion in the compressed lung, but vary in degree and kind with the side affected, being generally more serious in pleuritis of the left side than in that of the right. This of course depends upon the anatomical connexions; the displacement of the heart, which ensues when the left pleura is largely distended, drags upon the large vessels, and induces abnormal conditions in their course and calibre, and this alteration reacts upon the amount and force of the current of blood which passes through the organ, and consequently upon that which passes through the great vessels and the organs they supply. Thus the inferior vena cava has been found, on post-mortem examination, to be bent by the forcing over of the heart to the right side, until it has formed a right angle with its normal course, to the great (and in the case mentioned to the fatal) obstruction of the circulation. Hence arises obstruction to the return of blood from the lower extremities, congestion, stasis, and syncope; or, in other forms, the overtaxed right lung, already doing double duty as vicar for the compressed and useless left, becomes engorged, the pulmonary vessels are blocked, and dyspnoea and suffocation ensue, resulting, unless relieved, in death.

The efforts of nature herself must have early directed the attention of physicians to the question of evacuation, when the contents of the sac were clearly purulent; but for long they were followed with timidity, and not unless there were symptoms of severe dyspnoea, or even impending suffocation, was it considered advisable or necessary to resort to paracentesis. It was reserved for Trousseau (*Clinique de l'Hôtel Dieu*, p. 617) to show how the resources of art could come to the assistance of nature even in the acute stage of pleurisy, and by removing the fluid which

caused the oppression prevent the most serious consequences of the inflammation, and rescue the patient from impending danger and most serious and lasting deformity. Some of the advocates of this procedure have been led by their enthusiasm to assert that no case of pleuritis with effusion can be cured without this operation (Niemeyer). This is probably much too strong a statement, but it may be at least agreed that whenever the fluid products of an acute pleurisy induce distinct distension of the intercostal spaces, alteration in position of the heart, or any tendency to syncope or dyspnoea, its removal either complete or partial should be at once effected, and more especially if there are symptoms of hectic pointing to the formation of pus. In public or hospital practice this may be done as soon as the symptoms are seen to call for interference, but in private practice it is much more difficult, as the patient and his friends have to be consulted and made aware of the necessity, or at least advisability, of the operation, and they are not always ready to see the signs which indicate the need of such procedure at the time most favourable for it, and usually have a great dread of any opening into the cavity of the chest. Such was the case in regard to the patient whose history I am about to relate, and in consequence the operation was delayed beyond the most favourable period, a delay which led to some of the developments of the case, and most probably prolonged its continuance.

Thomas H—, aged sixteen years, apprentice in a Manchester warehouse, a thin, pale, anæmic-looking lad, 5 ft. 3 in. in height, weighing just before the attack 8 st. 3 lb., was seized, on Feb. 1st, 1882, with shivering of so violent a character that his fellow apprentice laid him upon a table or counter in the warehouse and held him down. He was taken home and put to bed, and his mother administered some simple household remedies for a cold, but finding him no better sent for me early next morning. He was then very feverish, lying on his back, with hot, dry skin, a pulse of 120 in the minute, and the temperature in the axilla 104° 8' F. Complained of pain across the chest, but more particularly on the left side; he could breathe with moderate freedom without any perceptible increase of pain, but the respiration was very quick (45 in the minute). On admission I found dulness on percussion over the lower two-thirds of the back of the left lung, and on auscultation loud tubular breathing, with crepitation and bronchophony. The left side did not expand equally with the right; the tongue was coated with thick white fur, and he suffered from a rather severe diarrhoea. The history that I obtained was that three days previously (Jan. 31st) he was running away from a man, when he fell over a large package, and the man following fell over him, falling with his knees on the lad's chest. The man was a stout, heavy fellow, weighing, the lad said, 15 st. On Feb. 4th he expectorated glairy, rusty-coloured sputa; he had a short dry cough, and there was delirium, also sordes on lips, with more dulness on percussion. From this time the case followed the usual course of pleuro-pneumonia, until Feb. 20th, when he was much troubled with dyspnoea; the left side did not move as the right did; there was dulness on percussion almost all over the left side, with absence of vocal resonance and diminution of the respiratory murmur. I proposed to make an exploratory puncture in the chest, but the parents would not sanction this, and five days later he had violent shiverings during the night, with great dyspnoea and rapid breathing. Pulse small, 120 in the minute. The heart was at this time displaced to the right. I again pressed for permission to puncture, but was still refused. The patient was now rapidly getting worse, and I therefore requested Dr. W. H. Barlow to see the case with me. He agreed with my diagnosis, and supported my request; but the friends being yet unwilling it was arranged to see him again in a week. On March 11th Dr. Barlow again saw the case with me. There had been considerable shivering, with night sweats and frequent cough. The cardiac impulse was between the fifth and sixth ribs on the right side. Pulse 115, small and weak. Paracentesis thoracis was performed in the space between the latissimus dorsi and the trapezius, by the lower angle of the scapula, and in the seventh intercostal space; about half a pint of pus was evacuated by the cannula, and then the opening was enlarged and a drainage-tube inserted. I saw him again in the evening, and he said he felt better, but the dyspnoea was very little relieved. The next day there was a very little discharge of pus, so I washed out the tube with a solution of carbolic acid. On the 13th Dr. Barlow saw him again, and made a counter-opening about three



inches more anteriorly in the same interspace. A drainage-tube was passed through from one to the other, and the ends tied together. A considerable quantity of pus escaped, and we hoped it would have been effectual; but on the 15th there was more shivering, and on this date a small fluctuating tumour was seen in the same costal interspace as the openings already made, but about two inches more anteriorly and consequently lower; this was at once opened, and gave exit to about a pint of pus, quite sweet and laudable. A drainage-tube was inserted, and the three openings were all covered with a poultice. From this time a considerable drainage of pus took place, and the heart seemed to have moved more towards the median line, when on March 24th I was sent for in great haste, the message stating he was dying. On arrival at the house I found that he had recovered from the urgent symptoms that had been the cause of the message, and heard that he had been coughing rather heavily, when suddenly he gulped about a teacupful of pus, which almost suffocated him. From this time he improved rapidly, had but little cough, but would now and then get up a mouthful of pus, which, however, gradually became less. The external wound ceased to discharge, and when the drainage-tubes were removed gradually closed. On May 13th he was able to take pretty long walks and was gaining flesh rapidly, while the left side expanded freely and the respiratory murmur was heard in every part. There were still some slight bronchial râles, and he occasionally brought up a little purulent matter, but had not done so for a week or ten days, and was to all intents convalescent. The recovery is now (Sept. 20th) quite complete.

In the consideration of this case, the question that first arises is as to the connexion, if any, between the injury to the chest and the inflammatory symptoms which so speedily followed. Was the sequence a mere coincidence, or was the relation that of cause and effect? The point is one of doubt and difficulty. It is clear that no fracture of any rib was detected, nor are there now any signs that such an injury has ever existed, and yet it is difficult to conceive how, in the absence of such a lesion, inflammation could originate from such an accident. Our knowledge of nervous pathology, however, forbids us to say that such a result is not possible, improbable as it may appear *prima facie*.

It has been shown by Brown-Séquard<sup>1</sup> and others that an irritation to the periphery of a nerve may produce an inflammatory affection of a distinct and distant organism. But would such an injury as that recorded in the above case produce an irritation sufficient for this purpose? In the present state of our knowledge, we must be content to leave the question undecided and merely record the fact.

The progress of the case after the operation of paracentesis thoracis deserves a little notice. Firstly, there was the free gush of pus for a short time; then cessation, to be renewed when the tube was cleared for a very brief period; after this a gradual draining away of healthy pus for some days; then followed the creation of a counter-opening and the insertion of a drainage-tube after the manner of Chassaignac, resulting in the continuous drainage of a small quantity of pus; and finally the spontaneous pointing of the abscess, not at the point which is the usual place of natural selection, in the fifth interspace, but lower down in the seventh. This makes it quite clear that we had to do with a case like those described by Fräntzel, in which "the pleural cavity was subdivided into several sacs by false membranes," and which would probably have needed to be broken down by the introduction of a catheter had not the pus so opportunely found a free vent through the lung.

Professor Morgan of this city<sup>2</sup> has given an account of two cases in which this method was adopted with excellent results, and in the same paper he advocates the treatment of the collapsed lung by the respiration of compressed air. In one of these cases the "tough fibrous ribbons which subdivided" the cavity "into pouches" were perforated by a long trocar and cannula made for the special purpose; in the present case a long bladder trocar was the means used to make the counter-opening. The gush of pus into the bronchi was so sudden and so copious as to endanger life for a few moments from suffocation; it is generally gradual and the openings of communication so

minute as to escape detection in post-mortem examinations, so that it was believed by the late Dr. G. H. Barlow that the pus escaped by transudation through the coats of the bronchi without breach of continuity. An interesting point in the case is the fact of the opening into the lung occurring after not only the creation of two artificial openings into the chest wall, but also after a spontaneous pointing (for if the fluctuating tumour had not been lanced, it would speedily have burst, as the wall was already thin and red); and Dr. Wilks has pointed out<sup>3</sup> that the lung gives way more readily than the chest wall. This case resembles one described by Hillier<sup>4</sup> in the fact of the pus making its way into the lung after paracentesis has been performed; but I have not met with any record of such an occurrence after spontaneous opening of the chest wall. Is it not possible that this may have resulted from the actual advance towards recovery, the gradual expansion of the previously compressed lung distending and enlarging what was before but a superficial ulceration of the condensed lung tissue, until it became a gaping wound and allowed a free passage to the pus? The fact that the position of the heart had changed more nearly to the normal before this took place would seem to point to some such explanation of this curious fact. The mode of evacuation through the bronchi has been generally considered to be a favourable mode of termination in these cases, and in the present one no doubt the favourable result is due to this cause, finally, if not altogether. The experience of Dr. Wilks<sup>5</sup> would seem to throw a doubt on this, but here the improvement was marked as soon as the mechanical result of the escape of fluid into the lung had passed. This case shows also how little harm is done by the entrance of air into the pleural sac in cases where the contents are already purulent if free drainage be provided, and the air itself be free from the special septic germs which too often abound in the air of the hospital ward. The pus was perfectly sweet throughout the case, and I do not think that the case could have done better had the Listerian precautions been carried out in all their integrity, a task which is often impracticable in dealing with patients of this class in their own homes and without assistance.

Dr. Fuller, in his work on Diseases of the Chest, has pointed out that it is difficult to believe that air does not enter the pleura even under the most careful precautions during aspiration, for either this must occur or the lung must immediately expand, or, thirdly, the chest walls must fall in, to permit the exit of any effectual quantity of the fluid contents. But we know that even in cases which pursue a favourable course the lung does not at once expand, nor even in children, when the chest walls are most yielding, do they at once collapse. We are therefore driven to a conclusion which is *a priori* probable, that air does enter the pleura by the side of the needle or cannula. The more resilient the chest walls and the compressed lungs the less is the amount of air thus admitted, but it is probable that in all cases it finds entrance in some degree proportionate to the quantity of fluid withdrawn.

There were unmistakable symptoms of pneumonia associated with the pleurisy in the early stages; whether these were coincident, or, if not, which was the prior affection, I am not able to say, further than that there were crepitation and bronchophony when first seen by me, and rusty sputa very shortly after.

It has been well pointed out by Dr. Wilks, in the paper already cited, that whenever local dulness with absence of breath sounds persists after an attack of chest disease, "by whatever name it has been called," a local empyema may be suspected; his words are stronger—"is present"; and that when an acute pneumonia ending in resolution leaves no result behind, it is the pleurisy which accompanied or succeeded the pneumonia that continues to progress, and a local empyema is the result, and this he tells us is "positive knowledge gained by inspection," and certainly this case, so far as it goes, bears out his statement.

Didsbury, Manchester.

<sup>1</sup> British Medical Journal, June 21st, 1879.

<sup>4</sup> Diseases of Children, p. 66.

<sup>5</sup> Loc. cit.

<sup>1</sup> "Hardly is there any affection that cannot be considered as having sometimes been produced by a reflex action, the cause of which is an injury, a disease, or at least an irritation of a nerve." (Brown-Séquard on Diseases of Nerves—Holmes' System of Surgery, Vol. 3, 1862.)

<sup>2</sup> THE LANCET, Feb. 26th and March 6th, 1891.

A NEW HOME for Incurables was opened at Mauldeth by the Bishop of Manchester on the 15th inst. Accommodation is provided for 100 patients. The building, which was purchased for £15,000, and to which a wing has been added at a cost of £8000, was originally occupied by the Bishop of Manchester.

## BRAIN WEIGHT AND BRAIN POWER.

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ALTHOUGH the connexion between the relative weight of man's brain and his intellectual development is very well known, and several illustrations of this connexion have been published, I feel assured that the following notes of a remarkable case may not only well be added to the list of those already recorded, but that it is desirable that this should be done. It is the case of an officer who died at Netley last year, and I am indebted to a published memoir for some particulars of his life.

A Scotchman by birth and parentage, he received his early education in Edinburgh, and afterwards went to Wimbledon School previous to entering Addiscombe, where his career was exceptionally brilliant. At the final examination there, he scored an unusual total of marks, gained the sword of honour and Pollock medal, and several prizes for specific subjects. On leaving Addiscombe in 1858 he proceeded to India, where he was employed altogether in civil duties. At the time of his death he was superintendent of the telegraph department. With no military distinctions, he was nevertheless one of the foremost men in his corps. Highly gifted intellectually, duty no less than inclination prompted him to cultivate his mind as a preparation for advancement, for he held strongly that no one is fit for highly responsible positions who fails to keep himself as far as possible on a level with current events, and with the thoughts, investigations, and discoveries of the day. His wide reading and tenacious memory made him a man of mark in any society. His opinions were his own, formed independently, expressed if necessary forcibly, and followed always courageously. He was an exceptional man, and his large-hearted and wide-reaching sympathy won him admiration and love among high and low. His remarkable qualities were as conspicuous in his earlier as in his later years. He was a standard of conduct to his schoolfellows, and when at Addiscombe the governor did him the extraordinary honour of making a private report to the board of directors of the East India Company, which was quoted by the chairman on the examination day. The reputation with which he started increased daily, and was sustained to the last. But the strain was too great. Exposure to a pernicious climate—and his physical strength led him to expose himself only too carelessly—for twenty-four years, with but eighteen months' leave, weakened a naturally magnificent constitution, and he was compelled to take furlough. His intellectual vigour, however, was shown nearly to the last, and only a few days before death he expressed his capability of undertaking difficult mental work. But a sudden change set in, and in a few days proved fatal.

During his stay at Netley he suffered from extreme debility, induced probably by intractable diarrhoea. A day or two before death he complained of severe headache, and his axillary temperature rose from 101°–102° to 106° F.

It is very much to be regretted that at the time I was called upon to make the autopsy I was not in possession of the facts narrated, for had I been the examination would have been more complete in many points. The diagnosis of the case was very obscure, but hepatic abscess was suspected, and it was to clear up this point that the examination was made. The severe headache, however, and the rise of temperature pointed to some cerebral or meningeal mischief, and it was thought advisable to find out if such existed. For this purpose the cranium was opened.

*Abstract of autopsy* (made not only with the full permission of relatives, but, I believe, by request).—Cranial bones very dense; dura mater extremely vascular; brain substance generally firm and normal. On opening the left ventricle pus was observed in the anterior cornu; the origin of this was in the anterior part of the intraventricular portion of the left corpus striatum, which here was quite destroyed and broken down into soft shreds. Before dissection the brain weighed 26,130 grains avoird., or 59.72 ounces. After examination, a portion of it, weighing 22,785 grains, was found to displace eighty-six cubic inches of water; the specific gravity was therefore 1.049. The lungs were perfectly healthy, with the exception of the lower lobe of the right. In this there was a circumscribed abscess

cavity measuring in its longest diameter three inches. It communicated with a small abscess in the liver through an opening about the size of a florin in the diaphragm. The heart was quite normal. The lining membrane of the great bloodvessels was deeply blood-stained, that of the aorta being very much roughened in patches by atheromatous degeneration. Jejunum, ileum, and colon normal; no trace of ulceration, but the solitary glands of the latter were large and prominent. The liver presented a uniformly brown colour throughout, and was much softened. In the upper portion of the right lobe there was a small abscess about one inch in diameter, and nearly surrounded by a dense thick fibrous envelope. This abscess communicated with the lung. The spleen was slightly enlarged, weighing 4375 grains. The kidneys appeared to be quite normal; they were enveloped in a large amount of fat.

The chief interest in this case lies in the great weight of the brain, and its high specific gravity, in relation to the highly gifted intellectual power exhibited by the individual during life. As this brain weighed very nearly 60 oz., it exceeds that of all others usually quoted, with the exception only of Cuvier's, which weighed 64½ oz., and that of Dr. Abercrombie, which weighed 63 oz.<sup>1</sup> Sir J. Y. Simpson's brain weighed 54 oz., and that of Agassiz 53.4 oz. It is well known that the average weight of the adult male brain is under 50 oz. The specific gravity of the brain I examined was 1.049, and this is as high as any recorded. From Professor Aitken's work I find that the average specific gravity of the brain is 1.036, and the highest specific gravity of the densest part of a brain ever taken by Professor Aitken, or anyone else I believe, is 1.049.

The weight of the brain in this case was in the first instance taken by the orderly corporal in charge of our microscope room, and recorded by him on the black board in the mortuary. I immediately verified its accuracy by weighing the organ myself, and I also verified the correctness of the weighing machine. The specific gravity was taken very carefully. Surgeon-Major Hogg, Army Medical Department, was present at the time.

The average cranial capacity of the adult male head is, I believe, about 90 cubic inches. Cuvier's is reported to have been about 118. In the case which I now record it must have been about 108.

## THE INTRA-VENOUS INJECTION OF FLUID FOR SEVERE HÆMORRHAGE.

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(Concluded from p. 437.)

STUDENTS, with smiling faces, are rapidly leaving the theatre of one of our metropolitan hospitals. The most brilliant operator of the day has just performed immediate transfusion with the greatest success. By means of a very beautiful instrument, the most complex and ingenious that modern science has as yet produced, a skilful surgeon has transfused half a pint or perhaps a pint of blood from a healthy individual to a fellow-creature profoundly collapsed from the effects of severe hæmorrhage. Some little difficulty was experienced prior to the operation, as one of the many stopcocks of the transfusion-apparatus was found to work stiffly, but this error was quickly rectified by a mechanic in attendance. Towards the close of the operation the blood-donor, a powerful and heavy young man, swooned. Two porters carried him on a stretcher into an adjoining room, his wounded arm being bandaged up, *secundum artem*, by energetic dressers. Diffusible stimuli were exhibited by the mouth, nostrils, rectum, and skin. The man rallied in due course, being well cared for by a group of students and nurses deputed to look after him. The wound in his arm will probably heal speedily, or a few weeks later he may possibly apply at the out-patient department of the hospital, presenting an ugly-looking pulsatile tumour, associated with a thrill and rasping bruit, connected with the vessels in the

<sup>1</sup> A case is recorded in the Brit. Med. Jour., 26th Oct., 1872, by Dr. Morris, in which a brain examined at University College, London, weighed 67 oz. It was that of a bricklayer who could neither read nor write.

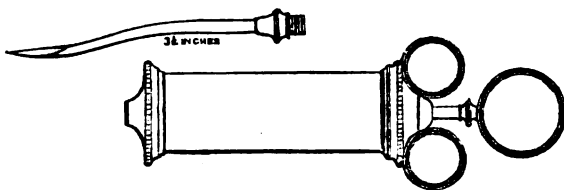
cubital triangle—a most unfortunate accident having clearly happened here, of which a record promptly appears in the columns of THE LANCET.

Time rolls on, and a spectator of the duplex operation, possessed of an instrument such as he had seen employed, finds himself at midnight, in a lone house in the country, face to face with an alarming case of post-partum hæmorrhage. He has adopted the modes of treatment recognised as judicious for the condition before him. He has employed active hæmostatic agents, and finally that potent but highly dangerous styptic, perchloride of iron. His patient is blanched and collapsed to the last degree. Are not her bloodvessels so thoroughly drained of blood that there is not sufficient of that element circulating in the uterine walls to stimulate to permanent contraction its muscle fibres? Is not this the very case for transfusion? The accoucheur puts his apparatus in order (he may not have it with him, and be obliged to send home for it) and selects a blood-donor. He has little time or opportunity under the circumstances I have depicted to find an adolescent, healthy beyond a doubt; little time has he to eliminate the existence of syphilis or of other specific communicable diseases by a well-planned examination of the youth, nor to obtain a knowledge of his previous history and mode of life. The operation is commenced; the blood-donor faints; the friends of the patient, the necessarily improvised assistants to the accoucheur, faint also. The operation is abandoned, and it and he who proposed it fall into disrepute. But there may fortunately have been time to summon a skilled assistant. The veins both of blood-giver and recipient may have been dexterously opened, and transfusion commenced. Still, accidents may even now happen; a small coagulum may form within the apparatus, or a little air gain access through some contingency to the veins operated on.

The picture is carried far enough. Is the operation of immediate transfusion, as taught and elaborately performed in hospital practice, where there is every means of ensuring success, one of universal application? Is it one that can always be performed when most needed—under urgent circumstances and at a moment's notice, often in the night, at Land's End, John O'Groat's house, or Ratcliffe-highway, and by an unaided operator, with everything against him?

If the practitioner have not at his command, when circumstances indicate its employment, a transfusion-apparatus, what can he do? Imitating Treves, he may file down the bone nozzle of an aural syringe, and through this rude but efficient cannula administer an intra-venous injection.<sup>1</sup> No satisfaction can possibly be greater than, under compulsion, to have operated successfully in such a manner. But would it not be far better were some simple method known, which, being of ready application, and not requiring complex, expensive instruments, difficult to manipulate and otherwise objectionable, might be employed by every medical man in the kingdom with ease, expedition, and safety? This question forced itself upon me very strongly when, in the case I have recorded,<sup>2</sup> I administered, with the three-ounce metal transfusion-syringe of the London Hospital (as represented by Fig. 1), an intra-venous injection, the pro-

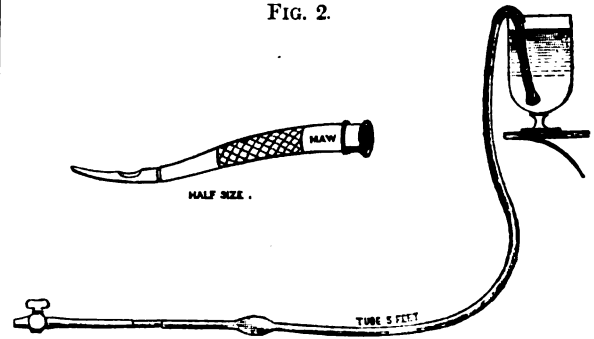
FIG. 1.



cedure being, in my estimation, fraught with the risk not merely of admitting air whilst detaching the body of the syringe from its nozzle by means of a screw, for the purpose of refilling the instrument, but also with the danger of injuring important structures adjacent to the vein selected for operation (in the case of the median basilic vein, the brachial artery) with the point of the nozzle; for the syringe being many times heavier than the nozzle it was impossible for me to hold the latter steadily during the proceeding. Fig. 2 illustrates an instrument which, to obviate the objections I have mentioned, has been made for me by Maw and Co., and has been briefly described in my paper of last week. It is essentially a syphon, con-

sisting of five feet of elastic tubing, one extremity terminating in a vulcanite bell-shaped opening guarded by a metallic grating, the other joining a silver stopcock, to which a cannula can be attached. A short distance from this extremity the continuity of the syphon is interrupted by a small glass tube, inserted for purposes of observation; a few inches higher still is an exhausting bulb, by which the air present in the instrument can be expelled prior to use. A semicircular canal of vulcanite protects the rubber tube where it passes over the edge of the vessel containing the solution for injection. The cannula is serpentine in form—following in this respect

FIG. 2.



Treves's pattern,—compressed a little laterally and embossed at the part where it should be grasped by the operator's fingers. It gradually tapers to a blunt extremity, at a distance of half an inch from which is an oval aperture for the transit of the vivifying fluid. This aperture can be closed by the pulp of the index finger whilst the point of the cannula is being inserted into the vein; as the finger is withdrawn the cannula is simultaneously pushed onwards; the possibility of the entrance of air into the vein, if this method be adopted with ordinary care, being certainly avoided. The cannula is grooved fifteen-sixteenths of an inch from its point, by which means it can be secured with a ligature and maintained *in situ* when fairly within the vein. Always mindful of the fact

FIG. 3.



that it must become the duty of every surgeon at some time or other to perform transfusion, like tracheotomy, entirely unassisted, or his patient must succumb. Fig. 3 represents an automatic retractor, which, being capable of almost instantaneous application, might often be very serviceable.

In conclusion, I beg leave to acknowledge many valuable suggestions I have received in reference to this syphon from Dr. Palfrey and Mr. Fenton-Jones, and to express the hope that by the substitution of simple for complicated methods of transfusion or intra-venous injection, every instrument devised for its performance being safer and surer in its mode of action than those which have preceded it, the operation will at length be elevated from the dazzling but delusive position it at present occupies to one of true utility to mankind.

#### NOTE ON THE OCCURRENCE OF CHOLERA-LIKE SYMPTOMS IN CASES OF URÆMIA.

By H. MALLINS, M.B., M.Ch.

THE perusal of the notes of a case of malignant cholera in THE LANCET of July 29th brought to the writer's recollection a case met with in India, in which many of the symptoms of cholera were induced by uræmic poisoning. The case was as follows:—

Ram Din, a grass-cutter of No. 2 Battery, Punjab Frontier Force, was admitted into the Battery Hospital, Edwardesabad, on the 20th of August, 1875, at twelve

<sup>1</sup> THE LANCET, 1877.

<sup>2</sup> Ibid., Sept. 16th, 1882, p. 436.

o'clock noon, in a state of complete unconsciousness, with severe vomiting and purging, the stools being of the rice-water character. It appears that he had been doing his work up till 9 A.M., and it was while cutting grass in the sun that he first fell ill. When seen the following morning (August 21st) his state was as follows:—Features pinched; surface quite cold to the touch. Tongue dry, with slight brown fur. Is now quite sensible, and able to get out of bed. Pulse 118, very weak; respiration 32; temperature 99° 2'. Passed a little urine yesterday evening. On passing a catheter the bladder is found to be quite empty. Is still purged, the stools being of the consistence of whey, dirty light brown in colour, free from smell, with floating flocculi. Voice is now fairly strong.—7.30 P.M.: Surface still feels cold. Temperature 99° 4'; pulse 120, very feeble. Abdomen tense and tympanitic. No urine in bladder. Has passed three stools since the morning, of thick consistence, faintly yellow colour, and slightly bilious odour.

August 22nd.—Lies in a drowsy state. Pulse 120; respiration 24; temperature 100° 1'. Has passed four stools during the night, of distinctly yellow colour. Urine still suppressed. He gradually became comatose, and died at 6 P.M., after a slight convulsive attack.

*Autopsy, half an hour after death.*—The chief morbid appearances observed were: Firm pleural adhesions on both sides of the thorax; extreme congestion of both lungs; the right ventricle distended with fluid black blood; walls of the left ventricle hypertrophied; well-marked atheroma of aorta. Kidneys weighed 4 oz. and 6 oz. 7 drs. respectively; both were diseased, the surface of each being uneven from the presence of numerous depressions, in the vicinity of which were several small projecting nodules; capsule adherent in places; surface of section pale and bloodless; no distinction between central and cortical portions; the pyramidal portion was for two-thirds of its extent occupied by a deposit of a light yellow colour and firm consistence, occurring in isolated masses of circular shape, and varying in size from that of a millet-seed to that of a pea. With the exception of decided vascularity of the mucous membrane of the large bowel, the intestines were healthy. Bladder firmly contracted and empty.

*Remarks.*—At the time of the occurrence of this case an outbreak of cholera was not unlikely, as cases had been reported from some stations close by. The sudden occurrence of the symptoms of unconsciousness, coldness of surface, feebleness of voice, vomiting, purging, the stools being of the rice-water character, and finally the suppression of urine, might have justified the diagnosis of malignant cholera, and in the absence of an autopsy the case would most probably have been reported as such. The examination, however, revealed a hopelessly disorganised pair of kidneys, and justified the conclusion that all the symptoms were due to uræmia. It will, therefore, be well to bear in mind the possibility of cholera-like symptoms being due to the diseased kidneys. It may be added that, contrary to expectation, no outbreak of cholera took place at the station where the subject of these notes died.

Watton.

## A Mirror OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### ST. THOMAS'S HOSPITAL.

TRAUMATIC NEUROMA OF ULNAR NERVE, WITH LOSS OF POWER OF PARTS SUPPLIED.

(Under the care of Mr. SYDNEY JONES.)

E. A—, aged ten, was admitted on March 10th, 1882. Twelve months before she had fallen on to a window, and wounded her left arm above the elbow on the inner side. The wound was sutured, and healed in a month's time, but a tender spot remained in the centre.

On admission she complained of a tender place above the left elbow, and on examination of this there was found to be

two inches above and a little posterior to the internal condyle, a scar about an inch and a half in length, running downwards and backwards; posteriorly to this there was another about three-quarters of an inch long. Beneath the principal cicatrix there was a very tender swelling in the course of the ulnar nerve, about the size of a horsebean, and presenting the character of a neuroma. Attached to this and a little below (a quarter of an inch) was a much smaller swelling having the same character. The left forearm was not so well developed as the right, this being most marked in the flexor and the inner sides; there was loss of sensation along the ulnar side of the hand, the whole of the little finger, and ulnar side of ring-finger. The movements of adduction of the hand and apposing of the little finger and thumb were imperfect, and she was unable to adduct or abduct the fingers. The muscles of the inner side of the hand and between the metacarpal bones were much wasted.

On March 18th, the patient being under the influence of ether, Mr. Sydney Jones made an incision about three inches in length over the neuroma and in the course of the ulnar nerve, and another at right angles to this. On dissecting down, the two swellings were found to be connected with the ends of the divided nerve, which were about two inches apart, a small fibrous cord connecting the two. The bulbous enlargements were removed. Both ends were stretched, the upper end to much greater extent and more easily than the lower, and were united together by means of three catgut ligatures. It was difficult to retain them in position on account of the tension. This was avoided by putting the elbow in a straight position. A drainage-tube was placed in the wound, which was closed by catgut sutures, and the limb, placed in a straight position, was encased in an antero-posterior plaster-of-Paris splint. The operation was conducted antiseptically.—19th: In great pain all day; pain described as of a jumping character. Temperature in the morning 101° 2', in the evening 103° 2'.—20th: Complaining of pain in the wound. In the morning, pulse 128, temperature 100° 6'; evening temperature 99° 6'. The wound was dressed; there was found some slight collection of pus between the stitches. Wound looking well; some stitches removed.—21st: A little pain, passing halfway down the forearm on the inner side; can feel in little finger when firmly touched.—24th: Wound re-dressed antiseptically; more pus between edges of wound; the transverse one not healed, and the one at right angles still open where the two join; one or two small sloughs came away; remaining stitches removed, and edges approximated by strapping. No elevation of temperature since the evening of the 20th.—26th: Less discharge; edges closer together; re-dressed under spray.—30th: Wound re-dressed; small slough separating at junction of the two incisions. Can feel when little finger is gently stroked; unable to abduct or adduct fingers.

On April 3rd the wound was re-dressed, and lasted well. On the 6th the antiseptics were left off, and zinc ointment substituted. A week later there was more power in the little finger, and she felt well where before there was either partial or complete loss of sensation.—On the 18th the wound was healed.

On May 5th she left the hospital cured.

On microscopical examination the bulbous enlargements of the nerve proved to be true neuromata, there being little fibrous tissue.

#### SUSSEX COUNTY HOSPITAL, BRIGHTON.

VESICO-VAGINAL FISTULA; COMPLETE CURE WITHOUT AN OPERATION.

(Under the care of Mr. JOWERS.)

C. P—, aged thirty-nine, was admitted on July 5th, 1882, into Bristol ward. The patient complained of being unable to "hold her water." Ten weeks before admission she was confined. The last confinement was her sixth, and was more difficult than the previous ones. Labour lasted forty-eight hours, and forceps were used. On the ninth day after the operation her urine dribbled away for the first time.

On admission there was a vesico-vaginal fistula at the very top of the anterior wall of the vagina. The opening was ragged, with cicatricial borders, and large enough to admit the tip of a man's forefinger. A female catheter was passed into the bladder, through the fistula into the vagina. The anterior lip of the os uteri appeared to have been destroyed, and the os uteri itself was left somewhat patent.

On July 7th a soft catheter was tied in, and the patient was kept in the prone position.—21st: Owing to obstinate diarrhoea the catheter has been withdrawn.—24th: The catheter has again been tied into the bladder to-day.—28th: The catheter has slipped out during the night. She affirms that much less urine runs away from the vagina, and also that she has passed several ounces voluntarily at one sitting.—31st: Catheter again tied in.

Aug. 4th.—Catheter removed this morning. She says that no urine runs away.—18th: As a small quantity of urine is again escaping the catheter is to be tied in once more.—20th: The patient is menstruating. The catheter has been removed. No urine is escaping.—25th: The patient was instructed never to empty her bladder herself. The urine is drawn off four times in the twenty-four hours. She keeps her bed. The sheets are never wet or stained.

Sept. 1st: She now gets up, and has complete control over the bladder.—6th: The patient was discharged.

Mr. Jowers remarked that he had never met with a similar case. In the text-books there is no such result recorded.

#### CASE OF CYSTIC BRONCHOCELE CURED BY SETON.

(Under the care of Mr. JOWERS.)

W. B—, aged twelve, was admitted on Oct. 6th, 1881, into the Chichester ward. The patient had a swelling in the neck. He had had this for four years. It was situated in the front of the neck on the left of the median line. It occupied the position of the left lobe of the thyroid gland. It rose and fell during deglutition. It was about the size of an orange, and had the feeling of a cystic body; it was not translucent. The right lobe of the thyroid gland was not enlarged. The swelling did not pulsate; it was neither painful nor tender. Patient's general health was quite good.

On Nov. 10th patient was put under chloroform. A small trocar and cannula were thrust into the tumour; two or three teaspoonfuls of dark coloured fluid ran out. Tincture of iodine and water, half and half, was injected. The trocar was then thrust into another part, and about the same quantity of similar fluid ran out. This cyst was likewise injected.—11th: Patient has had no pain.—14th: The iodine injections have had no apparent effect.

Dec. 1st.—The swelling having regained its former size, the tapping has been repeated and undiluted tincture of iodine injected.—3rd: The iodine has not caused any inflammation.

Jan. 1st.—The injection of iodine has been tried a third time with no apparent effect.

Feb. 1st.—Four pieces of thick silk have been passed through the tumour by means of a post-mortem needle; there was no hæmorrhage.

April 1st.—Since the last note there has been a marked decrease in the size of the swelling. On some days there is nothing to be seen, and then again it will become obvious. Seton continued.

May 12th.—As nothing abnormal has been observed of late, the seton has been removed.

June 21st.—The sinus left by the seton has long healed. The swelling has not returned. Patient discharged.

For the above notes we are indebted to Mr. B. Scott, house-surgeon.

#### NEWCASTLE INFIRMARY.

EYELASHES IN THE ANTERIOR CHAMBER OF THE EYE,  
THE RESULT OF A STAB.

(Under the care of Mr. WILLIAMSON.)

PETER McD—, a schoolboy, eight years old, was admitted on account of a lacerated wound of the foot, caused by the wheel of a coal-truck. His left eye was bandaged when he was admitted, and he explained that a fortnight previously his brother had stabbed him in the eye with a penknife during a quarrel. There was but slight inflammation and very little increase of vascularity in the ciliary region. On the front of the cornea in the area of the pupil there was an irregular cicatrix about the eighth of an inch long, and inside the anterior chamber were what appeared to be six or seven hairs lying vertically. The ends of some of them were engaged in the iris, without seeming to cause any irritation.

Four days after admission the child was chloroformed.

Mr. Williamson made an incision at the upper part of the cornea, and excised a piece of the iris. The hairs were then drawn out with a pair of fine forceps; one hair that escaped the forceps was caught by a Tyrrell's hook. All went on well after the operation, and the lad has now good sight with the injured eye.

Under the microscope the hairs were found to taper to a point at one end, and to have a root at the other. They were about the length of the eyelashes. The lid was carefully examined for a gap in the line of lashes, but none was found. Probably the knife was a blunt one, and caught the lashes about the middle, doubling them up and drawing them out by the roots. They would then be carried on the end of the blade into the anterior chamber, remaining there when the knife was withdrawn.

It is remarkable that the hairs caused so little irritation, although some of them actually pierced the iris.

## Reviews and Notices of Books.

*On the Climate and Fevers of India.* The Croonian Lectures for 1882. By Sir JOSEPH FAYRER, K.C.S.I., F.R.S. London: J. and A. Churchill.

IN the present volume Sir Joseph Fayrer has supplied the deficiency we regretted in his work on "Chronic Dysentery and Tropical Disease," a deficiency which in our opinion detracted considerably from its value as a complete treatise on the subject which it discussed. We are the more interested in this matter since year by year the study of tropical disease becomes a greater necessity for every practitioner in this country as the means of intercommunication between the various regions of our vast empire become more extended and more rapid. Sir Joseph Fayrer is therefore assured of an intelligent and interested audience to listen to whatever he has to tell them of diseases that are coming more and more under observation in this country. The work opens with some valuable statistical details, chiefly relating to the distribution of fever in different parts of India, in connexion with the physical geography of the various districts, climate, rainfall, irrigation, habits, food, &c., and then passes to a consideration of the etiology of tropical fevers generally. The origin and nature of malaria are discussed at length. This subtle foe, as far as England is concerned, has long since, like scurvy, been banished to a pathological limbo, and not without reason, since in an open form it may be said almost to have ceased to exist, except in a few—and it appears these are becoming less and less year by year—ill-drained and poorly-cultivated districts. Dr. Stephen Mackenzie's statistics on this point, quoted by Sir Joseph Fayrer, are extremely interesting. From these it appears that in the London Hospital, which from its size and position is well qualified to afford information, in the year 1770, of 1483 in-patients there were 21 cases of intermittent, with 1 death; in 1780, apparently an unhealthy year, there were among 1617 in-patients 59 cases of intermittent, but only 1 death; whilst in 1870, with 5218 in-patients, there were only 2 cases; and in 1880, with 6312 patients, there were 14 cases, but no deaths. The question of malarial poisoning, however, has been revived of late, since many eminent authorities believe that, "though scotched, it is not killed," and that the disease still frequently manifests itself, though in an insidious and incompletely developed form. The chief interest, however, connected with the subject of malaria relates to the probability of its having been caused by organisms. The subject has been investigated by Klebs, Tommasi Crudelli, and others, who have all demonstrated the presence of organisms in the blood of ague patients and the soil of malarious districts. Dr. L. Aitken, of Rome, has in this country shown what he regarded as specimens of bacillus malaria, and Dr. MacMunn, of Wolverhampton, discovered a bacillus in the blood of a young African traveller during the cold stage



of an intermittent fever. Further observations are required, however, before the hypotheses advanced can be finally accepted. Sir Joseph Fayrer states the case as it at present stands clearly and impartially. The modes of action of malaria are next discussed, and much valuable information added to our store of knowledge. In speaking of the respective action of air and water in distributing the poison, he makes no mention of the interesting fact to which the late Professor of Military Hygiene at Netley first drew attention—viz., that the troops quartered at Tilbury Fort have generally suffered more or less from ague, whilst the men at the railway station, the coastguard, and their families, just outside the fort, never suffer from malarial poisoning. The soldiers drink rain-water stored in tanks, the others water from a spring.

The second lecture is chiefly devoted to a clinical description of paroxysmal fevers of malarial origin, and is an admirable summary of the chief features of the disease in its various manifestations. The temperature-charts of the different types will be found especially useful by practitioners in this country for purposes of reference and comparison. The author, however, hardly touches the subject of the sequelæ of the disease, and we regret that he has not done so, as it would have greatly added to the value of the work for English readers. At present the best summary we have is the interesting clinical lecture delivered by Dr. Murchison shortly before his death, and which appeared in our columns on May 2nd, 1879. Sir Joseph Fayrer quotes Verneuil as showing the occasional occurrence of glycosuria with or after malarial fever. This, however, is no new fact, since Prout made a similar observation forty years ago.

The third and last lecture deals with the continued fevers of India, and its chief interest consists in the discussion of the question of the etiology of enteric fever in that country—whether the disease which in temperate climates is universally acknowledged to have one specific origin, may not in the tropics be derived from others. As Brigade-Surgeon Marston has well put it, there apparently exists two forms of enteric fever in India, which cannot however be clinically or pathologically differentiated: one not depending on any specific poison generated in the intestines of one person and conveyed to another through some vehicle; the other where the cases can be traced to such cause through fouled air, water, &c. The subject still awaits solution, and it is a question whether a more searching investigation may not prove that the two forms, apparently so alike clinically, may not take a pathological departure in the character of the intestinal lesion. Thus Dr. Wall, of Calcutta, has described an ulceration, by no means selecting the site of Peyer's patches, which occurred in cases of "remittent;" whilst in the post-mortem appearances recorded by Röderer and Wagler in cases of so-called "typho-malarial" fever, the bulky tumefaction, ulceration, and sloughing of Peyer's glands are not recorded as having been present. Nor is the evidence brought forward to show the impossibility of infection from specific causes perfectly convincing. It is difficult, for example, to understand why the fact that cases of enteric fever occur in Europeans speedily after arrival in India, often in districts previously only occupied by natives and where there is absolutely no evidence of any previously existing filth contamination, should be considered as conclusive against the possibility of disease arising from specifically infected excreta, since the seeds of the malady might easily have been brought by the new comers from their last station.

It now remains, in bringing this notice to a conclusion, to thank Sir Joseph Fayrer for the lucid and graphic manner in which he has brought the subject of these lectures under our notice. He has produced a work which will long be

consulted as a standard authority on the subject on which it treats, and it will eventually take its place among the medical classics.

*Spon's Encyclopedia of the Industrial Arts, Manufactures, and Raw Commercial Products.* Edited by CHARLES G. WARNFORD LOCK, F.L.S. Two vols. pp. 2142. London: E. and F. N. Spon, 1882.

THIS splendid work forms a fitting companion to the Dictionary of Engineering published by the same firm. The editor must be congratulated on the help he has received from a large staff of contributors well known in the scientific world, and on the great judgment and skill he has displayed in a task of no ordinary magnitude.

The plan of the work is explained very clearly in the preface, from which we should quote largely if space permitted. "The most notable and important feature is undoubtedly represented by the Raw Commercial Products." These are arranged "in groups according to their similarity of origin, character, and application." Thus we find as separate headings, drugs, dye-stuffs, fibrous substances, narcotics, oils and fatty substances, resinous and gummy substances, spices, starches, sugar, tannin, and timber, with many others. This arrangement presents many advantages, and is on the whole the best, although it is attended with occasional difficulty. Tea, coffee, and india-rubber, for instance, occur under two different headings, and were it not for a tolerably copious index it would in some cases be rather difficult to find the information sought for.

Manufactures and industries form another important portion of the book. We may mention as first-rate articles those headed "Bleaching," "Coal-gas"—evidently by Mr. Greville of the Commercial Gas Company,—"*Manures*," with elaborate details in regard to the modern artificial fertilizers, "*Soap*," and "*Glycerine*,"—which are merely examples drawn from a long list. The articles on textile industries are also very good.

The subject of adulteration is somewhat imperfectly dealt with. The deficiency is not of great importance, as many good text-books are available; but we think it would have been better to have included more of the methods of analysis which have come into use since the passing of the Food and Drugs Acts. The adulterants most frequently used are, in general, sufficiently described.

Among the articles which will be most valuable to our readers we will select a few of the most important, as they serve as fair illustrations of the general character of the work. "*Alcohol*" is one of the first. It contains an account of the mode of preparation and peculiarities, not only of the common but also of many of the less common spirits in use, such as absinthe, arrack, and kirschwasser. The Russian liqueur, kümel, is, however, omitted. "*Beverages*" include aerated waters, tea, coffee, cocoa, beer, cider, wine, and water. There is much useful information in regard to the deterioration of wine. "*Drugs*" is an excellent article. It occupies nearly thirty large and closely printed pages, and gives information about many drugs but little known in this country, such as Ajowan, bael, and the Bolivian coto. The account of the cinchona is very full and interesting. "*Oils and Fats*," divided into animal, fixed, vegetable, and volatile, is also a very useful article, as is that headed "*Resinous Substances*," under which india-rubber, tar, and turpentine are included.

If we add that much attention has been paid to the nuisances arising from chemical manufactures and the means of remedying them, and that waste products are in general well described, our readers will see that the new "*Encyclopedia*" is one without which, to use the time-honoured phrase, "no gentleman's library, certainly no medical library, is complete." The book is fully and

admirably illustrated, and is printed well and on good paper. So valuable a work will be sure to reach a second edition before long; and we venture to suggest to the editor that it might easily be improved by the insertion of a greater number of well verified analyses of raw, waste, and manufactured products.

*Notes on Surgical Treatment and Minor Operations.*

Specially designed for House-Surgeons and Students. By THOMAS F. HOPGOOD, L.R.C.P., M.R.C.S., Surgeon to the Sunderland Infirmary, &c. London: Baillière, Tindall, and Cox. 1882.

We are informed in the preface that this work is intended "as a guide to every-day work of house-surgeons and students." A few quotations will show that the above description of the book is not warranted by the character of its contents. The grammatical construction is often peculiar. Thus on the first page we read: "..... dislocations, which can be replaced easily, should be effected at once." A fluid recommended for injection into the sac of an hydrocele is one composed of "equal parts of iodine and water." On page 24 "house-surgeons and students" find themselves addressed in these words: "If you have stricture it may either come under the surgeon's or house-surgeon's care." To pass a French catheter "all you have to do is to catch hold of the penis with the left hand, and drag it well forwards, and pass the instrument by thrusts, at the same time giving it a rotatory motion." On page 16 hot fomentations are stated to prevent suppuration, but hot linseed-meal poultices to hasten it. Again, on page 13, we read that after a large abscess has been opened "in most cases stimulants are necessary." "As a rule, stimulants do good when the pulse grows less frequent, the tongue cleaner, and the temperature lower." We learn also that the stomach-pump "may be used in stricture of the œsophagus, or in mania." In taking a skin graft "a small piece of skin is caught hold of with the artery forceps, and then divided, taking care to remove no fat with it." We will complete these quotations by an extract which is Mr. Hopgood's advice to "house-surgeons and students" when asked to give a prognosis in a case of burn. "If the burn be at all severe it is best to give a guarded opinion, by saying the probability is they will either live or die; but the possibility is that they may recover or not, according to the circumstances of the case—namely, if the chest is burnt the prognosis is not so favourable as if the legs; then, again, the age, constitution, and severity must be taken into account."

The absence of any kind of index, and of any alphabetical or other simple arrangement of the matter of this "guide," is one of the striking features of the book.

*A Price List of Surgical Instruments, Apparatus, Appliances, &c.* Manufactured and sold by JOHN WEISS and SON. London: M. S. Rickerly. 1882.

*Catalogue of Surgical, Physical, and Physiological Instruments, Microscopes, Medical Appliances, and Sundries.* By BRADY and MARTIN. Newcastle-upon-Tyne. 1882.

IN revising their catalogue of instruments, Messrs. Weiss and Son have added to it the price of every article, which will be a great convenience to their customers. Unlike many similar catalogues, it contains no illustrations; but this want is to be supplied by a separate book of illustrations, which will shortly be issued, and make the catalogue complete.

Messrs. Brady and Martin supply a priced and illustrated catalogue not only of surgical instruments and appliances, but also of microscopes and all requisites for modern histological work, even down to the various staining reagents and mounting media. Physiological instruments, such as the kymograph, tenometer, and onkometer, are also to be found, along with museum jars and various other appliances

used by medical men in their various pursuits. These additions have materially increased the value of this catalogue.

## CUTANEOUS INJECTION.

*To the Editor of THE LANCET.*

SIR,—We are constantly reading of experiments on animals, showing how death is produced by the injection under the skin of fluid containing different kinds of micro-organisms, but might not the gentlemen conducting these valuable experiments greatly enhance their value by trying to discover an antidote to these poisons? If they could only be induced to inject into the veins of the animal about to have the poisonous fluid introduced some of the numerous antiseptics or germicides, they might possibly make the discovery that one of them possessed the remarkable and useful property of converting the blood into a fluid in which the development of the poison could not proceed, and the animal would not die. We have all heard that the injection of a solution of permanganate of potash into a vein immediately after the introduction into the system of the rapidly fatal cobra poison prevents that poison from having its usual fatal consequences, and doubtless it would have the same result if injected immediately before the bite of the cobra. Again, Dr. Fontaine, Bar-sur-Seine, has had the most remarkable success in his treatment of diphtheria by giving his patients sulphide of calcium until the breath and skin exhale the odour of sulphuretted hydrogen. And even if the experiments on animals, such as I suggest, should fail to discover an antidote or germicide powerful enough to counteract the poisonous effects of the micro-organisms, which in a concentrated form are injected under an animal's skin, it might still be possible for those of our surgeons who have a large and sad experience of blood-poisoning, or for those practitioners who have numerous cases of zymotic diseases constantly under their charge, to move in the track of those gentlemen who have been successful in combating the deadly cobra poison and the too often fatal diphtheria.

There are several antiseptics besides permanganate of potash with which the blood might be saturated, either by injection into a vein or by small and frequently repeated doses—for example, eucalyptus, sanitas, the sulphides, the carbolates, the salicylates, &c., and I trust I am not too sanguine in believing it quite possible that carefully conducted experiments might discover in some of these a means of destroying or rendering harmless those other zymotic poisons that play such terrible havoc with human life.

I remain, Sir, yours truly,

Snaresbrook, Sept. 13th, 1882.

WALTER SCOTT, M.B.

## IRIDECTOMY KNIFE.

*To the Editor of THE LANCET.*

SIR,—I wish to call the attention of ophthalmic surgeons to a new-shaped iridectomy knife which I have devised. It is easily made out of the old-fashioned knife by having the point ground down, and the cutting edge made semi-circular like a cheese-cutter. It is used by a sideways motion until the sclerotic is cut through, and not by transfixion; and the advantages I claim are the absolute immunity from danger of wounding the capsule, and also that the wound, being almost at right angles to the sclerotic, allows of the iris escaping at once. Messrs. Weiss have the pattern, and have made me several. It can also be used for linear extraction, for which I first had it made, and it succeeds very well; but in this country, where there is a difficulty about sharpening knives, it does not last so long as a straight knife.

I am, Sir, yours truly,

GEO. HY. C. HALL, Surgeon, I.M.D.

Eye Hospital, Allahabad, India, Aug. 20th, 1882.

ROTUNDO LYING-IN HOSPITAL. — During the year ending April 1st last, 1819 patients were admitted to the labour wards, which with 29 previously in the hospital made a total of 1348 under treatment. Of these 12 died, and the mortality, deducting 218 admitted to the lying-in department, but discharged, not being then in labour, was 1.08 per cent.

# THE LANCET.

LONDON: SATURDAY, SEPTEMBER 23, 1882.

NEARLY twenty years ago, Dr. BRISTOWE and Mr. HOLMES, in a Report to the Privy Council on Hospitals, discussed many of the conditions required for the hospital treatment of infectious diseases. But since that time the principle has been largely accepted that infectious persons should be treated in hospitals altogether separate from those devoted to non-infectious cases, and legal powers have been given to, and utilised by, many sanitary authorities for the erection and maintenance of a number of institutions for the isolation and treatment of infectious persons, and for the prevention and limitation of this class of disease among communities. Knowledge and experience of such hospitals have therefore considerably increased, but the lessons taught by the success of some institutions and the failure of others could only be fully learnt by a comprehensive inquiry into the history of all.

The intention of the Local Government Board to collate the experiences of sanitary authorities who had provided their districts with hospitals has now led to the issue of a volume which will be welcomed not only by sanitary authorities, but by all health officers and architects interested in or concerned with the making of hospital provision for infectious diseases. That the work was entrusted to Dr. THORNE THORNE is good evidence of the importance attached to it by the Local Government Board, and is a guarantee of the thoroughness and trustworthiness with which it has been carried out.

In the first instance a circular letter was addressed to the various authorities, inquiring as to the nature and amount of the hospital provision which had been made by them, with the result of showing that 296 out of 1593 sanitary authorities in England and Wales had made some sort of provision. This inquiry was useful as indicating the districts which were best worth visiting, and these were selected as representing certain classes in which there had been either failure to secure isolation, or in which a temporary or permanent hospital had been provided by a single authority or by combination with other authorities, or where arrangements had been made for the admission of infectious persons into an existing infirmary. Altogether sixty-seven hospitals were visited, and these, varying very greatly, have afforded Dr. THORNE an ample opportunity for considering all details of hospital construction, as well as the requirements of different districts.

Dr. THORNE gives an interesting account of the manner in which many of the hospitals came into existence, and how they are often dependent upon some previous outbreak of typhus or cholera for which provision had to be made; and he states very clearly that if a hospital is hurriedly built under the influence of panic, it is often not ready for occupation until the immediate cause of its erection has passed by; it provides accommodation of a very indifferent sort, and it fails, almost without exception, to meet the permanent

requirements of the district. It is obvious that when a hospital is wanted for one outbreak of disease it will in all probability be required for others, and the proper course for a sanitary authority to follow is always to have ready for immediate use the accommodation that will be needed.

Dr. THORNE'S conclusions with regard to the site of infectious hospitals are well worth the consideration of all authorities who may in the future have to provide for their districts. He found that distance from the patient's home alone was not so much an obstacle to the use of a hospital when the sick person's welfare alone was concerned, but that when this interfered with the visits of friends it often led to the sick remaining in their own homes. Again, the removal from one district into another sometimes proved a difficulty, especially when the patient and his friends were not familiar with the region in which the hospital is situated. Indeed, the whole Report bears evidence of the extent to which sentiment influences the amount of use to which a hospital is put, and this is no matter for surprise when it is recollected that families are asked to entrust to strangers the care of some member who at the time is absolutely dependent upon those about him. This is a point which appears in several parts of the Report, and is one which should be carefully borne in mind in all matters relating to the construction and management of such institutions. For this and other reasons Dr. THORNE recommends that the hospital should be situated in the district for the use of which it is intended. If for a town, it should, under ordinary circumstances, not be more than two miles away, and if for a rural district not more than four or five miles from the more populous portions. In choosing the site, regard is of course to be had to the necessity which might in the future arise for the further extension of the building; while the situation of the hospital on the site should, if possible, be such as to admit of the opposite windows of the ward pavilion facing somewhat to the south of east and to the north of west. The whole is to be enclosed by a substantial wall, to prevent any improper communication between the inmates of the hospital and the outside public.

The more efficient hospitals have made provision for two diseases and for two sexes suffering from each; they have therefore consisted of a central administrative block, four pavilions, and out-buildings containing laundry, mortuary, &c. The administrative buildings have always been somewhat in excess of the requirements of the permanent buildings, so as to enable the hospital to bear, without inconvenience, the erection of temporary wards when any special occasion arises. They are separated from the ward pavilions, with which they sometimes communicate by means of a passage well ventilated, by being altogether open or with cross windows. The use of iron and wood for the erection of pavilions has not proved satisfactory. Wards thus constructed have been found too hot in summer and too cold in winter; while, so far as economy is concerned, Dr. THORNE is of opinion that if they were properly constructed to overcome this objection their original cost would either equal or exceed that which would be incurred by the erection of ordinary brick buildings.

The best hospitals are all arranged on the pavilion principle, this plan offering far better opportunities for classification of diseases and ventilation of wards than any other,

and the arrangement of the buildings in the most efficient hospitals was not found to accommodate more than twenty patients on an acre. Where accommodation has also to be provided for small-pox, Dr. THORNE recommends that the pavilion for this disease should be more separated from the rest of the hospital than is necessary for the other fevers, and that it should contain sleeping accommodation for nurses.

The construction of ward pavilions is fully dealt with, the amount of floor, wall, and window space for each bed discussed, and the best methods of ventilating and warming indicated. Much difficulty has been found in comparing the cost of different methods of construction, but a very instructive table accompanies the Report, and shows the cost per bed of some of the best permanent hospitals.

Dr. THORNE goes carefully into the question of the advisability of general hospitals receiving cases of infectious diseases at the cost of the sanitary authorities, and expresses a strong opinion against this plan. He quotes the Pendlebury Hospital for Sick Children as the one best arranged for separating infectious from non-infectious patients, and points out that even in this institution extension of disease among the latter has from time to time occurred, and that where small-pox is concerned nothing but a complete severance of the two parts of the institution, both as regards wards and administration, gives security against such accidents.

An important lesson is taught by the failure of some sanitary authorities to secure the isolation of infectious cases. The failure, as a rule, depended upon the erection of the hospital at a period when it was too late to answer the purpose of isolating the first cases of an outbreak, or when for some reason or other it was not well adapted to the needs of the district. But with one single exception, "no hospital adapted to and kept in readiness for the reception of the sick was found which had not done some good in staying the spread of infection."

With regard to the different infectious diseases, Dr. THORNE found the greatest efforts had been made by sanitary authorities to isolate small-pox, while scarlet fever did not appear to be regarded as deserving so much care; but, as he points out, scarlet fever is the disease for which isolation is most constantly and most urgently needed. Dr. THORNE places small-pox next in the order of those diseases which need isolation, but admits that typhus has in some towns prior claims to small-pox in this respect. Dr. THORNE does not enter into the question of how far it is fair to tax for the benefit of the unvaccinated the ratepayer who chooses to protect himself against small-pox by resorting to vaccination; but there is no doubt that the cost of providing for the isolation of small-pox, a cost which is already large, and likely to be much increased if the teaching of Mr. POWER's report on the Fulham Hospital is to be acted on, will soon make the hospital provision for this disease a very serious undertaking. Diphtheria and measles have been occasionally isolated, but there are good reasons why sanitary authorities should find it difficult to undertake such duties with regard to the latter disease.

Dr. THORNE'S inquiry into the results of compulsory notification of infectious diseases was conducted at a period too early for any large amount of evidence to be forthcoming, but he expresses the opinion that "where a suitable hospital exists, such notification, if general, cannot fail

greatly to favour the object in view." In several districts he found that a notification of infectious diseases occurring amongst children attending elementary schools has proved useful in facilitating the isolation of such cases. A point particularly worthy of notice at a time when the arrangements for the isolation of infectious cases in the metropolis are under consideration is the necessity which was everywhere found for the separation of hospital provision for infectious diseases from all association with the relief of paupers. Hospitals for sanitary purposes must be altogether under the control of sanitary authorities, and although under certain conditions the admission of paupers into these institutions does not appear to interfere with their usefulness in other respects, the greatest care is needed to prevent the pauper, while in the hospital, bearing evidences of his social condition.

Many other points are considered which must be left for further notice, particularly the evidence as regards the influence of these institutions on the neighbourhood surrounding them. The Report is undoubtedly the best work on hospitals for infectious diseases which we possess; it contains an excellent account of the different institutions which Dr. THORNE visited, and is very fully illustrated with a number of plans showing their construction and arrangement.

THERAPEUTISTS have paid little attention to the changes which drugs, administered by the mouth, undergo in the digestive organs before they are absorbed, except in the case of those inorganic substances which are given for their direct effect on the gastric mucous membrane. The practitioner gives other drugs, for the most part, without considering how far they may be altered before they leave the alimentary canal. He is guided by what is known of their subsequent action on the system and of their effect in disease, and he is no doubt thus guided, in the main, correctly. Nevertheless the subject is not an unimportant one, since the influence of the digestive ferments on drugs must, or rather should, determine the time of their administration in relation to the process of digestion. At present careful attention is paid to this point in choosing the time at which to administer those therapeutic agents which are designed to have a direct action on the stomach, but, as regards others, it is not considered except in so far as it influences the rapidity of their absorption. No facts, indeed, have hitherto been available for the guidance of the practitioner on this important subject. It is only since the processes for artificial digestion have been perfected that it has become possible to ascertain such facts, and the subject is certainly worthy of the attention of the pharmacological experimentalist.

These remarks are suggested by a series of experiments of this nature, although with a different object, which were described at the recent meeting of the Pharmaceutical Conference by Mr. GEORGE BROWNE. This gentleman has endeavoured to ascertain to what extent the digestive ferments may be made available for the production of preparations of various drugs. The question necessarily involved that of the extent to which their active principles suffered in the process. The constituents of rhubarb were found to be extracted, with remarkable completeness, by treating an infusion first with an acid preparation of pepsin,

and then, after neutralisation, with an alkaline solution of pancreatin. The former extracted 47 per cent. of the rhubarb, and the latter 13 per cent. more, leaving only a residue of cellulose and earthy salts. Infusion of calumba, prepared with boiling water, and passed through a similar process of digestion, gave somewhat similar results; only spongy cellulose, associated with a trace of berberia, was left. Cinchona and opium, on the other hand, behaved differently; the gummy and extractive matters were dissolved and retained in solution, but a considerable quantity of the alkaloids was left behind. About half the cinchona and two-thirds of the opium were dissolved. The cinchona tannin was destroyed in the process of digestion, and failed to precipitate gelatine. The arabin of gum acacia remained apparently unaffected by the process, but a peptonising change was wrought upon some other constituent of gum, possibly a nitrogenous impurity. The mucilages obtained from Irish and Iceland moss were also tested, since they hold an intermediate position between foods and medicines. The alkaline extract of the pancreas seemed to exert very little action on Irish moss, although the proteolytic ferment of the pancreas, extracted with acids, soon destroyed the viscosity of the mucilage, and divided the jelly into soluble and insoluble portions. Iceland moss behaved somewhat differently. A jelly of it became flocculent when acted on by the gastric ferment, and under the influence of pancreatic extract deposited yellowish white flakes, consisting of non-crystalline masses, possibly peptic acid.

Of more direct interest, however, is the action of the digestive ferments upon definite organic compounds. The acidulated extract of the gastric juice decomposed a watery solution of salicin very slowly and imperfectly, but the pancreatic ferment split up the salicin into saligenin and glucose. Jalapin remained intact after digestion with the pepsin solution, but pancreatic digestion withdrew from it a copper-reducing substance. Neither process had any influence upon santonin. A solution of tannin, treated with the acid pepsin solution, became turbid, but the turbidity disappeared after the addition of a little more hydrochloric acid, and prolonged digestion seemed to have no further influence. The pancreatic extract, however, quickly rendered tannic acid incapable of precipitating gelatine, as it had been found to do in the experiments with cinchona bark, apparently by converting it into gallic acid. The experiments of Mr. BROWNEN go no farther, but he has evidently opened a field of considerable importance, in which other observations will probably yield results of considerable practical value to physicians as well as to pharmacists.

In our Local Government Department we give an abstract of three reports on Diphtheria which have been presented to the Local Government Board, and which exemplify in a striking manner the difficulties which are connected with investigations as to the etiology of this disease. The outbreaks occurred at King's Lynn, Sale, and Sutton-in-Ashfield. In two instances the disease appeared in low-lying localities; in the third on a plateau at an elevation of 500 ft. above the sea. The soil on which the affected places stood differed as widely as possible—in one instance consisting of the alluvial deposit of the river Ouse, in another

of the magnesian limestone and the new red sandstone. The method of infection, though at times due to personal communication, was certainly not so in all cases, and even the fact of school assemblage, so commonly believed to be a principal factor in the incidence of the disease upon young children, entirely failed in one marked instance to account for that special incidence. Various faulty sanitary conditions affecting the housing and other surroundings of the patients were discovered, and they are discussed in detail. They related to pollution of water, exposure to contaminated air from drains and privies, and at times to conditions of filth in-doors; but no one of these conditions could be regarded as common to the majority of the dwellings attacked, nor even to those where the initial cases occurred; indeed, in one town it was evident that the poorest and the least cleanly parts of the district were certainly not more affected than the more healthy localities inhabited by the well-to-do and the affluent. The three outbreaks either commenced or reached their maximum of intensity in the latter part of 1881, and if any common meteorological condition could be regarded as having brought them about, it might have been expected that they would have borne some resemblance to each other in their essential characteristics. But this was by no means the case. In one instance at least, the early attacks were apparently of so trivial and uninfected a character as all but to escape notice, and the more severe attacks which followed did so with increasing severity, giving some support to the view enunciated by Dr. THORNE THORNE before the Epidemiological Society as to the "progressive development of the property of infectiveness" in this disease. In other instances, however, each group of attacks commenced with genuine diphtheria marked by all its characteristic signs, and followed by the typical paralytic and other lesions. The outbreak at Sutton-in-Ashfield is further interesting by the fact that it seems to have been inextricably mixed up with scarlet fever. These two diseases certainly appeared side by side, deaths occurring almost simultaneously in the same house from both diseases, and, as far as Dr. PARSONS could learn, there appeared to have been so little chance of faulty diagnosis that he himself speaks of the one disease as apparently contracted from the other. Whether these two diseases can possibly have some mutual or common causation is certainly as yet undetermined, but there is something so indefinite about diphtheria as to make it quite possible that the poison to which it is due has not yet acquired the stability possessed by the special infection of some of the other specific fevers, and that it hence at times acquires characteristics resembling other allied diseases, whereas on other occasions these do not manifest themselves.

The etiology of diphtheria is as yet involved in so much obscurity that the record of any painstaking investigation into the subject is of considerable interest, and no piece of work which has been carried out by Dr. AIRY in his numerous researches as to this disease is more typical of the sort of inquiry which is needed than that relating to the epidemic at King's Lynn. Indeed, intending investigators of the subject would do well to study this report, and so to make themselves acquainted with the special and detailed character which their labours must assume if any trustworthy conclusions are to be drawn from them. This will



be the more necessary because it so often happens that bare statements recording, for example, the healthiness or unhealthiness of a locality or of a house affected are entered up in reports as to diphtheria, whereas the views of one investigator as to what constitutes healthiness or the reverse differ entirely from those of a co-worker in the same inquiry, and at times no indication whatever is given as to the nature of the alleged unhealthy circumstances, whereas these may vary as widely as do the different conditions of filthiness about houses which are associated with prevalence of enteric fever on the one hand and of typhus on the other.

From Dr. AIRY'S report on the diphtheria prevalence in King's Lynn, it is evident that every separate circumstance which could have led to the disease received the minutest inquiry, and one by one the conditions of water-supply, excrement-disposal, sewerage and drainage, food-supply, and other matters, are considered and set aside as not sufficing in themselves to explain the problem under investigation. Some of these conditions doubtless favoured the spread of the infection, but it is important to distinguish between the cause of initial attacks and circumstances favouring the subsequent propagation of the disease. This point being held in view, the influence of epizootic disease, of rainfall and damp, and of other circumstances, are also investigated, the question as to the cryptogamic origin of the disease being discussed in connexion with the mould of some fungic mycelium found in several of the infected houses. Failing, however, any satisfactory explanation of the question as the result of this line of inquiry, Dr. AIRY records a fact well worthy of note in connexion with the view often held, and also to some extent supported by himself, to the effect that diphtheria is in some obscure way favoured by dampness, especially in marshy districts. At King's Lynn considerable excavations had been in progress, both in the old river bed and in certain foul deposits along minor streams, just before the onset of the disease, and the direction of the wind was such as to carry into the town any emanations arising from this source. Long-buried germs of some indigenous diphtheria-causing microzymes may, he surmises, have been carried in this way amongst the population affected, the process being aided by conditions of season and of atmosphere favourable to the maintenance of their vitality and to their distribution. Further research can alone determine the value of this fresh hypothesis, but it is at least interesting to note in connexion with it that Dr. PARSONS, as the result of his inquiry at Sale, having eliminated all the more generally recognised causes of infectious disease, deems it conceivable that in the vicinity of the Mersey marshes diphtheria may perhaps be brought about by some living micro-organism, the development of which is nurtured in a moist and porous subsoil contaminated with decaying sewage and other matter. Certain it is that the field of research as regards the etiology of diphtheria is still open, and that no subject ever stood in greater need of being investigated in its minutest details, and with strictly scientific accuracy.

THERE are domestic troubles at the Macclesfield Infirmary, and an appeal has been made to the public through the local lay papers. We are not sure that this was the most

prudent or dignified mode of procedure with a view to secure the redress of such wrongs and grievances as those set forth by the resident medical officer. However, let that pass. It is not for us to comment, or to form a judgment, upon matters and questions which have not been submitted to the censorship of the professional press. Without noticing the personal issues raised, there is abundant evidence to show that the domestic discipline of the infirmary at Macclesfield is in a most unsatisfactory state. Past and present resident officers of that institution seem to be agreed that the matron is the ruling authority of the establishment. If this be the fact there is not a word to be said in defence of the organisation. A woman at the head of a medical institution renders it an anomaly; and members of the profession who desire to preserve their self-respect should retire from an establishment thus constituted. It is, as we have repeatedly and strongly insisted, essential to the welfare of a medical institution that it should be under the control of the medical men attached to it. The only legitimate position of a matron in such an establishment is that of a house-keeper, and it should be her duty to carry out the instructions of the medical staff as represented by the resident medical officer.

Unhappily the great majority of hospitals and infirmaries throughout the country are constituted on a wrong basis. Certain benevolent citizens, anxious to relieve the sufferings of a local population, found an institution, endow it, or place it in a position to be supported by subscriptions, and then offer medical appointments to the practitioners of the neighbourhood. This is beginning at the wrong end. It is like providing a suit of clothes and finding a man to fit them. A medical institution should be medical all through. To establish a lay authority and employ professional men as servants or agents in the work of treating the sick is to create an utterly unworkable system. The primary object of a hospital is to cure the sick; the purpose of affording the poor a shelter and necessary comforts while they are under treatment is secondary. It is for those who undertake the cure of the sick to determine how they shall be housed and fed and tended during illness, because these services are subsidiary, and ought to be made tributary, to the main purpose—namely, cure. Committees of laymen do not easily recognise the principle we have laid down, or if they do they refuse to adopt it as the guiding law of their conduct, and the only basis of a satisfactory organisation.

It may appear, at first sight, that the troubles which have occurred at Macclesfield, being chiefly of a domestic character, scarcely stand in the same close relation to faults of constitution as other troubles elsewhere; but it will be apparent on consideration that if a matron can in any matter dictate to the medical officer of an institution, she must be wholly out of her place, and a ruling power instead of an upper servant, which the matron of a hospital or infirmary ought, we contend, always to be. Public institutions, especially those constituted for medical purposes, need to be ruled by men. Women, in so far as they have any place in them, should be content to be servants, and obey. Unfortunately, the honour and excellence of obedience are qualities which women who aspire to even quasi-public positions are slow to appreciate, or wholly fail to perceive.

## Annotations.

"No quid nimis."

## SCURVY.

DR. BUZZARD, in a letter which appeared in our columns last week, considers the fact that the crew of the *Eira* were supplied with *preserved* vegetables tells against the supposition advanced by Mr. Neale, that if Arctic voyagers were to feed only on the flesh of the animals supplied by the country they would be able to dispense with lime-juice. The truth is, it is an open question with many as to the relative antiscorbutic properties of *preserved* vegetables, and whether under the circumstances in which the *Eira's* crew were placed they would have been sufficient, in the absence of lime-juice and fresh meat, to have preserved the crew from scurvy. A case in point is the outbreak that occurred on board the *Adventure*, in the surveying voyages of that vessel and the *Beagle*. The *Adventure* had been anchored in Port Famine for several months, and although "pickles, cranberries, large quantities of wild celery, preserved meats and soups, had been abundantly supplied," still great difficulty had been experienced in obtaining fresh meat, and they were dependent on an intermittent supply from wild-fowl and a few shell-fish. Scurvy appeared early in July, fourteen cases, including the assistant-surgeon, being down with it. At the end of July fresh meat was obtained; at first it seemed to prove ineffectual, but an ample supply being continued, the commander was able to report, by the end of August, "the timely supply of guanaco meat had certainly checked the scurvy." This is an instance in which articles of diet having recognised antiscorbutic properties proved insufficient, in the absence of lime-juice and fresh meat, and under conditions of exceptional hardship, exposure, and depressing influence, to prevent the occurrence of scurvy. So with the *Eira*, we believe that had they not fortunately been able to obtain abundant supplies of fresh meat, scurvy would have appeared, and that the preserved vegetables in the absence of lime-juice would have proved insufficient as antiscorbutics. This antiscorbutic virtue of fresh meat has long been recognised by Arctic explorers, and, strangely, their experience in this respect is quite at variance with ours in Europe. It has been sought to explain the immunity from the disease of the Esquimaux, who live almost exclusively on seal and walrus flesh during the winter months, by maintaining that the protection is derived from the herbage extracted from the stomach of reindeer they may kill. In view, however, of the small proportion of vegetable matter that would be thus obtained for each member of the tribe, and the intermittent nature of the supply, it can hardly be maintained that the antiscorbutic supplied in this way is sufficient unless there are other conditions tending in the same direction. And of these, one, as we have already stated, consists probably in the fact that the flesh is eaten without lactic acid decomposition having taken place, owing either to its being devoured immediately, or from its becoming frozen. The converse being the case in Europe, where meat is hung some time after rigor mortis has passed off, and lactic acid develops to a considerable extent. This seems a rational explanation, and reconciles the discrepancy of opinion that exists between European and Arctic observers with regard to meat as an antiscorbutic. In bringing forward the claims of the flesh of recently killed animals as an antiscorbutic, it must be understood that we fully uphold the doctrine that the exclusive cause of scurvy is due to the insufficient supply of fresh vegetable food, and that it can be only completely cured by their administration; but if the claims advanced with regard to the antiscorbutic qualities of recently slaughtered flesh be proved, then we

have ascertained a fact which ought to be of the greatest practical value with regard to the conduct of exploring expeditions, and every effort should be made to obtain it. Everything, moreover, conducive to the improvement of the sailor's dietary ought to receive serious consideration, and it has therefore seemed to us that the remarks of Mr. Neale and Dr. Lucas are especially worthy of attention, whilst we think the suggestion of the former gentleman with regard to the use of the blood of slaughtered animals likely to prove of special value.

## RARE TRAUMATIC ANEURISMS.

IN the July number of *Gaillard's Medical Journal*, Drs. Fenger and Lee, of Chicago, publish an interesting account of six cases of aneurism, each of which is well worthy of record and study. Two among them are of such rarity that we record their prominent features. A man, aged twenty-eight, received a bullet-wound just below the right orbit, and extending to the outer side of the nasal process of the superior maxilla. This was followed by a good deal of ecchymosis and inflammation, and by great pain on any attempt to open the mouth. After a week the swelling had subsided, but slight tumefaction of the right side of the neck remained. The man now resumed work; but on the fifteenth day after the injury he called on Dr. Lee, complaining of inability to speak or swallow, and of severe pain and stiffness of the right side of the neck. The tonsils and soft palate were so swollen that the back of the pharynx could not be examined. On the hard palate a small firm tumour, about the size of a hickory nut, was felt. Thinking this might be the bullet, Dr. Lee made a small incision over it; this was enlarged, some clotted blood was removed, and then followed a gush of bright arterial blood, which was quickly fatal. At the autopsy, a large cavity filled with old and recent clots was found bounded by the pharynx, the upper cervical vertebrae, and the stylo-hyoid and styloglossus muscles, with a prolongation extending to the swelling on the hard palate. About an inch above the bifurcation of the common carotid artery was a circular opening in the internal carotid vessel, and a second similar one in the opposite wall of the vessel. The bullet was found lying on the adventitia immediately outside this posterior opening. The second case was that of a man, aged nineteen, who received a bullet-wound an inch to the left of the middle line of the back of the neck, on a level with the mastoid process. There was immediately considerable arterial hæmorrhage, which was arrested by bystanders, and then at once swelling about the left angle of the lower jaw occurred, extending upwards and forwards on to the face, and also into the floor of the mouth. The wound was dressed antiseptically. On the ninth day the swelling below the ear pulsated, and there was a distinct aneurismal bruit in it. The left common carotid artery was accordingly ligatured. In a fortnight the patient was well enough to be up all day, the operation wound being almost closed, and the bullet wound quite healed. The man complained of a feeling of pulsation below the left mastoid process, but neither pulsation nor bruit could be detected by examination. Four days later, while undergoing examination in a law court, the man experienced severe pain, and the sensation of pulsation became more intense. The swelling and pulsation increased, and it was evident that the aneurism had recurred. Dr. Fenger determined to operate. An incision was made along the upper half of the anterior border of the sterno-mastoid muscle, and a transverse one from the top of this back through the insertion of the sterno-mastoid. The sac of the aneurism was then opened and the clots turned out, when blood was found to be poured out from the bottom of the cavity, and on further laying bare the parts it

was found to issue from the vertebral artery, where it lay on the arch of the atlas. The vessel, which was here nearly as large as the internal carotid, was tied. While this was being done the respiration and pulse stopped, but under artificial respiration and subcutaneous injections of whisky he man recovered sufficiently to allow the wound to be dressed. Subsequently transfusion of defibrinated blood was performed with marked benefit, and the patient ultimately made a perfect recovery.

#### THE DEFORMATION OF THE BODY DURING SCHOOL LIFE.

AN interesting paper on the above subject was read at the recent Geneva Congress by Dr. Dally. The Swiss Governmental Department of Public Instruction had summoned many members of the teaching body under their jurisdiction to attend the sitting, in order to listen to the various opinions and recommendations on the subject. In his opening remarks, Dr. Dally alluded to the fact that Dr. Chaussier, out of 23,200 newly-born infants examined for this purpose, only found 122 possessing any abnormal peculiarities, and these he counted rather as monstrosities than deformities, being in most cases hare-lips. Thus he argued that a child is straight when it goes to school, and he attributes to the enforced maintenance of one attitude for a length of time the corporeal deformations which are displayed at a later period; the various portions of the juvenile organism are easily displaced, and if the cause continues such displacements become permanent. He further advocated more attention being paid by doctors to the medical aspects of school life. He contested the assertions that muscular action was capable of producing deformations, and that gymnastic exercises could remove them. A point of essential importance, according to Dr. Dally's theory, is the maintenance of the suppleness of the lumbar region, and he condemned the habit of supporting the body on one side only, either in sitting or standing. He remarked that school girls usually stand on their right leg, and attributed this custom (which is to be deprecated) to the fact of their usually inclining towards the left side the weight of the body when sitting down. This last-named position of the body being necessitated in a great degree by the modern system of slanted writing, it was argued by Dr. Dally that a return to a more upright style of penmanship is advisable.

#### A CASE OF CESSPOOL POISONING.

A SINGULAR case of cesspool poisoning has been reported from Lyons by M. Bouveret. Although not altogether unique, it is at least unusual, and is of interest on account both of the symptoms and of an attempt which was made to save the patient by the transfusion of blood. A man, aged twenty-one, was proceeding to empty a cesspool, when he fell into it. He remained in it for a few minutes, at least five, possibly more, and was extracted with difficulty by means of ropes. He was insensible, and all means to restore consciousness being unavailing, he was brought to the hospital a few hours later. His lips were then livid, the conjunctivæ injected, the eyes fixed and turned upwards, the pupils dilated and insensitive to light. Respiration was frequent, sixty per minute; the pulse extremely rapid, but regular and fairly strong. He could not be made to swallow, but from time to time uttered a prolonged cry, and violent tonic spasms occurred in the muscles of the limbs, trunk, and neck, almost as severe as those of tetanus, so that the tongue was bitten. The treatment at first adopted consisted of inhalations of oxygen, which were continued for several hours; but the convulsive attacks continued, and a few hours later the temperature was 103° F. As the patient's condition was extremely critical, transfusion was employed; about 300 grammes of blood were withdrawn from the arm, and

120 grammes of blood obtained from the patient's mother, and defibrinated, were injected. No improvement, however, could be observed. The temperature rose to 104° and the convulsions continued. Death occurred about twenty-four hours after the accident, with a temperature of 105°. At the post-mortem examination the blood was found to be black and fluid. The lungs were extremely congested, and there was bright hyperemia of the bronchial mucous membrane, but no coagulation in the pulmonary artery. Congestion of the kidneys was also present. M. Bouveret, in commenting on the case, regrets that the blood was defibrinated, and that a larger quantity was not injected, thinking that to these two circumstances the inutility of the transfusion may have been due. This proceeding does not appear to have been adopted in any similar case. Sulphide of ammonium is believed to be the chief toxic agent in the contents of cesspools. It is a poison of the blood, acting in the same manner as carbonic oxide, fixing itself on the red globules, from which it drives the oxygen and renders them unable to perform their proper function. In cases of poisoning by carbonic oxide transfusion has been employed with success. Twelve such cases were collected by Casse in 1874, and in six of them the transfusion was successful. Eulenberg and Landois have recommended this proceeding in phosphorus poisoning, and it was employed in one case by Jurgensen, apparently with the result of saving the patient. In poisoning by nitrobenzole it has been employed without result. In many of these cases inhalations of oxygen have proved signally beneficial. Possibly its inutility in the case now recorded was due to the toxic agent. It is probable that cesspools contain gaseous poisons far more complex and more virulent than sulphide of ammonium, and that their action on the organism is at once more profound and less simple.

#### FEEDING LUNATICS.

THERE are few petty operations so difficult as feeding a refractory lunatic. Even with the greatest care and consideration the procedure may do harm. It is no reflection on the management of our asylums to offer the remark that, perhaps, there is too much forcible feeding. If there were more time to spare, and greater personal address on the part of attendants, there would be less need for recourse to the tube. We know men who have had the management of large numbers of violent and obstinate insane folk and yet scarcely ever found occasion to feed by force. It is very much like passing the catheter in hysterical cases. Much may be accomplished by personal influence and the exercise of an authority, which is instantly sacrificed the moment an insane patient comes to look upon his medical attendant as an equal, or even as what is too loosely called a "friend." The necessity for forcible feeding in a lunatic asylum, as elsewhere, is very much a matter of personal discipline, and for the establishment and maintenance of efficient personal discipline more time and care are requisite than can be bestowed on any individual patient treated in a crowd.

#### TRANSFUSION IN THE SEVENTEENTH CENTURY.

A CURIOUS account of the difficulties of a transfusionist of the seventeenth century has been disinterred by the *Union Médicale* from the "Mémoires of Bouteillier d'Ardenay, published in the year 1670. A certain Dr. Denys, of the University of Rheims, who was, moreover, engaged in teaching mathematics in Paris, had a high opinion of the therapeutic value of transfusion; and one day, seeing a young man running naked through the streets in a state of "dementia," tried the remedy upon him with great success. The patient regained his senses and continued well

for two months, but then relapsed into the same dementia. Denys a second time transfused some calf's blood, which he always employed. The patient this time was improved only, and not cured. At the end of a few weeks he lost his senses entirely, and was again brought by his wife to Denys, with the request that he would once more employ his sovereign remedy. Denys hesitated on account of the man's weakness, but yielded to the wife's solicitations. During the operation, as soon as the blood of the animal began to flow through the veins, the patient suffered such insupportable torments that Denys was obliged to desist. The man died six hours afterwards, on which the grateful widow sued Denys for damages for having killed her husband. Denys, however, brought a reciprocal action against the widow on the grounds that she had attempted to poison him. At the trial the judgment went in favour of the widow. Appeal followed appeal, and the case ultimately went up to parliament, where it was pleaded by eminent counsel for the widow and for a Paris surgeon, who was involved in the proceedings on the ground that he had assisted Denys. The latter pleaded his own cause in Latin with great ability. The case seems ultimately to have been discharged, but an edict was issued forbidding the practice of transfusion under pain of corporal punishment.

#### INFECTION AT SEASIDE LODGINGS.

WE are continually receiving cuttings from newspapers and communications of various kinds pointing out—in too many instances very painfully illustrating—the perils of infection which lurk in seaside lodgings to which the weakly or jaded resort for rest and health. There is an irony in the fate which makes these places notorious as centres for the propagation of disease. It is not easy to suggest a remedy, because those who live by letting lodgings regard their visitors as fair game at any risk. If a lodger contracts fever or diphtheria and dies or is removed one week, the bill "to let" will be up again the next week. It has been repeatedly suggested that there should be a systematic registration and inspection of lodgings; but apparently the time has not arrived for the need of such a measure to be publicly felt. Perhaps, when the many cases which are now scattered and therefore overlooked come to be collected and reported *en masse*, public opinion may be stirred in the interests of self-preservation and common sense.

#### FATTY DEGENERATION OF THE LIVER.

THE diagnosis of fatty degeneration of the liver is often extremely difficult—impossible unless the organ is enlarged, and when it is increased in size often doubtful, since the characters of this enlargement are common also to others. MM. Lépine and Eymonnet have drawn attention to a new symptom of the condition, which they believe to be of considerable practical importance. The former, two years ago, called attention to the value of an estimation of the biliary sulphur of the urine as an evidence of the degree of activity of the liver. The indication now pointed out is drawn from the same source. The phosphoric acid of urine, which is in the form of phosphate, is completely removed by treating it with the magnesian solution and baryta water, so that the filtrate contains no trace of phosphoric acid. The liquid is then evaporated, the residue calcined with nitrate of potash, redissolved in water acidulated with nitric acid, and treated with the magnesian solution; a little phosphoric acid will be found, which has evidently been newly formed. This is produced by the destruction, at the moment of calcination, of the phospho-glyceric acid normally contained in the urine, and which forms an integral part of lethicine. In the normal condition the quantity of phosphoric acid thus produced in normal urine is extremely

small, and does not exceed a centigramme—i.e., is not more than the two-hundredth part of the amount of urea contained in the same volume of urine. In several cases of fatty liver the observers have found that the amount, in proportion to the urea, was increased five-fold, or even ten-fold. At present, in no other condition, physiological or pathological, have they met with a similar increase. To what is this fact to be ascribed? Some years ago Dastre and Morat pointed out that the fat of the liver, like many other forms of fat found in the economy, contains lethicine. Lépine and Eymonnet have verified this statement by the direct analysis of livers which were in a state of fatty degeneration, and they have found, moreover, that the amount of lethicine under these circumstances is very large, amounting to no less than 3 per cent. of the fresh organ and 15 per cent. of the dried tissue.

#### THE INFLUENCE OF ALTITUDE ON HEALTH.

THIS subject (which was one of special local interest) was treated at some length at the Geneva Congress by the president, Dr. Lombard. He attached particular importance to the hygienic advantages to be derived from moderate altitudes of, say, 1500 to 3000 feet, in contradistinction to the effects produced by the more lofty portions of the mountainous regions of Switzerland and other countries. He dwelt on the advantages of the Engadine as a residence for persons of consumptive tendencies, and also described some of the sanatoria in the Himalaya Mountains. M. Paul Bert, while agreeing with the general principles laid down by Dr. Lombard, contributed some interesting details as to experiments he had made in his own person (in conjunction with several scientific friends) with a view to proving the efficacy of the inhalation of oxygen as a restorative process in cases where the excessive rarefaction of the atmosphere at extreme altitudes produces a kind of asphyxia. The general tendency of M. Bert's theory is to supply the oxygen which is wanting in the air at such heights, and the experiments he and his friends made consisted of the production, by artificial means, of this "mountain-sickness," and its removal by the inhalation of air with a full proportion of oxygen. The subsequent experiences of aeronauts tend also to prove that the inhalation of oxygen is an immediate remedy for the quickening of the pulse and of the respiration, the headache, somnolence, and partial loss of reason, which are amongst the symptoms of the injurious effects of extreme altitudes.

#### THE INFLUENCE OF BLOOD PRESSURE UPON CARDIO-INHIBITION.

MESSRS. SEWELL and DONALDSON, assistants of Professor H. Newell Martin, have been investigating the effect of alterations of blood pressure within the cavities of the heart upon the inhibitory function of the pneumogastric nerve. Their mode of experimenting and the results obtained are set forth in a paper published in the current volume of the "Transactions of the Medical and Chirurgical Faculty of the State of Maryland." The animals mostly employed were the frog and terrapin. The animal was beheaded and pithed, one cannula inserted into the inferior cava, and one into the innominate artery or one of its larger branches, and all the other vessels leading to and from the heart were tied. Defibrinated blood flowed into the venous cannula under constant pressure, which could be raised and lowered at will; the arterial pressure could be measured and varied in a similar manner. Both vagi were prepared for electric stimulation. With increase of the venous pressure while the arterial pressure remained constant, it was found that the inhibitory effect of an electric stimulus was lessened. Thus with a venous pressure of 2 cm. the heart's beats at

5.4 per 10 secs. were reduced by stimulation of the vagus to 3 in 10 secs.; when the venous pressure was raised to 8 cm. the same electric current had no effect in slowing the heart. On the other hand, variations of the arterial pressure were found not to have any effect upon the action of the vagus. Again, increased pressure upon the interior of the ventricle during diastole, which was necessarily associated with increased resistance to the auricular systole, had no influence upon the vagus action; but if blood found its way back into the auricles during their diastole, then the effect noted above was obtained. Subsequent experiments showed that the effect was the same whether the increased pressure was brought to bear upon the auricles or the sinus venosus during diastole. Many experiments were made on dogs to ascertain whether the effects were the same in the mammal, but owing to special difficulties in carrying out such investigations in warm-blooded animals, no satisfactory results have yet been obtained. But so far as could be ascertained, it seemed that increased venous pressure causes in the mammal also a lessening of the cardio-inhibitory action of the vagus.

### BRISTOL GENERAL HOSPITAL.

AT the half-yearly general meeting of the Board of Subscribers to the General Hospital of Bristol, held last week, the President (Mr. Proctor Baker) related the circumstances under which the committee had felt compelled to authorise extensive and costly alterations to be made. Early in the summer unpleasant smells were noticed in the hospital, and a little later on an outbreak of diarrhoea occurred among the in-patients. Mr. Eassie was requested to report upon the sanitary condition of the building, and he found that not only was the ventilation of the wards imperfect, but that the drains which were connected with the main sewer were not ventilated and were clogged with foul matter, and that the arrangements were altogether so imperfect that there was a constant escape of sewer-gas into the hospital. He also reported that the only satisfactory way of dealing with the evils was to make an entire and radical alteration in the system of drainage. The medical officer of health and the city engineer were also consulted, and could only concur in the advice tendered by Mr. Eassie. It was then suggested that the closure of the hospital for these repairs was a suitable opportunity for re-laying the floors, the cement having proved so unsatisfactory; and the wooden floor which was laid experimentally having been found to be far superior, it was accordingly recommended that the whole hospital should be re-floored with wood. The committee wisely determined to sanction both of these schemes, which are estimated to cost nearly £7000, but which are necessary to make the hospital worthy of the time and of the city of Bristol. We congratulate the committee on its courageous determination that nothing shall be lacking on their part to ensure attainment of the object of the great institution under their management, and we are confident that the citizens of Bristol will shew their appreciation of such honourable and enlightened conduct by supplying the authorities with the necessary funds.

### THE TREATMENT OF POLYDACTYLISM.

ONE or more supernumerary digits, or polydactylism, is one of the most frequent of congenital deformities. It presents, however, considerable variety in its nature. In some cases there is only a mere rudiment of a finger or toe consisting of skin and fibro-cellular tissue with usually a small piece of cartilage in the centre, adherent to one of the fingers, and more common on the inner than the outer side of the hand. In other cases the digit is perfectly formed and articulates either with the shaft of a phalanx or a metacarpal bone of another digit, some-

times in common with the normal finger, with a broad head of a metacarpal bone, or in still rarer instances upon one extremity of a bifurcated metacarpal or metatarsal bone. Cases are also met with in which the additional finger or toe has been united along its whole length with the next digit—a combination of polydactylism and webbed finger. Where the digit is a mere rudiment, it is always an unsightly and useless appendage, and should be removed at quite an early age by division of the pedicle with the ligature, knife, or, as recommended by M. Polaillon, the galvanic cautery. Where, however, the digit is fully formed and supplied with muscles so that it shares in the movements of its fellows, it becomes a question whether it should be removed, the answer to which depends upon the utility of the supernumerary digit and the extent of the deformity occasioned by it. The removal of these digits is a perfectly simple operation; but when they articulate with a metacarpal bone within the same capsule as the normal digit, there is a danger of exciting inflammation in this joint, and of so causing ankylosis. To obviate this M. Sédillot advised that in such cases the amputation should be made through the base of the digit to be removed so as to leave the articulation intact. This plan has been generally adopted of late years, but there seem to be reasons for modifying Sédillot's advice. In the first place, we are now enabled to open healthy joints without exciting inflammation or running the risk of ankylosis. And in at least three cases the base of the digit left behind has subsequently grown, and in part reproduced the deformity. M. Chréten, to whom such a case has recently occurred, has suggested that the explanation of this is that the base of the phalanx is ossified from a separate epiphyseal centre, and that when the amputation is so performed as to leave the epiphysis unimpaired it may continue its independent development. In the rare cases of a bifid metacarpal bone the amputation should be made at the point where the shaft of the bone bifurcates. There is, of course, less reason for undertaking any of these operations in the foot than in the hand.

### CERTIFICATION OF DEATH IN DOUBTFUL CASES.

THE *Bristol Daily Mercury* reports an inquest on the body of a young woman, Elizabeth Hemfield, at Hallowtree Inn, Hallowtree, who a few weeks before had been a patient at Newport Infirmary, under the care of the house-surgeon. No medical man saw her at Hallowtree, and the accounts of her last illness, as reported, are too meagre to base any opinion on. Mr. Perrin was called, but found the patient dead. The house-surgeon of Newport Infirmary under these circumstances was applied to, and reluctantly gave a certificate of death from consumption, of which at some period she had presented symptoms. It should also be stated that this gentleman (Mr. R. H. Dowse, M.B.) said at the inquest that two and a half years since he had removed a polypus from the uterus. Other evidence, however, was imported, not of a convincing but of a suspicious character, pointing to miscarriage, if not to the production of abortion by unfair means. The deceased herself had said that she had undergone an operation about a week before coming to Hallowtree; the appearances of the breasts were suspicious, as well as of the sheets showing great hæmorrhage. A post-mortem examination by Mr. Perrin confirmed these suspicions. Under these circumstances, after deliberating a few minutes, the jury returned a verdict of death from hæmorrhage after miscarriage, but that there was no evidence by what means it was caused. They added an expression of opinion that doctors should be more careful in giving certificates.—“The coroner: Do you mean doctors in general, or Dr. Dowse?—The foreman: Doctors in general.” Juries, however, should confine themselves to the facts of the particular case under consideration. We do not think that doctors often give certificates in this



way, and Mr. Dowse only did so in this case on the representation of friends that an inquest might be prevented by his doing so. The case, however, should serve as a caution in such matters.

### TUBERCULOSIS OF THE TONGUE.

DR. THOMAYER, of Prague, describes three cases of tubercular ulceration of the tongue. In one a wide fissure existed about the middle of the dorsum, with yellow-coated base, and prominent coarse tubercular nodules at its margins. In both lungs there was widespread tubercular disease. In the second case the ulcer occupied the right half of the tip of the organ, and was characterised by numerous firm granulations in part of its base, the rest being covered by a thick yellow layer; the margins of the ulcer were also firm, beset with grey and yellow granulations. The ulcer bled slightly, and was not benefited by treatment. The third case was similar, only the ulcer was seated on the frænum. It was treated by the topical application of chloride of zinc, which produced only temporary benefit in the breaking down of the nodules. Microscopical examination was made of the diseased organ in the two fatal cases. The ulceration had destroyed the mucous membrane and submucous tissue, and the base was formed by a thick layer of small round cells, intersected here and there by muscular bundles. Beneath this layer, there spread into the intermuscular spaces masses of similar cells, which, under high powers, were found to consist partly of giant-cells, and to be separated by the delicate stroma of tubercle. Some isolated tubercles were found deep in the substance of the organ. The muscular fibres themselves seemed invaded by the cell-growth, which was not limited to the intermuscular spaces. There was proliferation of muscle nuclei and of endothelium of the blood-vessels. Dr. Thomayer says that the extent of the lesion demonstrates the futility of treating these ulcers by caustics, and points to the advisability of excision.

### THE DISSEMINATION OF SCARLET FEVER.

IN his second recently delivered Ingleby Lecture on Scarlatina, published in the current number of the *Birmingham Medical Review*, Dr. R. C. R. Jordan makes the following remarks upon the mode of dissemination of the disease, which put the facts in a concise form. He says:—"Of the means by which the infection of scarlet fever is spread little is known with certainty; there is no proof that it can be disseminated through water, or by milk-walks, except by the agency of the milkman or his clothes, as in the case of typhoid fever; no evidence that the dejections can contaminate wells, or that the poison can be conveyed by drainage; there is no proof that it can be taken into the stomach by the agency of food or drink. The popular fallacy of its being carried by the desquamating epidermic scales has no evidence in its favour. There is a strong probability, amounting almost to certainty, that it can be taken in by the breath, and probably from the breath where there is sore-throat, long before the period of desquamation. Surgical cases in the vicinity of the epidemic give every proof that it can be absorbed by wounds or raw surfaces, as in direct inoculation, though this last process seems not to be often effectual when intentionally tried. Surgical scarlet fever is, curiously, almost always mild in character. The tendency to infection seems equally strong in puerperal cases, where the disease, on the contrary, generally assumes a very malignant type. The virus can plainly be carried by means of clothes, or even by less probable agents, as books or papers. There is every proof short of absolute demonstration that it may be conveyed by a laundress, from the mingling of healthy with infected clothes; it can contaminate cabs or railway carriages; and it has a great power of inherent vitality."

### ALCOHOLISM IN RUSSIA AND IN ENGLAND.

WHATEVER there may be inconvenient or objectionable in the rivalry between Russia and England, there is one movement in both countries in which rivalry cannot be too keen—namely, one to abate the amount of drunkenness. On this subject we would strongly commend to the attention of our readers an article in the September number of the *Nineteenth Century*, by Olga Novikoff, née Kiréef. This Russian writer quotes figures from the *Journal de St. Petersburg*, showing the annual consumption per head in litres in Russia, England, and Germany:—

	Alcohol.	Beer.
Russia .....	10 .....	27, $\frac{1}{2}$
Germany .....	3 $\frac{1}{2}$ .....	88
England .....	5 $\frac{1}{2}$ .....	143

He thinks these figures hardly justify the complacency with which England is apt to denounce Russian intemperance. He says that Russian peasants spend 10s. each, on an average, in strong drink, the English £4. In Great Britain thirty-two millions of people spend £136,000,000 annually. In Russia ninety millions spend about £50,000,000. It is gratifying to know that the Government, the Greek Church, and the people themselves, through their communal institutions, are all alive to the national degradation and disgrace caused by drink, and are all engaged in attempts to increase national and individual temperance. The Government of the present Emperor has especially distinguished itself in this way. It took the initiative in opposing the "traditional custom (drinking) of the sage and laborious portion of the population on holy days and family solemnities." It appointed a commission of experts, selected from the zemstvos of the empire for their special acquaintance with the subject to be discussed. As in this country, the question of national revenue painfully checks the proper consideration of this question. But it is clear that English statesmen will have to face it in its moral aspects as well as in its financial ones if they are not to be outdone by Russian statesmen. The chief recommendations of the Commission are:—1. Liberty to communes to close all places for the sale of drink. 2. Permission to communes to establish communal monopolies of the sale of drink. 3. No public-houses to be established above 25 per cent. in excess of one per thousand of the population. 4. Tea and food to be sold at all places where drink is consumed on the premises. 6. Rigorous supervision of public-houses by local authorities. We cannot give more space for a notice of this article, which, in spite of a little satire, not to say ill-nature, is a most interesting one.

### A CASE OF HERMAPHRODITISM.

ON Monday last one of the patients in the British Lying-in Hospital was delivered of a living child, which upon examination was found to present the characteristics of so-called spurious hermaphroditism. When the child was seen two days after birth the condition of the external genitals was found to be as follows:—There is a large penis or clitoris, with a prepuce bound down by a strong frænum. Immediately below this is a small canal capable of admitting a good-sized probe, and from which urine is voided. The penis (?) is of natural size for a newly-born infant, and presents at the apex a well-marked depression, resembling the external urinary meatus. The scrotum (?) is divided, and resembles the female labia, but no trace of testes can anywhere be discovered. So equivocal are the appearances that it is at present impossible to determine the sex of the child. Dr. Fancourt Barnes, whose patient the mother is, seems to incline to the opinion that the type is rather feminine than masculine. If the child live, it will in all probability be shown to the members of the Obstetrical Society, when the problem of the sex may be solved.

### THE PROFESSION OF LIVERPOOL AND INFECTIOUS DISEASES.

A COMMITTEE of the medical profession of Liverpool and its neighbourhood has been held. It suggests, in place of a bare notification of infectious disease, which it thinks would be valueless, a local Bill, including the following powers:—

1. To obtain from every dispensary and district medical officer early notification of cases of infectious disease, in the same manner as is now done from recently appointed medical officers of district schools and parochial medical officers, a fee of 2s. 6d. being paid for each certificate so forwarded.
2. To give to every other medical man the option of making early notification on similar terms.
3. To make Section 90 of the Public Health Act applicable to Liverpool, a proceeding which would impose the duty of early notification of the tenants-in-chief of every sublet house in the city below a certain rental, and which would give the sanitary authority the power, which they do not now possess, of compulsory removal to hospital in cases which should seem to require it.
4. To demand that School Board authorities shall require from every child who shall have been more than two days absent from school a certificate to the effect that neither he nor any member of the family with which he resides is affected by an infectious disease.
5. To appoint special medical inspectors of dairies under the Contagious Diseases (Animals) Act.
6. To obtain a place of refuge or quarantine, in which, in case the closure of dwelling-houses should be deemed necessary in consequence of infectious disease, the uninfected inmates might be temporarily lodged.
7. To hire nurses for attendance on those suffering from infectious disease who should be retained in their own house.
8. That early application should be made to the Local Government Board for the right to make house-to-house visitation, to provide for the speedy interment of the dead, &c., on the outbreak of any epidemic disease.

We cannot say that these suggestions, said to have been adopted by the profession in Liverpool, supersede, in our judgment, the necessity for a system of compulsory notification by the householder. Under such a Bill notification by the doctor is optional, and he is to get a fee for it. Would this place the profession in a dignified or convenient position? The other powers are a part of a great system of public medicine, which we cannot discuss now. One of these, however, we may say, will give great trouble to medical men—a medical certificate from every child who has been two days absent from a Board School. It seems to us that the profession in Liverpool would do well to give their help to a system of notification by the householder. This would be an educating piece of legislation, and one that would afford a basis for more elaborate requirements, such as are specified in their report.

### THE ALLEGED INCREASE OF LUNACY.

THE appearance of the annual report of the Commissioners in Lunacy is, as usual, being made the occasion for a revival of the outcry for further "asylum accommodation." This is particularly unreasonable in the year of grace 1882, because, taking the worst possible view of the matter, the increase of January, 1882, upon January, 1881, is actually *less* than that of January, 1881, upon 1880. The increase, such as it is, exists almost exclusively—this year wholly—in the class of paupers; and while the pauper patients returned for the 1st of January, 1881, numbered 1801 more than the total returned for January, 1880, the pauper patients counted on the 1st of January, 1882, numbered only 1717 more than the total returned for January 1st, 1881. Assuming these figures to be correct—we are dealing with them at second-hand—it is difficult to find anything to justify the alarm which appears to have been excited in certain quarters. The truth is, there is no solid reason to suppose lunacy is increasing at a greater rate than the population increases. What seems to be in-

crease in the asylum populations is really accumulation, caused by the wholesale certifying of "lunatics," and increased longevity due to the improved care and treatment of the inmates of asylums, and therefore creditable to our philanthropy.

### HYALINE DEGENERATION.

IN the last number of Virchow's *Archiv*, Dr. Max Vallat describes in detail the process of hyaline or fibrinous degeneration of tubercular formations—a change which has only received full attention of late years, although it is not infrequent in other structures, especially in the walls of arteries. In tubercles, it is best observed in those which occur in the spleen, lymphatic glands, and liver, and is to be regarded as an early stage of caseous degeneration. Dr. Vallat concludes that it is formed from the reticulum of the peripheral zone of the tubercles, and also from the trabecular tissue of the spleen and lymphatic glands, the bands becoming thickened, homogeneous, and glistening, whilst the spaces between the original fibres become converted into narrow channels in which only the nuclei of the cells that formerly existed there remain. In the tubercle it also replaces the epithelioid and giant cells, the former appearing to be converted into homogeneous non-nucleated masses. The precise share taken by the giant cells in the formation is unknown. The channels left between the degenerated and swollen bands allow of the passage of fluid and pigment particles into the interior of the tubercle. In caseating the material breaks up into a finely granular mass, and is often found to be beset with nuclei, either the relics of previously existing cells or immigrants from surrounding vessels.

### PROPOSED INTERNATIONAL HYGIENIC CONVENTION.

A PAPER read at the Geneva Congress by Dr. L. de Csatory (member of the Hungarian General Council of Public Hygiene) recommends the organisation of the above-named convention for the purpose of securing uniformity in national legislation affecting the public health. It is suggested that an international committee of surveillance should be established in order to secure the due observance of such hygienic measures as might be adopted in common by the various nations thus leagued together. A committee was appointed to prepare the scheme in detail for presentation to the next Congress at the Hague, prior to communications being officially made to the authorities of the several countries interested.

### DR. KLEIN ON VACCIN CHARBONNEUX.

FROM the subjoined report it will be seen that Dr. Klein has arrived at conclusions—based upon comparatively few experiments, it is true—adverse to the general adoption in this country of Pasteur's proposal to inoculate cattle with anthrax as a prophylactic measure against that disastrous disease. The report has been communicated to the Veterinary Department of the Privy Council by the Local Government Board, and is published in the current number of the *Veterinarian*:—

"Vaccin charbonneux is to be obtained, and is announced to be obtainable (in the *Farmer*), from M. Bontroux, agent of M. Pasteur in Paris (applicants to M. Pasteur are referred to M. Bontroux), and, as I happen to know, it is brought over and sold and used in considerable quantities. The 'vaccin' is sold in tubes (each containing enough lymph for the inoculation of 100 sheep or fifty cattle) as 'premier vaccin charbonneux' and as 'deuxième vaccin charbonneux.' The 'premier vaccin,' according to the printed directions accompanying each lot, is inoculated first; after a lapse of twelve to fifteen days the 'deuxième vaccin' is used in the same manner. The animals thus twice inoculated are

supposed to be immune against fatal anthrax. I have obtained through two independent sources two lots of this vaccin charbonneux (premier and deuxième), and have tested them by experiments. The results of these experiments enable me to say—(a) animals inoculated with this 'vaccin' (premier and deuxième) are not made immune against fatal anthrax; and (b) both the first and second vaccin may produce fatal anthrax. The following facts prove these propositions:—

"Experiments with Lot A.—Inoculated with 'premier vaccin,' two sheep, two guinea-pigs and two mice; no change in any animal. Inoculated with 'deuxième vaccin,' the two above sheep and the two above guinea-pigs. One of these sheep showed rise of temperature, and falling off in food for the first two days after this second inoculation, but was all right again after three days. The two guinea-pigs were dead of typical anthrax within forty-eight hours. The above mice were inoculated with the blood of one of these guinea-pigs. Both mice were dead of typical anthrax within forty-eight hours. The two sheep having been inoculated with the premier and deuxième vaccin ought to have been immune against fatal anthrax. Now see what happened: according to M. Pasteur, the *Bacillus anthracis* of blood of an animal dead of anthrax, when cultivated at 42°–43° C. for twelve days, loses all virulence and becomes thereby converted into 'vaccin.' I had grown the *Bacillus anthracis* of blood of a guinea-pig dead of anthrax at a temperature of 42°–43° C. for twenty-one days, and with this culture I inoculated the above two sheep. The result was that both animals were dead of typical anthrax within forty-eight hours.

"Experiments with Lot B.—Inoculated with 'premier vaccin' four guinea-pigs and six mice. Within forty-eight hours three of the guinea-pigs and three of the mice were dead of typical anthrax. My method of using the fluids for inoculation absolutely precludes any accidental contamination, and hence these must be accepted as perfectly reliable. This country is comparatively free from anthrax, and therefore the introduction and use of this so-called 'vaccin charbonneux' seems to me most dangerous, and capable of producing incalculable mischief."

#### THE LATE SURGEON-MAJOR GEORGE SHAW, A.M.D.

VERY great regret is everywhere expressed at the sad death in action at Kassassin Lock of Surgeon-Major Shaw. He had previously served with credit and great devotion in the Afghan campaign, and accompanied the advance of the first field hospital through the Khyber Pass in December, 1878. He was beloved by all who knew him, and endeared himself to the men of the régiments with which he served by his gentleness, his sympathy, and his devoted interest in his work. Every officer and man of the medical service of the army who knew him mourns for one of the most amiable of men who ever served in the army.

#### TYPHOID IN GOVANHILL.

ANOTHER typhoid fever epidemic, fortunately of rather more limited dimensions than is usual, and pretty clearly traceable to the insanitary condition of a farm supplying the neighbourhood with milk, is reported in the southern districts of Glasgow, namely in Govanhill and part of Crosshill. In all the cases noted the families affected had been getting their milk from dairies supplied by the farm in question. When the farm was inspected, it was found that a common open drain, commencing at the dunghill, ran behind the byres, and within less than a yard of the drain a circular well was situated, the bottom of the well and the drain being almost on a level. The drain was a capacious one. It was supplemented by the smaller drains from the byres and scullery, and was filled with fluid and sewage matter,

so that percolation from the drain to the well was very probable. The well was used for household requirements, and for washing the dairy utensils. A case of fever had occurred in the house, but was stated to have been rheumatic fever. Unfortunately, the authorities of the districts in which the epidemic occurred have no power to interfere further than to communicate the facts to the local authority of the country district in which the farm is situated, and, failing attention, the Board of Supervision might be approached. The powerlessness of large city populations in such circumstances is not very reassuring.

#### THE ASYLUM SYSTEM.

THE following significant passage appears in the twenty-fourth Report of the Commissioners in Lunacy for Scotland: "Dr. Fraser is of opinion that there is an increasing tendency at present both to resort unnecessarily to asylum treatment, and also to detain patients longer than is proper after asylum treatment has been resorted to. 'In proof of the first averment,' he says, 'the reports of many of our medical superintendents of asylums can be put in evidence; for in them are contained complaints of having to admit patients who in their opinion could have been sufficiently cared for in a private dwelling or at home. Many rural inspectors of poor seem to regard the asylums not only as a place for the treatment of the insane, but also as a hospital for the treatment of any form of nervous disease with which mental enfeeblement may be associated, or as a home for aged persons whose faculties are failing; and relatives now prefer the asylum for their paralytic friends to the poorhouse, as the former implies a more dignified form of pauperism than the latter. The question suggests itself to me—has not the misuse of asylums now set in? and I feel forced to reply that I perceive what seems to me unmistakable evidence of a too-ready inclination to resort to them as the only provision for all who suffer under any form of mental unsoundness.'" We believe this to be a perfectly just statement of the plain facts as regards the abuse of asylums in England, as well as Scotland. In presence of the pressure which is everywhere being brought to bear on justices and ratepayers to increase asylum accommodation, it would be well to lay this official testimony to heart.

#### THE PARKES MUSEUM.

HIS Royal Highness the Duke of Albany has consented to become the President of this Museum, which has recently been incorporated and is now in course of removal to new premises in Margaret-street, W. This is a new proof of the interest which His Royal Highness takes in all questions which affect the public welfare, and we trust that the Museum, under the auspices of its Royal President, will continue the successful career of usefulness which it so well deserves.

#### FERRUGINOUS LIVERS.

THE presence of an excess of iron in the livers of anæmic patients is a curious fact, of which several instances have been described in Germany. One case was described by Stahl; and Lindenlang, in the liver of a patient with purpura, found a considerable excess of iron. Marchand has lately described the liver of a phthisical patient, aged sixty years, which presented an unusual brownish-red colour associated with evident cirrhosis. The microscope showed an infiltration of the hepatic cells and of the interstitial connective tissue by pigmentary corpuscles, which gave the characteristic test for iron with yellow ferrocyanide. A chemical analysis showed that the ashes contained not less than 30 per cent. of iron. It has been supposed that the excess of iron is the result of an abnormal destruction of red

blood-corpuscles in the organ, but it is open to question whether it is more than the result of the free administration of iron by the mouth.

#### A BASELESS CHARGE.

THE unfounded charge brought against Mr. Arnold, of Bishop Auckland, Licentiate in Midwifery of the Durham University, in the local police court a few days ago, affords another illustration of the importance of securing the presence of a female friend of the patient in cases where a woman has to undergo an examination by a surgeon. The accusation proved to have been of the most baseless kind, and yet it was one which hysterical patients are apt in similar circumstances to prefer in all good faith, unless reassured by the presence of a third person. We congratulate Mr. Arnold on the unequivocal decision of the chairman of the court, and sympathise with him in the annoyance to which the absurd charge must have subjected him.

#### TRICHINÆ IN ADIPOSE TISSUE.

IT has been generally assumed that trichinæ occur only in the muscular substance, and are not found in the fatty tissue. Chatin's latest investigations have, however, shown that trichinæ occur uniformly in the latter, where the parasites are free or only loosely connected with the neighbouring tissue elements. Their nature may readily be mistaken, but is shown by the simultaneous occurrence of encapsuled trichinæ in the muscular tissue. Experiments proved that animals fed with trichinous fat exhibited no indications of trichinosis, while others fed with the flesh from the same infected animal quickly suffered and died with symptoms of intestinal trichinosis; although further observations on the comparative innocuity of the fat must be made before the fact can be regarded as of hygienic importance. The practical value of the discovery at present seems to be that the fat, as well as the flesh, of suspected animals should be examined.

#### SALE OF DISPENSARY LETTERS BY PUBLICANS.

ONE remarkable incident at a late inquest was a statement with reference to the medical letter which the deceased's wife said she had tried to get at a neighbouring publichouse, and which was to be had for threepence. The coroner said he had been informed the letters in question were purchased for distribution by the landlord. It is not entirely new to us. We have heard before of subscriptions to a benevolent institution being used in a similar sort of way by publicans and other tradesmen. They are not exactly sold, but given to customers. Such a use of dispensary or hospital letters should be declared illegal.

#### MEDICAL AID ASSOCIATIONS.

WE have never withheld our disapproval of wholesale combinations of friendly societies with the view of getting medical attendance for members and their families on terms altogether inadequate. We are neither sorry nor surprised, therefore, to see that such an association at Chesterfield—the Chesterfield Medical Aid Association—is to be wound up for want of funds. It is unworthy of provident societies to try to reduce the remuneration of medical men.

THE latest advices from South Africa represent the epidemic of small-pox at Cape Town as increasing. The outbreak is causing much consternation, and energetic measures are being adopted in the neighbouring towns to prevent the importation of the disease. Vaccination, it appears, is being vigorously carried out.

AT a Quarterly Court of the president and managers of the Aberdeen Royal Infirmary, held on the 11th inst., the question of the extension and improvement of the building again came up for discussion, in connexion more especially with the proposition to erect a ward or wards for the treatment of diseases of the chest. Professor Stephenson suggested a widening of the basis of the proposition, and moved the following resolution, which was unanimously agreed to:—"That, in addition to the question regarding a ward for diseases of the chest, it be remitted to the committee of management to consider and report upon what additional accommodation and improvements are required in the present buildings, and what special wards, if any, are necessary to render the services of the institution more efficient to the public."

WE regret to announce the death from apoplexy of Dr. Waller Lewis, for more than a quarter of a century medical officer at the General Post Office. Dr. Lewis died from apoplexy on the 7th inst., at Whitby, where he had been staying for some days with his wife and two daughters. The reports by him on the State of the Burial Vaults of the Metropolitan Churches, on the Origin and Spread of Epidemic Cholera, and on the Laws in force in France for regulating Noxious Trades, were regarded as of sufficient importance to be presented to Parliament.

THREE lives were lost last week by the falling of a portion of St. Patrick's Cathedral, Dublin, which was undergoing repairs. One of the deceased, a nursery maid, was admitted into the Adelaide Hospital, but succumbed a few minutes afterwards. Her injuries were frightful, and consisted of a fracture of the skull and of the vertebral column, of both femora, and of the right leg close to the ankle. She was buried in the débris with the child in her arms, the latter having escaped with only a lacerated wound over one eye and some bruises.

A VACANCY has occurred in the medical staff of the Dorset County Hospital through the resignation of Mr. J. Good, one of the honorary surgeons. Mr. Good's connexion with the institution extends over about forty years. He was one of the house-surgeons appointed when the hospital was first established, and for the last fifteen years he has officiated as an honorary surgeon. The candidates who have already come forward to fill the vacancy are Mr. E. Good, Mr. J. A. George, and Mr. F. B. Fisher.

SOME time ago a few gentlemen subscribed a sufficient sum to purchase and equip a carriage ambulance for use in Greenock. A few days ago a meeting of subscribers was held, and a committee was empowered to buy one of Howard's ambulances, costing about 100 guineas. The carriage is to be furnished with splints and all necessary apparatus. This is a kind of conveyance much needed in Greenock.

MR. MITCHELL HENRY, M.P., *The Times* states, had the honour of entertaining the Lord Lieutenant of Ireland at his fine seat, Kylemore Castle, Galway, where his Excellency was most hospitably entertained by Mr. Henry, who, as our readers will remember, was formerly surgeon to the Middlesex Hospital.

BY the death of Dr. Waller Lewis the appointment of Chief Medical Officer to the General Post Office has become vacant. The salary is £1000 per annum. Mr. George Carrick Steet, F.R.C.S. (exam.), the second medical officer, will probably succeed Dr. Lewis.

THE outbreak of typhoid at Bangor, though the cases are gradually assuming a milder type, cannot, in point of number of fresh attacks, be said to be on the wane. Forty cases have been reported since Sunday last. The tent hospitals are full, and other means provided of treating the patients are taxed to the utmost extent; whilst the schools remain closed.

THE municipality of Turin lately opened a competition for the best treatise on hygienic science as applied to the requirements of rural districts. The prize has been awarded by the jury charged with the decision to Dr. Layet, professor of hygiene at Bordeaux. It consists of a sum equal to about £100.

THE occurrence of small-pox at Faversham, although not at present of alarming proportions, has led to the resumption of negotiations between the rural and urban sanitary authorities of the town with the view to the erection of a hospital for cases of infectious disease.

THE cholera epidemic at Manilla is declining. An official telegram, dated Sept. 19th, gives the number of deaths on the day previous as 33, 121 having occurred in the vicinity of the town. On the 12th inst. the numbers were respectively 94 and 164.

THE examinations for certificates in Sanitary Science of the University of Cambridge begin on Tuesday, October 3rd. Candidates must send in their names to Professor Liveing, Cambridge, on or before September 28th.

WE regret to hear that Surgeon-Major Hogg has been suffering from cardiac dropsy for the past two months, and is lying in a precarious condition at Morar.

THE annual address at the Medical Society of University College will be delivered by Professor Lister, F.R.S., in the Botanical Theatre, on Oct. 11th, at 8 P.M.

IN consequence of the prevalence of scarlet fever in Chelsea, a house-to-house visitation in various parts of the parish has been made by direction of the medical officer of health.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF INSPECTORS TO THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

THE following reports on outbreaks of diphtheria have recently been submitted to the Local Government Board:—

*King's Lynn.*—Dr. Airy's report deals with an outbreak of diphtheria in King's Lynn during the latter part of 1881 and the early portion of the present year. The town, which has some 19,000 inhabitants, is described as lying on flat alluvial ground on the eastern bank of the Norfolk Ouse at the head of the New Cut, an artificial channel some four miles in length, which discharges into the Wash and gives access to the port of Lynn; it is also intersected by several creeks communicating with the river and admitting tidal water. The water-supply is derived from springs rising from the lower edge of the chalk formation; it is liable to some contamination, but, owing to the strength of the springs, this is perhaps inconsiderable. The ventilation of the sewers is insufficient and also defective in so far as it is carried out

by rain-water pipes which opening out under projecting eaves and near windows are liable to convey foul air into dwellings. The privy accommodation is in many instances thoroughly bad, a so-called decomposing cistern, which is nothing but a cesspool, intervening between the closet and the sewers. The early cases of diphtheria consisted of slight and severe sore-throat, with cases of so-called follicular tonsillitis and diphtheritic sore-throat, scattered about in different parts of the town, with rarely any probable clue of personal infection. The outbreak is described throughout as being characterised by a comparative absence of those conditions of personal transfer so usually associated with epidemic prevalences of diphtheria; indeed, out of sixty well-marked cases of the disease in thirty-nine households, the attacks in eleven households only could possibly have been due to school assemblage; only three were believed to have been due to domestic intercourse, thus leaving twenty-five cases of household invasion without any known circumstances of personal communication by which they could be explained. Having regard to this fact, Dr. Airy examines in much detail all the possible sources of the disease. The water-supply, the means of drainage, the system of excrement disposal, are all considered in this connexion, and, though faulty, they do not singly or together suffice to explain the distribution of the infection. Milk was not at fault; the prevalence of epizootic disease and other occurrences also fail to afford an explanation. The question of damp, with the special fungoid growth attendant upon it, to which diphtheria has often been attributed, is not dealt with; and though many of the houses affected exhibited these special conditions, yet dampness is too common a condition in Lynn, with its foggy air and many creeks, to account for an occasional outbreak. It is interesting to note that some of the mould and fungic mycelium found in houses where sore-throat prevailed was carefully examined by a skilled mycologist, Mr. C. B. Plowright, medical officer of health for an adjoining district, and the exact nature of the cryptogamic growths was identified. But none of these conditions afforded any solution of the difficulty in which Dr. Airy found himself placed as regards the cause of the disease, and he finds himself almost involuntarily thrown back upon the supposition of an atmospheric infection. The report describes how there had recently been a digging out of the mud of the ancient river-bed and of a creek which had been a sewer to the north of the town, and Dr. Airy proceeds to inquire whether this process can have liberated into the air long-buried germs of indigenous diphtheria, causing microzymes possessing a vitality and endurance and power of survival similar to that possessed by the organism which causes malaria, a disease which had formerly prevailed in this very locality. The discussion of this is very exhaustive, and it certainly appears that if any infection of the air did thus result which could have brought about diphtheria, the conditions and direction of the wind-currents corresponded in a remarkable manner with those occurrences, certain districts being affected by the disease a few days after the prevalence of a wind favouring the conveyance of infection from the works to the localities in question. Several groups of cases do not admit of any such explanation; but when once a poison like diphtheria is scattered about a town having faulty sanitary arrangements such as obtain in Lynn, and possessing many channels by which personal infection could operate, it must be admitted that the distribution of a specifically poisonous matter such as is associated with diphtheria by more than one channel is more than probable. On the whole, Dr. Airy concludes that the history of the early cases appeared to lend some countenance to the theory of aerial infection due to the excavations referred to.

*Sale.*—This township, in the north of Cheshire, is reported by Dr. Parsons to have a flat surface ending on the north in a low escarpment overlooking the Mersey marshes, which are liable to floods, and hence are not built on. The soil is a light porous sand and gravel resting on clay. The town, which has a population of some 8000, is provided with wide streets, a modern system of sewers which is apparently efficiently ventilated and well flushed, and a constant service of wholesome water. In 1880 there were 8, and in 1881 26 diphtheria deaths in Sale, and some 80 cases were reported during the course of the inspection, the disease having been almost continuous during 1881 and the first three months of the present year. Sale is in such relation to Manchester and other populous districts that no information could be elicited to explain the origin of the epidemic. Some of the early cases were found to have been associated with obvious local sanitary defects; but this was not universal, and it is cer-



that the streets in which the poorest and the most careless classes lived did not suffer more in proportion than others. But in two small areas of about 100 to 200 yards radius as many cases seem to have occurred as in the remainder of the district. Here at least, it might have been hoped, lay some explanation of the method of diffusion. But all known hypotheses are discussed in the report without any satisfactory result. Infection from personal intercourse, and especially through school attendance, propagation by wind, the water-supply, the milk-supply, the influence of offensive trades, and refuse accumulations along the canal banks, and the emanations from sewers, are all considered in turn, but with no result. It is, however, shown that in a considerable number of houses in which diphtheria appeared, marked local sanitary defects were found, these consisting mainly in nuisances arising from midden-privies of faulty construction and situated too close to houses, and of defective drains admitting soakage into the subsoil and escape of drain-air into the dwellings. The poison of diphtheria having once found a resting-place in a district, it is notorious that these conditions favour its continuance; and Dr. Parsons points out, as regards Sale, that on the hypothesis that diphtheria has its origin in a living micro-organism, it is conceivable that in a moist and porous subsoil contaminated with decaying sewage matters, this organism may find conditions favourable to its growth and development.

*Sutton-in-Ashfield.*—This small market town is described by Dr. Parsons as having a population of 8523, and as being situated on the western border of Nottinghamshire. It occupies a plateau at an elevation of about 500 feet above the sea; the town itself lying, however, in a depression through which a brook flows. Geologically, the district is chiefly composed of magnesian lime-stone, a fissured and permeable rock, below which are the coal measures; to the north-east of the town are the red marls of the Permian series and the new red sandstone, which latter rock forms to the east healthy gravelly hills. Many of the wells are liable to pollution, cesspool soakage into surrounding soil is not uncommon, slops are thrown about on the permeable strata, many parts of the town are unsewered, and the middensteads are believed to be very generally mere holes in the fissured rock, into which percolation of their contents takes place. Between November, 1881, and the first week of May, 1882, there had been 39 cases diagnosed as diphtheria in thirty households, and 27 cases of scarlet fever in eighteen households. Eleven deaths had resulted from diphtheria and four from scarlet fever. The origin of the epidemic is obscure, and this mainly because of the mildness of early attacks, which were thought only to have been "mumps," but which were shown by such subsequent lesions as paralysis to have been true diphtheria. Scarlet fever seems also to have been inextricably mixed up with the diphtheria, deaths occurring almost simultaneously in the same house being certified as due to "scarlatina maligna" in one case, and to "diphtheria" in another. Indeed, the two diseases were found not only to have existed side by side, but apparently to have been contracted the one from the other, although Dr. Parsons found it impossible to decide whether this had been due to a difficulty in correctly diagnosing between them, or to some mutual or common causation. The mode of spread, too, was by no means clear; but it is surmised that the conveyance of infection from household to household by means of the stocking trade was by no means impossible. Each stocking passes through numerous hands who reside in different houses, and during the epidemic the materials in use certainly passed from infected to hitherto uninfected dwellings, in which disease ultimately occurred. Sanitary defects of a very marked character were found associated with the disease, but it is impossible to say that they were worse in houses having diphtheria than in others which escaped. Certain it is that Sutton-in-Ashfield is in need of an active sanitary administration, and it is especially obvious that it lacks a proper water service.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5643 births and 3249 deaths were registered during the week ending the 16th inst. The annual death-rate in these towns, which had been equal to 22·7 and 19·9 per 1000 in the two preceding weeks, was 20·0 last week. The lowest rates in these towns were 12·7 in Birkenhead, 15·0 in Cardiff, 15·0 in

Derby, and 15·7 in Portsmouth. The rates in the other towns ranged upwards to 28·4 in Blackburn, 28·6 in Hull, and 33·1 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 634, showing a further decline from the numbers in recent weeks; 323 resulted from diarrhoea, 93 from whooping-cough, 70 from scarlet fever, 67 from "fever" (principally enteric), 45 from measles, 30 from diphtheria, and 6 from small-pox. The lowest death-rates from these diseases were returned in Plymouth and Bristol, while the highest occurred in Preston and Sunderland. The death-rate from diarrhoea showed a further slight decline from that which prevailed in recent weeks; it was, however, equal to 6·6 in Hull, and 8·0 in Preston; it was nearly three times as high in the twenty-seven provincial towns as in London. The largest proportional fatality of scarlet fever occurred in Nottingham, Derby, and Sunderland; of whooping-cough in Huddersfield and Oldham; of measles in Huddersfield and Sunderland; and of "fever" in Liverpool, Newcastle-on-Tyne, and Sunderland. The 30 deaths from diphtheria in the twenty-eight towns included 23 in London and 2 in Portsmouth. Small-pox caused 3 deaths in London and one each in Leeds, Hull, and Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which had been 114, 101, and 91 on the three preceding Saturdays, further declined to 84 at the end of last week; 10 new cases of small-pox were admitted to these hospitals during last week, against 30, 20, and 9 in the three previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 202 and 178 in the two preceding weeks, rose again to 192, and were 12 above the corrected weekly average. The causes of 83 or 2·6 per cent. of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, and in eight of the other towns; whereas the largest proportions of uncertified deaths were recorded in Wolverhampton, Oldham, and Sheffield.

### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 21·1 and 20·1 per 1000 in the two preceding weeks, rose again to 20·9 in the week ending the 16th inst., and exceeded by 0·9 the mean rate last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were 103 last week, and showed a decline of 13 from the number in the previous week; they included 47 from diarrhoea, 19 from whooping-cough, 12 from diphtheria, 11 from "fever," 10 from scarlet fever, 4 from measles, and not one from small-pox. The death-rate from these principal zymotic diseases averaged 4·4 per 1000, and was 0·5 above the mean rate from the same diseases in the large English towns. The highest death-rate from these diseases occurred in Glasgow and Aberdeen. The 47 deaths attributed to diarrhoea showed a further decline from recent weekly numbers, but included 19 in Glasgow, and 8 both in Edinburgh and Dundee. The 19 fatal cases of whooping-cough, also showed a decline, 16 being returned in Glasgow and 3 in Aberdeen. The 12 deaths from diphtheria were fewer than in either of the two previous weeks, and included 5 in Glasgow and 2 in Aberdeen. Nine of the 11 deaths from "fever" occurred in Glasgow, while 3 of the 10 fatal cases of scarlet fever were returned in Aberdeen, and 2 both in Glasgow and Paisley. Three of the 4 deaths from measles occurred in Dundee. The deaths referred to acute diseases of the lungs in the eight towns, which had been 30 and 61 in the two previous weeks, were 70 last week, and 9 fewer than those attributed to the same diseases in the corresponding week of last year.

### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 20·1, 23·8, 27·3, and 27·6 per 1000 in the four preceding weeks, declined again to 25·8 in the week ending the 16th inst. During the first eleven weeks of the current quarter the death-rate in this city averaged 22·8 per 1000, against 18·5 in London and 17·7 in Edinburgh. The 172 deaths in Dublin last week showed a decline of 12 from the number in the preceding week; they included 17 which were referred to diarrhoea, 3 to "fever," 3 to diphtheria, 2 to scarlet fever, 2 to whooping-cough, 1 to measles, and not

one to small-pox. Thus 28 deaths resulted from these principal zymotic diseases, corresponding with the number in each of the two preceding weeks; they were equal to an annual rate of 4.2 per 1000, while the rate from the same diseases was but 2.8 in London and 2.2 in Edinburgh. The fatal cases of diarrhoea, which had been 19 and 17 in the two previous weeks, were again 17 last week; these were equal to a rate considerably exceeding that which prevailed either in London or Edinburgh. The 3 deaths referred to "fever" showed a decline of 5 from the high number in the previous week. The fatal cases of diphtheria and scarlet fever, however, exceeded the recent weekly numbers. The deaths both of infants and elderly persons were less numerous than those returned in the previous week. The causes of 27, or nearly 17 per cent., of the deaths registered during the week were uncertified.

## THE MINUTES OF EVIDENCE BEFORE THE ROYAL COMMISSION ON MEDICAL ACTS.

THE Blue Book of the Royal Commissioners is a volume of 430 pages, and ought to be in the possession of every member of the profession. It is impossible to give even a *précis* of the evidence of the forty-two witnesses examined before the Commissioners. But we are very desirous to make room for some of the evidence on the principal matters involved. We may arrange these under three or four heads. We may assume that the evidence so adduced formed the basis of the recommendations of the Commissioners, and we may hope that it will form the basis of speedy and effective legislation. It is not conceivable, after the evidence given, that things should be allowed to continue as they are. We shall try, then, in three or four successive numbers, to embody the evidence of the principal witnesses on the following points:—

- I. *The inequality of the medical and surgical examinations.*
- II. *The inefficiency of the Medical Council.*
- III. *The mist of the public as to the distinction between qualified and unqualified practitioners.*
- IV. *Miscellaneous.*

First, then, as to

### THE INEQUALITY OF THE MEDICAL AND SURGICAL EXAMINATIONS.

The following are the principal answers on this important subject brought out by the

#### *Examination of Sir JAMES PAGET.*

241. (*Chairman.*) Is not that examination [the Arts examination at the Apothecaries' Society] in some cases too easy?—I believe the examination held by the Society of Apothecaries in London is too easy. The number rejected is, as far as I know, too small, and I think the examination is too easy there. The others I do not know well enough, except that of the College of Surgeons. I believe that at the College the examination is at a fair level, but that it should not be diminished in severity. I cannot at present speak at all of the examination at the end of the first year; that has been held too short a time. The examination held at the end of the second year, that which is commonly called the Primary Examination, is, I think, at this time, at the College of Physicians, a very fair and good one. At the College of Surgeons I think the standard is rather too high. At the last examination, out of 140 candidates, I think not less than 69 were rejected; and I know, by communications with some of the junior teachers in the schools, that there were persons rejected who had worked very hard and passed their examinations in the schools very creditably, and were deemed to be good students, quite safe to have gone on with the rest of their work. I believe, therefore, that though the examination is not defective in its method, it is set at too high a standard. I have not heard the same objections made to the examinations of the same kind in the Scotch corporations; and I fully believe, from all I have heard (but I am bound to say that it is only by report), that they are at too

low a standard. Let me repeat, I only know it by report. Then for the final examination, I think the standard in England is quite high enough, that no one who can pass that examination is likely to be, in any reasonable sense, ignorant of his profession, so far as he requires it for the mere beginning of his work; because it must always be understood that the examination fits a man for the mere beginning of the work in which he has to learn a vast deal more than he has ever learnt before. Again, however, I have to admit reports which I am bound to believe, that in the Scotch corporations they are admitted too low. The reports are distinct statements that the worst of the students in England go to Scotland; that the worst of the students, especially in provincial schools, do not come to the College of Surgeons of England, but go to the College of Surgeons of Edinburgh, or to the Faculty of Physicians and Surgeons in Glasgow. I have never heard any statement of that kind with regard to Ireland. I have never heard any suggestion, I mean in our schools, that the examinations in Ireland are in the least degree less complete than those of England; rather I should have to say, from all I have heard, that the primary examination, especially that in anatomy is better than in any of the corporations in the three divisions of the kingdom.

Professor TURNER questioned Sir JAMES PAGET. The questions and replies are as follows:—

437. You have given us certain impressions as regards the weaker candidates, at least a certain portion of the weaker candidates, not submitting themselves to examination before the College of Surgeons in England, and going to the College of Surgeons in Edinburgh for examination, and I suppose succeeding in passing there?—Yes.

438. Are those mere general impressions, or have you specific cases in your mind? I do not, of course, ask for any names.—I have not names that I can give; but the matter has been frequently talked of, and I have therefore asked teachers, and they have told me that they know instances. I took care to say, in answer to the Chairman, that it was only a matter of belief on my part, but it is a matter of belief on what I think is sufficient evidence.

439. Have you looked at the proportion of rejected candidates who have appeared before the examiners of those different bodies as furnished to the General Medical Council in the annual return?—Yes; I should say, concerning those, that I have never heard that all the bad ones who go from England to Scotland do pass, but when that sum total is made up of rejections, I should not be surprised to find that it came to be nearly as great as the number of rejections in England, because they get such a much worse set of men.

440. Would you be surprised to hear that it is greater than in England?—No, I am not surprised to hear that. I think they get a worse set of men in Scotland, and therefore have to reject a greater proportion than in England.

441. I have only taken the final examination?—I think the other should especially be taken. The final examination is an examination of the men who have passed the first, after the elimination of all the worst, and the worst do not come again.

442. But that applies, of course, to Scotland as well as to England?—But these men go up also for the primary, as I am told.

443. I have not made any calculation upon anything but the final examination?—I could not go further than to say that I have heard it on evidence which I believe. I cannot give you names, and I cannot give you numbers. If it were to be denied and disproved by numbers, I should be surprised; I cannot say more than that.

444. I think, as the matter has been raised, perhaps it might be as well that these numbers should come into the evidence. I find in the final examination of the Royal College of Surgeons of England 37 per cent. of the candidates were rejected?—Yes.

445. I find at the final examination for what is called the double qualification of the Royal College of Surgeons and Physicians of Edinburgh, 44 per cent. were rejected?—Yes. Then may not that be explained on the very ground that I have stated—viz., that in that final examination the rejected on the primary examination in England still remain, and the bad and idle men have gone to Scotland?

446. That I cannot give you any information upon?—That is what is said.

#### *Examination of Dr. JACOB, of Dublin.*

In illustration of his averment of "extraordinary inequality" in curricula and examinations and fees, and of the

tendency of this inequality to drive students from Ireland to easier places, Dr. Jacob adduced a table, in which he traced 2584 Irish students to their qualifying Boards. He says (Question 1374) in answer to the Chairman:—

In drawing up this table, I took the Medical Students' Register, which is published annually by the Medical Council, for ten years, and I picked out from it all the Irish students, numbering 2584; I followed those students into the Medical Register of Practitioners, for the purpose of ascertaining where they obtained their licences, and the table gives an analysis of the information they obtained. I call particular observation to the columns headed "Edinburgh College of Surgeons," and "Edinburgh College of Physicians," and to the figures standing against the Queen's Colleges in those columns, from which it will appear that out of 232 surgical diplomas granted by the Edinburgh College to Irish students, 54 were granted to students of the Queen's College, Belfast, 66 to those of the Queen's College, Cork, and 31 to those of the Queen's College, Galway—that is to say, that 151 out of the 232 came from the Queen's Colleges. Now, if you will permit me, I will explain the reason of that. A student attending in a Queen's College may obtain all the lectures necessary for a Queen's University degree or a Scotch double diploma in two years, not more than two courses of lectures being required in any subject. That student, if he were to come to Dublin, would be obliged to put in a third year, to attend a third course of lectures, pay for his maintenance in Dublin, and pay his fees. Consequently, he does not come to Dublin; but when he seeks a diploma outside his own university, he goes direct to the Faculty at Glasgow or to the Colleges of Physicians and Surgeons at Edinburgh for it. Thus it turns out that a very large proportion of the Irish students have within the last fifteen or twenty years taken their qualifications in Glasgow or in Edinburgh, in consequence of the fact that the curricula there are equal to the curricula of the Queen's Colleges, and below the curricula of the Dublin Colleges. Therefore I use these figures to enunciate the fact that this inequality has been productive of an enormous exodus of Irish students to Scotland, and that if that exodus or that competition of curricula is ever to be put a stop to, it can only be put a stop to by, to a certain extent, equalising the curricula, the fees, and the examinations.

#### Examination of Dr. GLOVER.

1900. (*Lord Camperdown.*) With regard to the examinations by which the qualifications which are given are tested, have you been struck by the inequalities of the examinations of some of the present medical authorities?—I have been struck with the reports of the inequalities. I have had no personal experience of it, and it is very difficult to get personal experience by which to answer that question, but I have been very much struck with the strong impression amongst men who are in a position to be well informed of the existence of such inequality.

With regard to the easy ways of acquiring even the highest qualifications of the Scottish Corporations, Dr. GLOVER said, in answer to Professor TURNER (Question 1979):—

Before the Act of 1858 there were practically no licentiates in the Edinburgh College of Physicians. In 1859, a year of grace, the College made £10,000 by the easy gift, sometimes without examination, of its licence to persons already possessed of a medical qualification. In 1863, the number of applicants for its licence were 160; in 1868, 408. The Royal College of Surgeons, Edinburgh, in 1863 had 132 applicants for its licence; in 1868, 153. This fact has been published lately: A young man went to the College of Surgeons in England, and was plucked. He went to the Edinburgh College of Surgeons, and was also rejected. He went next to the Faculty of Glasgow, and there he got through. He got the licence of that Faculty to practise, and some little time after that he was found in possession of the Fellowship of the Edinburgh College of Surgeons—the highest qualification which it had to give. That has not been contradicted.

#### Examination of Dr. HALDANE.

2774. (*Bishop of Peterborough.*) If we had a *tabula rasa*, we should not begin by setting up the nineteen medical bodies?—Certainly not.

2775. And I think I may assume further from your evidence that the degrees or diplomas given by these various medical bodies, and therefore presumably the education on

which they have given those diplomas or those degrees, vary very considerably in value?—They vary undoubtedly.

#### Examination of Mr. SAMFSON GAMGEE, F.R.C.S. Eng.

3228. (*Chairman.*) Can you tell us from your own experience instances of persons who have chosen examinations which are notoriously inferior?—I have known many men who have been unsuccessful in the English examinations—e.g., the examination of the Royal College of Surgeons—once, twice, and thrice go across the border and come back with the double qualification from the Edinburgh and the Glasgow Colleges.

3229. When you say "Colleges," do you mean the Corporations or the Universities?—By the Colleges I do not mean the Universities. So far as I know of the Scottish Universities, their position is unimpeachable. But with regard to the Colleges of Physicians and Surgeons of Edinburgh and the Faculty of Physicians and Surgeons in Glasgow, I have known men get through there who had failed in our College of Surgeons repeatedly, and I have no hesitation in saying they were men who were entirely unfit to enter the medical profession. That has happened within the last three or four years. I have addressed my classes several times during the last seven or eight years—that is to say, successive classes in different sessions—and I have assured them that whatever they said to me would be in confidence so far as persons were concerned. I said, "How is it that A.B. went to Edinburgh or Glasgow; can you tell me anything about what is the feeling of the students on the choice of examinations?" They have said, "We know very well that the Scotch Colleges give the easiest examination; if a man is plucked here, he can go there, and," to use a student's expression, "bring his ticket back."

3230. Do you say that with regard to the Colleges of Physicians and Surgeons at Edinburgh?—Yes, I do.

3231. That statement is made upon cases which have come within your own knowledge as a teacher?—Yes, I speak of men that are now upon the Register. I have refreshed my memory by looking to see if they are still alive, and I know the men perfectly well.

3232. Do you think there are many instances of that kind?—I know several, and it is a notorious fact that there are a great many. It has a most demoralising effect. When a young student, beginning with good intentions, gets into some little difficulty with his studies, and cannot go up for the first Anatomical Examination at our College, he is consoled in this way: the College of Surgeons of England will only give him a single qualification, but he can go to Edinburgh and bring back a double one on very much easier terms.

Professor TURNER, examining Mr. GAMGEE, said:—

3373. Then you have also made certain statements as regards the migration of students from England to Scotland in order that they may obtain in Scotland a less difficult examination than they would have to be subjected to in England?—I have done so.

3374. Have you any reason to believe that those examinations to which you refer are inefficient examinations; that is to say, that they do not sufficiently test the competency of the candidate to practise medicine, surgery, and midwifery?—I know that they have let through some altogether incompetent men, who could not get through the English boards.

3375. Do you know that of your own knowledge?—I do.

#### Examination of Professor SPENCE.

3434. It has been stated to us in evidence by some of the witnesses that it is notorious that some institutions give diplomas on much easier terms than others, and that it is well known both to students and to teachers that many men who would have no chance of passing in some institutions go to others and pass?—That is a strong assertion without much proof, and I would ask for proof, for I do not know of anything of the kind taking place, and I do not believe in it. From what I have seen of the examinations of all the boards with which I have been connected, and from what I know of the others, I do not know of any in the United Kingdom where that is the case. A man cannot practise even on an apothecary's licence alone, which might have been a little easier formerly. I know that when I was a teacher of anatomy, with regard to the English College, there certainly was a tendency on the part of a portion of the students to go there, and if one asked a student why he went to the English College instead of

remaining where he had studied, he would say, "Well, I may practise in England; and another thing is, that when I go to the London College of Surgeons (when it was the London College of Surgeons, not the College of Surgeons of England), I have only to be examined in anatomy, physiology, and surgery, and I can get that up more easily than when I go to the Edinburgh College, where I have so many more subjects." But that is different now; I do not think there is any tendency to that. I am quite sure that no man goes to one place more than another on that account; if he does, he finds it a very gross delusion when he goes to the particular body which he has chosen.

3435. In your opinion, I presume, as far as possible there should be equality in the curricula of studies in all the institutions?—Yes, certainly, I think that is a matter of very great importance.

3436. And that the time necessarily taken in going through the medical course should be the same in all?—They should be regulated as far as possible to be the same.

3437. And as far as possible the expense and the fees should be similar?—That would depend very much upon whether it is a wealthier or a poorer country; but, no matter what the fees are, I think that in the curricula of study and the examination there should be an equality.

3438. If it should be that a conjoint board were established, do not you think that a conjoint board consisting partly of the universities and partly of the medical corporations would be stronger than either by itself?—No. I think that the examinations would deteriorate. At present an examiner connected with a college or a university has the honour and traditions of the college in his hands, he feels himself responsible, and he knows that he is responsible to the college that elects him from year to year, and consequently he is more particular in doing his duty. There is a sort of *esprit de corps*, in fact, with regard to examination which, I think, keeps up the examination both in the universities and in the colleges to the high standard which at present obtains. It would be a mere examining board; you would have people examining who have no interest in the business; at first it might be very good, for we are told that new brooms sweep clean, but afterwards the men would gradually lose their interest, and the examination would become perfunctory after a time. You might get first-rate men to examine at first, but you would find that what took place in Prussia would take place here. Formerly in the Staats Examen they were required to have some of the best men that they had in Prussia as examiners, but they found that those men after a time gave it up; they had not time and they got tired of it; they literally gave it up, and the examiner goes now to the universities and to the different schools which give a licence, so that that system broke down there, and the Staats Examen broke down, so far as being a single portal, as it were, to the different universities. I think there are some nineteen or twenty boards at least in Germany now.

3439. Do you approve of the higher honours of the profession being given through examination?—The question is, what is meant by an honour?

3440. For instance, a Fellowship in a college?—Fellowship of a college does not necessarily imply a qualification to practise. At the time I entered my college I entered of course by examination, and that kept me back for fifteen years nearly in my profession from the expense connected with it. I do not think that you have a right to saddle any man with expense on entering the profession in that way, so that he cannot get on unless, as a condition of his entering the profession, he can afford to spend so much more time in study, and so much more money for such a degree. If a man wants a higher degree let it be Doctor or Master in Surgery. The title of Fellow merely implies that he is an associate, for that is the simple meaning of it. It does not imply a higher degree; it simply implies that a man has such an interest in the particular profession that the college think he is worthy of being affiliated to it. I have handed in a statement along with my *précis* which was sent by the College of Surgeons in Edinburgh, which I may just as well refer to. This statement was drawn up in consequence of certain very misleading statements, for I cannot call them anything else, that were made with regard to our Fellowship. I urged the present Council to meet them, and they referred it to me. I went over the history, because I knew the history of it from the commencement. When the charter was granted I was a young Fellow of the College, but still I was there during all the debates, and heard the reasons given in

the College, and I recollect the history very well. I considered that the College of Surgeons of Edinburgh, through their monopoly, were keeping back their licentiates, because I felt that unless I could afford to pay £300, which I had to do ultimately, I had no chance of obtaining a Fellowship, and I think that was a very great hardship. In the English College of Surgeons now there is no such direct money charge, but if we can believe those who make the statement, they say that it costs between £300 and £400 for extra medical education for a man to be able to go in for that examination, and I say that you have no right to put such a money barrier in the way at the commencement of a man's professional life. A man who is able to treat Her Majesty's subjects ought to be able to be a Fellow or an associate of a college without any further examination. Of course, I do not stand upon examination. A man should be thoroughly examined before you send him to the country as a practitioner, and then after that let him be affiliated to a college by some other means than examination.

3441. You are aware that the College of Surgeons in England takes a different view from what you do, and that they do not confer their Fellowships without a very strict examination, and that they believe it a higher honour, and therefore that it ought to be to the public evidence of a higher qualification?—But it is not so. It is not so in the present system of the College of Surgeons of Edinburgh, and we have had experience of both systems. We had experience of what it was by examination, and we found that the College was dwindling away—that nobody joined it. Men in practice who had a good reputation would not go there and submit themselves to the examination. Men who had been in practice as hospital surgeons in some of the provinces found that it conferred no privileges on them, except in Edinburgh, when the surgeon wanted to hold a hospital position there. That was a great hardship to those who had not the money qualification in the first instance, and that is what kept me back for years before I could become a surgeon to a hospital.

(To be continued.)

## THE GENEVA CONGRESS.

### No. II.

#### M. PASTEUR ON THE ATTENUATION OF VIRUS.

AT the second sitting only was the real business of the International Congress of Hygiene begun. The first meeting was devoted to congratulatory addresses, in which it was curious to notice that the least important countries took the most active part. While the representatives of the Great Powers of Europe maintained an attitude of solemn reserve, Poles, Bulgarians, Brazilians, representatives from Algeria and similar countries, indulged in grandiloquent speeches, which might have conveyed the impression to an ignorant public that the spirit of sanitary reform had been imported into Western Europe from the Danubian Principalities and regions south of the equator.

The second meeting of the Congress was densely packed; in the galleries occupied by the general public there was scarcely standing room. The heat of course was intense, and the impartial critic must have discerned that if sanitary reformers are good speakers, they are, so far as the ventilation of the hall where they met is concerned, anything but good practitioners. Dr. H. C. Lombard, of Geneva, the President of the Congress, was in the chair, and when he called M. Pasteur to the platform, the applause assumed the character of an ovation. Discarding all attempts at oratorical effect, M. Pasteur took a seat at a little table, unfolded his manuscript, and read as quietly and simply as if he had been at his own fireside. Now and then he stopped in the lecture to explain some point, or else to abbreviate some passage which he thought too long. Yet if the speech was thus modestly delivered, it was not devoid of that refined eloquence that is the special charm of a cultivated Frenchman. To explain his presence, M. Pasteur commenced in the following words:—"The Directing Committee of this Congress, knowing that I was to spend the vacation in the Jura mountains, within a few hours of your beautiful city, was kind enough to invite me to read a paper on the Attenuation of Virus. I willingly acceded, happy to find a

pretext which would enable me to become for a little time the guest of a people who had been the friends of France in its evil as in its prosperous days. I also cherished the hope of meeting those who have criticised my works during these last few years. If this Congress is a field for union and reconciliation, it is also the arena for courteous discussion. We are all animated by the highest aspiration—a passionate love of truth."

M. Pasteur then at once launched into the subject under discussion, recalling his works published in 1880 on Chicken Cholera, the cultivation of the specific germ, and the creation by this cultivation of a virus that could be used as a vaccine against the disease. This modification in the intensity of the germ poison could be obtained by simply exposing the microbe to the action of oxygen. This fact had also been proved as applicable to the microbe of charbon, by comparing the virulence of cultivated microbes exposed to the action of the air and those which, on the contrary, have been confined in a sealed tube. In the former case they perish entirely in the course of a few months, after passing through various phases of attenuation; while the latter, being protected from the action of oxygen, retain their virulence for several years. M. Pasteur's principal object was to demonstrate that by utilising the action of air we could establish a general method for the attenuation of virus. In the researches which have demonstrated these facts, M. Pasteur was greatly assisted by M. Chamberland, M. Roux, and more particularly by M. Thullier. It was in their name as well as his own that he spoke. M. Pasteur then related the case of a young child bitten by a mad dog, and who died of hydrophobia. Rabbits inoculated with the saliva taken from this child, four hours after death, died in thirty-six hours. This blood contained a special microbe that could be easily cultivated, and in each successive generation killed rabbits thus inoculated, and the same microbe was discovered in their blood. In one experiment it was shown that the appearance of the virulent organism took place nine hours after inoculation, and corresponded with the commencement of the fever. The saliva of dead rabbits will communicate the malady to other rabbits. Adult guinea-pigs can resist this inoculation, but young guinea-pigs are killed in two or three days, and by passing the poison through several young guinea-pigs it so increases in violence that it will ultimately kill adult animals of the same race; but, strange to say, if it is brought back again to rabbits, then it loses its poisonous force. M. Pasteur described this microbe at the Academy of Medicine on Jan. 18th, 1881.

The question arose whether this microbe would always present itself in cases of hydrophobia, and as in February, 1881, another child died from the bite of a mad dog, other inoculations were made with the saliva taken both before and after death. The rabbits died in three days, and the same microbe was discovered in their blood. Prolonged experiments with the saliva of rabies showed that death might result in three ways: (1) by the new microbe; (2) from disorders of a purulent and septic character; (3) from true madness, which always requires a long period of incubation, and commences by paralysis of the limbs twenty-four to seventy-two hours previous to death. The tendency to bite is extremely rare among mad rabbits. Therefore M. Pasteur concludes that the saliva of persons dying of hydrophobia contains, apart from the specific virus of rabies, not yet characterised by a cultivatable microbe, a virus formed by a special cultivatable microbe, and other and various microbes capable of occasioning death by the exaggerated production of pus, by excessive local disorders, and sometimes by the introduction into the blood of ordinary microbes. The new microbe discovered in the saliva of persons suffering from hydrophobia has subsequently been found in the saliva of persons who died from other diseases; it therefore accompanies, but has no special relation with, the virus of rabies. Nevertheless, this is the third virulent microbe which can be attenuated by the action of oxygen, and the history of this third microbe is as yet unpublished. M. Pasteur offered the Congress the first record of these new experiences. He found that the microbe of the saliva was governed by the same laws as those that influenced the virulence of the microbe of the cholera in chickens. M. Thullier had the patience to cultivate eighty generations of microbes found in the saliva of a patient who died of hydrophobia, and the eightieth generation was as virulent as the first. But if the successive cultures are submitted to the action of air, then

the result is not similar to that obtained with the microbe of chicken cholera. The microbe from saliva dies very rapidly. Two or three days' exposure to air often suffices to render the microbe sterile. A culture coming from virulent blood will live from six to twelve days, but in each successive batch the duration of virulence is reduced. The eighth generation will not live longer than three or four days; the twenty-fifth, twenty-six hours; and the forty-eighth, twenty hours. These latter cultures, if inoculated in rabbits, will not always kill them, and the rabbit, having survived the mild inoculation, can then take the virulent poison with impunity. Yet the rapidity with which this microbe loses its virulence renders it very difficult to discover the moment when in its increasing vitality it would constitute a safe vaccine. To do this it is necessary to prolong the life of each crop. This great end can now be attained by employing a new vehicle. The microbes generally live best in veal broth; but by mixing two parts of this broth with one part of pure rabbit's blood, M. Pasteur finds that the life of microbes derived from saliva can be prolonged to forty or fifty days. By taking the microbes during the last ten days cultures of graduated virulence can be made, and thus a vaccine of various degrees of strength obtained. It is to the action of oxygen that we must again attribute the modified strength of these cultures. To the microbes mentioned—the microbe of chicken cholera, the microbe of charbon, the microbe of saliva, especially the saliva of rabies—M. Pasteur concluded by adding a fourth microbe that was discovered in the foam taken from the nostrils of the horses that died during the typhoid epidemic at Paris in 1881. By inoculation with this germ rabbits died of true typhoid. With infinite pains M. Pasteur succeeded, and still by the use of oxygen, in so cultivating and reducing the virus of the typhoid microbe, that he was at last able to vaccinate rabbits without killing them; but, on the contrary, when he subsequently inoculated them with the virulent poison, they did not feel its effects. Thus M. Pasteur was able to declare, in conclusion, that we now undoubtedly possess a general method of attenuation. Its application need only be modified according to the exigencies of the physiological characteristics of the different microbes. The general principles have been found, and it is impossible to doubt that the future of these researches is rich with the promise of great results.

M. Pasteur then proceeded to refute some personal attacks made against him by Professor R. Koch and his pupils. This gave rise to a curious misunderstanding that, but for the dignified reserve of Dr. Koch himself, might have led to unpleasant consequences. The Germans, who were present in great numbers, misunderstood M. Pasteur's allusion to the *recueil allemand* as a taunt respecting the *orgueil allemand*. After such a misconception, Dr. Koch was perhaps justified in refusing to accept M. Pasteur's challenge, though he at once mounted the platform after the applause had subsided.

Dr. Koch, speaking in German, said he was disappointed with M. Pasteur's paper; the facts lacked novelty, and he could not see that they were especially connected with hygiene. In any case, he would answer all the points raised through the medium of the scientific press. Dr. Koch was especially anxious to avoid a discussion at present, for, as M. Pasteur could not speak German, and he could not express himself clearly in French, there was but little chance of coming to an understanding.

M. Pasteur thereupon protested that Dr. Koch could not have understood his paper, or he must have acknowledged the importance and fecundity of the facts disclosed.

The President here adroitly interposed, suggesting that a diversity of opinion between men so prominent in science could but prove of benefit to mankind by stimulating the researches of each party.

Dr. Sormani, of Pavia, then related how in Italy it had been found that the vaccine for charbon was only effective when it produced sufficient disturbance to raise the temperature of the animal vaccinated to 40° C.

Dr. Marestres, of Genoa, doubted whether the microbe was the cause of illness. The microbe of typhoid, for instance, was not found at the commencement of the illness. Just as the sea was not made by the fish but for the fish, so did the microbe live in diseased blood because it suited its mode of life, and not because it had created the disease.

M. Pasteur, in answer to the suggestion that his researches were not connected with hygiene, urged that as their object



was the prevention of disease, they, on the contrary, harmonised with the highest aims of sanitary reform. Already some practical results have been attained, for there have been no less than 400,000 sheep vaccinated and 40,000 bullocks, and the deaths from charbon have been reduced to 1 in 300 among the sheep and 1 in 2000 among the bullocks. There have been, it was true, unfavourable results in Italy, but this was due to mismanagement; the vaccine had been kept too long in a hot climate, and was charged, not merely with the microbe of charbon, but with many septic germs.

At the conclusion of a most enthusiastic meeting M. Pasteur was warmly felicitated on all sides.

## THE SERVICES.

**ARMY MEDICAL DEPARTMENT.**—Brigade Surgeon Adam Graham Young to be Deputy Surgeon-General, vice J. P. Cunningham, M.D., granted retired pay; Surgeon-Major William Silver Oliver, M.D., to be Brigade Surgeon, vice A. G. Young.

**ARTILLERY VOLUNTEERS.**—1st Hampshire: Honorary Assistant-Surgeon David Shorter Skinner resigns his commission.

**RIFLE VOLUNTEERS.**—1st Roxburgh and Selkirk (the Border): Surgeon Alexander Dewar, M.D., resigns his commission.

**ADMIRALTY.**—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon George Moore, M.D., has been placed on the Retired List from the 13th inst., with permission to assume the rank and title of Retired Deputy Inspector-General of Hospitals and Fleets.

The following Staff Surgeons have been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet:—George Curtis, George Bewsher Beale, M.D., John Stephen Dobbyn, M.D., and George Robertson, M.D.

The following appointments have been made:—Fleet Surgeon Edward H. Evans, to the *Durham*, vice Moore; Surgeon Gerard J. Irvine, to the *Diamond*, vice Stace, invalided; Staff Surgeon Edward W. Doyle, to the *Heroine*; Surgeon Joseph Crowley, to the *Linnet*; Surgeon Henry G. Jacob, to the *Duke of Wellington*, vice Doyle; Fleet Surgeon William Roche, to the *Impregnable*, vice Hadlow; Staff Surgeon Edward T. Lloyd, to the *Brilliant*, for temporary service; Staff Surgeon Anthony Gorham, M.D., to the *Osprey*.

## WILLS AND BEQUESTS.

THE Irish Probate of the will of Surgeon-Major Espine Ward, Army Medical Department, who died at Barbadoes, West Indies, granted to his brother, Mr. Montgomery Albert Ward, M.B., was sealed in London on the 16th ult., the aggregate value of the personal estate in England and Ireland exceeding £1200. The testator's wife, who under the will took a life interest in his property, having died, all his estate becomes at once divisible between his children.

The will of Joseph Peplow, M.D., formerly of 111, Great Russell-street, Bloomsbury, afterwards of Eastbourne, but late of 7, Vant-terrace, Lower Tooting, who died on July 27th last, was proved on the 18th ult. by Mr. Edward Peplow, the nephew, and Mr. John Eyles, the executors, the value of the personal estate being over £4900. The testator, after making bequests in favour of his wife, Mrs. Phoebe Peplow, and of his adopted children, Victoria Alma Williamson and Charles Frederick Joseph Williamson, leaves the residue of his property upon trust for his sister, Mrs. Elizabeth Eyles, for life, and at her death for six of his nieces.

The will of Alfred Heale, retired surgeon, formerly of Luton, Beds, but late of Jury-street, Warwick, who died on June 15th last, was proved on the 28th ult. by Mrs. France Heale, the widow, and Mr. Charles Crichton Stuart Benning, the executors the value of the personal estate amounting to over £13,000. The testator gives to his wife £2000 and all his household furniture, plate, and effects; to his nephew, Alfred Lawson Heale, £800; and a legacy to his brother. All his real estate and the residue of the personalty is to be held upon trust to pay the income to his wife for life; at her death further legacies become payable, including £2000 to

his said nephew; and the ultimate residue is to be divided between his sister, Miss Agnes Heale, and the children of his late brother, Arthur Wellington Heale.

The will of Henry Davis Male, M.D., of 2, North-side, Victoria-park-square, who died on July 28th last in Somersetshire, was proved on the 7th inst. by Mrs. Juliana Male, the widow and sole executrix, to whom he devises and bequeaths all his real and personal estate for her own use and benefit.

The following legacies have recently been left to hospitals and other medical charities:—Mr. Thomas Higginbotham, of Alderley Edge, Cheshire, £300 each to the Manchester Royal Infirmary and the Macclesfield Infirmary, and £100 to the Children's Hospital at Pendlebury.—Mr. John Eyston, of Salford Hall, Warwickshire, and Welford, Northamptonshire, £100 to the General Infirmary, Northampton.—Mr. John Robert Daniel Tyssen, of 9, Lower Rock-gardens, Brighton, £200 to his niece, Caroline Harvey Carter, for the benefit of the Cottage Hospital at Tavistock.—Mr. John Hyam, of 60, Hounds-ditch, and 53, Tavistock-square, £100 to the Jewish Hospital.

## SCOTTISH NOTES.

(From our own Correspondent.)

ON Sept. 4th a prediction appeared in the *Scotsman* that after that date we would have a period of dry but rather cold weather, suitable for harvest operations. It was written when farmers' hopes were not high; as the week had been wet and changeable. The opinion was based on spectroscopic observation, showing that a change in the percentage of rainfall had taken place, and that this was then much less than it had been. The Meteorological Office has been peculiarly in error in its predictions, showing that some essential factor in the calculation had been omitted, and this, together with the period of the year, gave additional interest to the observation. For a complete week harvest work was entirely uninterrupted; on Sept. 10th we had a considerable rainfall, and after this it was four days before rain again fell, so that the first public weather prediction which, so far as I know, we have had in Scotland by this new method has proved eminently correct.

A serious accident occurred to Mr. W. A. Orr, M.B., Johnstone, last week. It would appear that while on holiday he had been putting to the test the leaping capabilities of a horse recently purchased, that the animal shied and fell, rolling over his rider, and causing a double fracture of the clavicle as well as some rather serious bruises. He is progressing favourably.

A complaint having been made to the Board of Supervision regarding the manner in which Dr. Marshall, of Dumfries, has performed his duties as parish doctor, an inspector visited the town a few days ago for the purpose of taking evidence in the case. The charge of neglect is made by another practitioner in the town, Dr. John Cunningham, who appears, in correspondence with the Board of Supervision, to have asserted that the poor of the burgh have had the greatest difficulty in securing the services of Dr. Marshall; and it is further charged against that gentleman that he went to Ireland without providing a substitute to act in his absence, Dr. Cunningham's services being put in requisition. It is of the utmost importance that the poor should be suitably attended to, and, happily, complaints of this nature are rare, while it is still more seldom that a fellow practitioner is the informer. Dr. Marshall will doubtless have a thoroughly impartial inquiry; and if it is true, as I hear, that this gentleman enjoys but indifferent health, he will receive the sympathy of his neighbours, who seem to think that Dr. Cunningham's interference might have ended when his work was done.

Notwithstanding remonstrances from various quarters, and the influence of a large minority in their own body, the Dundee Police Commission have separated the offices of police surgeon and medical officer of health, giving to the latter but a trifling salary, and losing the opportunity of placing health matters on a satisfactory footing, as recommended in THE LANCET. The present muddled condition of the public accounts has evidently a good deal to do with the result, and I hope that as the financial state improves so will the salary of the gentleman now appointed. It is noticeable

that, though the salary offered was so shabby, two of the best men in the town were candidates: a fact which is rather unpleasantly suggestive to other cheese-paring communities.

I hope that the handsome gift of £2000 now received by the Aberdeen University from Mrs. Marr, for the founding of medical bursaries, may soon be imitated by other friends of the University and of science. In the Arts and Divinity classes almost every student holds a bursary, but such are so scarce among medical students that this may almost be considered a new departure.

The epidemic of typhus fever in Aberdeen which recently threatened to assume serious proportions has now been stamped out. Dr. Simpson complains of the prevalence of overcrowding and deficient ventilation, shows their influence in the spread of typhus, and suggests the clearing out of a number of the courts in the poorer districts of the city as the only means of accomplishing a more sanitary condition.

### PARIS.

(From our Paris Correspondent.)

DR. DE PIETRA SANTA, after having discoursed at the last meeting of the British Medical Association on the etiology of typhoid fever, showed the relative value and importance of the two principal theories in vogue as to the nature and cause of this virulent form of fever. On his return to Paris he followed up his paper at the Academy of Sciences and the Academy of Medicine, which will, I presume, go the round of the medical societies here. He placed in juxtaposition what he calls the English and the French theories: the former maintaining that typhoid fever is produced by direct contagion, by the stools of the patient and the elaboration of morbigenic matter which is generated in the different pipes and drains of dwelling-houses, or in the collectors of sewage water. In other words, the English theory may be said to consist—first, in impure and contaminated drinking waters; secondly, in the exhalations from sewers, or from the miasmata emanating from privies and cesspools. The French theory admits that typhoid fever may be developed spontaneously by infection, or specifically by contagion; but the great majority of French authors do not accept the unity of the typho-genetic poison. Thus it may be seen that Dr. de Pietra Santa has not thrown any new light on the subject; he has not disproved the English theory, and I do not find that he has enunciated anything novel concerning the French theory, which denies that the cause of typhoid fever consists of a germ, or of any single preformed agent entitling it to be considered as an exclusive or specific cause of this virulent type of fever.

Up till now the bromide of potassium has been almost the only remedy employed in the treatment of epilepsy, but Professor Ball has found from experience at his Clinic at the St. Anne Asylum that the combination of the bromides of ammonium and sodium possesses an incontestable superiority over the potassium salt, the two former being much better borne by the stomach. Another advantage of this double salt is that it does not leave, after its employment for a time, either headache, drowsiness, languor, loss of memory, or any weakness of the intellectual faculties. Moreover, although the double salt also produces an acnoid or a furuncular eruption, yet neither the one nor the other form of eruption occurs with such frequency or intensity as with the bromide of potassium. The double salt, however, has one great drawback to which Professor Ball has directed attention, and that is its tendency to produce hæmorrhage, or to aggravate this when it exists already. He therefore considers it an unsafe remedy in tubercular or phthisical subjects, and in such cases he gives the preference to the bromide of potassium.

Your readers will recollect the history of the "homme à la fourchette," which created a great sensation a few years ago. We have now a patient in the Lariboisière Hospital who has been operated on by Dr. Felizet for the removal of a spoon from the stomach. The patient was a waiter at a café, who in a frolic accidentally swallowed a spoon. It was a spoon generally used for mixing toddy or diluted coffee, the bowl of which is about the size of a teaspoon, with a handle adapted for a long tumbler. Dr. Felizet at first was in hopes that he would have been able to remove

the spoon through the natural passages; but finding this impossible from its position, which was across the stomach, he was obliged to resort to gastrostomy. The patient, according to the latest report, is doing as well as can be expected.

The death of the oldest physician in France, Dr. Dorin, is reported, which took place at Chalons-sur-Marne. The venerable doctor had just attained his ninety-fourth year.

While in the act of holding his consultations, Dr. Hillairet died suddenly on the 15th inst. from an attack of apoplexy. The deceased physician was scarcely sixty, and appeared in robust health. He was for a long time physician to the Saint Louis hospital, and a member of the Academy of Medicine since 1875 in the section of Public Hygiene.

## Obituary.

SIR JAMES ALDERSON, M.D. OXON., D.C.L., F.R.S.

SIR JAMES ALDERSON, who has just died at the advanced age of eighty-seven, was almost unknown to the present generation of medical men, but will be well remembered by the senior Fellows of the College of Physicians. He was a man of considerable ability, took a high position in the list of Wranglers at Cambridge, and was made a Fellow of Pembroke and of the Royal Society. He took his degree in medicine at Oxford in 1829, and became a Fellow of the College of Physicians in 1830. For many years he practised in Hull, where he held a very high position. He is said to have had a large and lucrative practice there, and his reputation still survives in the East Riding of Yorkshire and in Lincolnshire. He left Hull, however, for London, and at once began to take an active part in the government of the College of Physicians; the College, indeed, appears to have been his chief interest, and until the time when he ceased to be president, in 1870, after three years' tenure of that office, there were few figures more familiar than his in the College building. He was treasurer from 1854 to 1867, and devoted much time to the duties of the office, which he discharged with zeal and skill. It was he who discovered the original charter of the College, given by Henry VIII., which is now among its treasures.

When St. Mary's Hospital was founded in 1851 he was selected for the highest place on the medical staff, and continued to be senior physician till he became president of the College in 1867.

In person he was below the middle height, and slight in build; and he was remarkably active, and even agile, when he had long passed the age of sixty. His face gave one the impression of intellect and power; his features were regular and well cut; his expression was, perhaps, a little haughty.

In practice he did not rely much on physical examination, but his diagnosis was remarkably good, and his prognosis was usually verified by the result. His bedside teaching consisted of a few shrewd remarks which often conveyed most valuable lessons. At the College of Physicians he distrusted the reforms which led to its existing constitution; but he had its interests thoroughly at heart, and his labours on its behalf were recognised by his election as president on the retirement of Sir Thomas Watson. He held this office for three years, but was not re-elected for a fourth term. From this time he was rarely seen at the College, and it is doubtful whether he ever attended another meeting of Comitia. It was on his retirement from the presidency of the College that he received the honour of knighthood.

Sir James Alderson has left no writings which are likely to be of permanent value, but though he may have made no durable mark in his generation by this or other means, he was a useful member of the profession and a man of a high sense of honour, and his memory is held in great regard by many of his colleagues in the College of Physicians and of the former students of St. Mary's Hospital.

ROBERT RAYNER, M.R.C.S., L.S.A.

THE inhabitants of Birstal and of the immediate vicinity have sustained a serious loss by the death of Mr. R. Rayner. The deceased, who was the eldest son of the late Mr. Thomas Ingham Rayner, was born in 1825.

Mr. Rayner became a Licentiate of the Apothecaries' Society in 1848, and a Member of the College of Surgeons in 1850. For many years past Mr. Rayner, first alone, and afterwards in connexion with his son-in-law and surviving partner, Dr. Forsyth, had a large and varied practice, and enjoyed the respect and esteem not only of his patients but of his professional brethren. Mr. Rayner held the post of certifying surgeon under the Factories Act from 1854 to 1879, when he resigned the appointment in consequence of declining health. He was medical officer for the Birstal District of the Dewsbury Union from 1850 to the date of his death; medical officer of health in the Local Board Districts of Birstal and Birkenshaw, and for some years also held that position in the adjoining township of Drighlington. The energy and abilities of the deceased were not, however, confined to the duties of his profession. Mr. Rayner was elected to the office of churchwarden on nine different occasions, trustee of the Day and Sunday Schools, a vice-president of the Birstal Church Institute, and was also actively engaged in all measures affecting the parish church where lay assistance was necessary. In connexion with the volunteer movement in Birstal, Mr. Rayner held the following offices—namely, surgeon to the 30th West Yorkshire Rifle Volunteers, lieutenant, captain, and then major of the corps. On being raised to the rank of major he was presented with a testimonial by his brother officers and the other members of his corps, and he continued to hold that position for some years. In October, 1875, the deceased met with a serious accident by being thrown from his carriage—an event which induced a condition of ill-health that terminated fatally on the 8th inst. That Mr. Rayner was universally esteemed in the district was amply shown by the large attendance of spectators of all ranks and positions in life at his funeral, which took place at the parish church on the 13th inst.

#### THEODORE E. D. BYRNE, J.P., L.R.C.P.ED., M.R.C.S.

MR. BYRNE, of Elsiehiels, Dumfriesshire and Drumness, Kircudbrightshire, died at Saltcombe, South Devon, on September 9th, at the comparatively early age of fifty-three years. His health had for some years been far from robust, but the lung mischief which proved fatal only lasted three days. Though of an old Scottish family, the deceased was born in Dublin, where he resided for several years, afterwards spending a considerable time in foreign travel. Having studied medicine at Newcastle and obtained his licence, he served throughout the Crimean war, obtaining a medal in recognition of his services. His next few years were passed in the merchant and emigrant services, after which he settled in practice at Newcastle, till, on the death of his father in 1876, he succeeded to the family estates, when he settled at Elsiehiels. Retirement and leisure being un congenial to such an active man as Mr. Byrne, he devoted himself to the consideration of local matters, to which he imparted a lively interest. He contested the Dumfries burghs in 1880 as an independent Conservative candidate, but though his meetings were much enjoyed by those who loved quick repartee and veracity, his candidature was not considered serious, and at the poll he could only command about fifty votes. Locally he had little fellowship professionally, but from the various forms of activity manifested by him, and his trenchant criticism of men and manners, his place will be difficult to fill.

### Medical News.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Sept. 14th:—

Blaikie, William, Oswestry.  
Muddle, Edward John, Queen's-road, Dalston.  
Parry-Jones, William Richard, Rhos, Ruabon.  
Pryce, Thomas Davies, Newtown, Montgomeryshire.  
Willet, George Gilman Drake, Bristol.

AT a Cripples' Home in London (says the "Daily Chronicle") it was ascertained by a lady some years since that most of the inmates whose deformity was not congenital owed their misfortunes to the overturning of perambulators, or to falls out of them.

MRS. TOWNEND, of Puckrup Hall, has given £1000 to the Rural Hospital and £250 to the Dispensary of Tewkesbury.

A SUCCESSFUL trades demonstration, in aid of the funds of the Halifax Infirmary, took place at Elland on Saturday last.

**NEGLECT OF VACCINATION.**—The number of unvaccinated children in Cleckheaton, Yorkshire, has induced the guardians of the district to make special efforts to obtain compliance with the law on the part of defaulters, to whom more than a hundred notices have been issued.

MAJOR TULLOCH, on behalf of the Local Government Board, has been inquiring into the condition of the water-supply of Hawarden, with the result of showing a great need of improvement in that particular. In times of drought the inhabitants of the district appear to have been dependent on the neighbouring ditches for their supply of water for drinking purposes.

THE sum of 400,000 dollars has been bequeathed by the late Mr. William Euston, a native of Canterbury, but who realised an enormous fortune in the United States, for the purpose of founding a hospital for aged and infirm persons in Charleston, South Carolina. The testator desired that the building should be of a character similar to one existing in his native city.

THE death-rate in New York appears to have been exceptionally high last year. According to Consul-General Archibald's report the rate of mortality rose from below 26.50 per 1000 in 1880 to above 30 per 1000 in 1881. Half the number of deaths from zymotic diseases, amounting altogether to 13,496, were attributed to diphtheria, scarlatina, and diarrhoea.

ON the 14th inst. a new children's ward at the West Kent General Hospital, at Maidstone, was declared duly open. The ward has been erected to the memory of a Maidstone working man, Jonathan Saunders, now deceased, who, during a busy lifetime, spent his leisure hours in advocating the cause of this and other hospitals. A working men's subscription to the fund for erecting the ward realised more than £350.

**THE NORTHERN SANITARY ASSOCIATION.**—This Association has now got into working order. At a recent meeting of the executive committee, Mr. Fleeming Jenkin, M. Inst. C.E., professor of civil engineering in the University of Edinburgh, was appointed consulting engineer. Mr. Coard S. Pain, engineering surveyor of Liverpool, acts as resident engineer; and the secretaryship and treasurer'ship are placed in the hands of Mr. J. S. Harmood Banner.

**ST. JOHN AMBULANCE ASSOCIATION.**—A public meeting was held last week in the Shetland Islands to inaugurate the formation of ambulance classes. The Hon. John Dundas, Lord Lieutenant, was appointed president, and an address was delivered by Mr. Samuel Osborn, F.R.C.S., of St. Thomas's Hospital, who attended as a deputation from the St. John Ambulance Association. Fifty-two of the fishermen, naval reserve, &c., at once put down their names for instruction.

**PRESENTATIONS.**—On Friday, the 15th inst., J. Dysart McCaw, Esq., F.R.C.S. Ed., of Portglenone, Belfast, was presented by his neighbours and patients with an illuminated address, a horse, Stanhope gig, harness, saddle, and bridle, as a mark of their confidence in him as a medical practitioner, and their esteem and regard for him as a personal friend.—Mr. Harper, L.R.C.P.L., M.R.C.S., J.P., mayor of Barnstaple, has received during his term of office two testimonials. On June 24th last he was presented by his many friends and patients with a silver dinner service of the value of £120; and on Wednesday, September 13th the town council presented him with a handsome silver salver of the value of £50, in commemoration of the birth of a daughter during his mayoralty. This is not the first presentation of the kind he has received, for when he was mayor in 1874-75 the traditional silver cradle was presented to him to commemorate the birth of a son.

**THE ROYAL HOSPITAL FOR CHILDREN AND WOMEN.**—H.R.H. the Princess of Wales, with her three daughters, the Princesses Louise, Victoria, and Maud, accompanied by the Queen of Greece, and attended by Miss Knollys and Mdlle. Colocotroni, paid a strictly private visit to this hospital on August 15th. Each ward was closely inspected, and every patient's case fully gone into and described by the resident medical officer, Mr. J. Frederick Briscoe. Besides inspecting the wards and roof of the building, their Royal Highnesses descended to the out-patient department, and some of the Royal party examined the kitchen. This is the second occasion this year on which the Princess has paid a visit to this hospital. Her Royal Highness has expressed much satisfaction with both visits. The last one was on June 25th, and the Royal lady was joined by her three daughters, the Princesses Louise, Victoria, and Maud, who distributed fruit and flowers. The Princess of Wales seems to take deep interest in all medical matters, and is well informed thereon. The Royal party remained one hour and a quarter.

**WESTERN INFIRMARY, GLASGOW.**—The information given below concerning this institution was inadvertently omitted from our issue of the 9th inst. Number of beds 380. Besides the ordinary medical and surgical wards, there are special wards for skin diseases and diseases of women. There are four medical assistants and four surgical assistants, who hold office for six months. No fee is charged for these appointments. Non-resident clinical clerks, dressers, &c., are appointed from among the students. Visiting Physicians: Drs. W. T. Gairdner, T. McCall Anderson, James Finlayson, and Gavin P. Tennent. Visiting Surgeons: Drs. G. H. B. Macleod, George Buchanan, Alexander Patterson, and H. C. Cameron. Physician for Diseases of Women and Consulting Physician-Accoucheur: Dr. William Leishman. Out-door Physicians-Accoucheur: Drs. Robert Kirk, W. L. Reid, and Murdoch Cameron. Dispensary Physicians: Drs. Jos. Coats, D. C. M'Vail, and Samson Gemmell. Extra Dispensary Physician: Dr. William G. Dunn. Dispensary Surgeons: Drs. James G. Lyon, D. Neilson Knox, and James Christie. Extra Dispensary Surgeon: Dr. J. C. Renton. Dispensary Surgeon for Diseases of the Ear: Dr. Thomas Barr. Dental Surgeon: Mr. James Rankin, Brownlie. Pathologist: Dr. Joseph Coats. Pathological Chemist: J. L. Silver, M.B. Superintendent: Dr. John Alexander. Secretary: Henry Johnston.—Fees: First year, £10 10s; second year, £10 10s. Hospital attendance and clinical instruction for six months, £7 7s.; three months, £4 4s. Any student who holds a perpetual ticket for another hospital where the fee is not less than the above may join this hospital for the practice only at the following rates: One year, £3 3s.; six months, £2 2s. The fees for clinical instruction in such cases, which are £3 3s. for a six months' course, are paid separately.

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

**BAINES, A. H.,** L.R.C.P.Lond., M.R.C.S., has been appointed an Honorary Medical Officer to the Southport Infirmary, vice C. H. Smith, L.K.Q.C.P.I., resigned.

**BLORE, ISAAC,** M.R.C.S., has been appointed Resident Medical Officer to the Netherfield Hospital for Infectious Diseases, Liverpool, vice Hope, resigned.

**BRANTHWAITE, HARRISON,** F.R.C.S. Ed., L.S.A. Lond., has been appointed Medical Officer of Health for the Willesden Urban Sanitary District, vice Thomas, resigned.

**CHITTENDEN, T. HILLIER,** M.R.C.S., has been appointed House-Surgeon to St. Mark's Hospital, City-road, vice Mr. Charles J. Ogle, whose term of office has expired.

**CREW, WILLIAM THOMAS,** F.R.C.S. Eng., L.R.C.P.Lond., L.S.A. Lond., has been appointed Assistant Medical Officer to the Brownlow-hill Workhouse, Liverpool Parish.

**DENHAM, THOMAS REID,** M.D., M.Ch.Q.U.I., has been appointed Medical Officer for the Ireby District of the Wigton Union.

**DOBSON, JOSEPH,** M.R.C.S., L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator for the Headingley-cum-Burley District of the Leeds Union, vice C. Jack, M.D., resigned.

**DUMAT, H. ALYMER,** M.B., C.M. Ed., has been appointed House-Surgeon to the Weston-super-Mare Hospital, vice Ozanne, resigned.

**EVANS, THOMAS GEORGE CANN,** M.R.C.S., has been appointed Medical Officer to the East Budleigh District, St. Thomas's Union.

**EVANS, WILLIAM,** L.R.C.P. Ed., M.R.C.S., has been appointed Medical Officer of Health for the Anglesey and Holyhead Rural, and Beaumaris and Holyhead Urban, Sanitary Districts.

**FARNELL, H. DAWSON,** M.R.C.S., L.S.A. Lond., has been appointed Medical Officer to the Workhouse of the Eastbourne Union, vice Colgate, resigned.

**LOW, ALEX. BRUCE,** M.B., M.Ch. Ed., has been appointed Medical Officer for the Workhouse, Sunderland Union, vice Crossby, deceased.

**MCCLURE, HENRY,** M.D., M.Ch.Q.U.I., has been appointed Medical Officer for the Queen Camel District of the Wincanton Union.

**RAND, R. FRANK,** M.B., C.M. Ed., has been appointed House-Surgeon to the Oldham Infirmary, vice Dr. Harkness, resigned.

**RICHARDSON, WILLIAM,** L.R.C.P. Ed., L.R.C.S. Ed., has been appointed Medical Officer to the Workhouse, Reading Union.

**SCOU GAL, EDW. FOWLER,** M.B., C.M., L.R.C.S. Ed., has been appointed Medical Officer of Health for the combined Austonley, Cartworth, Fulstone, Hepworth, Henley, Holme, Netherthong, Scholes, Upperthong, and Wooddale Urban Sanitary Districts, vice Winpenny, whose appointment has expired.

**WOODCOCK, R. FRASER,** L.R.C.P.L., M.R.C.S., has been appointed Surgeon to the Police of the Borough of Wigan, vice Unwin, resigned.

## Births, Marriages, and Deaths.

### BIRTHS.

**ANDERSON.**—On the 26th July last, at Mhow, Central India, the wife of Surgeon-Major A. Anderson, Army Medical Department, of a daughter.

**SAUL.**—On the 13th inst., at the house of her brother-in-law, Major E. W. Stokes, Lancaster, the wife of W. Wingate Saul, M.D., of a daughter.

**THURSTAN.**—On the 13th inst., at Tunbridge Wells, the wife of E. Paget Thurstan, M.D., B.A. Cantab., of a son.

**TURTON.**—On the 14th inst., at Ashfield-terrace, Heckmondwike, Yorks, the wife of James Turton, M.R.C.S.E., of a daughter.

[ERRATUM.—We are asked to state that the birth announcement under the heading "BARR," published last week, is without foundation.]

### MARRIAGES.

**BARTON-SCOTT.**—On the 16th inst., at St. Peter's, Bayswater, James E. Barton, M.R.C.S., of Brookwood, Surrey, to Ida, widow of the late T. C. Scott, Esq., and daughter of Robert Clark, Esq., of Chepstow Villas, Bayswater.

**BUCHANAN-BINGHAM.**—On the 14th inst., at St. Luke's, Westbourne-park, Arthur Buchanan, M.D. Lond., of High-street, Chatham, to Constance Eliza Maud, second daughter of the late John Bingham, Esq.

**EDWARDS-BARNETT.**—On the 24th ult., at the Priory Church, Leominster, Octavius Edwards, L.R.C.P. Lond., M.R.C.S., of South-street, Leominster, to Laura, eldest daughter of Samuel Barnett, J.P., Surgeon, of The Brook House, Leominster.

**MORRIS-SHIELL.**—On the 14th inst., at the Parish Church, Chester-le-Street, co. Durham, Walter Cameron Morris, M.B., of Chester-le-Street, to Florence Maud, second daughter of the late W. R. Shiell, M.R.C.S., of Chester-le-Street.

**ROBERTS-THOMSON-HULL.**—On the 14th inst., at the Parish Church, Hazelwood, John Roberts-Thomson, M.D., F.R.C.P., of Dunedin, Bournemouth, to Mary Frances Rowe (Rona) Hull, second daughter of the late William Winstanley Hull, Esq., of The Knowle, Hazelwood, Derbyshire.

**THEOBALDS-WOOSNAM.**—On the 6th inst., at Christ Church, Weston-super-Mare, Surgeon-General J. R. Theobalds (Retired List), Madras Army, to Esther (Etty), second daughter of the late Major-General J. B. Woosnam, of the Bombay Horse Artillery.

### DEATHS.

**ALDERSON.**—On the 13th inst., at his residence, Berkeley-square, Sir James Alderson, M.A., M.D., F.R.S., Physician Extraordinary to the Queen, and formerly President of the Royal College of Physicians, aged 87.

**CAREY.**—On the 25th May, at Wellington, New Zealand, Langer Carey, M.D., late Surgeon-Major, Royal Artillery and 101st Fusiliers, second son of the late Dr. Langer Carey, of Churchfield, Newport, co. Tipperary.

**HARRIS.**—On the 16th inst., at The Avenue, Blackheath, Surgeon Major Worsley Poulett Harris, M.D., aged 51.

**LEWIS.**—On the 8th inst., at Whitby, Yorkshire, Waller Augustus Lewis, M.D., Chief Medical Officer of Her Majesty's Post Office, Gordon-square, London.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### MEDICAL OPPOSITION TO IMPROVED REMUNERATION TO MEDICAL MEN.

A CORRESPONDENT directs our attention to a long letter in the *Croydon Guardian*, in which Dr. J. H. Shorthouse argues at great length against the request of Dr. Barnes for an increase of salary, as Medical Officer of the Croydon Union, on the ground that he had held the appointment for nine years at the same salary, but with a great increase in the population and the work. This seems a most reasonable ground on which to base such a request. Dr. Shorthouse remarks Dr. Barnes says nothing of the amount of extra fees which he receives in addition to his salary. But he in nowise shows that this is any reason for not paying him an increase of salary for increased ordinary work. Moreover, Dr. Shorthouse seems to imply that Dr. Barnes' extras are increased by an unnecessarily frequent use of instruments. If Dr. Shorthouse really has such an opinion of Dr. Barnes, he ought to make it the subject of a direct charge at the Board. He ought to go further, and ask for the dismissal of a medical officer whom he thinks capable of such conduct. There is nothing more certain than that professional opinion is in favour of a more frequent use of instruments for shortening labour, and that there are the gravest reasons for not leaving lingering labours to take their own course. But it is greatly to be regretted that a medical guardian should raise such questions in newspapers to the prejudice of a professional brother. Most medical guardians, especially when the vote went against the application of a medical servant, even if they approved it, would have been thankful for a reasonable excuse for taking no part in the discussion.

Mr. W. Davis.—We are unable to recommend the appliance.

H. W. Larkin, M.D.—There are homeopaths and homeopaths.

Mr. Underhill.—The error is corrected in a note published in another column.

### GONORRHOEA.

*To the Editor of THE LANCET.*

SIR,—I trust you will find space for the following remarks in your valuable journal.

Gonorrhoea is such a common and important disease that we must all feel glad that attention is at last being directed to it. The results are often so disastrous and the complications so many that it is high time we tried to obtain some more definite cure than we have at present at command. I find by reference to notes and inquiries amongst other medical men that 75 per cent. of adult males have had it once; 40 per cent., twice; 15 per cent., three or more times. I find that the average duration is about nine months, varying from eight days to four years. No two medical men treat their cases in the same way, but most of them agree that the duration of the disease is long, and the treatment very unsatisfactory. The disease seems to be greatly on the increase, and the older practitioners say that it is becoming more virulent. Could not some inquiry be made into the whole theory and treatment of this dangerous disease? If the treatment so strongly advocated by "M.R.C.S. Eng." is found to be satisfactory, the thanks of the profession will be due to him for bringing under its notice so valuable a remedy. In conclusion, I should like to ask "M.R.C.S. Eng." to give fuller particulars, so that a fair trial may be given.

I remain, Sir, yours, &c.,

Sept. 18th, 1882.

C. H. W.

P.S.—While on the subject, I should like to ask whether gleet is contagious or not?

### WOOD PAVEMENT.

PROFESSOR O. W. WIGHT, Health Officer of Detroit, U.S.A., in a report to the City Council on the healthiness of wooden pavement, and quoted in the *Sanitary Engineer* (New York), advances several objections against that description of road paving. "The blocks, laid endwise," says the Professor, "not only absorb water, which dissolves out the albuminoid matter that acts as a putrefactive leaven, but also absorb an infusion of horse manure and a great quantity of horse urine dropped in the street. The lower ends of the blocks, resting on boards, clay, or sand, soon become covered with an abundant fungoid growth. Thoroughly saturated with albuminous extract and the excreta of animals in a liquid, putrescible form, these wooden block pavements undergo a decomposition in the warm season and add to the unwholesomeness of the city. The streets, in fact, might as well be covered a foot deep with rotting, barnyard manure, so far as unwholesomeness is concerned. Moreover, the interstices between the blocks and the perforations of decay allow the foul liquids of the surface to flow through, super-saturating the earth beneath, and constantly adding to the putrefying mass."

Mr. E. Houghton, B.A., M.D.—When the genius foreshadowed in our correspondent's letter arises and formulates a comprehensive generalisation that shall include all therapeutics under one head, or a very few heads, it will be absurd to fight against the necessity for a designation of such a special mode of treatment, and ungenerous to withhold from the genius unbounded respect. Meantime all actual pretensions to such discoveries are worthy of nothing but repudiation by men and societies which respect the fair fame of scientific medicine.

### "VENESECTION: WHY IS IT SO RARELY PRACTISED?"

*To the Editor of THE LANCET.*

SIR,—In your issue of to-day, "Bothered" concludes that venesection is so rarely practised because the otherwise would-be operator has never seen a vein opened. It is devoutly to be hoped for the credit of our profession that this explanation is purely imaginary. Surely no medical man would for a moment hesitate to relieve pain by giving a hypodermic injection, or perhaps save life by a stimulant enema, simply because he did not "feel that he could do it nicely." Would "Bothered" himself, for example, neglect to pass a catheter for urgent retention of urine in a woman solely because perchance he had "never witnessed the actual operation." Surely not. Yet it would be easier far to "bungle" over that than over the section of a subcutaneous vein; and I contend that by that simple section we may relieve the most agonising pain, and restore the moribund to life and vigour. I am constrained to believe that the present most deplorable disuse of venesection arises partly from a lack of exact knowledge of its usefulness and partly from a distrustful remembrance of its former abuse. Our grandfathers were bled to death and salivated to toothlessness, and the reaction from empiricism banished for a time both blue pill and bleeding. I fervently hope and believe that even as mercury is now used in a rational manner with immense benefit, so the great and true value of bloodletting will soon be recognised also, for I imagine that venesection, discreetly employed, will be found very valuable in many diseases. That it is a most potent remedy in appropriate cases of chest affections I endeavoured lately to point out in your columns, and that our present neglect therefore of this powerful weapon is most disastrous to our patients, humiliating to our art, and oftentimes unfortunate for ourselves, I am most firmly convinced.

I am, Sir, yours faithfully,

West-street, Finsbury-circus, E.C.,  
Sept. 16th, 1882.

BEDFORD FENWICK.

*To the Editor of THE LANCET.*

SIR,—The statement of your correspondent, "Bothered," that "the actual operation of opening a vein is never witnessed by the student," should not remain unchallenged. It is only three years since I left Guy's. During my six years' studentship at that hospital I frequently saw venesection performed, and I bled several patients myself while holding the appointments of dresser and clinical assistant. Similar is the experience of every Guy's man who has taken advantage of the opportunities offered him by his hospital.

I am, Sir, yours faithfully,

Sept. 17th, 1882.

NOT BOTHERED.

Nemo.—1. "Legally qualified practitioner" is a correct phrase.—2. Yes.—3. A person registered with a surgical qualification only is not entitled to recover for attendance in other than surgical cases.

### A NEW USE FOR SALICYLATE OF SODA.

*To the Editor of THE LANCET.*

SIR,—In a case of severe chalk gout I applied several different lotions with a view to remove, if possible, the ugly excrescences on the fingers. None of the lotions had the desired effect of altogether removing the deposits, but a lotion of ten grains of salicylate of soda to the ounce was successful in removing small deposits from the ear. The chalky matter was softened, and in four days disappeared, leaving a small scar as its representative.—I am, Sir, yours, &c.,

THEO. M. KENDALL,

B.A. Sydney, N.S.W., L.R.C.P. Ed.

Porteus-road, Maida-hill, Sept. 12th, 1882.



## DISEASES OF MINERS.

THE prevalence of ankylostomiasis amongst the workmen employed in the construction of the St. Gothard tunnel is in part attributed to the fact that this disease is endemic in a great portion of Northern Italy, from which district many of the workmen came. Dr. Fabre, of Commeny (Allier), in his remarks at the Geneva Congress, maintained that any prevalence of this affection amongst miners would in most cases arise from the importation of the germs of the disease, as there is nothing in the nature of a miner's occupation to produce the disease without such a cause. Dr. Fabre considers that the ravages of the malady were aggravated by the poor and insufficient nourishment of the St. Gothard workmen, and by the bad air and noxious gases they breathed, which would have evidently produced anæmia, and thus facilitated the spread of ankylostomiasis.

Mr. John W. Stedman.—In the general view of our correspondent we fully concur, but it is not shown that the practitioner called into consultation did not "hesitate" before acting as he did. We are not prepared to say that a practitioner called into consultation should never afterwards accept the post of family adviser. The freedom of the patient must be considered. But undoubtedly he should do so, if at all, only with regret and reluctance.

## DEVICE FOR ESTIMATING HÆMOGLOBIN.

To the Editor of THE LANCET.

SIR,—The following device for estimating the amount of O. hæmoglobin contained in a small quantity (say five cubic millimetres) of human blood will perhaps be acceptable to some of your readers who, like myself, have to work at a distance from reliable instrument makers, and might induce some of the latter to supply the profession with the necessary apparatus.

The principle of my contrivance is not new, being an application of Preyer's spectral estimates of hæmoglobin solutions and of a tube similar to those employed by Duboscq in his calorimeter, so as to compare successive measurable depths of a blood solution. The novelty, if such there be, consists in the use of a diluted solution of blood obtained from any red-blooded animal as a gauge determining the depth of this solution, that will give one or other of Preyer's O. hæmoglobin spectra, and observing the difference of depth required to obtain the same spectra, after a cell one centimetre deep and filled with one per cent. solution of human blood has been introduced under the gauged animal blood.

I had only at my disposal a small Browning's pocket spectroscope of the simplest pattern. I mounted it as an eye-piece suited to my microscope, and fitted to its distal end, beyond the slit, a hard rubber tube about twelve millimetres in diameter. The lower end of this tube was cut perpendicularly to its axis and closed with a plane glass disc, well cemented around the edges. When this eye-piece is in position and the sliding tube of the microscope is pushed home, the glass plate of the rubber tube touches another glass plate which forms the bottom of a cylindrical vessel standing upon the stage of the microscope. Into this vessel I introduce about fifteen cubic centimetres of a dilute solution of defibrinated blood (the requisite quantity, less than one cubic centimetre, being easily obtained by pricking, for instance, a vein under a chicken's wing), and graduate the solution so that from twenty-five to thirty millimetres of depth are required in order to produce the particular spectrum selected as a type, and the value of which in O. hæmoglobin percentage should be specially determined for each particular instrument. The depth is, of course, measured by the distance between the two glass plates already mentioned, but it can be read off at once provided the sliding tube of the microscope has been ruled on the outside with lines one millimetre apart, and numbered from above downwards. The exact depth that produces the typical spectrum having been noted down, the instrument is ready for immediate use.

A cell formed of a piece of hard rubber syringe, No. 0 (say half centimetre, inner diameter), exactly one centimetre long and cemented upright to a microscope slide, is now filled with a mixture of five cubic millimetres of human blood in 500 (half cubic centimetre) of distilled water, and covered with a thin glass cover, excluding all air-bubbles. This cell is introduced between the stage and the glass bottom of the cylindrical vessel containing the diluted chicken's blood and the typical spectrum again sought for. It will, of course, be found that a lesser depth is now required than before the addition of the centimetre cell with the human blood. The difference between the two depths, divided by the full depth previously noted down, multiplied by the percentage of O. hæmoglobin corresponding to the typical spectrum, and finally multiplied by 100, will be the percentage of hæmoglobin contained in the pure human blood from which the sample was taken.

I am, Sir, yours very truly,

Navana, Cuba, August 7th, 1882.

CHARLES FINLAY, M.D.

## A CORRECTION.

To the Editor of THE LANCET.

SIR,—In the "Mirror" of Sept. 16th you reported a case of lithotomy performed at the Guest Hospital. In the heading it is stated that the stone weighed "three ounces." It should have been "eight ounces."

I am, Sir, yours faithfully,

ROBERT WALFORD (late House-Surgeon).

Stanhope-street, N.W., Sept. 18th, 1882.

## CAUTION TO MEDICAL PRACTITIONERS.

WE are asked to publish the following:—A man about 5 ft. 8½ in. in height, and apparently about thirty-five years of age, has been calling and raising money on the false pretence that he is a doctor from a town in Lancashire, and is in temporary difficulties to take him home, and he will remit the amount immediately on his return." He is very plausible, and is very conversant with the names of persons in Inverness and neighbourhood, also with those of professors and medical practitioners in Aberdeen and Edinburgh.

## "THE CAUSE OR CAUSES OF ACUTE TONSILLITIS."

To the Editor of THE LANCET.

SIR,—It appears to me that in the correspondence on this subject, which has recently appeared in your journal, sufficient notice has not been taken of the fact that the terms quinsy and tonsillitis cover three distinct conditions.

With reference to the case reported by Mr. Boys in THE LANCET of August 26th (which I have only just seen), I am not surprised at salicylate of soda being ineffectual. My experience of the use of that drug leads me to confine its beneficial results to catarrhal tonsillitis—i.e., catarrh of the mucous membrane and crypt follicles. These cases very rarely run on to suppuration. I have never seen a case that was clearly one of simple catarrhal tonsillitis eventuate in suppuration, although I should not like to say they never do so. On the other hand, the true fibrous tonsillitis—that is, inflammation of the gland substance itself—almost invariably suppurates, as does very frequently, though not always, a form of the disease which really affects only the surrounding structures, and which is often accompanied, like the parenchymatous form, by considerable œdema of the palate, uvula, &c. This was the form of the disease in the case I mentioned in your issue of July 29th, during the earlier part of the discussion.

Cases of the two latter classes are very unlikely, so far as I have seen, to be benefited by salicylate of soda; for although, for the sake of observation, I have used it in all cases of tonsillitis, whatever their nature, up to quite recently, I have not found any good result therefrom save in the catarrhal form. I have therefore discontinued its use in the other forms of tonsillitis. But that it is of great value in cutting short the simple catarrhal form I can speak from a repeated personal experience.

I am, Sir, yours faithfully,

KENNETH W. MILLICAN, B.A.

Kington, Warwick, Sept. 18th, 1882.

To the Editor of THE LANCET.

SIR,—Under the above heading, in your issue of the 2nd inst., I noticed a letter from Mr. Grewcock, stating that he has found pulling down the lobules of the ears relieves painful deglutition, and can from personal experience bear testimony to the efficacy of the principle which he recommends—viz., closure of the external auditory meatus; although the plan suggested in my case, and which I now always recommend, produces that effect in a different manner.

When a boy, I had a very severe attack of diphtheria, and the following method of relieving theodynophagia was suggested by a servant who had suffered from the same disease. It is this. To stand as nearly as possible behind the patient, who should be in bed or seated in a chair, and place the palm of each hand over an ear, then make very firm pressure. I always preferred the servant before mentioned to press my ears whilst I was taking nourishment, because she did so more firmly than anyone else; my friends either feared that the force they were using would injure me, or else had not the strength.

I am, Sir, yours truly,

T. MARK HOVELL.

Mansfield-street, Cavendish-square, Sept. 2nd, 1882.

Mr. W. R. Parry Jones.—We are not aware of the existence of an institution of the kind mentioned.

## LECTURES ON DISEASES OF WOMEN AND CHILDREN.

To the Editor of THE LANCET.

SIR,—A want often exists of which we are not conscious until circumstances force it upon our notice. Such is my case. Having completed my necessary residence for the M.B. of Edinburgh, I find I require a three months' systematic course of lectures on diseases of women and children. I have sought in vain to meet with such a course in London.

As other students may be placed in a like predicament, I would ask—would it not be well that at some of the hospitals which take the lead in things medical a systematic course on the above subjects should be instituted? Without this it certainly strikes me our metropolitan schools are incomplete.—I am, Sir, your obedient servant,

London, Sept 20th, 1882.

FOURTH YEAR'S MAN.

## THE LATE SURGEON-MAJOR GEORGE SHAW, A.M.D.: MENTION IN DESPATCHES.

To the Editor of THE LANCET.

SIR,—I find no entry whatever in General Graham's despatch about the affair at Kassasin Lock with reference to the death of our brother officer, George Shaw, who perished there. These official neglects are lamentable.

I am, Sir, yours, &c.,

Sept. 20th, 1882.

ONE OF THE A.M.D.

## MEDICAL ADVERTISING IN SOMERSET EAST, SOUTH AFRICA.

THE circular of T. E. Butler is in very bad form, and the profession in South Africa should take means to discourage and condemn such advertising.

## "RIDER'S SPRAIN."

To the Editor of THE LANCET.

SIR,—Observing letters on the above in THE LANCET of July 29th and August 5th, I venture, through your columns, to recommend sufferers from the injury to give a trial to "Huxley's support for injury to the large muscle of the thigh," advertised in THE LANCET of August 5th. I first injured the muscle at polo about four years ago, and suffered off and on from the injury for three years, at times having to give up riding altogether for three weeks or so. The bandage roller ordinarily used in the hunting field gave a certain amount of support, but even with it anything like a hard game of polo made riding the following day almost an impossibility. Last year my attention was drawn to the advertisement of Mr. Huxley, 12, Old Cavendish-street, W., and I send for one of his supports. Within a week or two after commencing to wear it, my leg was, to all intents and purposes, well, and I have had no return of the injury, though I have played polo regularly during the last twelve months. I still wear the support at polo as a precautionary measure, but after using it for a month I was able to discard it for ordinary riding. I cannot too strongly recommend a trial of the support to any sufferers from the injury.—I remain, Sir, yours faithfully,

R. CALDECOTT,

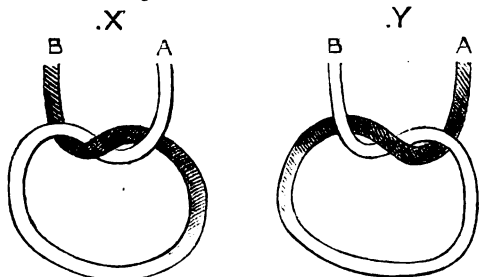
East Indies, August 26th, 1882. Surg.-Maj., Central India Horse.

Mr. James Richards ought to communicate the facts to the medical officer of health.

## THE REEF-KNOT v. GRANNY.

To the Editor of THE LANCET.

SIR,—In answer to "F. A. P.," let me point out that anyone may be sure to tie a reef-knot. Even blindfolded or subcutaneously, good men sometimes fall in so doing, but it can always be ensured by remembering one little incident—viz., after making the first twist or turn, complete the knot by placing that end of the string which is anterior to the anterior of the other end; it matters not then which end is twisted round the other to complete the knot. Take an example in X:—



Showing first twist, where the end A is anterior; then pass it to the anterior of B.

Showing the end A posterior; then pass or cross it behind B, and make your final or second twist.

The end A is anterior. Now, if this end A is carried across in front of B, it matters not whether A or B continue the final turn. Y shows the ends twisted opposite to X; here the end A being posterior, pass it to the back of B, and make your second turn.

I am, Sir, yours faithfully,

Twyford, Sept 2nd, 1882.

J. BATTEN COUMBE, M.D.

M.R.C.S. Eng.—There is nothing in the nature of such a case making it necessary for the practitioner to desist from obstetric practice.

Mr. Henry Morris.—At an early date.

## IODOFORM.

To the Editor of THE LANCET.

SIR,—Perhaps some of your readers will favour me with their experience of the use of Iodoform. Can urethral pessaries, composed of five grains of Iodoform and made up with theobroma and eucalyptus oil, be used with safety in the male urethra every four hours for several days? If not, what would be the result and symptoms likely to follow?

I am, Sir, yours truly,

Sept. 19th, 1882.

YOUNG PRACTITIONER.

Subscriber.—The book may no doubt be obtained through Messrs. Churchill, New Burlington-street.

## DAY NURSERIES.

To the Editor of THE LANCET.

SIR,—Would you kindly allow me, through your journal, to ask if any of your subscribers could inform me of any crèche or day nursery for children under a year old? We are desirous of starting a similar institution here, and are anxious to learn particulars of working expenses, &c.

I am, Sir, yours very truly,

Motra House, Arnold, Sept. 19th, 1882.

R. S. WALLACE.

## GYNECOLOGICAL TABLE.

Dr. Monckton (Maldstone) asks to be informed where he can inspect a simple but effective gynecological table for hospital use? What makers supply such an affair? Costly complexities objected to.

## CHRONIC URETHRAL INFLAMMATION.

To the Editor of THE LANCET.

SIR,—Will you please give insertion to the following peculiar case:—A gentleman aged forty, married, of active habits, and otherwise enjoying good health, came to me two months since complaining of burning scalding pains along the urethral track, occurring several times a day, some days very slightly so, but worse at night in bed. This has been going on since last December. He has had no discharge. There is no stricture. The urine is perfectly normal; he passes it only three times a day, and his bowels act regularly. The glands along the urethral track are perceptibly enlarged, and almost constantly an inflamed ring can be perceived around the urethral orifice. The urethra is so sensitive and inflamed that I could not succeed in passing a sound. The patient objects to an anæsthetic. Micturition does not add to the pain. He has never had syphilis, but had gonorrhœa about three years ago and previously. He has consulted two or three hospital surgeons in London, who prescribed laxatives, without effect. I do not consider he is the subject of stone or of enlarged prostate. He lives very moderately. I prescribed the mineral acids and vegetable tonics. They have had no effect. I now apply to the profession, through your courtesy, to inform me what is the treatment to adopt.

I am, Sir, yours obediently,

Sept. 18th, 1882.

A YOUNG SURGEON.

Sufferer should consult a legally qualified surgeon, and avoid advertising quacks.

G. P has not enclosed his card.

## DISLOCATION OF THE SHOULDER, AND ITS REDUCTION BY AN EASY METHOD.

To the Editor of THE LANCET.

SIR,—The following particulars seem to merit attention not less on account of certain peculiarities which the *modus operandi* presents than from the remarkable facility with which reduction was effected.

Mr. W.—, a middle-aged gentleman, consulted me respecting an injury to the shoulder caused by a fall. On examination, I found immobility of the joint, projection of the elbow, flattening of the deltoid, and the characteristic depression beneath the acromion. Having satisfied myself as to the nature of the accident, the patient was placed laterally upon a chair, the back of which was firmly held by an assistant, while gradual extension of the displaced limb was made above it by another. This proceeding was continued for a few seconds—until, in fact, the opposing muscles were sufficiently relaxed, when, by a simple manipulation, the head of the humerus was gently elevated into its proper position. The usual adjustment of the arm to the side completed the operation, and the case has progressed favourably ever since.

I am, Sir, yours obediently,

Leeds, Sept. 6th, 1882.

CLARENCE FOSTER.

Enquirer is most fully justified. He should consult the best solicitor he can find.

## SUDDEN DEATH THREE WEEKS AFTER DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—On Sunday, August 6th, 1882, a child aged ten years was brought to my surgery by her father, and complained of sore throat. I examined the throat, and found extensive exudation of a diphtheritic type covering the whole of the fauces and base of the tongue. I applied nitrate of silver, and gave large doses of chlorate of potash and tincture of perchloride of iron every two hours (with three grains of calomel at once), and recommended good diet, warm vinegar poultices to the throat, with moist atmosphere from the steam-kettle. On August 7th I saw the child early in the morning, and found her blue. I therefore at once performed tracheotomy, the good result of which was immediate; the wound healed, and she, to all appearance, got perfectly well. Three weeks after, while at dinner, she suddenly fell and was taken up dead. Can any of your readers give me an explanation of the immediate cause of death? Sir W. Gull told me (his late pupil) that "we often get some heart mischief after diphtheria, but cannot tell what the cause is."

I am, Sir, yours, &c.,

Brabourne, August 29th, 1882.

ALFRED CHARLTON.

A Constant Subscriber might consult Dr. Hardwicke's book on Medical Education and Practice Abroad.

## AN APPEAL.

To the Editor of THE LANCET.

SIR,—Will you allow us to appeal to the profession on behalf of the family of the late Dr. Thompson, of Beverley. This gentleman died, after a short illness, from inflammation of the lungs, brought on by exposure while in the performance of his duties, leaving a wife and six daughters (the youngest about twelve months old) almost destitute. We shall be glad to receive any subscriptions that may be sent.

We are, Sir, your obedient servants,

HENRY WALKER, M.D.,

E. D. TOMLINSON, Brigade Surgeon half-pay.

Beverley, Sept. 18th, 1882.

## "A CASE FOR HELP."

THE following amounts have been received at THE LANCET Office on behalf of the above:—Mr. Shaw, Hunslet, £2 2s.; A Well Wisher, 10s.; Mr. J. C. Moore, Ongar, 10s.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Bentley, London; Mr. Scott, Brighton; Mr. W. Wallis, Mr. Pratt, Belfast; Dr. Gordon Holmes, London; Dr. Weatherby, Portishead; Surgeon-Major Caldecott, Augur; Mr. Walford, London; Surgeon-Major O'Farrell, Neesmuch; Mr. Clifford; Mr. Millican, Kington; Mr. Wallace; Mr. Banner, Liverpool; Messrs. Fletcher and Co., Holloway; Dr. Lediard, Carlisle; Messrs. Singer and Co., Coventry; Dr. Wallis, Monmouth; Dr. J. M. Duncan, Galashiels; Mr. Leared, London; Dr. Gillespie, London; Mr. Charlton, Ashton; Dr. Pratt, Appledore; Mr. L. E. Wright, London; Mr. Sannes, Wimbourne; Mr. Duncanson; Mr. Hamilton; Mr. Bulmer, Hereford; Mr. Sugden, Queensland; Dr. Darwin, Didsbury; Mr. J. J. Reynolds, Stoke-by-Clare; Dr. Bedford Fenwick, London; Dr. G. de Courcy Morris, York; Mr. Broadbent, Liverpool; Dr. Sack, Cork; Mr. Plunkett-Johnstone, Darlington; Messrs. Talbot, Liverpool; Dr. Annington, Cambridge; Mr. Winter, Wolverhampton; Dr. Monckton, Maidstone; Dr. Wise, London; Dr. Samuel West, London; Mr. Parry Jones, Ruabon; Dr. Menzies, Cadenabbia; Mr. Cheyne Brady, Veytaux; Mr. Wallers, Blackburn; One who Advocates Exercise in the Pure Air; Ager, Stoke Newington; N. A., Birmingham; T. Vero, Malvern; Subscriber; Young Practitioner; Medicus, Gloucester; A Constant Subscriber; Chandos; M.R.C.S. Eng.; A Young Surgeon; C. H. W.; Trocar; Not Bothered; G. H. E., Sheffield; &c. &c.

LETTERS, each with enclosure, are also acknowledged from—Mr. Benn, Rugby; Mr. Woodman, Bridgewater; Mr. Turner, Norwich; Mr. Ward; Mr. Hancock, London; Mr. Bullivant, Derby; Mr. Forsyth, Birstal; Mr. Watkins, Worcester; Mr. Duncan, Fressingfield; Mr. Ellerton, Middlesboro'; Mr. Roberts, Sheffield; Mr. Watts, London; Mr. Cook, Lowestoft; Dr. Reynolds, Stoke; Messrs. Beal and Co., Brighton; Mr. Turton, Heckmondwike; Mr. Magennis, Lurgan; Miss Bailey, Stirling; Dr. Edwardes, Hounslow; Messrs. Smith and Son, Birmingham; Dr. Dennis, St. Austel; Mr. Coram, Bristol; Mr. J. H. Day, Wigan; Mr. Heelis, Barrow-in-Furness; Mr. Cutler, Rotherham; Mr. Saplin, Blinbrook; Mr. Fords, Drumlithie; Mr. R. F. Shaw, Hunslet; Messrs. Johnson and Co., Southport; Mr. Samuel, Llanelli; Mr. Neame, Birchington-on-Sea; Mr. Holloway, Kidderminster; Mr. Humphreys, Wrexham; Mr. Brown, Malvern; Dr. Williams, Towey; Mr. Morgan, Litchfield; Messrs. Keith and Co., Edinburgh; Messrs. Beddingfield, London; Dr. G. Holmes, Vision; H. M., Bow; Y. Z., Manchester; Medicus, Dromore; M., Hungerford; Registrar, Bath; A Well Wisher; Student, Nottingham; R. H. S.; Eastern Counties; Marlboro'; L.R.C.P., London; Sigma, Bishop Auckland; Medicus, Swansea; G. T.; A. S.; Accident; M. A. Y.; Ozone; A., Notting-hill; Medicus, Seaford; J. E. G., Frampton-on-Severn; L. P., Littlehampton; Idem, Liverpool; Bow; M. D., Cleaton; A. B., West India-road; M. H., North Kensington; Surgeon, Swinton; Medicus, Birmingham; Medicus, Bethnal-green; A. L., Kensington; Omer; Ivy House; Scapula, South Hampstead; R. W. C., Ilkley; Surgeon, Tunbridge Wells; Physician, Northallerton; E. C. H., St. George's-road; H. A. C., Borough; &c., &c.

Scientific Review, Sydney Daily Telegraph, Tewkesbury Register, North Wales Chronicle, Cambridge Chronicle, Hertfordshire Mercury, Wine and Spirit News, Pictorial World, Plumber and Decorator, Queen's Own Gazette, Warehousemen and Drapers' Trade Journal, Chester Guardian, Daily Courier, Port Elizabeth Telegraph, &c., have been received.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Sept. 21st, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 a.m.
Sept 15	29.75	E.	49	46	95	65	38	19	Foggy
" 16	29.87	N.	53	49	100	66	41	..	Foggy
" 17	29.95	N.	57	54	93	63	45	..	Overcast
" 18	29.96	N.W.	55	51	93	65	43	..	Overcast
" 19	29.91	N.W.	62	50	..	60	45	..	Overcast
" 20	29.62	E.	60	53	..	62	53	28	Overcast
" 21	29.74	W.	68	66	..	62	47	..	Raining

## Medical Diary for the ensuing Week.

## Monday, Sept. 25

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.  
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.  
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

## Tuesday, Sept. 26.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.  
WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
WEST LONDON HOSPITAL.—Operations, 3 P.M.

## Wednesday, Sept. 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
MIDDLESEX HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.  
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.  
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.  
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

## Thursday, Sept. 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.  
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.  
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.  
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.  
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

## Friday, Sept. 29

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.  
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.  
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

## Saturday, Sept. 30.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 87, Rue Cassmartin, Paris.

# Lectures ON THE

## MECHANISM OF RESPIRATION IN PHYSIOLOGICAL & PATHOLOGICAL CONDITIONS.

Delivered before the Faculty of Physicians and Surgeons of Glasgow,

By D. C. McVAIL, M.B.,

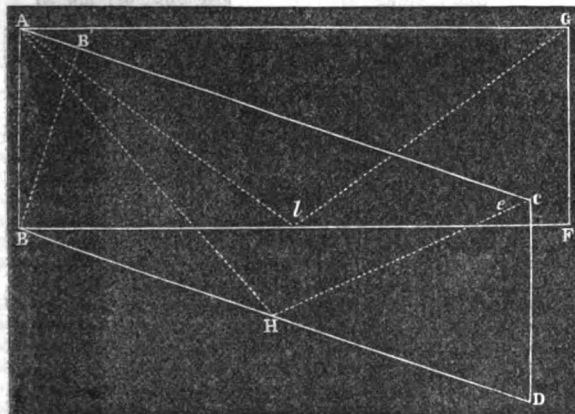
FELLOW OF THE FACULTY, AND LECTURER ON MEDICINE IN THE GLASGOW WESTERN MEDICAL SCHOOL.

### LECTURE I.—PART II.

THE third of the great physiologists of the seventeenth century who devoted very special attention to the function of respiration was a native of Cornwall—John Mayow, born in 1645. He was a student of All Souls in Oxford and took degrees in Civil Law and Medicine. Regarding the chemistry of respiration, he was far in advance of his time, as in 1674 he published a series of tracts, in one of which he teaches that in the atmosphere there is a special constituent which he calls the nitro-aerial spirit or igno-aerial spirit, that he says is the food of life and flame, and is absorbed by the blood, and that by it in the lungs animal heat is produced. He thus, exactly one hundred years before Priestley, foreshadowed the discovery of oxygen. As regards the mechanism of respiration, his labours are the less of service to science in that, curiously, he seems to have supposed that the ribs in their lowest position were almost at right angles to the spine. He affirms that both sets of intercostals are inspiratory.

The work done by these three distinguished physiologists in the seventeenth century, and the publication of very reliable treatises on anatomy by Diemerbroeck, at Utrecht, in 1672; by Philip Verheyen, at Brussels, in 1693; and by Winslow, at Paris, in 1711, supplied the necessary data for a much more comprehensive inquiry into the mechanism of respiration than had thereto been possible, and in 1727 George Edward Hamberger published his celebrated dissertation on the Mechanism and Genuine Use of Respiration. His work consists of seventy-three propositions, occupying forty-four small quarto pages. So far as I can discover, there are but three copies of the book in this country—the one I have seen is that in the library of the Royal Medico-Chirurgical Society of London,—which is not the original edition, but a reprint of later date. In illustration of his views he gives this diagram (Fig. 3)

FIG. 3.



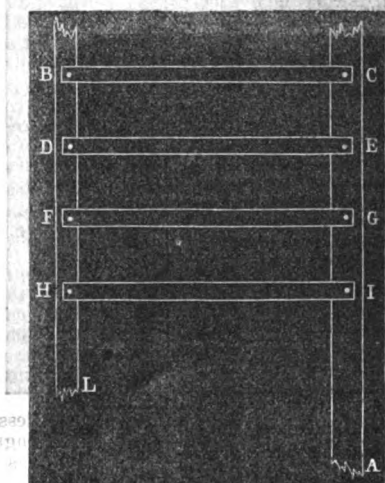
that has been used in Germany in most disquisitions on the movements of the chest since his time. The fixed pillar A B he assumed to represent the spine, and the levers A C and B D the ribs, with axes movable round A and B, and separated and yet connected at their anterior extremities by the rigid body C D, and movable round the axes C and D. He represents the ribs, A C and B D, as of equal lengths, and

No. 3063.

so the structure is a parallelogram. Assuming that in expiration the ribs are so inclined to the spine that the angle formed by the spine and the lower border of each is less than a right angle, he reasons regarding the effect of the elevation of these in the following manner in proposition 21:—Placing the levers obliquely downwards as in A C and B D, and elevating them so that A B with B F will contain a right angle, it is plain: 1st. That the distance B C is less than B F. 2nd. With B C the distance of the line C D from A B before elevation, the distance of the line G F after elevation of the levers A C and B D is greater from the fixed fulcrum A B than before elevation. 3rd. With the parallelograms A F and A D having the same base A B, but with different altitudes, A F is greater in area than A D. 4th. If from B is led to A C a perpendicular B B', which is the distance between the levers A C and B D, this perpendicular is less than the line A B, which is the distance between the lines A G and B F; in one word, the elevated levers have a greater distance between them than when not elevated. Conversely, in proposition 22 he reasons that by the descent of the levers from the position of right angles:—1st, the body, G F, comes nearer to A B; 2nd, the whole parallelogram becomes less; 3rd, the levers approach nearer to one another. The truth of these propositions of Hamberger with regard to parallelograms is of course indisputable, and in so far as the thoracic walls can be regarded as constructed on the parallelogrammic type they apply to it in its various movements.

Very curiously, in this country the book by Hamberger would seem to have received but little attention; and this

FIG. 4.



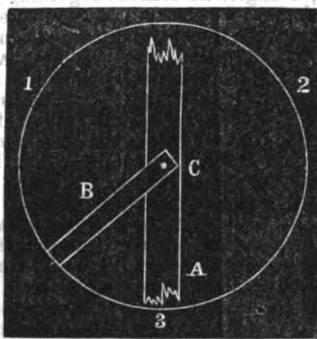
is the more wonderful that certain other parts of it led in Germany to a very warm discussion between him and Haller, a discussion that Hamberger afterwards printed in full. So little, indeed, was known in England of what Hamberger had done, that in the first quarter of the present century the late Dr. John Hutchinson did it all over again, and for four years after he had done it did not know that he had been anticipated by nearly a century in his work; and it is from Hutchinson, and not from Hamberger, that our home anatomists and physiologists have for the most part received their ideas on the subject. In all essential particulars the teaching of the two men is the same, only the language of the older of them is by far the more elegant and precise. They both assume that the movements of the chest are comparable to those possible to parallelograms, and deduce conclusions accordingly, and both constructed a movable machine to illustrate this, such as I show you. (Fig. 4.) But I must proceed to show that in many particulars this arrangement is not a correct representation of the thoracic mechanism, and that some conclusions founded on the supposed similarity are entirely wrong. To make this clear let me point out the range of movements possible to this parallel structure (Fig. 4), and the causes that confine these movements within certain limits—for a limit there is to the movement both in an upward and downward direction,—and the whole movement possible to each lever in the arrangement is less than half a circle—less than 180°. Let A in

N



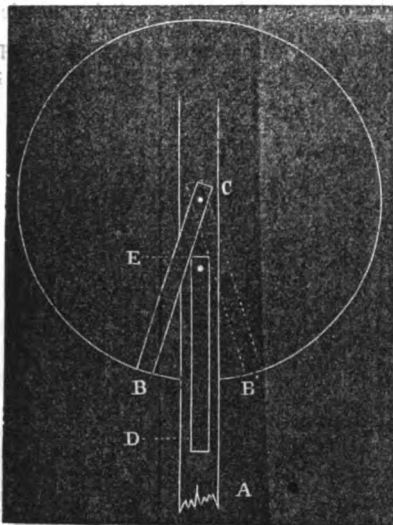
Fig. 5 be a fixed pillar, and the lever C B attached to it by a freely movable pivot at C. It is self evident that the lever can be moved through the whole circle 1, 2, 3, and in

FIG. 5.



either direction. It has a range of 360°. In Fig. 6 in addition to the lever, C B, let there be a second lever, E D, attached to the same pillar, A, and to the same side of it,

FIG. 6.



and the point of attachment of E D to be at a less distance from the point of attachment of C B than the length of C B, and let E D be of the same length as C B, it is manifest

FIG. 7.

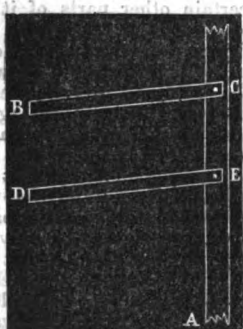


FIG. 8.



that the lever C B can move through the circle until it comes in contact with the parts of lever E D about the pivot E, by which it is prevented from entering the sector B B'. In like manner, the parts of lever C B about the pivot C render it impossible for E D to enter a similar segment at the top of the circle that would be described by E D. Each lever if moved independently of the other can travel through the greater part

of a circle, being precluded from entering only a very small sector. But placing the levers on the same side of the pillar A as in Fig. 7, let us suppose that from some cause they cannot be moved independently of one another, that the motive power can act only *simultaneously on both*, and also that it acts on both *uniformly as regards direction*, then must the range of each be less than half a circle, for when C B (Fig. 8) is brought to a standstill by the parts about E, E D also will cease to move; and so too when E D is brought to rest by the parts about C, C B must stand still as well. But a rigid rod, L, attached to the extremities of the parallel levers C B and E D, as in Fig. 9, must necessarily cause any force acting on either lever, or on both levers, to act on both *simultaneously*, and also *uniformly as regards direction*,

FIG. 9.

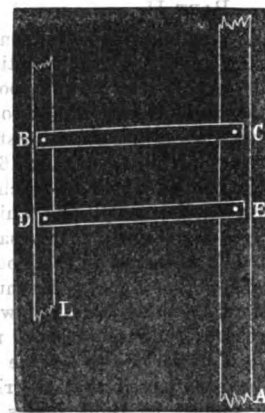


FIG. 10.

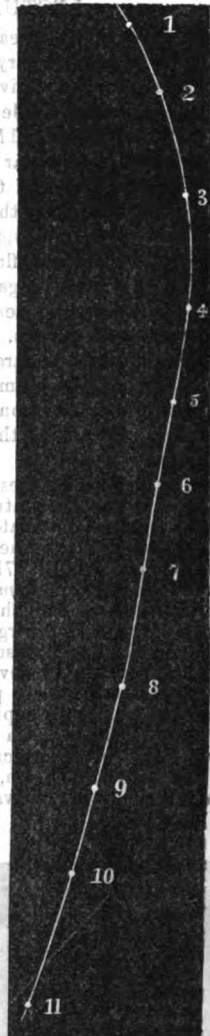


FIG. 11.



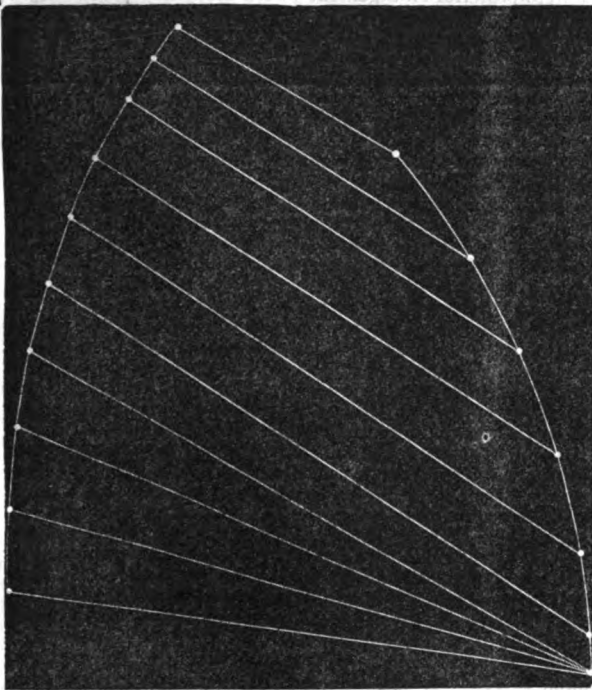
for C B cannot now be moved without pulling E D with it, and so must stop when E D can go no further, as happens when it comes against C (Fig. 8); and similarly E D cannot travel without C B, and must stop when C B stops, which is when it comes against E (Fig. 8). For these reasons the range of movement of the mechanical arrangement of Hamberger (Fig. 4) is limited for each and all of the levers to less than 180°. But, as I have already said, this parallel structure does not accurately represent the thoracic mechanism, and the departure of the thoracic from the parallel type introduces many most important modifications as to the possible and actual movements of respiration. In two most important particulars the thorax departs from the parallel arrangement of Hamberger; the spine is not a straight column, but is *curved*; and the sternum is not parallel to the general direction of the spine, but is inclined to it at a very considerable angle.

That the dorsal region of the spine, to which the ribs



are articulated, is curved, with the concavity looking forwards, everyone is aware; but it does not appear to have been noted that the line which would join or intersect the costo-vertebral articulations is always much more curved than the general contour of the spine itself, forming a segment of a somewhat smaller circle than the general contour of the dorsal curve. Yet such is most decidedly the case. Fig. 10 shows the curve of the line of the costo-vertebral articulations of a thorax that in the fresh condition I embedded in plaster of Paris, and when quite dry and hard was sawn on one side in the line of the joints of the heads of the ribs with the spine. In Fig. 11 is shown the costo-vertebral curve from a cast of the cavity of the thorax taken from a fresh subject, and Fig. 12 shows the curve in a cast taken from a frozen subject. The curving you see is in all these well marked, and thus the thoracic structure departs in a most important respect from Hamberger's parallel machine. The second point, in which it diverges from the type of the mechanical arrangement of Hamberger, is that the sternum is not parallel to the general direction of the spinal column, but is very considerably inclined to it. That the sternum is inclined to the spine no one will deny, but not many have realised how very marked the angle of inclination really is. Fig. 12 represents accurately the mutual inclination of di-

FIG. 12.

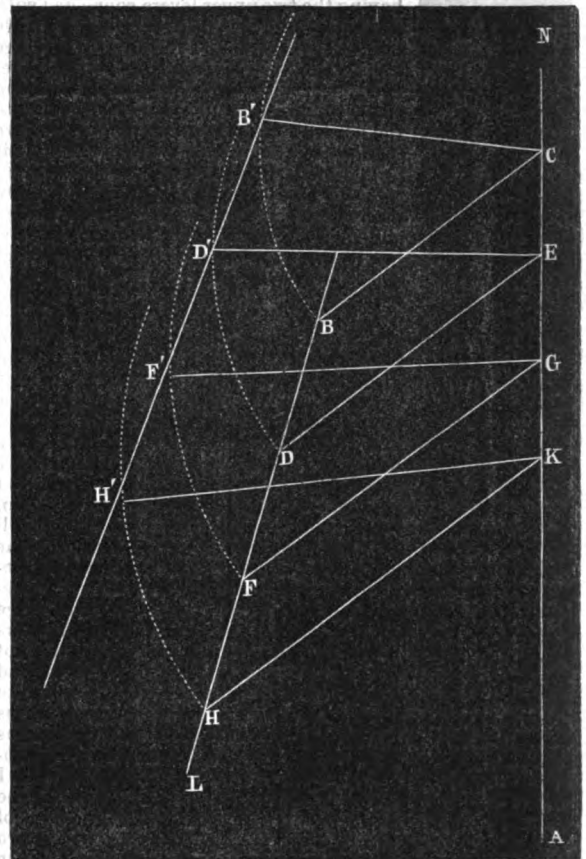


rections of the spine and sternum in a cast from a frozen subject. And so far are the spinal and sternal lines from being parallel to one another, that if produced upwards they would at no great distance intersect. Very far, then, does this structure depart from the parallel type, and thus we are led to inquire what modifications as regards movement are introduced by the departure of the thorax from the parallel type, modifications of movement, I mean, as compared with those of Hamberger's machine.

First, I will consider the effect of the inclined position of the sternum to the spine. In this model (Fig. 13) I have, as in Hamberger's machine, an upright pillar, A representing the spinal column, a wooden rod, L for the sternum, and this inclined to the spine, and the rib levers CB and ED parallel to one another, and so placed that the inferior border of each forms with the spine an angle that is less than a right angle. (In the meantime will the reader kindly disregard the two lower rib levers G F and K H.) If now I elevate the sternum the upper lever CB comes to be at right angles to the spine, but when it is exactly at right angles to the spine the second lever ED has not yet attained to that position. Still further elevation, however, will bring ED to right angles with the spine, as is shown in the diagram, where ED has become ED'. But when the second

lever has attained to right angles the first has passed that phase, as shown by the line CB' in the figure. Here, then, we have a most important difference between this arrangement and Hamberger's, for with a parallelogram both levers necessarily come to be at right angles simultaneously. Hamberger justly reasoned that when his rib levers in his parallel machine came to be at right angles to the spine that the greatest area had been attained. But in the arrangement shown in Fig. 13, as both levers cannot simultaneously be perpendicular to the spine, we have to note in the case of the trapezium C, E, D', B', in what position of elevation the greatest area is attained. Geometry answers that the area is greater when the longer of the two levers is at right angles to the spine than when the shorter is in that position. Therefore, the thoracic arrangement being not parallel but approaching in form to a trapezoid or trapezium, we must alter the teaching of Hamberger and Hutchinson to this—that any intercostal space will have its greatest area when the larger of the two ribs bounding it forms a right angle with the spine. But now suppose the sternum to be once more depressed to its original position L, with CB and ED again parallel to each other, and let two more levers GF and KH be added, both of them parallel to the higher levers. We have now three trapezoidal spaces and obviously

FIG. 13.

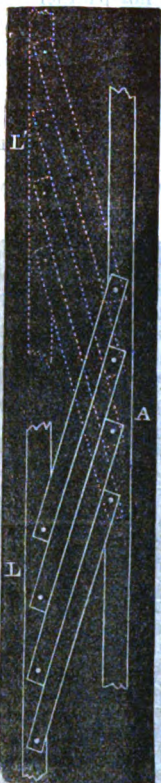


they cannot all at the same time be at the greatest possible area. For when the upper space has the longer of its two rib levers at right angles to the spine, the greatest sides of the second and third spaces will not yet have attained to such position, and when by continuing to elevate the larger of the rib levers of the third space reaches this position, those of the upper two spaces will have passed that position, and both those areas will be diminishing. But the gain of area of the lower space more than makes up for the loss of area in the upper spaces, and so the contained area of the whole figure is greatest when the largest of the four levers is perpendicular to the spine. But now, with a model having its parts arranged as in the depressed position shown in Fig. 13, I will endeavour to elevate the sternum from the position B L until H K is perpendicular to A N,—but I cannot. Elevation to such



an extent is impossible. And if I seek to depress the sternum below the position B L, I find that the range of movement downwards is also extremely limited. And if I substitute for the straight spine at N, a spine having the natural curve of the vertebral column of which I have already spoken (Figs. 10 and 11), the difficulty of movement becomes still greater—in fact the apparatus is well nigh immovable. Here there is a most important difference between the arrangement of Hamberger and Hutchinson—having parallel spine and sternum, and parallel levers—and the arrangement having the true spinal curvature, and the sternum inclined to the spine. For Hamberger's machine

FIG. 14.



(Fig. 4) permits of movement through a range of little less than half a circle, as shown in Fig. 14, but the one I show you with curved spine and inclined sternum is all but rigid.

What is the nature then, we ask, of the mechanical difficulty introduced into the arrangement by curving the spine and placing the sternum in an inclined position towards it? To understand this, let the two lower levers, G F and K H, in Fig. 13 be detached from the sternum L, then it will be found that the sternum may, still having the two upper levers connected with it, be moved through a very considerable range either upwards or downwards—a range not so great as in Hamberger's machine, but not very much short of it. If, having elevated the sternum L until E D attains to the position E D' perpendicular to A N, we seek to reapply G F and K H to it at their former points of attachment to A F' and H', we shall find they are too short to reach to these points, as is shown in the diagram; and the degree of incompetency of the fourth lever, K H, is still greater than that of the third lever, G F; and if there were a fifth lever, the deficiency there would be still greater,—and so on increasing for every additional lever downwards. If the sternum be gradually depressed again, a point of depression will be reached where G F and K H may once more be attached to the sternal bar. If from the position L it be now attempted to carry the sternum in a downward direction, it will soon come to a standstill; and if now all the levers but the upper two be detached, and depression, which thus becomes possible, be made, it will be found on endeavouring to reapply the

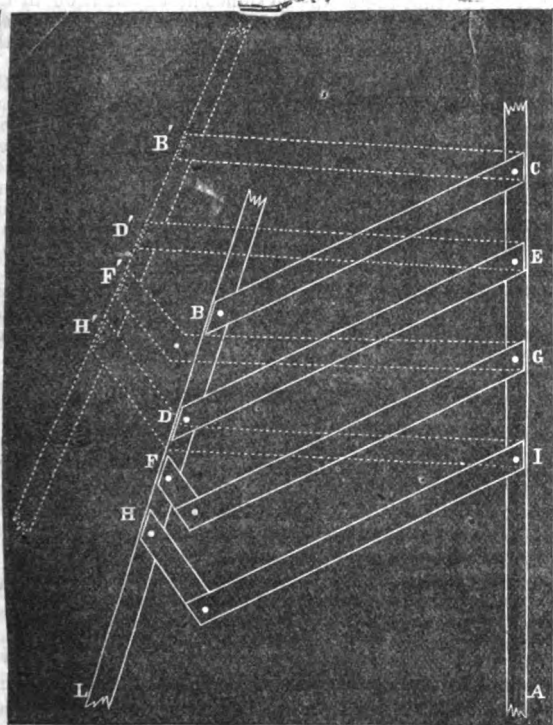
upper levers that they are now too long, their extremities project beyond the proper points of attachment. In this arrangement, then, in Fig. 13 with the inclined sternum the range of movement upwards is limited, because the lower levers will not lengthen, and downwards because they will not shorten. And the range is made enormously more limited when the spinal column has the natural curvature given to it. For an explanation of this in more precise terms let us look at this parallelogrammic model, Fig. 4; the articulations of the four levers with the sternal piece are all in a perpendicular line, they are in the same vertical plane. If I elevate to the position L' in Fig. 14, they still all lie in one plane; so also if depressed to L. In whatever phase of elevation or depression, having got the plane in which two of these anterior articulations lie, in that same plane all the others will be found. In the apparatus having the inclined sternum and curved spine, in the first original position L, Fig. 13, the anterior ends of the four levers lie also in one vertical plane. Detaching the lower levers and raising the sternum with its two upper levers to the position in which the second lever becomes perpendicular to the spine, B' and D' are in the same plane; but if now the third lever be moved upwards through such an angular distance as will bring its anterior extremity opposite to its proper point of attachment to the sternal line, it will not be in the same plane as are B' and D'; and if I elevate the fourth lever through such an angular distance as will bring its anterior end opposite to its proper point of attachment, it will be found in a plane different from that in which B' and D' together lie, or that in which D' and F' together would lie. One plane joins the first and second, another the second and third, and still another the third and fourth anterior ends of the levers in

their elevated positions. The straight line that joined all these anterior extremities of the ribs in their first position (L) would, to permit of elevation, need to be broken into as many pieces as there are interspaces, and each piece would be part of a plane different from the plane of any of the others. The curvature of the spine, and the inclined position of the sternum to the spine, thus unite to introduce a mechanical hindrance that would render impossible the necessary movements of the thoracic walls in respiration, were it not that an expedient is resorted to by which the difficulty is overcome. On looking at Fig. 13 the idea suggests itself that the mechanical difficulty might be obviated if the sternum were made sufficiently flexible to allow of its being curved backwards during inspiration, and so make up for the shortcoming of the lower ribs. And experiment shows that to a minute fractional extent the sternum in inspiration does yield in the way I have indicated. But this is extremely small even in the sternum of a child, and is infinitesimal in the case of the ossified sternum of the adult in normal respiration. Indeed, if the sternum were to any large extent so to adapt itself to this mechanical exigence by its lower portion becoming curved to the necessary extent, the antero-posterior increase of thoracic area, which is a principal end sought in the elevation of the sternum, would be very materially interfered with, as full antero-posterior enlargement would then take place only at the upper and shallower part of the thorax. But another expedient suggests itself. The rib levers proceed from the spine to the sternum by a long curved course round one-half of the body. Obviously if these lower levers would but consent to straighten themselves somewhat in inspiration, the mechanical shortening might be met. And again, as in the case of the sternum, there is a slight yielding in the required direction, but it is again only to a minute fractional extent of what would be required were the difficulty to be met by this means alone. For were there any great yielding here it would be at the expense of increase in the transverse diameter of the chest, and to that extent the inspiratory enlargement would be interfered with. But a method is called in aid that in no way compromises the inspiratory enlargement of the thorax, but, on the contrary, of itself very greatly adds thereto. The rib is not directly connected with the sternum, there being between the sternum and every rib a shorter or longer costal cartilage. In the case of the first rib this cartilage is very short, and its direction is just the continuation of the direction of the rib itself. The second cartilage is longer than the first; in many cases it pursues the same course towards the sternum as the rib itself, but in others, instead of continuing the downward direction of the rib, it curves upwards somewhat in its way to the sternum, and forms with the rib an obtuse angle. In the case of the third rib, the cartilage is considerably longer than that of the second, and in every instance it departs from the course pursued by the rib, always curving up to join the sternum, and always making an angle with the rib, an angle less obtuse than the angle formed by the second rib and cartilage. The fourth cartilage, again, is longer than the third, and the angle it makes with its rib more acute than the third angle; and, descending, we find that every succeeding cartilage is longer than the one above, and all the angles are more acute than the upper four. In this cast from a frozen subject, the cartilages increase in length from the first, which is  $1\frac{1}{2}$  in., to the seventh, which is  $2\frac{1}{2}$  in. The influence of the eighth rib on the sternum is exerted through means of a length of cartilage of  $3\frac{1}{2}$  in., the ninth by a cartilage of five inches, the tenth by a cartilage of  $6\frac{1}{2}$  in. By this structural arrangement thoracic movement is made possible, for, in inspiration, by the opening of the costo-cartilagic angle each combined rib and cartilage becomes longer. Our trapezoidal machine (Fig. 13) showed us that in the case of the two upper rib levers, no mechanical difficulty exists, and nature accordingly does not provide any mechanical expedient for lengthening them. But, from this downwards, help is required, and that in a greater and greater degree as we descend, and to a greater and greater degree it is given, just in proportion to the need of it, for the fourth combined rib and cartilage permits of greater lengthening than the third, the fifth than the fourth, and so on until in the lower ribs that have sternal connexions it becomes enormous. In this model (Fig. 15) is shown the effect of introducing parts corresponding to the costal cartilages and free movement is allowed, while in this arrangement (Fig. 13) without them almost complete rigidity would prevail. The opening of these costo-cartilagic angles occurs to a less or



greater extent in every inspiration. Taking, for example, the seventh costo-cartilagial angle on the left side, I found that an inch and a half above the apex of the angle with a deep

FIG 15.



inspiration the transverse distance between rib and cartilage was increased as follows:—

Male, aged 39	...	Normal chest,	$\frac{5}{16}$ inch.
" " 40	...	" "	$\frac{3}{8}$ "
" " 47	...	Slight Bronchitis,	$\frac{3}{8}$ "
" " 18	...	" "	$\frac{1}{8}$ "
" " 47	...	Mitral disease,	$\frac{1}{8}$ "
" " 32	...	" "	$\frac{1}{8}$ "

The mechanical difficulty introduced by the curved form of the spine and the inclined position of the sternum is thus obviated in a most effective and beautiful manner by a means that in no way militates against the great object that is in view in the elevation of the costal parietes—the increase of the thoracic capacity. On the contrary, this very expedient in itself increases the internal area—the cartilages being, in fact, the representatives in man of the sternal ribs of birds, in virtue of which they are enabled to meet their enormous respiratory wants. And this is another instance showing the conservative principles on which nature proceeds in all relating to mechanics, that here, instead of introducing some new and special mechanical expedient to convert an otherwise rigid framework into a freely movable machine, she merely retains so much of the sternal rib as will suffice; and as if further to show her economical tendency, the cartilages of the upper two ribs, where adaptive assistance is scarcely required, are in most instances quite rudimentary.

## A SIMPLE OPERATION FOR VARICOCELE.

By ARTHUR E. BARKER, F.R.C.S.ENG.,

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In the last three cases of varicocele upon which I have been called to operate, the method adopted has been very simple, and has been followed by such good results that it appears worth brief notice. It seems, too, very unlikely to be followed by any of those ill results and dangers of which most surgeons have seen something who have practised the older procedures. I may say that the three operations now

recorded were done by way of experiment. Some time previously I had removed the enlarged right half of the thyroid gland with strict Listerian antiseptics, using seventeen silk and six catgut ligatures for vessels, &c. The wound healed rapidly (almost by first intention), although after the first day I used a dressing of salicylic wool without the spray, the wound having become fully exposed during the first night. Here not one of either the catgut or silk ligatures came away or gave any evidence of their presence under the skin; nor have they done so yet, nearly a year after operation. In thinking over this case, it occurred to me that the scrotum, from its position and structure, would be a good field in which to study (as far as this is possible in the living body) the behaviour of such ligatures embedded in healthy tissues. If no suppuration took place around them, we might be able by manipulation to ascertain how long they remained unabsorbed, and how much plastic change they provoked, with some other interesting points. If, on the other hand, they should suppurate and come away sooner or later, the patient would be in no worse condition than if operated on by one of the ordinary methods where suppuration is necessary. I also thought that it would be interesting to try whether it was not possible in this ligation to attain to and maintain perfect asepticity without the usual elaborate dressings of the Listerian method. The operation of tying the veins of the testicle, in short, appeared to offer a simple but fairly good means of testing practically whether it was possible, without the spray, to introduce a perfectly pure ligature into the tissues of the body, and to maintain such conditions of purity around it as might enable the silk to remain there without provoking any excessive reaction; also of observing what became of the knotted ligature eventually in the soft textures of the scrotum.

Having these three cases to operate on last autumn, I dealt with them as follows: two on one day, the other five days later. The skin of the scrotum was thoroughly cleansed with a 5 per cent. carbolic lotion, as also all instruments and the surgeon's hands, no spray being used. The scrotum was then pinched up between finger and thumb in the usual way, so as to include the veins and exclude the vas deferens; it was then notched with a scalpel, and through the opening thus made a needle bearing a medium-sized twisted silk ligature (previously soaked for about an hour in the same carbolic solution) was passed. The veins were then allowed to slip backwards, and the needle was made to carry the silk forwards again through the same puncture, but this time in front of the veins. The latter were thus, of course, included in the two loops of silk leaving the scrotum by the same aperture. The ends of these were now tied tightly over the veins about one-eighth of an inch apart. They were then cut short and allowed to slip into the scrotal tissues. Everything was in the meantime protected from any contamination by frequent wiping with a carbolic sponge. A little padding of salicylated wool was the only dressing.

The results need only be briefly alluded to. There was a very trifling swelling around the seat of ligature for a few days, together with slight tenderness on pressure, otherwise nothing was complained of in the first two cases. In the third, considerable pain was felt for a day or two, and there was a little more swelling and tenderness. But in none of the three cases was there the slightest threatening of suppuration. The first left the house in ten days, the second within a fortnight, the last on the fourteenth day. They were then walking about without any discomfort, except the third, who, having had a very large varicocele, still felt a good deal of dragging in the loin on returning to his work, which was very hard, and some neuralgic pain. These, however, passed off later, under the use of laxatives for obstinate constipation from which he suffered, though he continued to work for long hours as a grocer's assistant. I watched all these three cases for several months, the last until quite recently, about a year after operation, and now regard all danger of the ligatures coming away as quite over. The latter could be felt under the finger as small knots deep in the scrotal tissues, which appeared quite normal. Whether they will ever come away remains to be seen, but this is immaterial, as far as the patient is concerned, for they give no trouble now.

Comparing these operations, as far as they go, with the older methods, their extreme simplicity is worth noting, as well as the small amount of trouble or inconvenience to the patient. It is also of some interest to note that, in these

three cases at all events, it was possible to manipulate freely with silk ligatures, and yet introduce them in a sufficiently pure state to produce no suppuration of any kind; and all this with only the simplest precautions as to absolute cleanliness, and without the carbolic spray. There is also a satisfaction in knowing that the veins are thoroughly occluded, and that there is no possibility of the ligatures slipping or being too soon absorbed, as might be the case with catgut. If nothing else, the operation appears an interesting experiment, and worthy of further trial.

Harley-street, W.

### CASE OF STRUMOUS ULCERATION OF THE INTESTINES, PRESENTING THE CLINICAL FEATURES OF ACUTE GENERAL TUBERCULOSIS.

By SAMUEL WEST, M.B., &c.,

SENIOR ASSISTANT PHYSICIAN TO THE CHEST HOSPITAL VICTORIA-PARK, ETC.

DR. STURGES remarks in his article on Acute Tuberculosis in THE LANCET of September 16th, that "tubercular individuals, children at all events, will present the clinical symptoms of tubercular meningitis, and die in the usual way, but post mortem neither tubercle nor inflammatory exudation will be discovered." The following case is an illustration of this.

On August 17th a child, nine years of age, was brought to the Chest Hospital, Victoria-park, by its mother, who stated that though never strong, the child had been in its usual health until the last six weeks, when it became weak and languid; that for the last fourteen days it had been feverish, and had suffered from pain and sickness chiefly after food, and a little diarrhoea. There was no history of any previous illness. The child was thin and feverish, looked dull, and had an aspect which suggested typhoid fever. The pulse was rapid, 100-120; the temperature was high, with marked evening rise, 101.5° to 102.5°, the morning temperature being nearly normal. The child was listless, heavy, and slept much. The condition remained the same for some days. Diarrhoea, spots, and abdominal pain were absent, and the abdomen retracted. At the right apex the percussion was slightly impaired. The respiratory sounds were increased, especially the expiration sound, which was remarkably long and harsh, accompanied by occasional fine crepitation. The absence of abdominal symptoms and the presence of pulmonary signs led to the probable diagnosis of acute general tuberculosis, which was confirmed, it was thought, by the further course of the case. For the apex dullness increased slightly, some general bronchitis set in, and the patient rapidly lost flesh and strength; on the 6th of September—i.e., at the end of the fifth week of severe illness, and nine weeks from the commencement of failing health, the child, having for some days previously grown more and more drowsy, became suddenly unconscious, the eyes remaining wide open, the pupils equally dilated and not responding to light. There were continual slight twitchings of the feet and hands with irregular movement of the eyeballs; the respiration was noisy and harsh; the urine and faeces were passed unconsciously. For the next two days the temperature rose higher than usual, above 103°, the general condition remaining the same. On September 9th the temperature began gradually to fall, the twitching ceased, the pupils were observed to dilate and contract spontaneously, as in many cases of meningitis, and several loose motions were passed in bed unconsciously. On the 10th there was a slight return of twitching in the eyelids and arms, the respiration became embarrassed, and in the evening the patient died.

The history of the case, the retraction of the abdomen, the absence of diarrhoea, the presence of lung symptoms, and their gradual increase, and, lastly, the occurrence of unconsciousness, with slight convulsions, were all thought to point conclusively to the diagnosis of acute general tuberculosis. This diagnosis, however, the post-mortem examination did not establish. In no organ was there the slightest trace of grey tubercle. The apex of the right lung was indurated by some old pigmented fibrous tissue, but there was no recent mischief. The brain was absolutely

healthy, except for the presence of a small cyst (a quarter of an inch in diameter) in the middle of the nucleus. This cyst had a firm fibrous capsule, with smooth lining, and round it the nerve substance was perfectly healthy; so that there was no sufficient explanation in the presence of the cyst for the sudden occurrence of unconsciousness. All the other organs were sound, except the intestines, which were in a most extreme condition of "tubercular" ulceration. In the whole caecum round the valve, and for the lower six inches of the ileum, the mucous membrane was completely ulcerated away, and at frequent intervals in the small intestines large tubercular ulcers were found, many completely encircling the gut. The last ulcer, and that too of considerable size, was at a distance of only two feet from the duodenum; the character of the ulceration was typical of the so-called tubercular or strumous ulcers of the intestine, and the glands of the mesentery were also in the condition usual in this affection.

The uncertainty of diagnosis between many cases of acute general tuberculosis and typhoid fever is generally recognised, but this case is an instance of an intestinal lesion, not typhoid, which presented the same difficulties.

Wimpole street, W.

### PURULENT DISEASE OF THE EAR;

PRODUCING CEREBRAL ABSCESS, PURULENT MENINGITIS, AND OBLITERATION OF THE RIGHT LATERAL SINUS, WITH STRIKING CHANGES IN THE INTERIOR OF THE TEMPORAL BONE.<sup>1</sup>

By THOS. BARR, M.D., F.F.P.S. GLAS.,

LECTURER ON AURAL SURGERY, ANDERSON'S COLLEGE, AND DISPENSARY SURGEON FOR DISEASES OF THE EAR, WESTERN INFIRMARY, GLASGOW.

W. C—, a boilermaker, aged thirty-seven years, was a remarkably strong man, of great muscular development and of medium height, weighing in ordinary health between fourteen and fifteen stones. He suffered from purulent disease of the right ear from the age of twelve till his death—that is, for twenty-five years. There was almost total deafness on the affected side. The disease was supposed to have originated in the blow of a cane received on the right side of the head, and inflicted by a schoolmaster by way of chastisement. This injury was followed by great pain, continuing for several weeks and culminating in the formation of an abscess which was opened behind the auricle. About the same time a discharge of matter appeared from the external auditory canal. The purulent discharge from the opening behind the ear continued, with variations in quantity, till six years ago, when the opening closed, leaving behind a depressed cicatrix. The discharge from the canal of the ear, which had usually an offensive odour, continued, with slight intermissions, till the patient's death. It was slighter, however, during the nine months before his fatal illness. He was liable during cold weather to attacks of hoarseness with sore-throat. At the age of seventeen he suffered from acute inflammatory attacks in the right ear, when it was supposed that his life was in danger. He noticed that when the discharge ceased for a short time he suffered from severe headache, and became very dull and fretful. Indulgence in alcoholic stimulants produced the same effects, and he was therefore very temperate in their use. In the middle of November last there began a series of morbid processes—first in the left ear, then in the right,—which in the course of three months terminated fatally by extension of the purulent inflammatory process to the interior of the cranium. The left ear, which previously had been always healthy, and in which he enjoyed good hearing, became at that time dull and discharged slightly without any distinct pain. This was associated at the beginning with sore-throat and hoarseness. The dullness and slight discharge in the left ear continued for two months, at the end of which an acute inflammatory process began in the ear. While at work on Monday, Jan. 23rd of this year, and particularly on his way home at the end of the day, he experienced great giddiness, so that at times he staggered in walking. On the following morning at four o'clock he awoke with severe pain in the head, with great giddiness, and he looked

<sup>1</sup> I am indebted to my friend Dr. McConville, the medical attendant of this patient, for the chief facts given in the clinical history.

deadly pale. Dr. McConville was sent for in the forenoon, when he found the patient "suffering from great pain on both sides of the head, but chiefly on the left side. The left auricle projected abnormally from the side of the head, and the meatus was almost closed by swelling of its walls. There was a general feeling of uneasiness and tenderness in the temporal and mastoid regions. The cervical glands immediately behind the lobule were much swollen and painful." The deafness on the left side was now almost as complete as on the right, and only the shrill voice of a female friend exerted at its highest pitch close to the left ear could be heard by the patient. Dr. McConville then, for the first time, examined the right ear. He found over the upper part of the mastoid region, a little distance behind and above the auricle, a depressed cicatrix adhering to the subjacent bone. The canal of the ear was filled with pus, and on its removal by syringing with warm water a few granulations were seen at the inner end of the canal. There was some bronchitis and pharyngeal catarrh, along with febrile disturbance and thickly coated tongue.

The treatment carried out by Dr. McConville consisted in the local abstraction of blood by leeches applied in front of and below the left auricle, in the use of poppyhead fomentations and hot linseed-meal poultices to both sides of the head, and in the use of a gargle of chlorate of potash. The general treatment included catharsis by jalap and calomel, followed by the use of a mixture containing iodide of potassium, chloride of ammonia, and an anodyne for the cough. After a few days a large cantharides plaster was applied to the back of the head, from ear to ear, with apparently considerable relief to the pain and the giddiness. The man's condition seemed to improve. After a few days the painful symptoms passed off, and the hearing was partially regained in the left ear. This improvement continued, exciting lively hopes of recovery, which were, however, changed to bitter disappointment, for in the course of another week grave and ominous symptoms appeared.

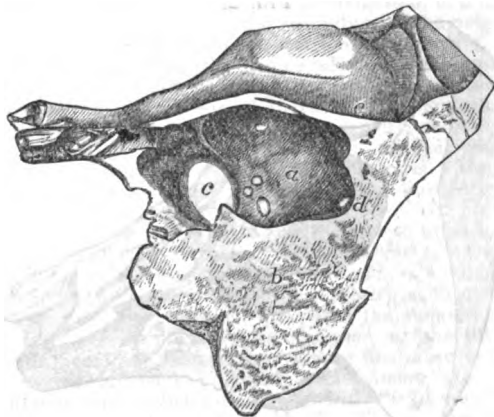
On Saturday evening, twelve days after the first attack of giddiness, the patient experienced a sense of chilliness; pain was complained of, not on the left, but on the right side, the seat of the old purulent disease. Dr. McConville then ordered forty grains of Bromide of potassium and ten grains of chloral to be taken night and morning. The next morning the man felt so well that he proposed to take a walk in the West-end park; but to this the doctor distinctly objected as a possibly dangerous exposure to cold. That evening he had another chill. From this day the symptoms became most grave, and indicated serious mischief in the interior of the cranium. The pain in the head—chiefly in the front—became daily more intense. Nights were passed in agony, which anodynes, externally and internally applied, only partially mitigated. The patient was seized with repeated rigors. In these rigors the arms and legs shook violently. These rigors or shakings soon took the character of epileptiform convulsions.

I was asked by Dr. McConville to see the patient on Wednesday, Feb. 15th, seven days before his death. The man then lay in a stupor, but was capable of being roused; there was extreme deafness, loud shouting into the left ear being necessary before he heard and understood. I asked him about the pain in the head. He answered, slowly prolonging the word, "excruciating." I found no tenderness in the right ear, or in its neighbourhood. The orifice behind the ear was now open, and fluid injected into the opening passed quickly and freely through the canal of the ear. The current could also be forced as easily in the opposite direction. Disinfecting fluids were afterwards regularly and frequently forced through the ear by this means. It was apparent, however, that the mischief was in the interior of the cranium, and a cerebral abscess was diagnosed. Up till four days of his death he was able at times to get out of bed, and even to walk from the room to the kitchen. Four days before death he was seized with paralysis of the left arm and leg and right side of the face. For two days before death he was quite comatose. He died on the evening of Wednesday, February the 22nd, about a month after he left his work and sixteen days after the more definite brain symptoms set in.

The autopsy was made by Dr. James Alexander Adams, twenty-four hours after death. Under the calvaria the veins of the dura mater were seen to be torpid. On clipping away the exposed dura mater the middle part of the upper surface of the right cerebral hemisphere presented a slightly bulging appearance, but the surfaces of the hemi-

spheres appeared to be otherwise normal. At this stage of the examination no unusual odour was apparent from the intra-cranial contents, but while removing the brain from the base of the skull, when the right temporal lobe was raised from the middle fossa of the skull an extremely disagreeable fetid odour was suddenly experienced. A small quantity of purulent matter was at the same time seen on the floor of the middle fossa of the right side. The brain being placed with its base upwards, the lower surface of the right temporal lobe corresponding with the upper surface of the petrous part of the temporal bone was seen to be dark in colour and very soft to the touch, but having no apertures in its substance. On cutting into the temporal lobe at this part, however, a thin brownish fluid, emitting a most offensive smell, poured out in considerable quantity; and on making further sections, the lateral ventricle and a great part of the interior of the right cerebral hemisphere seemed to be occupied by this fluid. There was no distinct boundary wall or membrane enclosing this collection of fluid, but the substance of the brain around seemed in a softened, at some parts even gangrenous, condition. The temporal bones were removed for careful examination. Right temporal bone: The dura mater covering the upper surface of the petrous part of the bone was swollen, soft, and pulpy, and was perforated by two small apertures. The portion of dura mater covering the roof of the antrum mastoideum was more thickened than elsewhere. The bone beneath was dark coloured and eroded; at one part it was perforated by a considerable carious opening communicat-

FIG. 1.



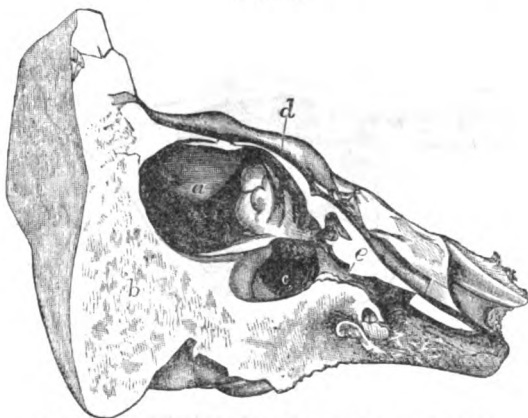
The outer part of the section of the right temporal bone. *a*, Outer part of the dilated antrum mastoideum, showing the three openings communicating with the external auditory canal, and one communicating with the interior of the cranium. *b*, The dense compact tissue into which the mastoid cells are converted. *c*, Section of inner end of external auditory canal. *d*, Inner end of canal passing to the outer surface of the mastoid process. *e*, Dura mater.

ing with the antrum mastoideum. After a time the colour of the bone changed, and instead of being dark, it assumed a bleached and white appearance. Behind, the dura mater covering the concavity for the lateral sinus, and forming the walls of that sinus, was extremely thickened and converted into a fleshy mass. The lumen of the lateral sinus was completely obliterated by thickening of its walls and by fibrous adhesions of its inner coats. Some purulent matter was found infiltrated between this thickened mass and the bone forming the inner wall of the antrum mastoideum. This osseous wall was found to be very thin, very much eroded on its inner surface, and perforated at one part by an opening leading to the antrum mastoideum. On the outer surface of the mastoid process just behind the root of the zygoma, and about ten millimetres above and behind the external orifice of the osseous part of the canal of the ear, there was an opening in the bone four millimetres in diameter, which communicated at a distance of five millimetres with the antrum mastoideum. The bone, perforated by this channel, was dense and hard as ivory. On examining the osseous part of the external auditory canal, the posterior wall was found extremely thinned and perforated by three small apertures. This extremely thin perforated plate of bone formed a partition between the external auditory canal and the dilated antrum mastoideum. At the inner end of this posterior wall there was a large semilunar gap, with



the convexity outwards, which passed into the antrum mastoideum. A vertical antero-posterior section through the middle ear exposed a very unusual condition of the tympanum and mastoid cells. The whole of the normal contents of the tympanum were gone; there was not a vestige of the tympanic membrane or ossicular chain remaining. There was complete osseous closure of the fenestra ovalis. The fenestra rotunda, however, still remained. The promontory and floor of the tympanum were covered with soft granulation tissue. A white nipple-shaped hyperostotic growth, with two or three vertical grooves, occupied the position of the outer and inferior semicircular canals. Above that an excavation extended inwards nearly as far as the posterior surface of the petrous bone. The bone forming the floor of the tympanum was enormously thickened (twelve millimetres in thickness), and very dense. The mastoid cells had undergone a remarkable change. The antrum mastoideum was immensely dilated, forming a cavity two and a half centimetres long from within outwards, and nearly two centimetres from the back wall of the external auditory canal to the thin cortical layer separating the antrum from the groove for the lateral sinus, while it measured in height more than one centimetre and a half. The outer wall of this cavity was smooth and white, while the inner one was lined with granulation tissue. The mastoid cells proper were sclerosed and completely obliterated and, instead of large numbers of air-filled spaces, as in the normal condition, I found extremely hard, dense,

FIG. 2.



The inner half of the section of the right temporal bone. *a*, Inner part of the dilated antrum mastoideum. *b*, The dense compact tissue into which the mastoid cells are converted. *c*, Cavity of the tympanum. *d*, Dura mater. *e*, Inner wall of osseous part of Eustachian tube.

ivory-looking bone, through which I had great difficulty in working the saw. The two cavities, the tympanum and the greatly dilated antrum mastoideum, were filled with thick curdy matter, having a most fetid odour. Left temporal bone: The dura mater over the petrous part was normal. The osseous roof of the middle ear was also apparently free from pathological change. On examining the tympanic membrane I found a small round perforation, about two millimetres in diameter, in the posterior part of the membrane flaccida. This opening was partially closed by granulation tissue. On removing the roof of the middle ear I saw that the head of the malleus and the body of the incus were gone, and that the opening in the membrane communicated with the antrum mastoideum. The latter cavity was filled with muco-purulent fluid. The osseous layer forming the floor of the tympanic cavity was only about two millimetres in thickness, markedly contrasting with the right side, where the floor of the tympanum measured twelve millimetres in depth.

*Remarks*—In this single case we have an illustration in the right side of almost all the various consequences, both to the ear itself and to the interior of the cranium, following upon chronic purulent disease of the middle ear. The changes produced in the ear itself were: (1) Total loss of the tympanic membrane and ossicular chain; (2) osseous closure of the fenestra ovalis; (3) great dilatation of the cavities of the tympanum and antrum mastoideum; (4) conversion of the cellular structure of the mastoid cells into dense tissue of almost ivory consistence; (5) the formation of six carious

apertures opening into the dilated antrum mastoideum—namely, two communicating with the interior of the cranium, one perforating the outer wall of the mastoid process, and three passing into the external auditory canal. The changes produced by extension of the disease to the interior of the cranium were also very remarkable. The brain, the dura mater, and the lateral sinus were all three involved in serious morbid changes, including cerebral abscess, purulent meningitis, and changes in the lateral sinus producing closure of that channel. We have thus represented in this case all the morbid processes known to be the chief modes in which disease of the ear leads to a fatal issue. It is undoubtedly very rare to find the whole three present in the case of one patient. The condition of the lateral sinus is probably the most striking and interesting feature in this case. No doubt some degree of phlebitis of the lateral sinus is a not unfrequent complication of purulent disease of the middle ear. The mischief is, however, probably in most cases limited to some thickening of the walls of the sinus, and to a consequent diminution of its lumen. In regard to the frequency of the implication of the sinuses of the brain, Wreden gives as his experience that 14 per cent. of purulent ear disease are complicated by thrombosis of the sinuses of the interior of the cranium, while Dusch found that out of thirty-two cases of thrombosis of these sinuses twenty originated in purulent disease of the ear. Of the venous sinuses of the brain the lateral is much the most exposed to injurious influences from the ear. This is due to its anatomical connexion with the mastoid cells. In the deep concavity of the groove for the lateral sinus only a thin osseous partition separates the mastoid cells from the walls of the sinus. This partition is always perforated by openings for the passage of connective tissue, vessels, and nerves. Besides, it is not only frequently so thin as to be transparent, but it is no very uncommon thing to find it containing small gaps, in which case the mucous lining of the middle ear and the wall of the sinus are in direct contact. In the case before us the state of this osseous partition, eroded and perforated by carious disease, affords a ready explanation of the mode of extension of the disease in the ear to the walls of the lateral sinus. But without such disease of the bone the simple juxtaposition of the lateral sinus with the ear is in suppurative disease a source of great danger. All surgeons know that phlebitis and thrombosis are very apt to form in the vessels of a tissue which is the seat of purulent inflammation. When therefore, as is frequently the case, the lining of the mastoid cells is chronically inflamed, softened, or eroded, and when these cells are filled with decomposing purulent matter, emanating gases of putrefaction, is it surprising that phlebitis and thrombosis with their effects should be set up in this large venous trunk, so closely contiguous to and so connected by bloodvessels with the diseased part? More frequent extension of disease in the middle ear to the lateral sinus would take place but for two obstacles opposed by nature to such extension. First, the natural power of resistance presented by the strong tissue of the dura mater, which forms the walls of the sinus, even when this dura mater is in actual contact with a diseased part. In such circumstances the walls of the sinus may become merely thickened without further mischief. For example, necrosed and carious bone has been found in contact with the walls of the lateral sinus, without more mischief than some thickening of the walls of the latter. Secondly, the thickened lining membrane of the middle ear, together with the thickened osseous walls of the latter, circumscribes the morbid process in the ear and frequently forms an important barrier erected by nature against the invasion of this great venous channel of the brain by the disease in the ear. This case is one more added to the large record, which the literature of this subject presents, of fatal results arising out of old and neglected purulent disease of the ear. It is to be feared that, in spite of this dismal record, chronic purulent disease of the middle ear, frequently manifesting itself by the single symptom of a discharge from the ear, is still viewed in too many cases with indifference by the profession as well as by the public.

Albany-place, Glasgow.

At the Worship-street Police Court last week a manufacturer of German sausages in the East-end of London was fined £20, with costs, for using horseflesh, some of it in a state of decomposition, in the composition of the articles of food vended by him.

FATAL CASE OF ACUTE LOCAL ENTERITIS  
OF UNDETERMINED CAUSE.

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MEDICAL REGISTRAR TO THE LONDON HOSPITAL, ASSISTANT-PHYSICIAN  
TO THE ROYAL CHEST HOSPITAL.

L. B—, a porter at the Royal Chest Hospital, aged forty-three, was suddenly seized with violent abdominal pain on the morning of April 21st. He was a married man with several children. He had always enjoyed robust health, but there was reason to believe that he was intemperate in the use of alcohol. On the morning above mentioned he was called for early at his own house, got up, opened the street door, and on returning to his room was attacked with colicky pains, soon succeeded by vomiting. Dr. Burgess, the resident medical officer of the hospital, was called to see him, and found him suffering from paroxysmal pain referred to a spot midway between the umbilicus and the pubes. I am indebted to Dr. Burgess for notes of the patient's condition at this time. From them I learn that the man complained of constant distress in the region described, aggravated every two or three minutes until it became so severe as to cause him to cry out and to double himself up with pain. The bladder was not distended; there had been no motion from the bowel on that day. He vomited whenever he took food. There was no history of previous constipation, and his last meal had been a simple one of meat for supper on the evening preceding his illness. He was given a draught containing castor oil and laudanum, which (according to his wife's statement) moved his bowels very slightly a short time after its administration. The symptoms continued unchanged during the day. He frequently vomited, and suffered from tenesmus. He passed a very restless night. On the following morning, April 22nd, I was asked by Dr. Burgess to see the patient. I found him lying on his back in bed, his knees not drawn up; his face rather pinched, and wearing an expression of anxiety; his pulse small and fast, about 110; his temperature 99.5°. His tongue was slightly dry, but not furred; he complained of thirst; and during my visit he retched ineffectually two or three times. The abdomen was moderately distended; there was no general tenderness, but pressure in the hypogastric region, a little to the right of the median line, caused pain. There had been no motion from the bowels since that mentioned above; the secretion of urine was very scanty. Two attacks of colicky pain occurred in my presence; they came on rather rapidly, the recti muscles contracted strongly, and the patient tried to bend himself forward, making exclamations indicative of distress. For many reasons it was considered advisable to remove him to the hospital; he did not seem to suffer from the journey, which was a short one. After his admission, the application of hot fomentations with laudanum seemed to give relief to the abdominal pain; the vomiting became less frequent, the vomit consisting of small quantities of green, bilious fluid. The urine was examined, and found to be highly concentrated and to contain a trace of albumen. It was considered probable that the case was one of acute intestinal obstruction. The seat of obstruction could not be ascertained; there was certainly no external hernia; there was no passage of blood from the bowel; digital examination of the rectum gave negative results. Enemas were given without any effect, but the patient asserted that he passed flatus after them and obtained some relief thereby. He was now ordered frequent doses of belladonna. I saw him again at 2 P.M., and found him certainly more comfortable, complaining but little of any pain, and vomiting very seldom; but he hiccupped occasionally, was thirsty, and his pulse was, if anything, worse than in the morning. He was able to swallow and retain concentrated nourishment. There had been no motion of the bowels, and no desire to evacuate on the part of the patient. Dr. Gilbert Smith was kind enough to see him with me at 5 P.M., and gave a very gloomy prognosis. At this time, although the man considered himself better, his pulse was exceedingly rapid and shaky, his breathing thoracic, and his abdomen more tumid than before. The previous treatment was continued by Dr. Gilbert Smith's advice—that is, nourishment and stimulants in small repeated doses, belladonna,

and opium if necessary, to relieve pain. I visited the patient for the last time that evening at 10. There was then no obvious change in his condition; he was perspiring freely, the temperature had never reached 100°; his mind was clear; he vomited a little bilious fluid at long intervals, and complained of some general abdominal pain, which was not at all severe. It was noted, however, as an unfavourable prognostic, that there was a tendency to jactitation, and that the pulse had by no means improved. I am informed by the resident medical officer that the patient was very restless during the night, that during the early hours of the morning he showed some signs of incipient delirium, and that at 7 A.M. he suddenly sat up, tried to get out of bed, and almost immediately fell back and died, brownish-yellow fluid pouring in large quantities from his mouth. Up to this the vomit had been throughout merely bilious. Death occurred forty-eight hours after the commencement of the illness.

The post-mortem examination was made by Dr. Burgess, assisted by Dr. Gilbert Smith and myself, twenty-six hours after death. On opening the abdomen we found evidences of general peritonitis; flakes of lymph covered the intestines, the coils of which were reddened, especially at their points of contact; and the abdominal cavity contained several ounces of turbid yellow fluid. Great care was taken to avoid disturbing the position of the viscera whilst a general inspection was being made. There was no band, twist, intussusception, or internal hernia. Attention was immediately attracted by the appearance of a piece of intestine, about three inches long, lying in the middle line of the hypogastric region; it was intensely congested, of a uniform deep-red colour, and contrasted strongly with the neighbouring coils. It was found to be a portion of the ileum, nearly two feet distant from the ileo-cæcal valve. There was no such sharply defined line of demarcation either above or below the coil as is observed in cases of strangulation, but the deep-red colour shaded off very rapidly on both sides. The portion of mesentery belonging to the coil contained between its layers an oblong dark-purple mass. The ileum above this congested piece, the jejunum, duodenum, and stomach were all greatly distended, and filled with brownish-yellow liquid without faecal odour. No perforation was discovered. The last two feet of the ileum contained a thick pasty material; this part was neither much dilated nor contracted. The cæcum and first part of the colon contained yellow faeces in considerable quantity; the sigmoid flexure and rectum were empty. Examination of the intestinal mucous membrane showed no evidence of diffuse enteritis; but in the intensely inflamed coil of ileum the mucous membrane was swollen and covered with sticky mucus. No part of the canal contained blood. The purple mass in the mesentery proved to consist of lymphatic glands with hæmorrhage in their substance and around them; other glands in the immediate neighbourhood were enlarged and so soft as to be absolutely diffident. The mass in the mesentery was about an inch and a half long, and communicated by means of a thin line of effused blood with a very small extravasation beneath the mucous membrane. A microscopic examination of parts of the glands and of the inflamed bowel revealed nothing further than had been ascertained by the naked eye. The mesenteric vessels appeared healthy, and there was no sign of embolism. The liver was soft and fatty. There was a small cyst in the left kidney. The heart was healthy; the left ventricle firmly contracted. There was acute diaphragmatic pleurisy on the right side. No other morbid appearances were observed.

*Remarks.*—It appears almost certain from a review of the clinical history and the post-mortem appearances that this was a case of local damage to the intestine, giving rise to local enteritis at first, then to obstruction from paralysis of the muscular coat, and finally to general peritonitis. It is difficult, if not impossible, to ascertain the nature of the original lesion. During life it was considered possible that there had been some accidental twist of the bowel, or that a knuckle had been suddenly constricted by a band or otherwise, or that an intussusception had occurred. Some such injury was supposed to have happened, because of the nature of the symptoms and their mode of onset after the patient had suddenly risen from bed. The theory of an intussusception was rendered to some extent improbable by the absence of physical signs and by the fact that no blood was passed per rectum; but that something of the nature of an accident did occur appeared, and still appears,

in the highest degree probable. What could this accident have been, regarding the matter in the light of the post-mortem appearances? If it was a twist or an intussusception, then the bowel must have recovered its original shape after the lesion had set up the inflammation which terminated in death. But even supposing the possibility of such recovery, would there not have been more definite appearances in the mucous and serous membranes to indicate the accident? On the whole, I feel unable to suggest any explanation of the phenomena; the only thing which at the time seemed to give a clue (and that by no means a satisfactory one) was the discovery of a hæmorrhage between the layers of the mesentery adjoining the inflamed piece of bowel. Whether this can have been the primary accident is a question which I cannot attempt to determine; but it is interesting to note that there have been recorded cases of mesenteric hæmorrhage discovered post mortem, in which no other cause was found for the fatal event. (See report of meeting of the Medical Society, December 5th, 1881, THE LANCET, December 31st.) The immediate cause for the somewhat remarkably sudden death in the present case was in all probability acute distension of the stomach by upward overflow of the contents of the small intestine. Up to the moment before death the vomit was simply bilious; at the moment of death, yellow fluid poured in quantities from the mouth; after death the stomach and upper part of the intestines were found uniformly distended with the same fluid.

Upper Bedford-place, W.C.

#### ON THE IMPORTANCE OF CONTINUOUS EXTENSION AFTER TENOTOMY IN CASES OF CON- GENITAL TALIPES, WITH TARSAL DEFORMITY.

By FREDERICK CHURCHILL, M.B., &c.,  
SURGEON TO THE VICTORIA HOSPITAL FOR CHILDREN.

HAVING had "a run" of these cases of late in my hospital practice, a brief record of the line of treatment adopted will perhaps tend to elucidate some of the difficulties experienced in obtaining permanent good results after division of tendons. Not only is it necessary that the distorted limb be placed in its rightful position by the division of parts, whether tendon or fascia, that hinder by abnormal contraction the extension of the foot, but far more important is the maintenance of the limb by continuous extension in that exact position which it is intended ultimately to assume. By forcible manipulation under chloroform many of the fibrous bands and interosseal ligaments which had helped to keep the limb in a wrong position can be stretched or divided, and the astragalus brought up to its normal position under the articulating surface of the tibia. Care, of course, must be taken so to manipulate the bones as to preserve the double arch of the tarsus. I am not one of those who think we can effect much without the division of tendons, nor do I place much faith in Scarpa's shoe as a means for counter-extension. It is fortunate that with better educational advantages and improved means of transit, parents are finding their way to hospital at an earlier period than formerly. The district surgeons, too, though well able in many cases to perform these operations, are finding out the advantage of early treatment, and the benefit to be derived from sending their patients to hospital towns, where skilful and patient continuous nursing as an adjunct to special surgical treatment is now valued and appreciated. I cannot too strongly protest against the folly of depending upon complicated and expensive mechanical appliances which fail to keep up continuous extension, though designed for that purpose. By adding weight to the already impoverished limb they rather increase than diminish the deformity. To see the children parading the streets, their limbs encased in iron, with the idea that in some unexplained way the distorted limb will come straight, is only equalled by the credulity of the mother who, when told that iron was good for a rickety child, ordered its limbs to be encased like an ironclad, with a sailor suit to match. When the deformity has become so marked that the child is accustoming itself to walk upon the sides, instead of the soles, of the feet, the joint surfaces

have been so moulded by the altered position of the foot, and the tendons have become so rigidly contracted within their sheaths, that to rectify such malposition needs great care and assiduous treatment by continual pressure in the direction required to rectify the deformity. It cannot be supposed that any instrument maker, however large may be his experience, and however skilful he may be in the manufacture and adjustment of appliances, can be so acquainted with the physiological processes of repair and methods of accommodation during the period of growth as to be able to arrange for all the little niceties needful for keeping up continuous extension. As a fact, the parents too often live within a charmed circle of their own ignorance. Scarpa's shoe, with all its screws and straps, and purchased at a somewhat prohibitory price to many, presupposes to the uninitiated a guarantee of its hidden powers for self-adjustment.

As regards division of tendons, I find that the tendo Achillis requires division in the great majority of varus deformities, simply because the gastrocnemius pulls the foot inwards as well as backwards during the flexion of the foot. The broad insertion of the tendon into the os calcis and the solid sheath encasing it permits of free division without absolute separation of all the attachments. By careful bandaging of the foot and leg the leverage obtained by the extensor muscles is to a great extent restored. As soon as all muscular impediment to the rectification of the foot is removed, there remains a considerable amount of distortion from the paralysed state of the extensor muscles. To obviate this I carefully apply a plaster-of-Paris bandage over a flannel "protective," bringing the foot up into its proper position by very firm manipulation, and keeping up this extension until the bandage has "set." By this means I succeed in procuring rigidity of appliance together with liberty for muscular effort. By galvanism and friction of the extensor muscles the tendons contract, and after three or four renewals of the plaster-of-Paris encasement the foot generally regains its normal position during the process of growth and development. Occasionally I fit a piece of webbing round the metatarsal bones and attach to the outside of it a length of solid elastic. The proximal end of this may be passed through a clip fixed to a garter below the knee. Continuous extension will in this way effect considerable rectification of the distorted parts. It will often be found useful with older children who are able to walk, and who have not such pliable and easily-moulded feet as young infants. I generally persevere for months with the treatment, and seldom require any mechanical appliance, not even in those extreme cases where the astragalus almost touches the ground.

Cranley-gardens, S.W.

#### FATAL CASE OF POISONING BY ERGOT OF RYE.

By A. DAVIDSON, M.B., &c.

On Saturday, June 3rd, about 4 P.M., I was called to see M. M—, aged twenty-eight, lately a hospital nurse. She was said to have "burst" a bloodvessel. On entering her room I observed a basin of reddish-brown pulaceous matter, said to have been vomited by the patient about 8 A.M. I was informed she had vomited something like it a few days previously, and, complaining of lumbar and arthritic pains, had expressed a fear that she was going to have rheumatic fever. Late on the previous evening she had passed a very hard motion, and a quantity of urine which looked like blood. About the same time, also, she had vomited half a pint of blood. During the evening and morning she gradually became worse.

On my arrival the face, eyes, neck, and upper portion of chest were intensely jaundiced. The intensity of the jaundice diminished from above downwards, till at last it disappeared altogether. She had a pair of genuine "black eyes." The rest of the body had a natural appearance. The expression was anxious, and the general condition maudlin. Occasionally fits of stupor and of apathy ensued. There was no alcoholic odour, but during the evening a distinct etherish smell could be perceived. The lips were slightly swollen, and covered with dry black blood. The tongue was also slightly swollen, dry black blood covering

the base and middle, whilst the edges and tip seemed of darker hue than natural, although moist. She lay chiefly upon her right side. The skin was pale and cold, but, although the thermometer only registered 96° in the axilla, the temperature there seemed about normal. The pulse was most peculiar. It seemed to indicate its presence to the finger, and disappeared before I could judge of its character; counting it was impossible. The respiration was noisy and laboured, and 48 per minute. Thirst intense; appetite gone. She swallowed with ease. The bowels had not acted since the preceding night, nor had she passed any urine. There was decidedly harsher breathing at the base of the right lung than elsewhere. The action of the heart was as peculiar as the condition of the pulse. The area and force of the cardiac pulsation were both increased, whilst the impulse against the chest walls was of a distinctly rolling character. I carefully counted the rate, and found that 160 cardiac cycles were completed in a minute. The sex, age, appearance of patient, and of vomit, immediately suggesting not only poisoning but a motive, I examined the breasts and found milk in them.

The patient volunteered no information, but, on being questioned, admitted having taken "two handfuls" of ergot, and also that this had been going on for several months. Subsequent events and the post-mortem examination showed that she had been taking the liquid extract for several months, and had quite recently taken two handfuls of the powder, not infused. The case seemed utterly hopeless; the exhaustion, hæmorrhage, and chronicity forbade the use of either stomach-pump or an emetic; and antidotes seemed equally useless, so I reported the matter to the police.

For my own protection I decided to call in Dr. Carter, a neighbouring consulting physician. Before I left a distinct uterine contraction occurred. The consultant recommended liquor chlori as an antidote, and it was decided to accelerate labour as a possible means of discharging the force of the poison through an active uterus. At 7.30 I introduced a No. 8 bougie-à-boule with great ease, but had to reintroduce it at 8.30, as she had removed it in one of her many paroxysms. At 9.15 the os uteri admitted one finger, so I introduced Barnes's smallest bag. I did so with ease; and twenty minutes later, finding the os less firmly encircling the bag, I removed it, and the membranes immediately followed. I ruptured them, and the head having presented, with little difficulty seized a foot. (Shortly before this brandy was given, but for the first and last time it regurgitated through the nose.) Whilst attempting to bring down the foot the breathing became easier and slower, until, just as I was about to deliver, it ceased altogether. Shortly before death the respiration was 56 per minute, and from 6 P.M. the pulse could be felt at all. The stupor had gradually deepened, but every now and then paroxysmal movements would occur whilst the patient would sit up in bed. She understood what I said to her occasionally, and was always obedient.

Thirty-two hours after death I made a post-mortem examination. The body presented much the same appearance as during life, save for the welling out from the mouth and nose of a greyish-black and gritty matter, which was very fluid. The body was well nourished. Greenish streaks were becoming visible on the abdomen. Cadaveric rigidity was passing off. The brain was remarkably firm, and perfectly free from hæmorrhage. None of its membranes seemed diseased, although it appeared rather looser in the cranial cavity than natural. The temporal artery bled profusely in making the preliminary incision through the scalp. In opening the abdominal and thoracic cavities an enormous quantity of fat was exposed, and embedded in it could be observed innumerable small hæmorrhages. The peritoneum was also covered with these hæmorrhages, and the bowels were everywhere in the same condition, besides being extensively bound down by adhesions. The abdominal cavity contained a very large amount of blood, and this rendered the detection of ascitic fluid impossible. No large vessel was ruptured so far as could be seen, the hæmorrhage being seemingly the result of an enormous number of small vessels having ruptured. The blood was fluid. The diaphragm was arched. The liver did not seem altered in size, but on section it was dry, bloodless, waxy-looking, and of a slightly dirty yellow colour. It was easily lacerable. The spleen seemed rather smaller than usual, and, on section, blood of a dirty red colour oozed copiously from it. The kidneys were enlarged, pale, and waxy-looking, and their capsules easily separable. The stomach exhibited ruptured vessels

in its walls, and contained a considerable quantity of the same fluid as came from the mouth and nose. The bowels were in the same condition. The bladder was quite empty. The uterus was about the size of an adult head. Its walls were stained all over with dark effusions, and on opening its cavity a fœtus of about five months became visible. There was neither liquor amnii nor blood in the uterine cavity. On removing the ribs the pleura was found non-adherent, but the lungs presented a remarkable appearance. They were rather anæmic, and this gave them a steel-grey appearance. On this as a ground were scattered innumerable irregular dots of the size of a small pea. These were hæmorrhages. The right lung was especially congested at its base. The heart was enlarged, having a large quantity of fat on its anterior wall and sides externally, but the valves were healthy. Its cavities were practically empty.

Brighton.

### A CASE OF MORPHIA POISONING BY HYPODERMIC INJECTION; RECOVERY.

By PHILIP E. HILL, M.R.C.S.,  
SURGEON TO THE CRICKHOWELL DISPENSARY.

EDWARD C—, a gardener, aged forty-eight, was admitted as a patient of the Crickhowell Dispensary on the 1st of August, suffering from mitral valvular disease with ascites. He had for some time past been under treatment, and for several days complained of severe abdominal pains, for the relief of which chloral hydrate alone and in combination with bromide of potassium had been tried, with little or no benefit.

On my visiting him at 11.30 on the morning of the above date, I found him in great agony, in which condition his wife informed me he had been during the greater part of the previous night. He implored me to do something for his relief, saying he could endure the suffering no longer; and as I happened to have my hypodermic syringe in my pocket, I introduced into his arm four minims of a solution of acetate of morphia (strength one grain in twelve minims). I then left him.

About 4.30 P.M. I received a message from his wife informing me that her husband was still asleep and snoring, and that she could not awake him. I at once started for his house, and found him, to my astonishment, in a condition of deep coma, from which I was unable to rouse him. The face presented a ghastly hue; the lower jaw had fallen; the lips were livid; the eyelids were open, the pupils contracted to a pin's point and perfectly insensible to the stimulus of light; the extremities were cold, and the surface of the body bathed in a cold sweat. Respiration was laboured, slow, and stertorous, but the pulse remained unaffected.

I immediately tried to rouse my patient by artificial respiration, flagellation with a wet towel over the face and chest, mustard applied to the nape of the neck and calves of the legs, with turpentine over the cardiac region, and, failing to administer coffee into the stomach from his inability to swallow, injected a strong solution of it into the rectum. Hot water bottles were also applied to his feet and body. These remedies were persevered in for some hours, when, to my gratification, consciousness gradually returned.

My friend Mr. Evan Parry, for whom I had sent, now fortunately arrived—for by this time I was getting exhausted from the combined effects of anxiety and my efforts to restore animation—and assisted me in carrying out the treatment. Our patient was particularly anxious to be left alone and allowed to sleep; but our efforts were unremittingly persevered in until 2 A.M., by which time the pupils had become almost natural, and the strong desire for sleep passed away. On my visiting him at 10 A.M. on Aug. 2nd he had completely recovered from the effects of the morphia, and was in no way the worse for its administration.

Remarks.—From the appearance of the patient when first seen I could only arrive at an unfavourable prognosis, which was concurred in by Mr. Parry on his arrival, but I cannot understand how such a dose as one-third of a grain of morphia, even when administered subcutaneously, and that after other sedatives had been tried without effect and time allowed for their elimination, should have given rise to such alarmingly poisonous results, for one would have



imagined that the great pain which was present would to some extent have resisted the influence of the drug. Was the exalted action of the salt due to the cardiac mischief, or might it not be more properly attributed to the idiosyncrasy of the patient, especially as the heart's action was in no way seriously interfered with? I can vouch for the accuracy of the strength of the solution, as it was the same I have always employed, and within the last month injected eight minims of it in divided doses, with an interval of four hours, into the arm of a gentleman suffering from persistent vomiting.

I cannot conclude this imperfect report without gratefully acknowledging the kind co-operation of Mr. Parry during this, to me, particularly distressing and anxious case.

Crickhowell.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—Mosesævi De Sed. et Caus. Morb., lib. iv. Proœmium.

#### GUY'S HOSPITAL.

##### TWO CASES OF CANCER OF THE RECTUM.

(Under the care of Mr. BRYANT.)

**CASE I. Excision of Rectum for Cancer; Severe Suppuration; Erysipelas; Relief.** (From notes taken by Mr. Manley).—Sarah H—, aged forty, was admitted on Nov. 26th, 1881, into Lydia ward. She was married, and had had nine children, the youngest of which was eighteen months old. Her labours had always been troublesome. Four years before admission she first noticed that she passed a little blood per rectum, and her bowel came down, but was replaced, and caused her no further trouble. During her last labour (an unusually severe one) she again passed blood from the rectum, and her bowel again came down. It was returned, but she felt a constant desire to pass motions, and these, when passed, were mingled with froth, slime, and blood. From that time she constantly had the same trouble with her rectum, and had alternate periods of relaxed bowels and constipation.

On Nov. 29th, under chloroform, she was examined. The finger could be passed beyond a zone of ulceration in the rectum. The posterior wall of the vagina was puckered and evidently infiltrated. It was decided to excise the rectum, and the patient was accordingly carried to the theatre. She was placed in the lithotomy position, when a small carcinomatous outgrowth protruded from the rectum. The vagina was examined by a speculum, but no definite disease was made out. An incision was made from the anus backwards in the median line for about an inch. The finger was introduced into the wound and passed round so as to completely isolate the rectum. The tissue between the rectum and vagina was then divided with scissors. The transverse perineal arteries were divided and twisted. Two lateral cuts were then made in the wall of the vagina dividing the mucous membrane and connective tissue; two arteries were ligatured. The posterior wall of the vagina was then divided with the scissors about an inch up and left in connexion with the diseased bowel. The diseased mass being completely isolated, the healthy bowel was fastened with ligatures all round. The scissors were then introduced into the rectum, and the wall of the bowel divided through the growth. On commencing to divide the diseased portion from the healthy part, the middle hæmorrhoidal artery was divided and ligatured. The growth was then completely removed without further hæmorrhage. The posterior incision was united by three sutures. The rectum was then sewn to the perineum, and in front to the corner of the vaginal flap made at the commencement of the operation. About half the divided sphincter was left. A drainage-tube was inserted between the rectum and vagina. The piece of bowel removed was about an inch and a half long, and much thickened. The inner surface was wholly infiltrated and fissured.

The patient was easier after the operation, but on the

early morning of Dec. 1st she was wandering and irrationally. The wound was, however, doing well. Next day the skin was hot and moist; there was a bright flush on either cheek. Tongue furred, but moist; pulse quick and soft.

On Dec. 5th the urine was slightly albuminous, breath fetid; and on the 13th an abscess to the left of the coccyx was opened. Next day the left buttock was swollen and red. A blush of erysipelas extended over the skin outwards and downwards. On the 16th erysipelas was disappearing. The edges of the wound were hard, and this hardness extended over the left buttock generally. On the 27th the cicatrix of the old abscess was opened, and about six drachms of pus (foul) came away.

On Jan. 3rd the hardness of the buttock had disappeared, and a fortnight later about an ounce of pus came from the cicatrix. On the 20th there was still a slight thin discharge from the wound in the buttock. On the 29th there was redness about the wound, and the woman had a rigor on the previous evening, lasting about half an hour. After this there was decided improvement.

On Feb. 7th she passed her motions fairly regularly, but they were hard. On the 9th the erysipelas was gone. On the 11th she seemed pretty well and comfortable. On the 22nd there was no sphincter power, and the incontinence gave great trouble. Between the anus and vagina was a fold of mucous membrane, which partly separated them. The sinus was closing. The aperture into the rectum admitted two fingers easily, and perhaps more. She had some diarrhoea. She had improved in appearance. She was discharged relieved.

From Dec. 1st to the 27th the temperature varied from 100° to 105° 8', this, the highest, being reached on the evening of the 14th. From Dec. 23rd onwards the temperature ranged between 98° 2' and 102°, though for the most part it was nearly normal. On the evening of Feb. 3rd there was a sudden rise to 104° 2', but next morning the temperature was normal again, and continued so.

**CASE 2. Cancer of Rectum in a boy aged fifteen; Colotomy; Relief.** (From notes by Mr. Henry Gard).—Samuel R—, aged fifteen, of R.W., was admitted on Dec. 20th, 1881, into Job ward. In the previous August he experienced great pain in defecation, passed a little blood each time, and about this time he began to feel severe lancinating pains. At first it was thought he had dysentery, and he was given suppositories, and took quinine and chemical food. Subsequently a growth in the rectum was diagnosed, and he was sent to England to be operated upon. He had at times passed a fortnight without alvine evacuation, and for a month before admission he had constantly had to use castor oil. When admitted he had not had a motion for six days.

On examination of the rectum a large growth, occupying the whole circumference of the bowel was discovered. The tip of the finger could just touch the lower end of the band, but the upper margin could not be reached. The mass was hard, and presented a sharply-marked edge to the finger. The growth appeared fixed in front and behind. Morphia and opium were given to relieve pain.

On Dec. 30th colotomy was performed. Nothing but colotomy could be suggested. No difficulty was experienced in the operation in Mr. Bryant's usual way. A healthy motion passed directly the intestine was opened.

On Jan. 1st he complained of pain in the stomach, but was easier after the operation. There was a thick discharge from the anus. On the 4th he complained of pain in the rectum sufficient to keep him awake. On the 7th the stitches were taken out; the wound looked healthy. Patient constantly required injections to enable him to sleep. On the 19th, at 5 P.M., a discharge of sanious pus, sometimes thick and sometimes thin, from the rectum appeared, and there was great pain at the seat of the disease. On the 24th he complained of great pain in the hypogastric region. The abdomen was hard and distended. Considerable pain in the rectum. On the 26th patient got up, and next day he was free from tenderness over the abdomen. The wound looked healthy. The rectum was washed out with glycerine and water, and some of the liquid came through the artificial anus. On the 28th he was in considerable pain, but was relieved by an injection.

On Feb. 8th he left the hospital with a healthy artificial anus. He still suffered from much pain in the rectum, and had a free discharge of pus. Took out with him one dozen morphia suppositories.

For a few days after the operation the temperature ranged from 93° 6' to 101° 4'. It then became normal and continued so.

The boy died exhausted in the middle of April, 1882.



## NORTH STAFFORDSHIRE INFIRMARY.

## REMOVAL OF ENTIRE UTERUS, LEFT OVARY, AND FALLOPIAN TUBE.

(Under the care of Mr. W. DUNNETT SPANTON.)

FOR the following notes we are indebted to Mr. W. T. Clegg, house-surgeon.

Elizabeth J—, aged forty-three, spare but not cachectic, married, but had no children, was admitted into the North Staffordshire Infirmary March 25th, 1882. For some months previously she had experienced pain in the back and uterine region, with frequent desire to micturate. Menstruation had been regular, not profuse, but attended with great pain. The pain had been so intense as to render life almost intolerable, and she was anxious to submit to any measure likely to afford relief from it.

When examined, the uterus was found to be quite movable, enlarged, exceedingly hard to the touch, and nodular. The cervix was almost absent, the uterine tissue with the internal os being felt, as it were, through the opening of the upper part of the vagina. The sound passed three inches into the uterus, causing much pain. All other organs appeared free from disease. A consultation was held, and it was found that all ordinary methods of treatment failed to mitigate the pain, and the patient was desirous to have anything done which would afford a prospect of relief. On March 30th, under the influence of ether, the uterus was removed. An incision through the linea alba of about four inches was made, the small intestines carefully withdrawn through the wound and wrapped in hot sponge cloths, and then a silk ligature passed through the fundus uteri, which was found of great service in lifting up the uterus. A silk ligature was then passed through three portions of each broad ligament, after the manner of Freund, so as to include the ovarian artery, the round ligament, and the uterine arteries. Each broad ligament was then divided near the uterus on the right side, but external to the Fallopian tube and ovary on the left side, and the vaginal roof divided at its junction with the uterus, which was then removed with the left ovary and Fallopian tube attached. The uterus after removal was found to contain several hard nodules of myoma, embedded in the muscular wall. The cavity was three inches in length; cervix absent up to internal os uteri, being entirely eroded by infiltration of epithelioma, which was, however, limited to that part. It appeared to be an example of so-called liquefactive epithelioma, in which the tissues melted away as it were, leaving only microscopic evidences of its true character. The microscopic examination of the tumours showed the ordinary appearances of myo-fibroma, but with more round cell infiltration than is usually met with, approaching a round-celled sarcoma in its character. There was nothing abnormal about the Fallopian tubes or ovaries. There was no hæmorrhage, certainly not more than an ounce of blood being lost throughout. Two small branches at the lower part of the broad ligament were secured with catgut for precaution. A large glass drainage-tube was inserted into the vagina, quite filling up the supra-vaginal opening, and the abdominal wound was closed by ordinary silkworm-gut sutures, and dressed with eucalyptus gauze. The whole operation—performed under the eucalyptol spray—from the time the patient was brought into the room to being finally arranged in bed occupied less than an hour. In the evening of the same day the patient seemed comfortable; had no sickness; about a pint of clear urine had passed through catheter. Temperature 100° 2'; pulse 102. At 12 P.M. the temperature and pulse continued the same. At 4 A.M. next morning (March 31st) the temperature was 100° 4'; pulse 93. The patient had passed a good night. About a pint of clear urine passed by catheter. There was not much pain, but considerable distension of the abdomen. There was a slight sanguineous discharge into the vaginal tube, requiring a fresh plug. Temperature 99° 4'; pulse 102. During the day the patient complained of pain in the abdomen, for which morphia suppository was employed; but restlessness and increasing weakness ended in death at 3 A.M. on April 1st.

*Post-mortem examination, next day.*—The abdominal wound had healed throughout the deeper parts. The coils of the intestine were distended and sticky with recent lymph. The pelvic cavity was dry and clean, and there

was no trace of hæmorrhage. The silk ligatures were firm. The ureters were quite free, on the left side more than an inch, and on the right not more than half an inch to the outer side of the lowest ligature.

The result of this case, although not successful, is very satisfactory, as showing that this operation may be performed (1) without any extraordinary difficulty, (2) without hæmorrhage, (3) without danger to the neighbouring parts, and (4) with a fair chance of eradicating the disease as completely as in operations for malignant disease in other parts of the body. The recuperative powers of the patient appear to be the one element of great uncertainty in the success attending the operation.

## CUMBERLAND INFIRMARY, CARLISLE.

## CHLOROFORM FRIGHT IN A CASE OF ANCHYLOSIS OF ELBOW JOINT.

(Under the care of Dr. H. A. LEDIARD.)

FOR the following notes we are indebted to Dr. Leith Waters, house-surgeon.

M. B—, aged nineteen, a stramious-conditioned girl with enlarged flabby tongue, on whom excision was about to be performed, was put under the influence of chloroform on Sept. 11th, 1882, and had taken from about two to four drachms. The knife had not touched the skin, and the spray had just begun to act over the parts when, without any stertor or warning note, the breathing, soft from the first, became imperceptible to the ear under the swish of the spray, and then completely stopped. About the same time, or perhaps before the stoppage of respiration, the face became markedly pallid, while the pulse, though weak and irregular, was felt in the radials throughout the period of fright, which lasted for about half an hour. Artificial respiration was at once begun—first by the direct, then by Silvester's method, and was kept up with momentary stoppages during the period. The windows were thrown open, and the chest, with shoulders raised and head thrown back and lowered, was well flipped with cold-water towels, &c. The faradaic current, one pole over the phrenic and the other over the epigastrium, was kept up at intervals during the latter part of the period. This brought on thorough and immediate action of the diaphragm and the abdominal muscles of expiration, greatly aiding the now almost restored efforts at voluntary respiration.

The operation was postponed, and to be next time anaesthetised by ether. A prolonged drowsiness followed the restoration of breathing, and during this period stimulants were administered, the patient being at the same time prevented from falling into torpor by the assiduous stimulation of the face and chest by cold water and by the kneading of the ribs.

A careful examination of the heart after the patient had been removed to bed showed the existence of some presystolic roughness in the mitral area. In the urine there was a good trace of albumen, but no sugar. She had an attack of scarlet fever when ten years of age. There is no history of rheumatic fever or pain, but her father died of heart disease at the age of fifty-eight. It is worthy of note that three days previously the patient had taken chloroform very well, it having been administered in order thoroughly to examine the joint and break down adhesions if possible.

Sept. 18th: Patient was carefully and successfully placed under the influence of ether, and the joint excised by a single longitudinal incision. Firm osseous anchylosis was present, which did not, however, extend to the radio-humeral articulation. During the insensibility the breathing was good and audible; but the pulse sank to about 56 for a short time.

The administration of ether was kindly watched by Dr. Barnes, physician to the infirmary.

**A RESCUE BOAT-RACE.**—At the Clevedon Regatta on Saturday last, a novelty was introduced in the shape of a "Rescue race." The idea was originated by Dr. Richardson, F.R.S. (who is staying in Clevedon), who gave the first prize of £1 ls., Mrs. Richardson giving the second of 10s. 6d. The whole of the competing boats had to be stranded high and dry upon the beach, and at a given signal the men had to get them launched, and then proceed to try to pick up one of two objects, representing drowning men floating about three-quarters of a mile out in the bay.—*Bath Mercury*, Sept. 26th.

## Reviews and Notices of Books.

*Schematic Anatomy; or, Diagrams, Tables, and Notes, treating of the Association and Systematic Arrangement of Structural Details of Human Anatomy.* By W. P. MEARS, M.B., co-Lecturer on Anatomy, Supervisor of Dissections, and Medical Tutor at the Durham College of Medicine, Newcastle-upon-Tyne. London: Baillière, Tindall, and Cox. 1882.

THE aim of this work is decidedly novel. Students and lecturers have always made use of diagrams and notes of associated facts in learning or teaching the numerous details of human anatomy, but we have never before seen such an ambitious attempt at "aids to memory" as is here presented to us. The bones, ligaments, muscles, vessels, and nerves are tabulated and delineated—we cannot say described,—and we are promised the viscera in a second volume. The student is recommended to display the facts on the dead subject in the first place, and then to fix them in his memory by means of a corresponding schema or diagram. If there were any real relationship between the dissected part and the mathematically-drawn figures in this work, it would be a valuable addition to the text-books used by the student, but the more elaborate the schemata and diagrams become, and the more closely the associations are urged, the more apparent are their divergences from the true details of human anatomy. In the sketch of the femur, facing page 36, the relative attachments of the muscles are inaccurately shown, for the insertion of the adductor longus is made to correspond in extent with the origin of the femoral head of the biceps, and more space is allotted to the plantaris than to either head of the gastrocnemius. The diagrams of some of the plexuses are most extraordinary, and representations by exactly similar outlines of the inferior dental, gustatory, glosso-pharyngeal, and hypoglossal nerves and their branches (p. 176), must confuse the student rather than diminish his labours. The book has evidently caused Mr. Mears much trouble and thought, but an insistence on the constant use of the scalpel and forceps is the only true method of teaching anatomy, and a few diagrams and tables constructed by the student himself from his own dissections will remain much longer in his memory than the elaborate and somewhat complicated system drawn up by the author.

*The Tissues and their Structure.* A description of the Elementary Tissues of the Human Body. By A. S. KENNY, M.R.C.S.E., Senior Demonstrator of Anatomy in King's College, London. London: David Bogue. 1882.

THIS small work of 120 pages contains a very clear and accurate description of the elementary tissues and their functions, and is especially adapted for beginners in histology. It will enable them to form some conception of the general structure and functions of the tissues which they are practically investigating, and should be used with the text-book, which directs them how to proceed with their manipulations. The book is well printed, and the illustrations, many of which are quite new, are excellently drawn.

*The Compend of Anatomy.* By JOHN B. ROBERTS, A.M., M.D., Lecturer on Anatomy and on Operative Surgery in the Philadelphia School of Anatomy, &c. Second Edition, revised. London: Henry Kimpton. 1882.

THE fact that a book has rapidly run through a first edition is a recommendation in its favour, but we entertain a great distrust of small works that assume to give concise statements of what is deemed essential to the student in human anatomy or any other science. This distrust is not removed by the volume before us, for all the essential details are contained in less than 200 pages. The necessary conciseness has been obtained at the expense of adequate description, for the only details of muscles and nerves which

the author gives are those which can be seen at a glance in a series of tables. It is announced in the preface that the statements and general arrangement of Gray have been followed, and this is evidently true, for the book appears to us to be merely an abridgment of that work, whilst many of the advantages and excellences of the latter are lost. The only novelty is a partial substitution of English names for Latin ones, and this is not always an unmixed gain—e.g., is "compend" a better word than "compendium"?

*Publications of the Association for the Advancement of Medicine by Research.* London: J. W. Koelkmann. 1882.

THE Association for the Advancement of Medicine by Research has issued its first batch of publications, consisting of four pamphlets. They are none of them new, but are reprints of addresses on the aims, methods, and purposes of scientific experiments on animals. We are glad that the Association has utilised the excellent address of Mr. Simon at the opening of the State Medicine Section of the International Medical Congress. This bears the title of "Experiments on Life," as fundamental to the science of preventive medicine, and sets forth in a most masterly manner the value and extreme economy of direct experiment upon living animals. Two other of the pamphlets regard the practical results to surgeons of vivisectional experiments; these are Dr. Humphry's short address at Ryde, entitled "Vivisection: what good has it done?" and Dr. McDonnell's address delivered before the Surgical Society of Ireland, entitled "What has Experimental Physiology done for the Advancement of the Practice of Surgery?" With the former of these our readers are familiar, as it has already been widely circulated among the profession, with whom it is judged to have but one failing—brevity. Dr. McDonnell's Address is an extremely useful one, and deservedly ranks with those already mentioned. No attempt is made to detail all the benefits surgery has derived from experiments on animals; reference is chiefly confined to their value in the study of anaesthetics, the introduction of the administration of potent remedies by hypodermic injection, the bloodless surgery now so generally practised, the arrest of hæmorrhage, and the treatment of wounds. The fear that performing or witnessing such experiments blunting the moral perceptions is shown to be entirely groundless. The fourth of this series of pamphlets is Mr. Wm. Bowman's Address in Surgery, read at Chester, at the meeting of the British Medical Association in 1877. The main topics of this address are the essential unity of the art, its dependence upon science, and the advantages of union and organisation for the promotion of common objects. Incidentally Mr. Bowman vindicates the right and duty of experiments on living animals; and this it is, we presume, which leads to the republication of this address at the present time, and in its present form. We congratulate the Association on so quickly setting to work, and on the choice it has made for its first publications, which we hope will be very widely read and studied. The best support the profession can give to the Association is to become apt pupils, to avail themselves of the opportunities afforded of obtaining thorough acquaintance with the part scientific experiments have played in the vast strides our art has made during the last century; and a wise distribution of their pamphlets among the more intelligent of the general population will also greatly aid the cause we have at heart.

*Die Parasitären Krankheiten des Menschen. I. Entwicklungsgeschichte und Parasitismus der Menschlichen Cestoden.* Von SIGMUND THEODOR STEIN. (*Parasitic Diseases of Man. I. Developmental History and Parasitism of Human Cestodes.* By SIGMUND THEODOR STEIN.) Lehr: Schauenburg. London: Trübner. 1882.

THIS handsome monograph upon the very interesting class of tapeworms is, as the title-page and introduction

inform us, but the first of a series of similar works dealing with the parasites of man that Herr Stein has in view. He intends to issue another part dealing in like manner with the nematode, trematode, and arachnid parasites; a third with the dermatozoa, epizoa, and epiphytes; a fourth with the protozoa, infusoria, and fungi. The present treatise commences with a brief historical introduction, in which the labours of von Siebold, Leuckart, and Küchenmeister are especially dealt with; but we fail to find any reference to English writers in this place. In justice to the author, however, it should be added that in the body of the work he shows himself fully acquainted with Dr. Cobbold's labours. The first chapter deals with the larval condition of tape worms, and is copiously illustrated with figures of mealy flesh and the cysticerci. Indeed, the whole volume is most fully adorned with engravings, in addition to fourteen large photo-lithographic plates at the end. The second chapter treats of the developmental history of the human tapeworm: first the characters common to *Tænia solium* and *T. saginata* (*T. mediocanellata*) are described, and then the differential points. Then comes a description of each of these worms in the adult form, followed by full and minute details as to the formation of the generative organs and the development of the embryo. The genus *Bothriocephalus* forms the subject of the third chapter; the same minuteness of description characterising the previous studies being also shown here. Of course, most of this chapter deals with the common form, *Bothriocephalus latus*; but a section is devoted to the rarer species, *B. cordatus* and *cristatus*. In the fourth chapter we have descriptions of such rarer *tæniæ* as *T. nana*, *T. flavopuncta*, *T. cucumerina-elliptica*. The fifth chapter is entitled, "The influence of tapeworms and their progeny on the human body, including therapeutical measures." The sixth chapter treats of the echinococci, and concludes the work. The following figures compiled from Davaine, Cobbold, Finsen and Neisser are interesting as showing the comparative frequency of hydatid disease in various organs:—Out of a total of 1862 cases, the liver was the seat of the parasite in 953, intestinal tract in 163, lungs and pleura in 153, kidneys, bladder, and sexual organs in 186, brain and spinal cord in 127, bones in 61, heart and bloodvessels in 61, and other organs in 158. The work bears evidence of considerable original research and an extended study of the literature of the subject.

## THE GENEVA CONGRESS.

### No. III.

As in the five sections no less than fifty-one questions had to be discussed, we are compelled to abandon the hope of giving even the briefest account of each of these interesting debates. Of the general meetings we have already given some account. They were not altogether satisfactory. The afternoon devoted to Professor A. Corradi's paper on the contagion of phthisis failed to elicit anything new. Various suggestions, however, were made. Dr. E. Valin, for instance, though inclined to believe in the contagious nature of the disease, remarked that the fact that animals inoculated with the bacillus of phthisis contracted the disease did not absolutely prove the susceptibility of man to this germ. Guinea-pigs would die of phthisis if shut up in the same room as a man suffering from this disease, without there being any inoculation. In any case, while on the Continent zymotic patients could not be isolated, it was much too soon to speak of the isolation of tuberculosis. Indeed throughout the discussion it was clear that grave doubts still existed as to the contagious nature of phthisis, and a strong feeling was manifest against isolation. The depressing effect of isolation hospitals would act almost as a

sentence of death upon the patients, according to Dr. E. Landowski's experience. Dr. Lubesski, delegate of the Warsaw medical school, thought that the clothes and beds were the most likely source of infection, and suggested researches as to the special character of the perspiration coming from phthisical patients. Another speaker inquired whether it would not be well to study the effect of sewer-gas and sewage on the vitality of the bacillus; as the prevalence of phthisis was more marked in districts where the drainage was bad, and general hygiene neglected. Dr. Leudet of Rouen gave the result of twenty-eight years' study of fifty-six families with whom he was intimately acquainted. In fifteen cases the husband, and in forty-one cases the wife, died of tuberculosis. Of the fifteen widows five ultimately showed symptoms of tuberculosis. This might encourage the belief in contagion, but one of the women had a rachitic deviation, another lost her aunt, and the third her sister from the same disease. Of the forty-one widowers, only three died of phthisis. Therefore, Dr. Leudet concludes that if marriage is a cause of contagion, the contagion is more frequent from the husband to the wife than from the wife to the husband.

After this discussion, Dr. Varrentrapp, medical officer of health for Frankfurt, gave a very interesting account of the school colonies organised in Germany for the purpose of sending the weak and poor children of large towns for four to six weeks to the country during the holidays. Guetlet's comparative tables are used to record the weights and measurement of the children at their departure and their return from these expeditions. The improvement was found to be on an average 1 kilo 300 grms. for the boys, and 1 kilo 480 grms. for the girls, and the average growth two centimetres. The remarkable point was that the good impulse given by this sojourn in the country continued after the return to town. The children also acquired habits of cleanliness and discipline, and the cause of education derived great benefits from this system. In Denmark it was the custom to send two or three children to board with an agriculturist, who took them for nothing in exchange for their labour. The railway and steam companies gave these children free passage, and thus 7000 children were able to escape for a little while the injurious effects of overcrowded towns. At Berne the school teachers were in the habit of taking thirty to forty children to the country, when special contracts were made with purveyors, and the authorities provided gratuitous conveyance. The Pastor Zillon, of Zurich, first started this idea, and now in twenty-two towns of Germany regular holiday colonies have been organised. Milan was the only other town that had followed the German method in the organising of these holiday colonies. The next general discussion related to the effect of altitudes on the health of patients, &c., when Dr. Paul Bert delivered the remarkable speech already mentioned in these columns. To his experiments on mountain sickness we should now, however, add his peroration, rich in speculative thought. Dr. Paul Bert having shown that the blood of animals living in low countries absorbs from 10 to 12 per cent. its weight of oxygen, whereas the blood of the same animals acclimatised at La Paz, some 12,000 feet above the level of the sea, absorbed from 18 to 20 per cent. its weight of oxygen, concluded with these words:—"Thus, therefore, when men or animals resort to high altitudes they become acclimatised in the course of a few generations. Their blood, being enriched by a larger proportion of hæmoglobin, is capable of absorbing a much greater quantity of oxygen. Such results are most consoling for the future of human races. You are all aware that astronomers menace us with annihilation, which, though in the far future, is none the less certain. They tell us that the central fire will gradually go out, that the air which surrounds us will ultimately reach the profoundest depth of the globe, and, the atmospheric pressure slowly diminishing, the moment will come when it will no longer suffice to maintain life. I do not wish to challenge these pessimist predictions; but their gravity is singularly attenuated by the considerations I have brought to your notice. What has happened to save the inhabitants of the Cordilleras will save our descendants. As the barometric pressure decreases their blood will alter in character, to harmonise with the surrounding atmosphere. The facility for absorbing the oxygen of the air will augment, and life

will continue to be possible long after the epoch when, according to calculations based on our present condition, the human race is doomed to die."

Dr. W. Marcet, F.R.S., also gave a very interesting account of his scientific experiences while mountaineering. He thought that cold and the rapidity of the ascension had a far larger share than is generally supposed in producing "mountain sickness," and had noticed that the southern or warmer side of a mountain was never so painful to climb. As a means of procuring oxygen, so necessary to combat the effect of high altitudes, he suggested chlorate of potash, for it was easy to carry, and liberates oxygen when in contact with the heat of the mouth. Cold corresponded with the lack of oxygen, and by careful experiments he found that his breath contained 19 per cent. less carbonic acid on the summit of a high mountain than at Geneva. With his assistant the difference had been greater—namely, 21·8 per cent. Dr. Marcet concluded, like all the other speakers, with the opinion that medium altitudes had a tendency to check phthisis.

At the final general meeting of the Congress a paper was read by Dr. Haltenhoff of Geneva, on the Prevention of Blindness. Though statistics were not complete, particularly those of countries where blindness was most prevalent, such as Russia, Algeria, Turkey, and Egypt, yet they might calculate that there was at least one blind person out of every thousand of the European population. This gave us about 330,000 blind persons in Europe, and the larger half of these cases might have been prevented. Fortunately an English philanthropic society had taken the matter in hand, one of its principal means of action being the distribution of short popular pamphlets full of practical, intelligible suggestions. Dr. M. Roth, the secretary of the Society for the Prevention of Blindness, had known how to rally the French hygienists to his cause, and at the Turin Congress it was resolved to make this a subject of discussion at Geneva. In the meanwhile, the English Society had decided to offer £80 for the best work, written in English, German, French, or Italian, on the subject. The speeches that followed, and notably an able oration from Dr. Roth, in which he calculated that the blind of Europe cost society 100,000,000 fr. to maintain, all went to prove that neglect in childhood and at the first outbreak of disease was the cause of the far greater number of cases of total blindness.

At the termination of this discussion, Dr. A. J. Martin, general secretary of the Paris Société de Médecine Publique, read the official report he had been requested to prepare on the Sanitary Exhibition, remarking that the Swiss law on patents had kept many exhibitors away. The report naturally partook of the general enthusiasm which prevailed throughout the Congress, but it was ably written, and Dr. Martin did venture to attack, at least, one or two faulty exhibits. This document has already been published *in extenso* in the Swiss and French papers.

There now only remained to decide where the next Congress should meet; and, in response to an invitation transmitted by Dr. van Overbeek de Meyer, it was unanimously resolved that the Fifth International Congress of Hygiene should be held at La Haye in 1884. Dr. van Overbeek de Meyer will be one of the principal organisers of the forthcoming Congress, and communications on the subject can now be addressed to him at the University of Utrecht.

Perhaps one of the most stirring incidents of the last sitting was the speech delivered by Dr. P. Bœner of Berlin, which, as it contains an invitation that some of our readers may feel disposed to accept, we will translate:—"A fatal destiny destroyed our sanitary exhibition on the 12th of May, just as everything was ready. The objects were all in their places, the catalogues printed; we were only waiting for the public. In one hour, as you are aware, all this labour was annihilated. But we have not lost heart; and our courage was revived by the cordial sympathy we received from all sides. Our misfortune was due to employment of wood for the building of the exhibition. Now, however, I have the joy of announcing that a new edifice has already been raised on the ashes of its predecessor, and that this time it is built of glass and iron, filled with new exhibits, some of which had not been sent on the previous occasion; and it is with a feeling of no small satisfaction that I have the honour of presenting to the Congress the programme of the new and resuscitated exhibition." At this moment the members of the Congress, anxious to manifest their sympathies, gave vent to the warmest cheers and applause. The

speaker, visibly moved, continued:—"Our exhibition, from purely practical motives, is not called international; but we will receive with gratitude anything of interest from whatever country it may come. In visiting Berlin, you will find something more than this exhibition of hygiene, which by its very nature is as international as humanity. By the side of the material interest in the exhibits, the sanitary works of the capital, you will meet a cordial, hospitable, and warm welcome." After a fresh outburst of cheers, and on the proposition of the President, the Congress passed a resolution expressing sympathy for the past and encouragement for the future. In this matter the French members of the Congress manifested a cordiality which showed how much devotion to a noble science can help to mitigate political and national antagonism.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

It appears from the statistics of the College examinations, which are published in the new Calendar just issued, that during the official year ending Midsummer Day last, 46 candidates passed the first examination for the Fellowship of the College, and 61 were referred for six months; 21 candidates passed the final examination and were admitted Fellows, and 21 were referred for one year. For the primary Membership there were 1091 candidates examined, of whom 743 passed, and 305 were referred for three and 43 for six months. At the final examination for the diploma of Member 666 candidates were examined, of whom 343 passed; 56 passed in surgery, and during the year qualified in the other subjects,—making altogether 309 diplomas granted in the year; 69 candidates were approved in surgery, to qualify in medicine and midwifery; and 254 were referred for six months. During the year there have been three meetings of the Board in Dental Surgery, and 32 candidates have been examined, 28 of whom obtained the diploma.

The Calendar contains some interesting tables which accompanied the Report prepared for the Royal Commission on the Medical Acts, showing the number of registrable titles granted by the College during the five collegiate years from 1876-77 to 1880-81, ending on the second Thursday in July in each year, and the receipts from examinations and from other sources, and the expenditure in the several departments in the College over the same period. It appears that of the 300 honorary Fellows elected under the Charter of 1843 only forty-three are now living, Mr. James Moncrieff Arnott being the senior and Mr. Spencer Smith the junior Fellow of that batch. The total number of Fellows of the College now is 1186, of whom 586 were admitted after examination, and 600 by election.

Thirty-two deaths have been reported during the year, thirteen of which occurred at the advanced age of fourscore and upwards—viz., Michael Thomas Greenhow, of Leeds, eighty-nine; George Macilwain, of Harlow, eighty-six; John Flint South, of Blackheath, late President of the College, eighty-five; Henry John Gore, of Tunbridge Wells, eighty-five; Richard Thomas Gore, of Bath, eighty-four; James Luke, of High Wycombe, late President of the College, eighty-three; George Rawbone, of Tooting Graveney, eighty-three; T. Pollock, of Hornsey, eighty-four; George Sampson, eighty-five; Edward Greatrix, late of the Royal Horse Guards, eighty-two; Edward Doubleday, of Long Clawson, eighty-four; John Lonsdale Minshall, of Liverpool, eighty-one; and Price Blackwood Hallows, of Canterbury, eighty-one.

By the upsetting and breaking of the gig in which he was riding, Dr. C. C. Greig, of Fyvie, has, we regret to learn, sustained injuries of a serious, though, it is hoped, not of a dangerous character.

# THE LANCET.

LONDON: SATURDAY, SEPTEMBER 30, 1883.

Now is the time of preaching. At this season of the year parents, guardians, relatives, friends, teachers, and writers in the lay and medical press claim the privilege to lecture, caution, monish, and advise the medical tyro. Within a week the students assembled at the various medical schools scattered throughout England will have had sounded in their ears alternate notes of solemn warning and lively welcome; they will have been congratulated on the choice they have made both of a profession and school, harangued on the loftiness and nobility of their vocation, and flattered with the prospect of material and intellectual triumphs. They will have been told what scope their powers will find in the study and practice of medicine, and they will have received many a useful hint and suggestion as to how those powers may best be trained for their ultimate employment. The virtues of honesty, sincerity, diligence, perseverance, sobriety, truthfulness, and respect for those in authority will have been justly and becomingly magnified. In short, the novice will have been plainly told that if he should ultimately fail to reach the goal the fault will be his own.

It is an excellent practice thus to offer words of warning and of counsel to those who are about to enter the medical profession. It has been continued so long, and has received the sanction and approval of so many masters, that it must be salutary. At any rate, few have had the courage to declare its vanity. We at least have no disposition to question its utility; we would rather extend its application. It may be well to turn the tables for once, and take ourselves to task, and ponder some of the wise utterances prepared for students in our hearts. *Quis custodiet custodes?* Who shall admonish the teachers? The very thought savours of presumption.

The strictures upon students, on the one hand, and upon examiners on the other, during the last twenty years, have been neither few nor slight. The idleness, indifference, ignorance, and stupidity of students, have formed the staple of most of the official utterances of examiners, and have been echoed by teachers, while examiners in their turn have been freely charged with incapacity, incompetence, selfishness, and cupidity. Meanwhile the teacher has usually escaped. Few have ever ventured to carry criticism into the teachers' camp. It seems to have been tacitly assumed that the office of teacher is inviolable. Interference with his function has always been sharply resented and quickly checked. And yet it would be hard to maintain that the attainments of teachers have kept pace with the increasing requirements of examinations. On the contrary, the relations of medical education and examinations have been reversed. Students are now the slaves of the examinations; everywhere they are over-examined and under-taught. Anyone whose business or inclination may lead him to visit the examinations conducted by the various examining bodies—say the Royal College of Surgeons of England—will soon be convinced

that the majority of candidates exhibit a "plentiful lack" of education and training. They are not devoid of knowledge, their memories have been fairly exercised, their answers often rise readily to the lips, and still it is obvious that with most of them the reasoning faculty is almost in abeyance. If memory should play them false, reason, so long neglected, finally refuses her aid. This implies defective training and preparation, the responsibility of which rests chiefly upon teachers. Candidates are not, as a rule, ignorant, but they are uneducated; they show no signs of having been taught the philosophy of things. Of empirical knowledge they have enough, and to spare. They are familiar with quite a host of isolated facts, but are unacquainted with the relation and connexion of these facts. They have been instructed, but not trained. Information has been mechanically imparted, and is given out again in like manner. This is the fallacy underlying most educational schemes now-a-days. Many conscientious teachers fall into the error of mistaking instruction and the imparting of information for education, whereas the evil is that the student is taught too many things—*multa* instead of *multum*. The late Dr. LATHAM saw the danger in his time. "In our day," he said nearly fifty years ago, "there is little fear that students will be spoiled by the recommendation of their instructors to be content with a scanty knowledge, and trust to their own sagacity for the rest." A life-time will not suffice for the acquirement of every accomplishment which might be mentioned as subservient to the medical profession. Dr. ROTHÉ at the end of the last century published a select catalogue of medical works, every one of which he considered as good and useful for the medical student and practitioners. Of this formidable list THOMAS YOUNG said that a person "beginning with languages might spend the first ten years of his studies without getting much further than the 'Chinese,' and twenty more before he came to those of the 'Bohemians' and 'gipsies'; to say nothing of the 'logical, metaphysical, moral, political, statistical, technological, agricultural, mathematical, geographical, chronological, genealogical, heraldic, diplomatic, numismatic, and historical' works which are to follow, before he enters on chemistry and anatomy." This is, perhaps, the *reductio ad absurdum* of medical education, and yet it is not much more impracticable than many of the schemes of some modern reformers.

Improvement in medical education, therefore, must begin with the teachers themselves. The teacher must be made to feel his responsibilities more acutely. The art of teaching is difficult, but it may be acquired by every earnest mind. It is not enough for a teacher to be punctual, he must be industrious and, above all, scrupulously honest. The process of education is slow, tedious, and often painful, and demands patience, perseverance, and restraint. The result is so remote, and so uncertain, that the consciousness of having honestly done his best may be the only reward the teacher may receive for all his pains, but the reward is precious.

WE have at least one thing for which already to be thankful to the Royal Commission, and that is for eliciting from the very highest authorities the best defence of the system by which the Fellowships of the Scotch Corporations,



particularly that of the Royal College of Surgeons, are bestowed. We ourselves are largely responsible for directing public attention to this question. We admit feeling the deepest interest in it, and we will further confess to being utterly dissatisfied with the defence put forward in the name and at the request of the Edinburgh College. There is this one thing good, however, in that defence. It was made by Professor SPENCE, and in perfect good faith. If the defence of such a man does not carry conviction or bring back respect, the system must be considered incapable of justification, and fit only for abolition. The Royal Commissioners seem to be entirely of our opinion. They, in the 54th and 81st paragraphs of their Report, say as follows:—

“54. We do not propose to interfere with the present powers of Universities or Corporations to confer their titles, with or without examination. We think, however, that, in the case of persons entitled to be registered, a discretion should be given to the Medical Council to permit these titles to be registered or not, as they see fit.

“81. We think that a column should be set apart in the Register for the registration of the higher titles recognised by the Medical Council as indicating substantially higher medical qualifications than are required for a licence.”

The authorities of the Edinburgh College know as well as we do, that under such clauses, with a reformed Medical Council, the present Surgical Fellowship of the Edinburgh College could not be registered in future.

But let us have the College's defence of its present Bogus Fellowships. This will be found in substance in the evidence of Professor SPENCE, published by us last week. Mr. SPENCE says essentially three things—1st, that the title of Fellow does not imply a qualification to practise or a higher degree, but only that the Fellow is an associate of the College; 2nd, that to deny the Fellowship, except on terms of extra study and time, is to saddle a young man with expense in a way that is not right; 3rd, that under the examining system the College was in a state of marasmus—“dwindling away.” It will be seen shortly that the adoption of the non-examining, or, as we may call it, the purchasing system, operated on the “dwindling” College as cod-liver oil on a tabetic patient. But let us examine the points of Mr. SPENCE's defence of the system in detail, for it must be remembered that the College did not always sell its Fellowships, but that, until the date of its present charter, 1851, it acted as its sister Colleges do, and gave its Fellowships on terms of examination.

It is alleged that the Fellowship is not a qualification to practise or a higher degree, but only a title of association. We demur to this representation altogether. It is true that the Fellowship is not given to one who is not already licensed to practise, but his licence may be of the lowest order, and on the strength of this, with the addition of the most easily obtained testimonials, he is admitted by a ballot vote to the Fellowship. This Fellowship once obtained, no matter how—and here is the serious and substantial error in the College's representation,—it becomes an actual qualification for some of the most responsible parts of medical duty. It is a *sine quâ non* in regard to the surgical appointments, for example, of the London hospitals; and it is a matter of notoriety that the Fellowship of Edinburgh is taken, not from any interest in the affairs or government of the College, but as a qualification for hospital appointments. Is it not

misleading, to the public at any rate, to say that this is not a qualification, and that it is not a higher degree? Can there be a more unfair use of a high title than to disconnect it from the examinations with which in the sister Colleges it is associated—unfair to the public who are misled by it, and unfair to the great bulk of practitioners who, with their ordinary titles, gained by passing respected examinations, are placed at a discount? We maintain, then, that the Fellowship is virtually a qualification, and that it is very unfair to grant it on the strength of a mere licence to practise, backed by testimonials which anyone can get who has shown reasonable compliance with the Decalogue. Is there any more force in Mr. SPENCE's argument, that to withhold a Fellowship, except on terms of extra study and education, is to hinder a young man's progress, and is going beyond the right of Corporations? Does the Edinburgh College itself not hinder a young man by saying that he shall not have the Fellowship till he is twenty-five, and that he shall not have it till he has paid a large sum for it? Mr. SPENCE condemns one part of his argument by the other part. He says that a young man is licensed to practise apart from the Fellowship. How, then, is he hindered except in regard to those appointments for which, as we have shown, the Fellowship is an actual qualification, which Mr. SPENCE says it is not. As Mr. SPENCE's first two arguments crumble to pieces on close handling, the strength of his convictions must be looked for in his third, the dwindling condition of his college. The accounts of the College given in the Blue-book show that the granting of Fellowships is a growing and lucrative business. Since 1876 the College has got £4325 for its Fellowships. This is pure profit, be it remembered, and involves no outlay on examinations. In that year it received in fees from Fellows £675, but in 1880 the sum had gone up to £1100. This sum, added to the other fees, got from those who take the single, but especially the double qualification, relieves the College of all feelings of wasting, and explains the tenacity with which the system is defended. We cannot conceal, however, our regret and surprise that it should be so defended, and we cannot withdraw our conviction that a Fellowship so given and so used is a bogus Fellowship that will not bear examination, and will never command respect.

PROBABLY no one who has personally observed the working of the Contagious Diseases Acts questions their value, either from a sanitary, a social, or a moral point of view. There may have been instances of maladministration at the outset, when the Acts first came into operation; though it must be confessed we have never seen a tittle of evidence that even passing inconvenience was ever inflicted on an individual who did not lay herself or her conduct open to misconstruction by the officers charged to enforce the law. If, however, there had been cases of mistake and wrongful apprehension, that would in no way affect the question of public expediency, or qualify the fact that the garrison towns wherein these Acts are in force are no longer, as they once were, hotbeds of vice, forming poison-centres for the whole country, and demoralising the entire community. The contrast apparent between the present state of such towns as Portsmouth, for example, now as compared with thirty years ago, is as the difference between light and darkness—

between a baited trap for the youths and men who had occasion to pass through that town, or perhaps reside in it for a while, and a place where it is not only possible, but easy, to live a life of purity, because vice is no longer allowed to flaunt its false colours in the streets, and the stewards of immorality are kept out of sight, and must be wilfully sought by those who are bent on ruining soul and body alike.

We do not yield a single point to the opponents of these Acts in the score of interest for the welfare of the women themselves. A great deal of arrant nonsense is talked and written about "seduction" and the "betrayal of virtue." Practically, not a tithe of the young women alleged to be led astray are so conducted into the paths of vice. They are either directly trained to evil practices, or their youth is so mismanaged by prudish or ignorant though well-meaning relatives that they go wrong of their own innate wilfulness or depravity. Meanwhile, it is a fact which cannot be gainsaid that where the Contagious Diseases Acts are in operation the path of sin is neither so secret nor so inviting as that which lies open elsewhere. If anyone with a particle of moral instinct will take the trouble of walking through Hyde-park, say from the Marble Arch to Apsley House, down the drive to Albert-gate, and thence across by the cab route to Victoria-gate, and back to the point from which he started, between ten and eleven o'clock any dark but fairly fine night, he will not only cease to doubt the need for police supervision, or to question the wisdom of retaining these Acts where they are already in operation, but he will recognise the policy of extending the Acts to the entire country. We do not for a moment assume that all, or even a large proportion, of the young women who are to be seen misconducting themselves in the parks are actually abandoned. We venture no opinion on that point; but of this we are sure, that if the Contagious Diseases Acts were in operation in London the great majority of these women would be prevented or deterred from parading their seeming lack of decency in a way which distinctly tends to the increase of the evil it is desired to limit and repress. For the sake of the female population as well as of the male, and particularly for the multitude of young persons who are on the brink of an abandoned life, the extension of the Acts is most earnestly to be desired.

Of course no doubt has ever existed as to the value of the Contagious Diseases Acts from a health point of view. The opponents of the Acts have never, so far as we are aware, dared to question this phase of the issue. On the contrary, they adroitly contrive to wrest the fact to their advantage, by contending that we are reducing the penalties of wrong-doing, and thereby playing into the hands of transgressors of the moral law. This is the so-called "religious argument." A truce to so base and blasphemous an abuse of the sacred name of religion. As well might it be contended that by promising forgiveness to the worst of malefactors, and extending His mercy to the Magdalens of the city in His day, the Founder of the Christian religion "offered a premium to vice." This is precisely the line of reasoning adopted by the Pharisees when they marvelled whether the SAVIOUR knew what sort of woman she was who washed His feet with her tears and wiped them with

the hair of her head. The Master had no such scruples as those which cripple the charity and pervert the judgment of the opponents of the Contagious Diseases Acts. He went about doing good, even though by so doing He was classed as the friend of sinners. The supporters and promoters of these Acts, among whom we expressly declare ourselves, both on medical and moral grounds, must be content to be misrepresented. We do not wish to smooth or straighten the path of vice, but we desire to clear it of its traps and to facilitate the recovery both from disease and from vice of those who are lured or wilfully stray along that path. We are convinced that the Acts are of high social and moral value, and we would earnestly and warmly endorse the demand which is about to be made to the Legislature for their confirmation and extension.

SOME recent letters in *The Times* have drawn attention to certain obvious discrepancies between the analyses of London water presented monthly to the Registrar-General by Professor FRANKLAND, and those made on behalf of the Water Companies by Messrs. CROOKES, ODLING, and TIDY. These discrepancies are not very great. They relate mainly to the suspended matter, or, in other words, to the turbidity of the water; Professor FRANKLAND frequently recording turbidity due to imperfect filtration at times when the other chemists find the same water clear. The integrity of all the chemists concerned is above suspicion, and although some small allowance may fairly be made for bias due to previous experience or preconceived views, it is probable that the differences arise mainly from the circumstances under which the samples are collected.

A vast improvement has taken place during the last few years in the quality of the water supplied to London by the Companies who enjoy the monopoly. At one time much of it was exceedingly bad. Successive epidemics of cholera were proved to have been propagated by the contamination of the water-supply by the excreta of cholera patients. Elaborate inquiries were instituted, and the result has been that the Water Companies have been forced step by step into the adoption of better methods of collection and filtration; while the sanitary authorities of the basins of the Thames and Lea have, sometimes after protracted resistance, been compelled to divert raw sewage from the rivers which furnish the main supply of the metropolis. At the present moment the water-supply of London is fairly, though not perfectly, satisfactory. No extensive sewage pollution is permitted, and the Water Companies, stimulated by a wholesome fear of penalties, have expended large sums in storage-reservoirs and filter-beds. Probably nearly all that can be done with water drawn from rivers which form the natural drainage of thickly populated and highly cultivated districts has been done, and Londoners may well be thankful for the great improvement which has been effected.

Among those to whom this beneficial change is due, Professor FRANKLAND occupies a foremost place. Dr. JOHN SNOW first showed the activity of water in carrying the germs of zymotic disease. Mr. SIMON, Dr. FARR, Mr. NETTEN RADCLIFFE, and many others, did good work in confirming the theory and rousing public interest in the subject. But until Professor FRANKLAND took the matter in hand no satisfactory means of analysing doubtful waters

was known. His elaborate method of analysis by combustion is now used by all careful chemists. It tells us, with wonderful exactness considering the difficulties, the quantity of organic carbon and nitrogen contained in water. This, with a knowledge of the ammonia, chlorine, nitric and nitrous acids, suspended matter and total solid matter in the water, a determination of the oxygen required to oxidise the organic matter, and a careful microscopic examination, enable a very fair judgment to be formed, not only as to past history, but as to present condition. Professor FRANKLAND has done all this, and more, for the London waters for many years. His views have throughout been consistent, and they are now pretty generally accepted by chemists, as well as by the medical profession. His numerous and elaborate analyses have been tabulated with great care, and many sound generalisations founded on them. They show with great distinctness the progressive improvement to which we have referred.

At the present moment, then, we agree that there is not much fault to find with the London water-supply. If sewage can at all times be excluded and if we are sure that the filtration shall at all times be perfect, or nearly perfect, there remains only the objection that the water is, after all, to a great extent land drainage and the drainage too of land highly cultivated and thickly populated. This objection, although real enough, is not sufficient in our opinion to condemn the water, for there is no evidence that it points to any distinct mischief as a practical consequence. But we confess that we cannot as yet feel much faith in the arguments or statements of the water companies. With regard to the Thames, particularly, the watershed is so great, and pollution, in spite of prohibition, so easy, that complete confidence would, we believe, be credulity. It cannot be too often repeated that the chief danger of a water arises not from its usual but from its accidental and occasional pollution. The mere quantity of organic matter, however accurately indicated by analysis, is but a slender guide after all. The evacuations of a single cholera or typhoid patient would be a far more dangerous contamination than the healthy excreta of an hundred people. From such dangers as this persons who drink Thames water can never be wholly free. We have no wish to exaggerate the risk, but to forget its existence would be foolish and wrong. Our readers, who are so often face to face with the subtle zymotic poison, are not likely to ignore it, but it is right that it should from time to time be brought before the notice of the public.

M. DUVAUX, Minister of Instruction in France, has issued a circular addressed to the directors of lycées upon the subject of the kind and extent of the teaching best adapted to the minds of the youthful pupils under their charge. In this circular the system hitherto for the most part in vogue of cramming the memory with dates and dry facts is deprecated, whilst the professors are enjoined to devise methods which shall be calculated to draw forth the intelligence of the learners and foster their thinking powers. The "*enseignement*," which is published in *La Semaine Française*, is eminently judicious, and worthy the attention of all who are engaged in the training of youth.

THE death is announced of the celebrated chemist, Professor Wöhler, of Göttingen, at the age of eighty-two.

## Annotations.

"Ne quid nimis."

### TREATMENT OF THE WOUNDED IN EGYPT.

WE are in a position to contradict the statements which have been made regarding alleged inadequacy of the arrangements for the succour of our wounded at the storming of Tel-el-Kebir, on Sept. 13th. A medical eye-witness, not a member of the Army Medical Department, but attached, during the engagement, to the advanced field hospital, writes as follows:—"In the early morning Tel-el-Kebir had fallen, and we pitched our tents by the canal. We had been out of range of infantry fire, but were exposed to shell fire, especially when the Egyptians caught sight of the siege-train, which advanced consecutively with us and on our right, previous to our taking up a fixed position. About 10 A.M. the wounded began to pour in, and we set to work, operated and dressed until thoroughly exhausted. By 1 o'clock or earlier they were comfortably settled in the boats and horse-boxes ready in the canal, and gently towed down the canal to Kassassin, and others were sent on in the afternoon and evening. I accompanied the boats in the evening, and returned to Kassassin. There I dressed all the wounded officers with antiseptic dressings, and then went on in charge of a team of wounded to Ismailia. Since then some 400 wounded have passed through our hands at the base hospital, and the work has been enormous. However, every one has put his shoulder to the wheel, and the rapidity and comfort with which the wounded have been brought from the field to Kassassin, thence to Ismailia, and finally to the *Carthage, Courland, and Orontes*, have been beyond expectation. As for the base hospital, I must say that the arrangements, ventilation, and surgical work, would do credit to any London hospital." This statement is substantially confirmed by our special correspondent in Egypt, who telegraphed from Alexandria on Wednesday last that "the medical service was working admirably in spite of almost insurmountable difficulties." It must not be forgotten that in this expedition everything was subordinated to the military exigencies of the campaign; it was imperative that the troops at Ismailia should be pushed to the front with the least possible delay; transport being almost nil, the advancing column outmarched all supplies; the sick therefore of necessity suffered with the rest; but the field hospitals were sent forward with all speed, and medical aid for the wounded was available almost as soon as the casualties occurred. The exertions and risks of the Medical Department have been equal to those put forth and encountered by other branches of the Service. We cannot but deprecate hasty and unfounded aspersions being cast on the medical service because the horrors of war entail of necessity some suffering and privation on the sick which are not experienced in times of peace. This fact is, we fear, too often forgotten when the excitement of battle is over.

### SANITARY INSTITUTE OF GREAT BRITAIN.

IN his presidential address to the Sanitary Institute of Great Britain, at Newcastle-upon-Tyne, Captain Douglas Galton impressed upon his audience the necessity for securing cleanliness in all the conditions affecting communities, if a high state of public health was to be attained. Many years ago Mr. Simon laid down the rule that uncleanness is the chief cause of removable disease, and Captain Galton in an interesting review shows how fully recent researches have confirmed that view. Organisms capable of producing disease find the conditions favourable to their development in ill-drained and ill-scavenged towns, in water services and water receptacles exposed to filth, in over-

crowded courts, yards, and dwellings, and in water-logged and marshy soils. Hand-in-hand with the removal of conditions bringing about want of cleanliness of air, soil, or water, there has been a well-marked improvement in health and in preventable mortality, and many striking examples of this were brought under the notice of the Congress. The removal of infection from amongst a people is closely allied to the removal of the filth by which that infection was produced or spread, and hence the experience obtained as to compulsory notification of infectious diseases, and the isolation of the sick by sanitary authorities, found an apt place in the address. Many of the details entered into as to the results of the provision of proper means of sewerage in towns heretofore unhealthy, of securing the utmost possible cleanliness in the air breathed by mechanics and others, and of measures conducing to cleanliness of person and of house, are of considerable interest, although some of the inferences must be regarded as a little strained. Thus where the influence of smoky air on health is illustrated, comparison is drawn between the death-rate in twenty-three large manufacturing towns and that in the rural districts of Wilts, Dorset, and Devon; whereas it must be obvious that many other influences, and some of these of far more importance than the condition of the atmosphere as regards smoke, must have contributed to the results quoted. There is also one portion of Captain Galton's address which, in our opinion, exhibits a departure from the general principles he elsewhere lays down; and that relates to his remarks as to water-supply and the pollution of rivers. Captain Galton would evidently advocate wholesome water, and he deplors the delay in the enforcement of the provisions of the Rivers Pollution Act, but in almost the same breath he says that where a country is sparsely populated the question of the pollution of streams is comparatively unimportant, because a primary dilution with sewage will probably be rendered innocuous after a "run of a certain number of miles," the actual distance being admittedly indefinite; and he then goes on to express the opinion, with regard to waters so contaminated, that "there has never been a well-proved case of an outbreak of disease resulting from the use of drinking water, where the chemist would not unhesitatingly on analysis have condemned the water as an impure source." That this statement is not based on trustworthy evidence we have shown elsewhere in an annotation as to the Bangor water-supply; and we must further add that the implied consent which is here given to the fouling of water-sources and of rivers which may be resorted to for drinking purposes, in the anticipation that no harm will come of it, is in direct opposition to the contention which elsewhere pervades the address, and which is to the effect that all preventable causes of sickness and death should be done away with in the interests of public health.

### BANGOR FEVER AND THE WATER-SERVICE.

THERE is every reason to believe that the Bangor epidemic has acquired a firm hold on that town and its immediate vicinity. The fear which we expressed in an early stage of the outbreak to the effect that though the immediate cause of the disease had probably been arrested by the action taken at the intake of the water-service, a further spread might be anticipated owing to the houses being in unbroken communication with an ill-ventilated system of public sewers, has become true to an extent which ought to act as a warning to other towns with similar drainage defects, the disease having already attacked over 500 persons. It is much to be deplored that the Local Board of Health set their own opinion against that of their medical officer of health, and declined to accept his view that water pollution was the real cause of the outbreak. Had they at the first onset acted on the advice of their proper adviser in such matters

much sickness and distress might have been avoided. Their action, however, towards Dr. Rees was singularly unfortunate, and it placed him at the moment in a position of great difficulty. Even before the opinion he had expressed as to the cause of the disease was confirmed by Dr. Barry, Dr. Rees strongly maintained the position he had taken up, and this notwithstanding much opposition from those who were ignorant of the subject they were attempting to deal with, and we fully concur in the resolution of sympathy which was unanimously accorded him by the North Wales Branch of the British Medical Association at their recent meeting in Rhyl. We cannot but regret that an effort is still being made to evade the real question as to the infective property possessed by the water-supply at the commencement of the epidemic, and that one branch of science is by some persons being pitted against another for this purpose. We have no wish to undervalue the services of the chemist in connexion with public health inquiries, but it cannot be too widely understood that the results of a chemical analysis of a few samples of water taken from such a source as that at Bangor at a given date or dates can have but little bearing on the question as to whether any portion of the water delivered to the town had or had not on certain occasions, and these different from those at which the samples were taken, received some property for harm from an infected source. Indeed, chemists of high standing fully admit themselves as incapable of detecting such a poison as that of enteric fever, even when it is known to be in a given sample of water; and Dr. Frankland has stated that he has himself mixed the evacuations of a patient dying of cholera with a good water, and having submitted the sample to analysis he has "been unable to detect anything unusual in the water." "Chemical analysis," he goes on to say, "is unable to detect these small quantities of morbid matter which are calculated to transmit disease to people drinking the water." We would urge the Bangor sanitarians to get rid of all possible sources of pollution to what may be made an excellent water-service, and then they need not trouble themselves as to whether foul matters gaining access to the supply can or cannot be detected by one or another method of scientific research.

### METROPOLITAN BAKEHOUSES.

A GOOD deal of attention has recently been given to the condition of bakehouses in the metropolis. Until the year 1878 all London bakehouses had been under the control of the vestries, and, working under the provisions of the Bakehouse Regulation Act, the officers of the sanitary authorities had effected considerable improvements in these places. That all bakehouses were in a satisfactory condition no one could pretend to say; they were to a large extent in the occupation of Germans, who were not noted for habits of personal cleanliness, and the powers conferred by the Bakehouse Regulation Act were not sufficient to enforce as perfect a sanitary condition as those who eat bread would wish to find in the places where the bread is made. But in 1878, instead of strengthening the limited powers which the Act conferred upon the vestries, the whole Act was repealed, and its clauses transferred to the Factory and Workshops Act of that year. By this change the duty of inspecting bakehouses was made to devolve upon the factory inspector, but by the repeal at the same time of certain words in the Nuisance Removal Act, a bakehouse under certain circumstances became a nuisance with which the sanitary authorities could deal, but their right to visit every bakehouse because it was a bakehouse was lost. Their duty, however, does not appear to have been clearly understood; in some districts the vestry inspectors visited as before, while in others it was thought that these officers had no more control over bakehouses than over

dwelling houses. This point was decided in the early part of the present year, when the bakers in Clerkenwell refused to admit into their bakehouses the inspectors of the vestry of that district. Appeal was then made to the Home Secretary, with the result that an opinion was given that the bakers were right in their interpretation of the law, and that the officers of the sanitary authority had no right of entrance unless a nuisance existed on the premises. The subject was then brought before the Society of Medical Officers of Health by Mr. Shirley Murphy, who pointed out that in his own district in St. Pancras only about one-third of the bakehouses had been visited by the factory inspector since the passing of the Factory and Workshops Act in 1878, and that there was urgent necessity for the registration of bakehouses, and their control by the vestries under proper regulations. On that occasion several other members of the Society stated that the bakehouses in their districts had not received more attention than those of St. Pancras, and on Dr. Bristowe's suggestion it was decided to make a definite inquiry on this point. Shortly after this meeting a report by Mr. Lakeman, an inspector under the Factory and Workshops Act, brought before the public a number of unsavoury details concerning the condition of these places, and he expressed the belief that his visits would remedy the evils complained of. How this is to come about we do not know. The reports of Dr. Bristowe, Dr. Tidy, Mr. Liddle, and Mr. Murphy show clearly enough that the visits of Mr. Lakeman and his colleagues are not sufficiently numerous to have any control worth the name over the three or four thousand bakehouses situated in the metropolis; indeed, the change of authority is apparently responsible, at any rate in some degree, for the very nastinesses of which Mr. Lakeman complains. The relation existing between the condition of the bakehouse and the health of the public is sufficiently close to warrant the sanitary authorities in claiming some power of control over the former. It is indeed a matter of surprise how this control ever came to be lost. Our metropolitan sanitary authorities are not perfect bodies, but there is sufficient evidence that inspectors under the Factory and Workshops Act are unable to deal with this subject in a satisfactory manner. The best course will be, therefore, for bakehouses again to come under the control of the vestries, who should have increased powers to deal with them.

#### THE GERMAN APOTHECARIES' CONGRESS.

THE Union of German Apothecaries numbers 2755 members, who are distributed throughout all parts of the empire, and who have in most cases, for local purposes, their own separate organisations affiliated to the central body. This Union has held at Berlin during the present month its eleventh annual congress. Amongst the matters of interest brought forward was the action which has been taken by the Mecklenburg Apothecaries' Union in conjunction with the Mecklenburg Medical Society for the purpose of restraining the sale of advertised specifics. Reference was made to the new edition of the Pharmacopœia Germanica, which contains many changes as compared with older editions; a work is in preparation which will give a summary of these changes. Professor Reichardt, of Jena, furnished some interesting details as to volumetric analysis according to Gay Lussac's system, with special reference to the testing of preparations connected with pharmaceutical chemistry. He remarked that volumetric analysis combines the use of measures with chemical analysis, and has certain advantages over analysis by weight, from the fact that it does not depend upon the exactness of the scale and the skill of the analyser, but upon the visibility of a reaction much more easily observable than is the case with other methods. The funds of the Union amount to about £13,000. There are

thirty stipends of £7 10s. per annum granted from the pension fund, and an extension of the pension list from another branch of the revenue of the Union is in contemplation. Out of the general fund for the maintenance of the families of deceased apothecaries the estimated annual grants for 1883 are 100 in number, amounting in the aggregate to £800. The question of the employment of persons without any pharmaceutical training as salesmen in chemists' establishments was discussed, with reference to the regulations introduced this year by the Government of Saxony. It was agreed that such a step was both unnecessary and unadvisable in the interests of the safe exercise of the apothecary's calling, and that if adopted it would lead to further evils by the fact that persons would be introduced into the calling who might afterwards be found injurious to it. Dr. Tschirch read a paper upon micro-chemical methods of reaction in the service of technical microscopy. Dr. von Waldheim, of Vienna, reported upon the progress which has been made in the preparation of a Universal Pharmacopœia. An international commission of thirty-two delegates (from Europe and America) has been engaged in the task. Its object is the publication of the formulæ of those simple and compound medicinal substances respecting which, on account of the potent nature of their component parts, it is in the interest of the public that when prescribed by a physician of any country they should be dispensed of the same quality and strength by any apothecary in the civilised world. The questions of deodorisation and disinfection were discussed by Dr. Franke of Charlottenburg in an exhaustive paper, which completed the programme. Wiesbaden was chosen for the next annual congress.

#### THE EMPLOYMENT OF TOBACCO.

IT is probable that no physiologist would contend that tobacco in any form is essential to the well-being of the body. Thousands of healthy men and the vast majority of women never touch it; yet it is certain that its use is becoming daily more frequent, and that when once introduced into a country it is almost hopeless to eradicate the taste for it. It is clearly not necessary for the exercise of the highest intellectual powers. Dante and Chaucer, Michael Angelo and Raphael achieved their triumphs without its aid; and no encomium of its virtues will be found in the wise sayings of Sancho Panza or in the pages of Shakspeare; nor have we any record that Milton composed under its influence, unless, indeed, a habit of smoking in bed led to his not very clearly explained connubial disturbances, and to his tart treatise on divorce. Be this as it may, the eagerness with which it is sought after by its devotees, who allow neither manners, nor the presence of ladies, nor the comfort of others to interfere with their enjoyment, the distress that is occasioned by a temporary failure of the pernicious weed; the difficulty with which the habit of smoking once acquired is broken—indicate clearly enough that it supplies some want in the economy or exercises some influence on the system which cannot be replaced by other means. To many men a poison, to others tobacco is the very staff of life, and to be without it is the extremity of misery. Enforced abstinence from it is to many a convict the severest part of his sentence, and the cunning and deception, as well as bribery, employed to effect its introduction into prisons are well known. An amusing address has lately been delivered by M. Bouley to the Société contre l'Abus de Tabac, on the economical and hygienic aspects of the use of this narcotic. The total value of the tobacco smoked in France amounts, he tells us, to no less than 352,538,000 francs, nearly eighteen millions sterling, which immense sum represents the increase in the taste for tobacco since the year 1830, when this singular habit took its origin from the leisure of the Corps de Garde after the



restoration of the National Guard suppressed by Charles X., M. Bouley points out how smoking has effected an intellectual separation between men and women, conversation being no longer maintained after dinner as in his earlier years. The men are anxious to smoke, and the ladies retire early, to the great detriment, in his opinion, of the mental faculties of both sexes. He is reminded by the present condition of things of Voltaire, who, when condoled with by Piron on the ill-success of one of his comedies, ventured to say, "Well, at any rate, they didn't hiss it." "No," replied Piron, "How could they, when they were yawning all the time?" In France the State promotes smoking, since each soldier receives, every ten days, 100 grammes of tabac de cantine, on payment of the extremely moderate sum of fifteen centimes. It is given in the belief that it constitutes to some extent a substitute for food and affords relief to, or at least prevents grumbling at, the monotonous character of the diet. As long ago as 1854, Marshal St. Arnaud, when at Varna, wrote to the Intendant of the War Department: "Have you sent tobacco for the troops? It is very important, for tobacco is undoubtedly the best means we possess to prevent attacks of nostalgia and to alleviate the miseries of the bivouac." General Brack, again, in his "*Traité des avant Postes*," strongly insists that a taste for smoking should be cultivated in the light cavalry, on the ground that it keeps him awake, employs spare moments that would otherwise be employed in thinking, and keeps him near his horse, which he sees has its forage and is not abused. "How comforting it is," he adds, "in the early morning; it drives away sleep and renders the rain less cold, thirst less severe." The pipe, again, demands a steel and some tinder, and the implements for the production of the bivouac fire are therefore always at hand. But there is another side to all this. Dr. Blanchet, an army surgeon, writes that "constant association with the soldier, and inquiring into the effects of smoking, has taught him that the illness of many men is to be traced to the abuse of tobacco alone. Ulcers on the lips, in the mouth, on the tongue, in the nose, necrosis of the maxillary bones, are not uncommon results of its use. Others suffer frightfully from gastralgia, gastritis, and enteritis; others from vertigo, mental debility, and even transient attacks of mania." Who is in error here, the general or the surgeon? What have our English surgeons to say to it? In moderation, as Sir B. Brodie said long ago, it probably acts as a calmate to the nervous system, especially when in a condition of excitement and worry, and its abuse only should be deprecated.

### THE POVERTY THAT HIDES.

THE poor are always with us, and yet we know them not. The poverty that parades its needs and is perpetually asking for "relief" is not the real indigence that true humanity should be most solicitous to help. It is the poverty that hides which the genuine philanthropist should search out and succour. In this great city there are thousands who know the bitterness of unsatisfied hunger, who endure the misery of that most blighting of all cold, the chill of starvation; who suffer torments of mind-worry and wretchedness; and who are, in short, dying of destitution while they keep up an external appearance of respectability and even of content. Medical men who are admitted to see life stripped of its tinsel, especially those who have to deal with the mental phases of human nature at close quarters and in its weakest moments, when pretence is no longer possible, have this hidden poverty brought painfully home to them. The outside public has no conception of the extent and depth of the impecuniosity that prevails, and the bitter aching void that is unsatisfied. We pity the so-called "starving poor": Heaven help the starving "well-to-do" and even seemingly "wealthy"! It is a grim fact that there are at this moment

members of the professions, tradesmen, clergymen, and educated persons of all classes and grades of society, who are poorer and more at a loss how to feed themselves and their families than the average "poor" upon whose recognised needs society is wont to exhaust its charity. Would that there could be a "secret service fund" managed by a committee of trusted philanthropists who would not need to publish their doings to the world, and who had the wisdom to conduct their mission of mercy with the tact that genuine benevolence always demands. The sufferers of whom we are speaking, and for whom we would plead, not only affect, but feel, that pride in life that absolutely deters them from making their circumstances known. They would, and do, die rather than confess the urgency of their poverty. When we read of cases of "starvation" that attract notice by the finding of coroners' juries, and disclosures made before the magistrates, we wonder how many in this ostentatiously charitable community of ours even suspect the existence of the poverty that hides.

### THE INFLUENCE OF SMALL-POX HOSPITALS.

IN connexion with this subject, which we commented on last week, we learn that some important experience has been acquired at Rochdale. Small-pox became epidemic in the borough during the latter half of 1881, and by the first week in December as many as 440 cases had occurred in 310 houses. At that date a disused workhouse was taken over by the corporation as a small-pox hospital; 163 patients were admitted at intervals, and soon after this a series of complaints were addressed to the Local Government Board by persons residing in the vicinity of the hospital, to the effect that a marked spread of the disease had been brought about in the immediate neighbourhood of the hospital buildings. Dr. Thorne Thorne was instructed to make inquiry into these allegations, and his report has been forwarded to the corporation. The inquiry instituted consisted partly in a detailed investigation of the circumstances of the outbreak, and partly in a public inquiry with a view of eliciting all available information on the subject. The report traces the course of the epidemic during the twenty weeks ending April 29th, 1882, and during which any injurious hospital influence might have been in operation; and it compares the incidence of the epidemic on the various parts of the borough during this period with that which obtained during the prevalence in the twenty-six weeks before the use of the hospital. In order to secure accuracy in this comparison, the corporation, at Dr. Thorne's suggestion, paid a fee to all medical practitioners in and around the borough with a view of securing a return of all cases of small-pox which had occurred. As the result, it appears that 310 houses, out of a total of 17,000 in the whole borough, were attacked before the hospital was established, and 334 after it came into use. The rate of attack per 100 houses was, however, remarkably different, in point of locality, during the two periods in question. Before the hospital was provided it was 1.82 for the entire borough, and 0.36 in 827 houses lying within a quarter of a mile of the then empty hospital buildings; but after the hospital came into use the percentage of houses attacked within the quarter-mile area rose to 5.66 as opposed to 1.96 for the whole borough. In other words, to quote Dr. Thorne's report, "Whereas the rate of incidence upon the borough as a whole remained much the same during the two periods, it was more than fifteen times greater on the houses lying within a radius of a quarter of a mile round the hospital after that building was used for the reception of cases of small-pox than it had been before." It is further shown that this rapid diffusion of the disease in the vicinity of the hospital during the period referred to was not due to any general extension of the infection in that direction, but that it occurred quite independently of any such

cause. The details of hospital administration appear to have been so exceptionally lax that it became impossible to discriminate between the several methods by which influence for harm might have been brought about; and it is implied that in the face of so many obvious sources of uncontrolled personal infection which were allowed to come into operation, no conclusion could be arrived at as to whether any, and if so how much, of the injurious influence could have been brought about by aerial conveyance. The report, however, shows distinctly that the aggregation of large numbers of small-pox patients in the neighbourhood of dwellings is, from some cause or other, attended with results which do not follow on the isolation of patients suffering from the other infectious fevers.

### THE TREATMENT OF ENLARGEMENT OF THE SPLEEN.

INJECTION of drugs into the substance of the spleen has been lately tried as a means of obtaining a reduction of the bulk of the organ in cases of hypertrophy. Hammond obtained a rapid reduction in size by the injection of ergot. Kussmanl, of Strasburg, endeavoured to lessen the size of the organ by simple puncture with a large needle, hoping thus to produce a hæmorrhagic infarct which might cause some atrophic shrinking, and by repetitions of the process a considerable reduction in size of the organ. The result, however, disappointed his expectation, for no marked effect was produced by fourteen punctures. Galvano-puncture was tried four times, with no better result. A parenchymatous injection of 1 gramme of sclerotic acid was made, and death followed in six hours. At the autopsy, no trace of hæmorrhagic infarct could be found in the organ; only around one of the punctures was there a reddish zone. The patient was suffering from leucocythæmia, and, whether death was caused by the sclerotic acid or not, the lesson is certainly taught that injections should be made into the substance of the spleen in that disease with extreme caution. Mosler, of Greifswald, has tried injections in other forms of enlargement with success, but prefers Fowler's solution to ergot, and has found those cases most suitable in which the spleen is hard. He thinks it well, also, to apply ice to the splenic region for some hours before an injection is given. A remarkably good result has been reported by a St. Louis physician, Dr. Emanuel, of the internal use of ergot. The patient was a gentleman forty-three years of age, whose spleen was so much enlarged as to fill almost the whole of the abdominal cavity. It was firm and tender, and the patient affirmed that the swelling had existed for two weeks only. There was no history of malarial disease. Thirty drops of Squibb's extract of ergot were given three times a day, and the dose gradually increased to sixty drops. In three days the spleen had lost much of its hardness, although its size remained nearly the same. A week later, however, it was distinctly smaller; every day the diminution went on, and in a few days more the spleen was reduced to nearly the normal size.

### THE PROTECTIVE POWER OF VACCINATION.

ANTI-VACCINATIONISTS have been desirous to find in the interesting quarrel which is now going on in Switzerland between the Cantons and the Federal Council evidence of the growth of an increased objection not only to compulsory vaccination, but to vaccination itself. It has, however, been clearly shown that the dispute which has arisen has really no reference to vaccination at all, but is simply an unwillingness on the part of the Cantons to allow the Federal Council to legislate on subjects which have until recently been solely under the control of individual Cantons. There is, therefore, nothing in recent events in Switzerland to lead to the belief that vaccination is less valued than formerly.

That public opinion should not be equally strong upon this or any other subject in every part of Switzerland or England is no matter for surprise, but the question of the extent to which individuals are protected against small-pox is one which does not alone concern the particular town in which they are resident, and cannot therefore in our country, where the railway gives such ample opportunity for the communication between one town and another, be wholly entrusted to local authorities. A correspondent, Dr. Mitchell, writing from Meudon in France, urges that the real issue involved in the difference of public opinion with regard to vaccination is, whether vaccination really protects, and he offers to join in an experiment by which he and an unvaccinated person shall submit to the inoculation of small-pox. In a letter to *The Times* some two years ago, Dr. Cory pointed out that this was the simplest way of proving by direct experiment the amount of protection afforded by vaccination. There are legal difficulties in the way of intentionally carrying out this proceeding in England, but the unintentional inoculation with small-pox matter of vaccinated attendants in small-pox hospitals is a matter of daily occurrence; and although an occasional local abscess is produced, the fact that these people escape small-pox is well known. It can hardly be expected that people who are unwilling to accept this evidence, which is constantly before their eyes, will be convinced by other experiment, however definite in character it may be.

### CHLOROFORM CATASTROPHES.

TWO fatal accidents in the administration of chloroform have recently been added to the list of the lamentable records of chloroform catastrophes. They were very different in character, and one of them ought not, in fairness, to be attributed entirely to the anaesthesia. This was the case of James Butterworth, who (as the inquest held on him on September 2nd showed) was admitted into St. Bartholomew's Hospital with fracture of the jaw. Death occurred during the administration of the chloroform, but at the post-mortem it was found that the larynx had been injured, and that there was extravasation at the base of the tongue, and accumulation of blood in the trachea. In the second case the death occurred at the London Hospital on September 4th, also during administration. In this instance cancer of the tongue was the disease for which the operation was intended. The death in the first of these cases was evidently largely due to asphyxia, and we should be inclined to excuse chloroform as the destroying agent, while we should admit that for the particular operation it was a better agent than ether. In the second case the phenomena were those purely of chloroform death during the stage of excitement and muscular contraction. There were the usual sudden arrest of the heart, lividity of the face, cardiac apnoea, and collapse.

### THE NOTIFICATION OF DISEASE.

THE following resolution has been passed at the meeting of the Social Science Association by a majority of forty-one to sixteen:—"That this department considers it highly desirable in the public interest that the Legislature should at the earliest opportunity pass a general enactment for the compulsory notification of infectious diseases, on the principle of the Bill introduced into the House of Commons in the past year by Mr. Hastings." The subject was introduced by Mr. W. H. Michael, Q.C., who condemned the opposition of certain members of the medical profession to the proposed immediate notification of disease. Dr. Littlejohn, of Edinburgh, strongly supported the system practised in Edinburgh, of which he said there were no complaints. The law there requires that every medical practitioner practising within the burgh shall, within twenty-four hours

of the same coming to his notice, report to the medical officer of health every case of cholera, typhus, typhoid, diphtheria, small-pox, scarlet fever, and measles. The duty is thrown on the medical man alone. This view was opposed by Dr. Brookhouse of Nottingham, Dr. E. Whittle of Liverpool, Dr. Jacob of Dublin, and others. Dr. Cameron, Medical Officer of Health for Dublin, Dr. Alfred Hill of Birmingham, Dr. Ransome of Nottingham, Dr. Hatherley, and others supported notification with qualification. We adhere to our opinion that the duty of intimating should devolve on the parent or householder. But we must enter our protest against the piecemeal way in which this principle is being put into legislative force by furtive insertion in local Bills. If the notification of disease is to be of any use, it must be made universal and compulsory, and if the State or any local authority insists on restriction of business and isolation of cases, it must be prepared to compensate.

### ISOLATION AND PAUPERISM IN THE METROPOLIS.

NOTHING can be more unfortunate than the intimate connexion which, in the metropolis, exists between the isolation arrangements for infectious diseases and pauperism. The other day a man who lived in the Southwark-bridge-road, and who occupied a single room with his wife and two children, applied to the magistrate for help in the removal to hospital of his wife, who was suffering from small-pox. He was referred to the relieving officer, and after a day's delay he returned to explain that, as he was not a pauper, the officer in question would have nothing to do with him. Next came the statement of the vestry sanitary inspector, who said he could remove no one unless four guineas were forthcoming, and the vestry, he alleged, had no funds to meet such cases. Anything more disgraceful can hardly be conceived, and the magistrate was well within the limits of propriety in calling the whole affair "monstrous." The vestry is the sanitary authority for the district; one of its principal duties is to care for the public health within the limits of its jurisdiction; the inhabitants of the district are rated for this very purpose; and yet here we have an officer of that sanitary authority disclaiming all responsibility when a patient is lying ill of small-pox in what is described as a "densely populated neighbourhood," and needs removal to hospital in order to save the spread of infection to other members of the community. Well may London demand some alteration in the arrangements for its local government in matters concerning public health.

### THE SOCIAL SCIENCE CONGRESS.

THE twenty-fifth session of the National Association for the Promotion of Social Science has come and gone. In the Health department papers of more or less interest and importance have been read, amongst which may be enumerated the following:—Infant Mortality, by Mr. T. M. Dolan; Administration of Hospitals, by Dr. Gilbert Smith; Small-pox Epidemics as affected by the states of War and Peace, by Dr. William A. Guy; Notification of Infectious Diseases, by Mr. W. H. Michael; the Superior Prophylactic Power of Animal Vaccine against Small-pox, by Dr. Drysdale; Revaccination, by Dr. Whittle. Some of these questions will afford matter for comment next week. Meanwhile, it is somewhat depressing to reflect on the multiplicity of papers on medical topics which are produced at congresses, convened here, there, and everywhere, for almost every conceivable purpose, read to audiences who are for the most part but imperfectly capable of estimating their merits, and introduced at times and under circumstances unfavourable to the proper consideration and discussion of their subject-matter.

### MICROCOCCI IN MEASLES.

WE mentioned a few weeks ago the purport of a paper lately read by Dr. Keating before the Royal College of Physicians of Philadelphia on the above subject. The full text of the paper has been published in the *Philadelphia Medical Times*, and the interest of the subject should be sufficient apology for dealing with it again. It may, however, be remarked that four years ago Drs. Braidwood and Vacher communicated to the Pathological Society of London a paper upon the same subject, in which they described highly refractile spherical bodies in the breath of measles patients, and similar bodies, together with rod-shaped, fusiform and ovoid forms, in the corium, lungs, and liver. They pointed out the resemblance of these bodies to the vaccinia-micrococcus, and referred to some earlier work by Hallier and G. Simon in the same line. At the time, if memory serves us aright, these observations of Braidwood and Vacher were not followed up, and, perhaps owing to the fact that bacterial pathology was then less in vogue, were not much accepted. Dr. Keating's research seems, however, to substantiate their facts, although he limits his microscopical investigations to the blood. These investigations were made by Dr. Furniss, who had previously carried out a similar research in diphtheria, in association with Dr. H. C. Wood. The blood was examined daily and micrococci were found in the malignant cases only, not in those of a mild type. Dr. Keating gives notes of eight cases, all but one of which were fatal. The blood was examined after death in most of the cases, and micrococci were found not only in the liquor sanguinis, but also in the substance of the white corpuscles. In some of the cases notes are recorded of observations made on the blood during life nearly every day. In the fatal cases death occurred from cardiac thrombosis and pulmonary congestion, attributed to clogging of the capillaries by the micrococci and the destruction of the corpuscles. Believing that in this fatal type of the disease the condition is one of blood-poisoning, and that the occurrence of micrococci can thereby be explained as resembling that found in erysipelas, puerperal septicæmia, and diphtheria, Dr. Keating sought for the most active germicides as a basis of treatment. In brief, alcohol in large doses (it was given in the form of whisky) was found to be most efficacious, and its employment was suggested by its known action in checking the development of micrococci in culture solutions.

### UNCERTIFIED DEATHS.

THE Wandsworth District Board of Works has recently issued a report upon the health and sanitary condition of the union and district, and of its several parishes, during 1881. The report calls attention once more to the evil of uncertified causes of death, of which 125 were registered during the year within the district; these were equal to 3·3 per cent. of the deaths registered. Assuming that this proportion is fairly representative of the mean proportion of uncertified deaths in England, attention is called to the extent of the consequent invalidation of the Registrar-General's figures, and the dangerous facility which is thus afforded for the perpetration and concealment of secret crime. This defect in our present system of registration is undoubtedly serious, and calls for a remedy; but it is scarcely correct to speak of it as an "increasing laxity in the registration of deaths," inasmuch as the proportion of uncertified deaths has continuously declined in recent years. Neither is the proposed remedy, "the employment of medical investigation in all instances in which the cause of death has not been certified by a registered medical practitioner," so simple or easy of application as the author of the report appears to imagine. There can

be no question about the desirability of providing some system for the verification of the cause of death of persons not attended during their last illness by a registered practitioner. The Wandsworth report, however, ignores the difficulties in the way of the realisation of the suggestion. There is very far from agreement at present as to who should be entrusted with the medical examination; and it is lost sight of that while in Wandsworth the proportion of uncertified deaths is but 3 per cent., the proportion exceeds 20 per cent. in some parts of Wales, where the population is sparse, and the difficulty in the way of getting medical attendance great. A large proportion of uncertified deaths in town districts consists of cases of premature birth in which the only attendant is a midwife. These difficulties must, however, ere long be fairly faced, although the provision of a satisfactory remedy will scarcely be helped by simply ignoring the obvious difficulties which stand in the way.

#### DEATH OF SURGEON-MAJOR F. R. HOGG.

WE much regret to announce the death on the 21st instant at Morar, Gwallor, East Indies, of Surgeon-Major Francis R. Hogg, of the Army Medical Department. Dr. Hogg entered the service in August, 1858, and became surgeon-major in 1873. He served for many years in the Royal Artillery, and had charge of the Female Hospital at Woolwich for nearly eleven years; his duties there brought him intimately in connexion with the soldiers' families of the garrison, by whom he was universally beloved and respected for his untiring care and kindness in sickness or in trouble. It was owing to his indefatigable exertions at Woolwich that he was permitted, as a special case, to hold the appointment for so long; and his premature death will be regretted by numerous officers, men, and women of the Artillery, as well as by his own brother officers, by whom he was greatly esteemed. Dr. Hogg had only recently returned to India, and succumbed to disease of the heart and kidneys at the early age of forty-six.

#### LOCAL OUTBREAKS OF SMALL-POX IN PROVINCIAL TOWNS.

SINCE the remarkable and generally fatal epidemic of small-pox in 1871-2, nearly all the large provincial English towns have been exceptionally free from small-pox mortality. Notwithstanding the division of opinion with regard to the influence of small-pox hospitals upon the prevalence and fatality of the disease in London, there can be little doubt that the existence of hospital accommodation for the isolation and treatment of infectious diseases in most of our large English towns affords the most rational explanation of their recent freedom from epidemic small-pox. Dr. Goldie, the medical officer of health for the borough of Leeds, in his last monthly report gives some interesting particulars respecting a distinct outbreak of small-pox in that town during last month. This outbreak, which necessitated the prompt removal to the Borough Hospital of thirteen cases within a few days, occurred within a limited area; the drainage within this area is said to be defective, the streets are for the most part unpaved, while offensive accumulations result in and around the street gullies. The first case, and the one that appears to have been the source of infection, was that of an artisan, who was treated at home, without any special care being taken either to isolate or disinfect the clothing; Dr. Goldie states, moreover, that this small-pox patient is reported to have entertained his friends in his house, and thus to have been the direct means of infecting thirteen persons afterwards removed to hospital. When the medical officer first visited this case he found the mother engaged in washing the infected clothing, and, without any attempt at disinfection, hanging the clothes across the street. If, as is now probable,

Leeds once more escapes a small-pox epidemic, notwithstanding this sharp outbreak, it is only reasonable to attribute such a result to the recent establishment of a Borough Hospital for Infectious Diseases.

#### A POISON FOR TUBERCULAR BACTERIA.

A PAPER was recently communicated to the Paris Académie des Sciences, by M. de Korab, on the action of helenine on the bacteria of tuberculosis. The facts mentioned deserve notice, although we fear that the hopes suggested are too bright to be realised. The bacilli were cultivated in bovine blood serum, which was daily heated for a week to effectually sterilise it, and was then coagulated by a temperature of 65° C. A guinea-pig having been rendered tubercular by inoculation and inhalation, small tubercular masses were taken from it, introduced into ten tubes containing the tubercular serum, and the tubes plugged after some helenine had been poured into three of the tubes. All were kept at a temperature of 37° C. for a week, and at the end of that time inoculation experiments showed that the organism in the tubes to which the helenine had been added no longer caused tuberculosis, which was readily produced by the contents of the other tubes.

#### THE DISCHARGE DEPOT, NETLEY.

THE discharge depot for time-expired soldiers arriving from foreign stations, which has been for many years located in the Royal Victoria Hospital, Netley, has been transferred to Fort Brockhurst, Gosport; the staff detailed for it consists of a commandant, paymaster, paymaster-sergeant's clerk, sergeant-major, and three clerks and writers. The removal of this depot will be a great boon to the hospital, as during the trooping season the arrival of large parties of time-expired men not only took up accommodation required for the patients and men of the Army Hospital Corps, but their presence at times gave rise to confusion and irregularity.

MR. STEER, assistant medical officer and dispenser to the St. Olave's Union Infirmary, has been attacked with typhoid fever, contracted from a patient he was attending in the institution. Are the salaries of workhouse medical officers estimated in view of the risk of contagion involved in their duties? We throw not.

THE Swiney Lectureship on Geology, just vacated by Professor Alleyne Nicholson, whose term of office had expired, has been bestowed by the trustees of the British Museum on Dr. Ramsey Heatley Traquair, F.R.S.E. The office is tenable for five years, and is of the annual value of £144.

SMALL-POX ravages at Cape Town are reported by telegraph to be worse than ever. There have been 2000 cases, of which 600 have been fatal, mostly among natives, but the disease is spreading among the whites. It is stated to have also broken out among the military.

FOR the vacant post of Surgeon to the Fire Brigade (Southern Division) there would seem to be a keen competition. The names of twelve candidates are announced, that of Mr. Neale, late medical officer of the *Eira* expedition, being amongst them.

INTELLIGENCE has been received of the death of Georges Leclanché, at the early age of forty-three. The deceased chemist was the inventor of the battery to which his name is attached, and which is extensively employed both by physicians and electricians.

WE regret to announce the death, at his residence, Cavendish-place, of Mr. J. T. Clover, Lecturer on Anæsthetics at University College Hospital. We hope to give an obituary notice of the deceased gentleman in our next number.

THE Secretary of State for War has appointed William Beale Wallis, Esq., L.R.C.S.I., Brigade Surgeon, to be Visiting Surgeon at Colchester under the Contagious Diseases Acts, 1866 to 1869, vice W. W. Weld, Esq., resigned, from the 25th instant inclusively.

THE *Sanitary Engineer* (New York) of Sept. 14th reproduces the plans and description of the temporary hospital structures suggested by the New York State Board of Health, to be used for the care and isolation of patients suffering from small-pox and other infectious diseases.

THE spread of small-pox in the Black Country has determined the Town Council of Wolverhampton to take steps to provide accommodation for the immediate isolation of any cases that may come to their notice.

MR. LUND has, on account of failing health, resigned his post as surgeon to the Manchester Royal Infirmary, and has been appointed consulting surgeon to the institution.

JAMES THOMPSON, M.D., has been elected Honorary Treasurer of the Irish Graduates' Association.

SCARLET fever is very prevalent at Accrington, and is greatly interfering with the regularity of school work.

## Pharmacology and Therapeutics.

### PHOSPHORUS.

MEYER has been experimenting on the action of phosphorus on frogs and rabbits, employing an emulsion with gum, or a solution in 100 parts of olive oil, the alkaline reaction being carefully neutralised with carbonate of soda. A milligramme of phosphorus introduced beneath the skin caused in half an hour a transient increase in the liveliness of the animal's movements. Ten milligrammes caused at first excitement, but the animal died in the course of one or two days. No very striking poisonous effects were observed, however, even from the use of larger doses; a diminution of motor power and sensibility came on only after a considerable interval. Once set in, however, the symptoms rapidly increased, and death usually resulted in an hour. No tetanic cramps were observed, and the muscles and nerves after death preserved their normal irritability. The liver, as a rule, presented normal characters, and the heart was distended with blood, slight pulsation continuing in the auricles. Atropine had no influence upon it, but chemical excitants of muscle, salicylate of physostigmin, or camphor, aroused the heart to renewed activity. Further experiments led to the conclusion that phosphorus caused a paralysis of the automatic nerve-centres, and later affects the muscular tissue itself. In rabbits, also, no clonic muscular contractions were observed in phosphorus poisoning, but a slow steady diminution of the blood-pressure, which sank to zero in consequence of the arrest of the action of the heart. The vaso-motor nerves were not at all affected. Cases of phosphorus poisoning in man have been observed in which, without any considerable disturbance of the general system or of the central nervous system, death occurs suddenly. Meyer is inclined to regard these as cases of paralysis of the heart, for he succeeded, by introducing phosphorus directly

into the circulation, in causing complete paralysis of the heart, before any pathological change had been produced in the heart or liver which could be discovered after death. To exclude the possibility of embolism in these cases, special precautions were taken. An analysis of the blood of rabbits which had been poisoned by phosphorus showed that the amount of carbonic acid which could be extracted had diminished from 50 to 80 per cent., and he thus corroborates the diminution in the process of oxidation in the body and the increased destruction of albuminous bodies.

### CARBOLIC ACID IN TYPHOID FEVER.

M. Ramonet has recently published an account of the results he has obtained in Algeria by treating typhoid fever with carbolic acid, and the method of its use. Forty-one cases were thus treated, seventeen of which were severe, and two died, giving a mortality of five per cent., which must, under the circumstances, be considered remarkably low. The treatment consisted in injections of one gramme of crystallised carbolic acid in 150 grammes of water at the temperature of the room. One injection was given daily in mild cases, two in cases of greater severity, three in severe cases. A few drops of laudanum were sometimes added to help the retention of the enema. The time preferred for the injections was 11, 4, and 9. The injections were followed by a fall in the temperature, which might amount to 2°, and by a manifest diminution in the cerebral symptoms, headache, noise in the ear, and stupor, which might last for several hours. It is suggested that the favourable result is due in part to the antizymotic action of the carbolic acid. The dose should not exceed four grammes a day. The larger doses given by Desplats, 12 or 14 grammes, are harmful by their indirect effects. A tonic and stimulant treatment should always be associated with that by carbolic acid.

### HYDROFLUORIC ACID IN DIPHTHERIA.

M. Henri Bergeron has advocated the use of hydrofluoric acid in the treatment of diphtheria as not only giving a better result than other remedies, but also as preventing the extension of the disease. A piece of fluorspar and some sulphuric acid are placed in a lead vessel, and this is then heated in a salt bath, which is kept at a temperature of 80° or 100°; an acid vapour, easily borne, is disengaged. The apparatus is then placed on a table near the patient, who breathes it with uncovered mouth. It injures glass, which must therefore be greased, to protect it, but the vapour has no appreciable noxious action on healthy individuals. The apparatus is refilled five times in the twenty-four hours. The cases treated in this manner were forty, and three only died.

### OXALATE OF SODA.

As a result of a series of experiments on the action of the oxalates, R. Koch concludes that the neutral soda salt, injected under the skin in the form of a two or three per cent. solution, causes in frogs chiefly fibrillary twitchings of the voluntary muscles, followed by general paralysis, which comes on more or less gradually according to the dose of the poison. Excised muscles immersed in the solution present the same fibrillary contractions. In a nerve-muscle preparation the irritability of the nerve is quickly lost. Hence it is assumed that the poison in the blood produces paralysis primarily by affecting the muscles and the nerves. An increase in the number of the heart's contractions was not observed, but an increase in the force of the contractions, especially of the ventricles, was constantly observed. The injection of small quantities of oxalate of potash (one or one and a half cubic centimetres of a three per cent. solution) into the jugular vein of cats and rabbits caused only transient changes in the blood-pressure curve, whether the animals were or were not under the influence of curara. Larger doses, however, caused a considerable increase in the frequency of the pulse and of the blood-pressure. Still larger doses injected into the jugular vein caused the blood-pressure to fall to zero, in consequence of the arrest of the heart's action in diastole, but the same quantity injected under the skin only produced transient symptoms. The action of oxalate of potash on frogs and cats was similar to that of the soda salt. Some experiments were also made with oxalic ether, but no effect was produced which could be ascribed to the oxalic element.

### THE SUBCUTANEOUS INJECTION OF APERIENTS.

Dr. Hiller of Berlin has experimented on the subcutaneous use of certain purgatives, chiefly aloin and substances obtained from colocynth. To produce a mild aperient effect (associated with some griping) it was necessary to use one or



two syringefuls of a solution of one part of aloin in eight of glycerine. The action of the bowels took place about six or eight hours afterwards. Thus the dose required and the time of its action were nearly the same as when given by the mouth. Merck's "pure colocynthin," a glucoside of colocynth, and "ditrullin," a resinoid of the same, had a very drastic purgative action when given internally in a dose of five to ten milligrammes. A half or whole Pravaz syringeful of a one per cent. solution in equal parts of alcohol, water, or glycerine, caused several loose stools in from four to six hours after the injection, with sharp colicky pains. The same dose was effective in half an hour when given as an injection into the bowel, dissolved in ten centimetres of water, and Hiller prefers this mode of administration when an energetic and quick purgative is required, as in uræmia. The injection into the bowel caused no pain, whereas beneath the skin it caused prolonged burning. It was found also that the official extract of colocynth was also efficient in a solution of one in thirty, injected under the skin or into the rectum. Hiller's conclusions are thus decidedly unfavourably to the subcutaneous injection of aperients.

#### THE PASSAGE OF DRUGS THROUGH THE LIVER.

Experiments have been made by Peiper on dogs provided with a biliary fistula, to ascertain whether certain drugs introduced into the alimentary canal reach the liver. In order to avoid the action of the gastric juice on the substances employed, they were injected into the bowel. If iodide of potassium were injected, a long interval (six or eight hours) was found to elapse before its presence could be discovered in the bile. Salicylic acid, given in an aqueous solution, of the strength of 1 to 300, could not be discovered in the bile, but if a more concentrated solution were employed its presence was evident at the end of half an hour. Carbolic acid seems to pass through the liver only in extremely small quantities. Both ferrocyanide of potassium and cyanide of potassium gave only negative results, although the former was found by Claude Bernard in the bile of animals after he had injected it into the veins.

#### CHLORATE OF POTASH.

On the Continent chlorate of potash is given in larger doses than in this country, and sometimes with dangerous consequences. Isambert has lately shown that if a solution of this salt be injected into the blood the heart may be arrested suddenly in diastole without any precursory symptom. Not long ago four children died in France from the effects of a chlorate of potash mixture which some sisters of charity were accustomed to distribute as a remedy for sore-throat. An investigation of the subject was made by MM. Brouardel and Lhote, who arrived at the conclusion that frequently repeated small doses may have fatal results. The symptoms of poisoning may be of four classes: bluish spots on the skin, sometimes a general cyanosis, sometimes an icteric tint; gastro-intestinal disorders, especially diarrhoea and green vomit; an increase in the quantity of urine, if the amount of chlorate taken was small, but a diminution if a large dose had been absorbed, and the diminution may go on to temporary arrest, followed by hæmaturia; lastly, there may be symptoms of nervous collapse and coma preceding death. Happily the toxic dose of the drug is not very small, for Germain Séé has given more than an ounce in the course of a single day without indications of danger.

#### BORACIC ACID.

Neumann has, in view of the extensive use of boracic acid, instituted experiments to ascertain more precisely its physiological effects. A dog of the weight of fifteen kilogrammes presented no marked symptoms from a dose of five or six grammes, but a marked fall in internal temperature was produced. Larger doses caused also vomiting and diarrhoea. A 3 per cent. solution injected into the pleural or peritoneal cavity did not cause inflammation of the serous membrane; but whenever the quantity injected exceeded certain limits, the animals died from paralysis of the motor nerves and muscles. Results of identical character were also furnished by experiments on rabbits and young pigs. Boracic acid was given to horses affected with glanders up to forty-five grammes (! a dose), and the nasal ulcerations were treated with the same substance. A transient amelioration in the condition of the animals was the result, but none recovered. Boracic acid may thus be regarded as not only an antiputrescent, but also an antipyretic, comparable to carbolic acid.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Kensington (Urban).*—It appears from a report recently issued by Dr. Dudfield, the medical officer of health, that the health of Kensington, judged by its mortality statistics, was exceptionally satisfactory during the four weeks ending August 12th. The annual death-rate, although showing a slight increase upon the still lower rate in the preceding month, did not exceed 13·6 per 1000, and was 4·9 below the mean rate for the whole metropolis during the same period. It would be interesting to know how far the death-rate during the summer holiday period in such metropolitan suburban districts as Kensington is affected by the migration of no inconsiderable proportion of its population to holiday resorts. However this may be, the low gross death-rate was not the only evidence of satisfactory health in Kensington during the four weeks under notice; the district was comparatively free from zymotic fatality, as only 34 deaths were referred to the principal diseases of this class, being 30 below the corrected average for the season. This was mainly due to the exceptionally small fatality of diarrhoea, which caused but 12 deaths, or 32 fewer than the corrected average number. Nine deaths were referred to measles, 5 to diphtheria, 4 to whooping-cough, and 2 to enteric or typhoid fever. The 2 latter cases were both of children, and with regard to the 5 deaths attributed to diphtheria, Dr. Dudfield expresses doubt whether they were really the result of this disease, as one case he unhesitatingly declares to have been scarlet fever, and adds, "it may well be, moreover, that some of the other cases were really cases of croup." It is evident that fatal diseases in Kensington, as elsewhere, are not always carefully or correctly diagnosed, and we fear that the useful and valuable influence of medical officers of health in improving the quality of medical certificates of the cause of death is almost neutralised in London by the fact that nearly all medical officers of health are engaged in private practice. Dr. Dudfield dwells in his report upon several recent cases in Kensington illustrative of how infectious diseases are spread; in two of these convictions were obtained. We are glad to see that only small fines were inflicted, as such prosecutions, infinitely useful from an educational point of view, would defeat their own purpose if the sentences were heavy enough to make martyrs of the offenders. We should like to make two suggestions to Dr. Dudfield with regard to his useful monthly report. In the first place, it is a serious drawback that the report, instead of dealing with a natural month, or rather the four or five weeks most nearly corresponding with the month, relates to an arbitrary period from the middle of one month to the middle of the next; this detracts seriously from the value of the report for comparative purposes. In the second place, the utility of the report would be increased by the insertion of a table showing the more usual statistical features of such reports, which could be kept standing from month to month during the year, with the addition of a few fresh figures for the most recent month dealt with in the report.

*St. Pancras.*—According to Mr. Shirley Murphy's annual report, the estimated population for St. Pancras in 1881 was 236,209, and the increase during the last decennial period was only at the rate of 0·66 per cent., instead of 1·1 per cent. during the previous period. This has been to a considerable extent due to the demolition of houses on an area acquired by the Midland Railway. The increase in the number of inhabited houses has not kept pace with the increase of population, and the average number of persons to each inhabited house amounts to 9·5, as opposed to 9·1 in 1871. The birth-rate for 1881 was 33·6, and the death-rate 22·0 per 1000. Small-pox became epidemic in the parish during the year; and a detailed description is given of the admirable small-pox encampment which the vestry established on a site belonging to the Burial Board at Finchley; the tents having double walls and being heated with hot-water apparatus. The tents were situated at a distance of 1700 feet from the nearest dwelling-house; and there is no reason to believe that, either by means of ambulances or otherwise, the encampment gave rise to a single case of small-

pox in Finchley. In all, 547 cases were reported to the sanitary department during the year, and 376 were removed to hospital. Of the cases admitted into the tent hospital all the deaths occurred amongst those either unvaccinated or presenting no evidence of vaccination. The report deals in detail with the various causes of mortality in the parish; it explains the action taken with regard to slaughterhouses, cowsheds, bakehouses, lodginghouses, &c.; and it urges upon the vestry the adoption of some better system for dealing with the house and street refuse than the admittedly bad arrangement now existing; also the provision of a suitable public mortuary. A detailed account of the sanitary work done during the year shows that there has been considerable activity in the health department, and that much has been done to secure an improvement in the sanitary conditions under which the inhabitants are living.

*St. Giles.*—Mr. Lovett's annual report to the Board of Works for the St. Giles District shows the population to have been 45,257 in 1881; the birth-rate being 29.4, and the death-rate as high as 24.6 per 1000. The report deals in detail with the outbreak of scarlet fever, which affected the district early this year, and which was ascertained to have been due to an infected milk-supply; it explains the incidence of the various infectious fevers in the district, and it refers to an outbreak of typhus which broke out in Marchmont-place in an area condemned under the Artisans' Dwellings Act, and which was not arrested until most of the filthy and dilapidated houses in that locality had been closed under a magistrate's order. The report of the various forms of sanitary work executed shows, amongst other things, that as many as 13,248 visits were paid to houses and premises for sanitary purposes, and that 1080 articles were dealt with in the hot-air disinfecting chamber.

*West Sussex.*—The combined sanitary district for which Dr. Kelly acts as medical officer of health in West Sussex has an estimated population of 94,770, and it is satisfactory to note that, unlike some other similar districts, it has undergone no diminution in area since it was formed in 1874. Indeed, the principle of combination has evidently met with increasing approval, for two additional rural districts have united themselves with it. The birth-rate per 1000 was only 30.2, a fact to be attributed to the absence in this district of the usual proportion of females at the child-bearing age—viz., from fifteen to forty-five years of age. The death-rate, as throughout the whole country, exhibited a diminution as compared with previous years, and it only amounted to 13.9 per 1000 living; the mean age at death was forty-two years, and the infantile mortality was only 9.3 per 100 births registered. In the Steyning rural district an outbreak of enteric fever occurred at Castletown. After a first attack several sharp outbreaks took place in the neighbouring cottages, the inhabitants of which resorted to the same well. Carbolic acid being poured down the closets soon made its appearance in the water from the well, and although the water was derived from a stratum below that into which the soakage of filth took place, yet it is evident that infective matter must have trickled into it at intervals, thus causing several separate outbreaks. In the Midhurst rural district an outbreak of the same disease followed on the return home of a young woman who had been under treatment for enteric fever for eight weeks, and who was convalescent. The spread, however, did not take place until the lapse of some eight weeks after her return, and it is suggested by Dr. Kelly that the excreta, notwithstanding convalescence, remained infective, and so infected the common privy used by those subsequently attacked. He also considers that the delay in the outbreak was due to the severe cold which followed on the girl's return; the infectious quality of the excreta being first arrested by frost, and then revived on the recurrence of mild damp weather after a thaw. In the East Preston rural district a considerable outbreak of diphtheria occurred. It commenced by ill-marked cases of sore-throat and so-called "croup" amongst children attending a certain school, and it spread amongst them by personal infection until twenty-one had been attacked and six had died. The closing of the school, followed by a process of disinfection and cleansing, led to a complete cessation of the outbreak. Throughout the combined district sanitary work is steadily in progress, and though conditions, such as the pollution of the river Arun by sewage from the Horsham sewage farm, still remain to be dealt with, yet much good work has been effected. Water-supplies are improved, slaughterhouses and bakehouses are regularly inspected

and kept in a wholesome state, excrement disposal is better carried out, and a continuous supervision over the entire area is steadily maintained. The report is very complete in its meteorological, statistical, and other tables, and in the information as to local conditions which it supplies.

*Featherstone (Urban).*—The report of the medical officer of health for this small Yorkshire urban sanitary district affords favourable evidence of its sanitary condition during 1881. This district, which has not been created much more than five years, had a population at the last census slightly below 6000 persons. It is evident from its vital statistics that the age constitution of its population is abnormal. It appears from the Preliminary Census Report that the population of its area increased from 2265 in 1871 to 5901 in 1881, and during the five years of its existence (1877-81) the birth-rate averaged 48.3, whereas the death-rate did not exceed 20.1. Rapid aggregation of population has probably led to the immigration of a large number of young adults, with the natural result of a high birth-rate and of a low death-rate. The death-rate in 1881 was as low as 16.4, and considerably lower than in any of the four previous years. The zymotic death-rate (almost entirely due to an outbreak of scarlet fever) was 2.0 per 1000, against an average of 4.1 in the preceding four years. No death during the year was recorded from "either small-pox, measles, diphtheria, croup, or any of the continued fevers." With reference to the immunity from typhoid fatality during last year the medical officer of health (Mr. Buncle) calls attention to the fact that the sanitary district was formed "mainly on account of the excessive mortality in the district from typhoid fever and other diseases produced by filth and bad drainage." Notwithstanding the marked improvement in the health of the district, and the exceptionally favourable mortality statistics of 1881, the medical officer in the report before us points out many reforms which still call for the attention of the sanitary authority, and neglect of which might at any time seriously interfere with the steady improvement in the health of the district. The water-supply and the scavenging of the district still, it is said, need improvement, and the success of previous local sanitary efforts should, and probably will, secure further progress. We congratulate Mr. Buncle both on the matter and manner of his report. The few statistics given are sufficient for the purpose, and clearly arranged; they, moreover, include a concise summary of the results for past years, which, although indispensable for comparative purposes, is too frequently omitted from such reports.

*Cork.*—During the four weeks ending August 12th, the births registered came to 164, or at a rate of 27.02; and the deaths to 108. The annual deaths per 1000 gave a total ratio of mortality of 17.05; but deducting the deaths (8) which occurred in the workhouse, and therefore outside the district, the urban death-rate would then stand at 16.02. These statistics, when compared with those for a corresponding period last year, show that the death-rate of the city remains much the same; but febrile diseases, more particularly typhus fever, have since then greatly diminished.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5696 births and 3374 deaths were registered during the week ending the 23rd inst. The annual death-rate in these towns, which had been equal to 19.9 and 20.0 per 1000 in the two preceding weeks, further rose to 20.8 last week. The lowest rates in these towns were 11.4 in Brighton, 12.7 in Bolton, 14.7 in Norwich, and 14.9 in Bristol. The rates in the other towns ranged upwards to 25.5 in Newcastle-upon-Tyne, 26.2 in Preston, 27.5 in Nottingham, and 28.5 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 559, showing a further considerable decline from recent weekly numbers; 270 resulted from diarrhoea, 100 from scarlet fever, 64 from whooping-cough, 50 from "fever" (principally enteric), 44 from measles, 24 from diphtheria, and 7 from small-pox. The lowest death-rates from these diseases were returned in Norwich and Brighton, while the highest occurred in Preston and Sunderland. The death-rate from diarrhoea showed a further decline from those prevailing in recent weeks; it was, however, equal to 4.3 in Hull and 7.5 in Preston. The largest proportional fatality of scarlet fever occurred in Sunderland and Derby; of

whooping-cough in Manchester and Oldham; of measles in Sheffield and Sunderland, and of "fever" in Sunderland and Derby. Of the 24 deaths from diphtheria in the twenty-eight towns, 17 occurred in London, and 4 in Leeds. Small-pox caused 5 deaths in Newcastle-on-Tyne, 2 in Nottingham, and 2 in the suburban districts round London. The number of small-pox patients in the metropolitan asylum hospitals, which had steadily declined from 114 to 84 in the three preceding weeks, further fell to 79 on Saturday last; 13 new cases of small-pox were admitted to these hospitals during last week, against 9 and 10 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 178 and 192 in the two preceding weeks, further rose to 263 last week, and were 61 above the corrected weekly average. The causes of 85, or 2·5 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Brighton, Portsmouth, and in four other smaller towns; whereas the proportions of uncertified deaths were largest in Wolverhampton, Oldham, Preston, Bradford, and Sheffield.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 20·1 and 20·9 per 1000 in the two preceding weeks, declined to 18·1 in the week ending the 23rd inst., and was 2·7 below the mean rate during last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns were but 83 last week, and showed a further decline of 20 from recent weekly numbers; they included 34 from diarrhoea, 13 from whooping-cough, 13 from scarlet fever, 12 from "fever," 9 from diphtheria, 2 from measles, and not one from small-pox. The death-rate from these principal zymotic diseases averaged 3·5 per 1000 in the eight towns, and slightly exceeded the rate from the same diseases in the large English towns. The highest zymotic death-rates occurred last week in Glasgow and Dundee. The 34 deaths attributed to diarrhoea showed a further decline from recent weekly numbers, but included 12 both in Glasgow and Dundee. The 13 fatal cases of whooping-cough, of which no fewer than 11 occurred in Glasgow, also showed a decline from the numbers in recent weeks. The deaths from scarlet fever, on the other hand, which had been 11 and 10 in the two previous weeks, rose to 13 last week, and included 9 in Glasgow and 2 in Edinburgh. The deaths referred to "fever" were more numerous than in any recent week; 5 were returned in Glasgow and 3 in Dundee. Five of the 9 fatal cases of diphtheria occurred in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 61 and 70 in the two previous weeks, further rose to 72 last week, but were fewer by 6 than those attributed to the same diseases in the corresponding week of last year.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 27·6 and 25·8 per 1000 in the two preceding weeks, was 26·1 in the week ending the 23rd inst. During the first twelve weeks of the current quarter the death-rate in this city averaged 23·1 per 1000, against 18·5 in London and 17·8 in Edinburgh. The 174 deaths in Dublin last week showed an increase of 2 upon the number in the preceding week; they included 10 which were referred to diarrhoea, 4 to "fever," 3 to whooping-cough, 2 to measles, 1 to scarlet fever, and not one either to small-pox or diphtheria. Thus 20 deaths resulted from these principal zymotic diseases, against 28 in each of the three preceding weeks; they were equal to an annual rate of 3·0 per 1000, while the rate from the same diseases was 2·8 in London and 2·0 in Edinburgh. The fatal cases of diarrhoea, which had been 17 in each of the two previous weeks, declined to 10 last week, but were equal to a rate considerably exceeding that which prevailed either in London or Edinburgh. The deaths referred both to "fever" and whooping-cough showed an increase upon the numbers in the previous week. No fatal case of diphtheria was recorded, although 3 were returned in the preceding week. The deaths of infants showed a considerable increase upon those in the previous week. The causes of 30, or 17 per cent., of the deaths registered during the week were not certified.

### THE MINUTES OF EVIDENCE BEFORE THE ROYAL COMMISSION ON MEDICAL ACTS.

#### THE INEQUALITY OF THE MEDICAL AND SURGICAL EXAMINATIONS.—(Continued.)

##### Examination of Dr. R. H. SEMPLE.

3669. (*Professor Huxley.*) I understand that, to a large extent, the same young men who come to the Society of Apothecaries also go to the College of Surgeons?—I do not know, but I think so, though, as I have said, a great many come up from other bodies. For instance, one comes from the Royal College of Physicians of Edinburgh, and another from the Royal College of Surgeons, Edinburgh, another comes from Calcutta, and others come from the Faculty of Physicians and Surgeons, Glasgow. These men do not go through the London College of Surgeons at all; a great many also come from India, Australia, and all parts of the world, and do not pass through the College of Surgeons.

3670. Can you explain to us why it is that so large a number of young men come to you for your final examination who do not come to you for your earlier examinations? You have told us that a large number do come for the final who do not come for the earlier examination?—First of all, many consider it too severe. There are men who regard chemistry as a kind of *pons asinorum*, and avoid it by all the means in their power; but some of those men go to the College of Physicians of Edinburgh, and get over the chemistry somehow or other, or to the Faculty of Physicians and Surgeons of Glasgow. At any rate, they get over the chemistry somehow, and then they come back.

3671. Would you say that the examinations are at present conducted in such a way that candidates exercise a certain power of selection as to the bodies they should go to for particular stages of their examinations?—Decidedly so.

##### Examination of Mr. CHRISTOPHER HEATH.

3991. (*Chairman.*) Has your experience taught you that there is any considerable difference between the examinations of the various licensing bodies?—Certainly, men who fail here can go and get a diploma elsewhere.

3992. Are the examinations of all the English licensing bodies nearly the same?—There is a great difference in the different boards in England, of course, but men who fail at the examinations of the College of Surgeons can go and get a diploma elsewhere.

3993. Where do they generally go?—To Glasgow by preference, and sometimes to Edinburgh.

3994. Not to the Edinburgh University I presume?—No, the double licence of the College of Physicians and College of Surgeons at Glasgow is considered the easiest, and next to that is the double licence of Edinburgh.

3995. Have you yourself any knowledge from experience of the examination of the Glasgow Faculty?—I only judge by the results, I know that men who go up, who failed here, come back with diplomas.

3996. You know from your own knowledge instances of men who have failed here in the examinations of the College of Surgeons and who have gone to the Faculty at Glasgow or the College of Edinburgh, and obtained diplomas?—Yes.

3997. Have you known many such instances?—A good many scattered over the last twenty years.

3998. Could you give us one or two particular instances without mentioning the names?—I may mention one which occurred two years ago. A man was plucked the third or fourth time at the primary examination at the College of Surgeons in anatomy and physiology, he afterwards, at my recommendation went to Glasgow, and came back with a double qualification. (The witness gave the details of this case.)

3999. Can you give us any other instance?—Yes. (The witness gave the details of another case.)

4000. Have you known many such cases?—Yes.

4001. And do they occur constantly?—I do not say they occur constantly, but I have known a good many cases in twenty years.

4002. And you had no doubt in your own mind that the examinations of those two licensing bodies are considerably easier than certain of the examinations of the two London corporations?—I have no doubt whatever of it.

4003. Do you consider that the examinations of the two London corporations are at all too high?—I think they are being screwed up too much, I must say, in the early subjects.

4004. In what respects?—For men who have got to get their living by practice and are badly paid, too much scientific knowledge is expected of them.

4005. In what sciences?—In physiology particularly, and minute anatomy, or you might say histology.

4031. (*Professor Turner.*) Are you acquainted with the regulations of the Royal College of Surgeons of Edinburgh admitting candidates to the examination of that body?—No, I cannot say that I am.

4032. Would you kindly read regulation 17 (handing a book to the witness)?—"No candidate shall be admissible to examination who has been rejected by any other licensing board within the three months preceding his application to be examined."

4033. Those candidates you have referred to, who were rejected by the College of Surgeons in England, must have allowed three months to elapse before they were admitted to the examination of the College of Surgeons of Edinburgh, and a similar regulation prevails in the Edinburgh College of Physicians and in the Glasgow Faculty?—I suppose so.

4034. Then presumably those rejected candidates were engaged in study during the subsequent three months?—I think I could give a case to the contrary in which the greater part of the three months was vacation.

4035. Still a student, although it may be vacation as regards the schools, may be engaged in private study?—Yes.

4036. You yourself in the earlier part of your career were a good deal engaged, were you not, in preparing students for examination?—Yes.

4037. I suppose you found you could do a great deal in three months?—Yes, a great deal.

4038. Is it at all unlikely that those candidates remitted by the College of Surgeons of England, spending, we will say, those three months in study, had added very materially to their stock of information?—I do not think that they had. I do not think that some men that I knew were capable of doing it; and I am certain that in one particular instance the man could not have added much to his information.

4039. Is it your opinion that those persons you have referred to were really incompetent persons in the subjects on which they were examined?—I think they were men of inferior intellects certainly.

4040. Do you think that they were such persons as should not be admitted to practise medicine?—I do not say that; that is a very wide question.

#### *Examination of Mr. C. MACNAMARA, F.R.C.S. Eng.*

4124. (*Bishop of Peterborough.*) To what do you attribute the greater ease with which men can get into the medical profession here than elsewhere?—Clearly because if men fail here in one examination they pass to another and less stringent examination in some other part of the country.

4125. Have you known as a matter of fact in your own experience cases of students who have failed in one examination and have sought another?—I have.

4126. And those students have got in in the second case because the examination was easier?—Yes, they have.

4127. And is that the opinion generally of those practitioners with whom you are in relation?—Unquestionably.

4128. It is very strongly the opinion of the profession, is it not, so far as you know it, that it suffers from the too great ease with which men can obtain a licence to practise?—Unquestionably.

4129. And also that that too great ease arises from the fact of there being so many licensing bodies?—Precisely so.

4130. That opinion is not only your own, but it is held generally by the profession?—I believe it is.

#### *Examination of Mr. HENRY MORRIS, M.B., F.R.C.S., Lecturer on Anatomy, in the Middlesex Hospital, and formerly engaged in preparing Students for the Professional Examinations.*

4588. (*Chairman.*) Of course you must of necessity be very familiar with the different examinations of the different licensing bodies; in preparing young men formerly you must have found, I suppose, that there is a considerable difference between the examinations of the different licensing bodies?—Yes, certainly.

4589. And should you say that the standard was the least

high in London, or in the provinces?—My experience was almost limited to the several examinations held by the different bodies in London, so that I could not compare from a teaching point of view the London examinations with the examinations in Scotland or in Ireland for instance.

4590. Do you remember any instance of persons who could not pass the examinations here and who went to Scotland or to Ireland?—Yes, many; but some of the instances that one has known of students going to Scotland or elsewhere for the examinations have not been altogether on account of the difference in the severity of the examinations of the different bodies, but for other reasons.

4592. You are now speaking solely with regard to the universities. I do not suppose you would say from your experience that persons who have failed here to pass the examinations have gone to the Scottish universities?—No.

4593. They go there to pass some of the examinations of the corporations?—Exactly so.

4594. But have you known instances of persons who have gone north for the examinations of the corporations on that account?—Certainly.

4595. You would say it is quite notorious that such things exist?—It is notorious in the schools both in London and elsewhere, I think.

4596. And with regard to the examinations in London, what examinations, should you say, are the least high in London?—That of the Apothecaries' Hall undoubtedly.

4732. (*Mr. Cogan.*) Are not some of the bodies notorious for giving very easy examinations in anatomy?—Yes, they are.

#### *Examination of Professor W. T. GAIRDNER, M.D.*

4802. (*Mr. Cogan.*) Do you believe that at present there is any injurious competition—I mean injurious to the public—arising from the number of licensing bodies?—I believe that has been, at all events, very much exaggerated. I am not prepared to say that there have not been instances where licensing bodies have been weak, but I think that that has been very much exaggerated.

4803. If evidence has been given to us that many students who could not pass the test of some licensing bodies went to others for the purpose of passing a lower examination, and did successfully do so, would you believe that that was an evil?—If it were a general practice it certainly would be a public evil. It might happen with any individual student, or with two or three students, without being necessarily a fault.

#### *Examination of Mr. THOMAS COOKE, F.R.C.S. Eng., M.D. Paris.*

In answer to the Chairman Mr. Cooke said he had had large experience in preparing young men and practitioners for various examinations.

4899. (*Chairman.*) Are you aware of a considerable difference in the severity of those examinations?—There is a very great difference in the severity of the several examinations; the difference is tremendous. As regards the Scotch examinations, I should not be in a position to speak of them individually. I can speak of the Scotch examining bodies in general. I should not be in a position to speak of them in particular, and to compare, with any positive data, Edinburgh to Glasgow or Glasgow to Edinburgh.

4900. You are speaking of the corporations?—I am speaking of the corporations.

4901. Will you give us your own idea of the relative severity of those examinations?—The Scotch examinations are, I think, very fair; they are thoroughly good practical examinations taken all round. Men who are insufficiently prepared do not pass them. They are thorough and searching examinations; and, at the same time, my experience is that ample time is allowed to the candidate to show what he really does know. I think they are very good examinations in every respect as regards the average student, that is as regards the student who is to become the general practitioner. I should except the M.D. of St. Andrews. I have a special note on that point.

4902. I thought we were speaking of the examinations of the Scotch corporations only. I was not referring to the Scotch universities. Should you say that the examinations of the Scotch corporations were as difficult as those, for instance, of the Royal College of Surgeons in England?—No; and yet in one sense they are. There are some men who would pass the examinations of the Royal College of Surgeons of England who would possibly not pass the Scotch

examinations. At the same time there would be a large number of men who would pass the Scotch examinations who would not pass the examinations of the Royal College of Surgeons of England.

4903. Will you explain how that would occur?—The man of good average capacity and ability, who has worked fairly during the whole of his time, and acquired a good practical knowledge of his subjects, I hold to be fairly certain to satisfy the Scotch examiners; and, I think, he would usually satisfy also the examiners in Lincoln's-inn-fields; but it is rather the brilliant and the sharp man, the man who has read a good deal, who has possibly a more, I will not say superficial knowledge, but still a more showy knowledge of details, who would be particularly successful at the Royal College of Surgeons. For the examination of the Royal College of Surgeons both a good practical knowledge and also, if I may say so, a showy knowledge, or a knowledge of little points, is frequently of value, and may turn the scale in favour of a man.

4904. Have you ever known cases in your own experience in which young men who have failed to pass the English examinations went to Scotland and passed the corporation examinations there, or *vice versa*?—I have known a great many who, having failed in London, have gone to Scotland and passed. There are a great number who do that.

4905. Is that a common case?—It is.

4906. Have you known many come from Scotland to pass in London?—I have not known many. At the same time it is but fair that I should state that I meet with a large number of London students, while I meet with a relatively small number of students from Scotland; so that the figures I should have would scarcely establish the proportion between those who go from London to Scotland and those who come from Scotland to London. I think I can say, indeed I am sure I can say, a large number who are not successful here, who fear to face the examination here, go to Scotland.

4907. Taking a large number, what should you say was the general reason why the average of them, having failed in London, succeed in passing in Scotland?—Several reasons may be given. The examinations in Scotland are less hurried, and they are more thorough. It frequently happens that men get nervous or flustered at the London examinations; and as the time is rather short, if a man gets flustered at the first table, he has scarcely time to recover himself sufficiently to show what he really does know.

4908. How long is occupied in an examination in London?—The time has been lengthened, and now, I think, the candidates have a quarter of an hour or twenty minutes at each table; I would not be very positive, but the time is on the whole rather short.

4909. And how long have they at the Scotch corporations?—I could not give the precise figures.

4910. I merely mean in a general way?—The impression on my mind is that they are less hurried, and I have no doubt that that is the case. The number of men examined is less at a time. Anyhow, as regards Glasgow, a man giving notice of his desire to be examined can frequently have a special examination, and therefore be less hurried.

4911.—How do the examinations of the Apothecaries' Society of London compare with those of the College of Surgeons of London?—I believe it would be very difficult indeed to compare the two, they are so very dissimilar. The examination of the Apothecaries' Hall of London is a good examination as regards the compounding of medicines and the mere ordinary uses of medicines; but in all other respects I hold it to be totally insufficient to establish a man's ability to practise medicine or surgery.

4952. (Professor Turner.) Then you leave your pupils to select for themselves the examining board to which they will go?—Entirely so, and the time at which they will go up for examination.

4953. You used the expression that some of the pupils feared to face the examination here in London; at the College of Surgeons, I apprehend, you mean?—Yes.

4954. And then you said they went down to Scotland?—Yes.

4955. Did that mean that they had been rejected at the examinations here and then went down to Scotland, or that they dreaded that the examinations here might be too difficult for them?—The two things would be comprised in my statement. Some had been rejected, and some felt certain, and I may say those who knew them felt certain, and I myself felt certain, that they were not sufficiently prepared, and that they would probably be rejected.

4956. I suppose you know that the Royal College of Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow conduct an examination which covers a much more extensive range of subjects than the examination of the Royal College of Surgeons of England?—Quite so; you refer, I believe, to the double qualification, do you not?

4957. No, I refer to the examinations conducted by the College of Surgeons and the Faculty of Physicians and Surgeons in Glasgow for their ordinary diplomas?—I have known men very deficient in chemistry. That is one of the subjects required at Edinburgh, which is not required here. Men go to what they consider the trouble of getting up chemistry, in order to be able to present themselves at the Scotch examinations.

4958. With reference to the youths who have shown this fear of facing the examinations in London, are we to understand that they are in your judgment, so far as you have the means of knowing what their information is, persons who ought not to be admitted to the ranks of the profession?—No. I do not say that.

4959. In some respects I gathered that you hold that the examinations of the corporations in Scotland are conducted in a fairer and more judicious way than the examinations of the College of Surgeons of London?—In a more uniform and more reliable way as regards the results, that is the results of the pass and the pluck. I could feel much more sure that a man fairly well up in his work would pass at the Scotch examinations than that the same man, or even a more brilliant man, would pass the English examinations.

4960. Because the examinations in Scotland, you think, are conducted in a less hurried way, and are better adapted to bring out the knowledge of the candidate?—I think so.

(To be continued.)

## THE SERVICES.

Deputy Surgeon-General Herbert Reade, V.C., has been transferred from the Eastern District, Colchester, to Plymouth, as Principal Medical Officer of the Western District, vice Deputy Surgeon-General J. Lamprey, proceeded to Cyprus with the Egyptian expedition.

Deputy Surgeon-General Murphy has been appointed to the Eastern District on return from Ceylon.

Brigade Surgeon Veale is on passage from Egypt in the hospital ship *Carthage*, having been invalided from Ismailia. Dr. Veale was suffering from dysentery.

H.M. troopship *Malabar* arrived at Portsmouth on the 25th inst., with a large batch of sick and wounded from Egypt. Surgeon-Major R. Anderson was in medical charge of the vessel, with Surgeons Anthonisz and Lane. The sick were transferred to Netley Hospital. Two deaths occurred shortly before the vessel left the Canal: one, a private of the Army Hospital Corps, from dysentery.

YEOMANRY CAVALRY.—Buckinghamshire: Surgeon Henry Walter Kiaulmark is granted the honorary rank of Surgeon-Major.

ADMIRALTY.—Fleet Surgeon John Sampson Lewis, M.D., has been placed on the Retired List of his rank from the 25th instant; Staff Surgeon William Graham to be Fleet Surgeon in Her Majesty's Fleet, with seniority of the 20th instant.

The following appointments have been made: Fleet Surgeon William H. Cruice, to the *Eagle*, vice Lewis; Surgeons Michael J. McCarthy, M.D., Andrew D. Peyton, and Staff Surgeon James H. Martin, to the *London*; Staff Surgeon John Allan Robertson, to the *Heroine* (appointment of Edward W. Doyle cancelled); Fleet Surgeon James N. J. O'Malley, additional, to the *Duke of Wellington*; Fleet Surgeon William S. Fisher, to the *Euryalus*, vice Strickland.

UNWHOLESOME MEAT.—At the West Ham Police Court, Stratford, on Wednesday last, an application for an order to destroy more than a thousand carcasses of sheep in a putrid condition was made by the Port of London Sanitary Inspector, Mr. Gilles. Evidence having been given by Dr. Collingridge, the medical officer of health, to the effect that it was unfit for food, the stipendiary magistrate, Mr. Phillips, granted the order asked for. The meat was brought from Egypt by the *Orient*, and was lying in the Victoria Docks.



## Correspondence.

"Audi alteram partem."

## "WOOD PAVEMENT."

To the Editor of THE LANCET.

SIR,—Professor O. W. Wight, Health Officer of Detroit, U.S.A. (THE LANCET, Sept. 23rd, p. 513), describes wood pavement as laid in America, and utterly condemns it, and most deservedly; but then the mode of construction described is wrong in every way it is possible to be. Wood pavement should be constructed as under—namely, the foundation should be absolutely sound, watertight, and have a smooth and even surface. In England such foundation is best made of Portland-cement-concrete, the surface finished with neat cement; over this surface should be laid a layer of tar-felt, or a layer of asphalt, not less than half an inch in thickness. The wood blocks should be sound and free from sap, if creosoted all the better. The blocks should be laid solidly on the prepared base, and, with a layer of tar-felt betwixt, be close jointed. The surface of any wood pavement so laid will be smooth and absolutely watertight, and in wear will not be subject to any of the ills attributed to the wood pavements as laid in America and as described by Professor Wight. The wood pavement as herein described will, in England, cost from 12s. to 14s. per square yard, according as the foundation may have been more or less costly. The felt used will cost 2s. per square yard. Wood paving has been most imperfectly laid in London, and has greatly discredited the system. There are, however, now good samples—as in Parliament-street and St. James's-street, for instance.

The bad examples of America must have been followed in England, and especially in London at first: such as loose and ill-formed foundations with blocks set wide apart, the spaces filled in with gravel or with concrete. In these cases the foundations gave way, the blocks frayed at the edges and sunk, the whole surface becoming uneven and jolting with less than twelve months' wear. When wood blocks are laid on a solid and smooth foundation, and are close jointed, they cannot sink or fray at the edges, but must wear evenly, because the traffic passes over smoothly. Such surfaces may be washed by hose and jet so as each morning to be clean and sweet as when new. London under uniform municipal government may accomplish this.

I am, Sir, yours faithfully,

September 25th, 1882. ROBERT RAWLINSON, C.B., &amp;c.

## THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

To the Editor of THE LANCET.

SIR,—The newspaper reports of the proceedings of the Public Health Section of the Social Science Congress contain a statement that a resolution was adopted by the section in approval of the principle of Mr. Hastings' Bill, which proposes that the medical attendant shall be compelled by fine or imprisonment to report to the sanitary authority every case of infectious disease coming within his knowledge. Lest it may be assumed that the section gave its deliberate sanction to this proposal, I think it well to inform you of the exact circumstances. After a debate, which lasted four hours and a half, and in which the speakers against the proposal were almost as numerous as its advocates, a motion was unexpectedly proposed, no notice whatever of it having been given. The motion declared that the section endorsed Mr. Hastings' Bill, which was not before the section at all, had not been even mentioned in the debate except by the mover, and was entirely unknown to the great majority of those present. As it was manifestly improper that the section should be pledged to approval of a measure of which it was ignorant, I desired to move the previous question as an amendment, and if I had been permitted I am satisfied that my motion would have been carried by a large majority. To my astonishment, it was ruled by the chairman that no amendment of any sort could be entertained, and that a Yes or No vote should be taken on the merits of Mr. Hastings' proposal. Such a

question being put from the chair, the great majority of those present declined to vote, and a small minority of the section decided the question affirmatively. No doubt use will be made of this vote to support Mr. Hastings' Bill in the next session of Parliament, but I think it will be agreed that an expression of opinion, forced without notice, and without permitting any alternative proposition to be considered, is entirely valueless. And I am further of opinion that the ruling of the chairman was altogether unconstitutional, and at variance with the usage of the Congress or any other public assembly.—I am, Sir, yours &c.

ARCHIBALD H. JACOB, M.D., F.R.C.S.

Ely Place, Dublin, September, 1882.

## THE QUEEN'S UNIVERSITY DEGREES.

To the Editor of THE LANCET.

SIR,—In your issue of the 23rd inst. I notice a statement made before the Royal Commission on Medical Acts, by Dr. Jacob, of Dublin, where, among other things, he says, referring to the affiliated Colleges of the late Queen's University, "A student attending in a Queen's College may obtain all the lectures necessary for a Queen's University degree (or a Scotch double diploma) in two years." Now, as to the requirements for a Scotch double diploma I know nothing; but regarding the Queen's University, I know that Dr. Jacob's statement is not a fact. It may be a great annoyance for any medical man to be called on to give evidence before a Commission, but if he consents he ought to feel bound at least to be accurate in his statements irrespective of results. The Calendar of the University will prove the truth of my statement; but, in a word, I may just show the impossibility of what Dr. Jacob states. The University requires twenty-four full months' attendance at hospital, and as it is only possible to attend nine months in each year, it will be evident that two years will not suffice, but that it will require three winter terms of six months each and two summer terms of three months each, or, in other words, three years. Besides this, no student can attend hospital during his first year, as he is obliged to be present at College lectures during the roll-call at hospital, and cannot secure "a present" at both places. This brings out a further fact, that each student must therefore begin his hospital attendance after his first year at College, and can thus only secure the necessary certificates in three years and a half.

Dr. Jacob suggests that the reason so many Queen's University students go to Scotland for qualifications—and everyone must admit the proportion is large—is because the term of study at Queen's Colleges is very short. This I have shown not to be a fact. The true reason is this, Queen's University degree is admittedly difficult to obtain, and this Dr. Jacob must know, there being only one-fourth of the students who enter the University who ever obtain its degree. And, as a matter of fact, Dr. Jacob perhaps also knows that students failing at Queen's University go to either the Scotch licensing bodies or to the Royal College of Surgeons, Dublin, and obtain their qualifications.

I am, Sir, yours &amp;c.,

London, Sept. 26th, 1882.

J. W. M.

## SUDDEN DEATH AFTER DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—The case related by Mr. Alfred Charlton in last Saturday's LANCET reminds me of one which came under my observation in 1874, when I was acting as locum tenens for Dr. R. Lowther, of Cartmel, in Lancashire. Diphtheria of a severe type had carried off several members of one of the leading families in the place. Amongst the survivors was a young lady, whose age I do not recollect, but probably about thirteen or fourteen, convalescent as far as general symptoms were concerned, but suffering from precocious pharyngeal paralysis, which rendered deglutition of a sufficient quantity of food impossible. For a week or ten days she had been living upon nutrient enemata, but she was beginning to swallow with greater facility, and appeared in a fair way of recovery, when death occurred in the following manner:—A bedpan, which she required to use for the purpose of defecation, had been slipped, without causing her any exertion, beneath the clothes; but some difficulty taking

place in the passage of the motion, she was in the act of raising herself slightly by the arms, when she fell back dead.

Post-mortem examinations show that the heart in diphtheria is often affected with fatty degeneration, and one of the causes of sudden death is paralysis, or failure of the cardiac muscle. In other cases a fibrinous clot may be found either in the heart itself or in the large vessels.

I am, Sir, your obedient servant,  
Oscar Jennings, M.D.  
Paris, September 25th, 1882.

### "ETIOLOGY OF DIPHTHERIA."

To the Editor of THE LANCET.

SIR,—I read with great interest the report of the outbreaks of diphtheria at King's Lynn, Sale, and Sutton-in-Ashfield, reported in last week's LANCET, and commented upon by you in a leader, as throwing some light on the etiology of an outbreak here, which has haply been to all appearance stamped out, or died a natural death.

Harrow Weald is hilly and woody, lying to the north of Harrow, with a clay soil, the clay extending from twenty feet to forty feet below the surface; has no river or canal. Without making a lengthy report of separate cases, I will remark that the disease seemed to be propagated amongst the children attending the parish schools; but no cause could be discovered by the medical officer of health to account for the outbreak. The schools, however, were closed, but the disease increased. A thorough investigation of the houses at which the disease was rife threw no light on the etiology of the outbreak; milk, water, drains, &c. did not account for it, and had I not seen the report of the outbreaks referred to would have had to be content with suppositions. A sewerage system for Pinner and Harrow Weald has lately been commenced and new pipes laid at a depth of twenty feet below the surface, throughout the whole of the districts, making altogether a length of eight miles. The old pipes have not been interfered with in any way, nor have the new ones been yet connected with any house, thus sewage matter has not been exposed, and so the outbreak was not connected with the new scheme.

The question therefore is, Have some long-buried germs of some indigenous diphtheria, causing microzymes, been unearthed, and, aided by season and atmosphere, given rise to a fresh outbreak? The outbreak was preceded by (one might call it) a "mumps" epidemic, which, I am convinced, was true mumps, and not mild cases of diphtheria. I had no case of scarlatina or measles. None of the men at work on the excavations had the disease; but this is in no way strange, as children are much more liable to it than adults. The only two cases of adults having diphtheria that I had seen to have caught the disease by direct infection from nursing children suffering from it; the disease, however, takes a much more malignant form in adults.

With regard to the action of diphtheria on the heart much remains to be discovered; several patients, some seemingly convalescent (although I notice it only occurs in those who have the more malignant form of the disease), complain suddenly of violent pain in the cardiac region, and as suddenly expire. Can any theory be suggested about this? Although the symptom is mentioned in some text-books, I have never seen an attempted explanation.

I am, Sir, yours obediently,  
PERCY POPE, M.R.C.S., &c.,  
Medical Officer, Pinner and Harrow Weald Districts.  
Pinner, September 25th, 1882.

### NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

OUR very modern "city," but very ancient town, has lately become a centre of attraction since the "Congress season," which has—as has been humorously said—"set in with its usual severity." It may not be known to all your readers that we have at Tynemouth now an exhibition of naval architecture, fishery appliances, and machinery, exhibiting the manufactures of the district from Armstrong guns and steam dredgers to Swan lights and swing bridges, and life-saving apparatus—indeed, I might say, that all machinery connected with the sea, and much of what is

connected with the land, has a temporary home and resting-place at the beautiful aquarium at Tynemouth. This rising watering-place is to all intents and purposes a suburb of Newcastle, being reached by rail in a very few moments. The success of this exhibition has exceeded all expectations; 18,000 persons have visited it on a single day, and for the short time it has been opened 100,000 persons have passed in. I would strongly advise all who have the opportunity to pay it a visit, as there is much to interest a medical visitor.

The above great attraction and the Sanitary Institute of Great Britain Congress have crowded our city with visitors. The Congress began yesterday, and "made a good beginning," most travellers would say, by a public luncheon at 1 P.M., while at 3 P.M. the exhibition was opened. This, of course, is an exhibition in our city of sanitary apparatus and appliances, and is quite distinct from the one before mentioned at Tynemouth. It is really a wonderful collection, from all parts of the empire and the Continent, of objects connected with health, such as baths, lavatories, heating, cooking, lighting, ventilation, feeding, clothing, filtering, disinfecting, *et hoc genus omne*. Lectures on cooking are to be given daily, while prizes and certificates are to be awarded by competent judges. Our *confrères* here have made due arrangements for all professional and lay visitors who wish to see our medical institutions. At the Infirmary (250 beds) the physicians and surgeons will conduct professional visitors, while the house-governor and house-surgeons will conduct other members of the Congress. Our city is fully supplied with special medical institutions; I need only mention the Child's Hospital, the Women's Hospital, the Eye Infirmary, the Skin Hospital, Hospital for Diseases of the Chest and Throat, and Ear Hospital, the staff of which will be glad to receive and conduct members of the Congress. Those who go down to Tynemouth cannot do better than run on to Whitley and visit the noble Convalescent Home (135 beds), with which the name of our esteemed townsman, Dr. Philipson, is so intimately connected. It is modestly called "Home," but at first sight, and afterwards, indeed, from a structural point of view, it might be fitly called a castle or a palace. On Tuesday also the visitors were invited, and had special conveyances provided to take them, to the interesting works of Sir William Armstrong at Elswick, where they witnessed the various processes in this great factory; but the real business may be said to have begun on Tuesday night, when the President, Captain Douglas Galton, F.R.S., gave his address. I can only here give you the heads of this discourse, but even that will show the ground it covered and the importance of the matters touched upon—viz., "Disease conveyed by germs," "Germs in the air," "Germs in the blood," "Germs in the soil," "Germs in fever," "Our countless enemies," "Robust health our defence," "Isolation of fever cases," "Mysterious movements of epidemics," "Impure water," "Impure air," "Sewerage works valuable," "Dust in the air," "The value of sanitary measures," and so on, I might say, on the whole sanitary question in all its bearings. The address was one of "a master," and was listened to with much attention. All our daily papers give it much prominence and discuss its many aspects.

To-day we are promised the following papers and discussions thereon:—In the Section of Sanitary Science and Preventive Medicine: Address by Dr. Embleton. H. E. Armstrong, Esq., our active city officer of health: Sketch of the Sanitary History of Newcastle-on-Tyne; with maps and illustrations of ancient and modern Newcastle. Dr. Alfred Carpenter: The Sanitary Aspect of Dress. Dr. Benjamin Browning: The Effects of certain Paint and Colour Manufactories in London on the Health of the Producers. Captain R. Hildyard: The Influence on Sanitary Progress which Medical Men might exercise in their Private Practice. Dr. Lediard: Arsenic in Domestic Fabrics. Dr. A. E. Harris: Infantile Mortality. Miss Yates: Bread Reform. Then there is to be a conversazione in the afternoon, and another in the evening, which I may call in advance a brilliant one, as the electric light is to be used freely. This entertainment is given in the City Hall, by invitation of our mayor and corporation. So far the Congress has been very successful, and the arrangements made have been most complete and thoughtful; this has been brought about by many willing workers, but especially by the endeavours of Dr. Mears of the Newcastle College of Medicine, and Mr. H. E. Armstrong.

In my letter of next week I hope to report to you the

further proceedings of the Congress; also something more about the exhibition and its contents; while I have been invited to the opening of the College of Medicine here in connexion with the University of Durham, which takes place on Monday, October 2nd.

Newcastle-on-Tyne, September 27th, 1882.

## SCOTTISH NOTES.

(From our own Correspondent.)

A PROPOSAL is at present being considered by the profession in Fifeshire that a medical association should be formed for the county. The object of the association would be to confirm and strengthen the *esprit de corps* which should exist among the members of a liberal profession, and it is intended that the meetings should be held annually in St. Andrews, Cupar, Kirkcaldy, and Dunfermline in rotation. Very satisfactory progress has already been made, nearly fifty members have agreed to join, and the association will be formally launched at a meeting to be held this week in Cupar, under the presidency of Professor J. Bell Pettigrew of St. Andrews. The inevitable dinner will follow the meeting, at which Dr. Pettigrew will deliver an inaugural address.

Dr. Keith's ovariectomy statistics have gained for him the very highest position as a practical surgeon, while his absence of all that approaches self-laudation is equally conspicuous. When he chooses to publish the results gained by him in the newer operation of hysterectomy or removal of the uterus, with or without its appendages, he is likely, judging from his experience so far, to enhance his fame. The enormous mortality in some hands, and the high average when all the cases so far published are considered, make Dr. Keith's present success almost phenomenal. I believe that up till now he has operated in thirteen cases with but one death. One of the last of his patients presented such unpromising features that her ordinary attendant, as well as the gentleman who saw her while in the country previous to the operation, felt confident that she was unequal to the shock of the operation, and their views were made known to Dr. Keith. The state of anæmia, the weak if not diseased heart occasioned by the profuse discharge at each frequently recurring period, as well as other debilitating influences, made the prognosis so exceedingly grave that there seemed almost no hope. But of all this Dr. Keith was equally well aware, while he also knew that there was absolutely no chance of his patient surviving the menopause, still several years off. He removed the uterine mass, which, with the appendages, weighed over nine pounds. The patient had an uninterrupted recovery, and I hear from her former attendant that at the end of five weeks she has been sent to the coast to complete her convalescence. When Dr. Keith gives his results we may feel confident that the fear of injury to his statistics has not deterred him from operating in any case.

The Trades Union Congress resolved at their meeting in Manchester last week to agitate in favour of open inquiry into all cases of sudden and accidental death in Scotland. From other quarters the Lord Advocate has been urged in the same direction; but it will be strange if public opinion in Scotland be found favourable to coroners' inquests. Their remarkable verdicts in England have not generally been considered elucidatory in complex cases, whereas the skilful methods of the Procurator Fiscal, commonly assisted by competent medical men, have left few loopholes for the guilty, while causing a minimum of irritation when no guilt is found. When a post-mortem examination is required, in the vast majority of cases little further inquiry is necessary, a satisfactory explanation is afforded, and further expense is saved.

Though usually highly appreciated in Scotland, it appears that at least two of the many hydropathic institutions recently built have had to succumb for want of support. One in the immediate neighbourhood of Edinburgh has been bought at a very small proportion of the original cost, and will now be converted into a good class school; while it appears that the indefatigable Miss Clugston is anxious to possess herself of the Kilmacollum Establishment, that she may institute a home for convalescents or incurables. This

is so much against the wishes of the villagers and villa residents that they have determined upon united action, and will, if possible, raise sufficient capital to purchase the building.

An enthusiastic meeting of the leading inhabitants of Hawick was held last week, when it was determined to establish a "Technical and Scientific College for the South of Scotland" in that town. Considering the good results already attained by the science class, with its insignificant accommodation, we may anticipate a useful institution, if Hawick can but obtain the sympathy and support of the neighbouring towns. A large sum of money has already been guaranteed.

In the eighth line of my last week's Notes the word "rainfall" should read *rain-band*. The prediction there alluded to was by Mr. Piazzi Smyth, the Scottish Astronomer-Royal, and it has since been much commented on. The Duke of Argyll especially records observations which go to show that such hits as that made by Mr. Smyth with the spectroscope are not likely often to follow the use of that instrument, at least till the conditions affecting the rain-band are more fully understood, and its true value among other factors is better known.

## IRELAND.

(From our own Correspondent.)

DURING the session 1881-82 there were in the Queen's College, Cork, 279 matriculated students and 23 non-matriculated, or a total of 302 in the Faculty of Medicine. Of these 106 were new entries, while the total number of students on the books of the College was 402, as contrasted with 327 in the preceding session. In last February the Queen's University was dissolved, and its graduates made graduates of the Royal University of Ireland, a change which the President is of opinion will act injuriously on higher education. In consequence of the large increase of students year by year the accommodation in the College buildings has proved inadequate, more especially in reference to the chemical laboratory. The present state of this department is very bad, and the President trusts that the necessary funds for the erection of a new laboratory, for which application was made last year, will shortly be provided. In the previous report the want of assistants to the professors in the experimental branches of science, and of the necessity that existed for increasing the teaching staff in the Faculty of Medicine, were referred to. These wants have become more pressing every day on account of the change which has taken place in the mode of teaching the physical sciences and the increase in the number of students.

On the 5th prox. the Council of the Royal College of Surgeons in Ireland will elect examiners for the diploma in dental surgery. Three of the examiners must be Fellows of the College, and three dentists, registered under the Dental Act, to examine in Mechanical Dentistry.

The introductory lecture at the Royal College of Surgeons in Ireland will be delivered by Dr. Jacob, who was appointed lecturer on ophthalmic and auricular surgery on the resignation of Mr. Swanzy. Mr. Smyly will give the address at the Meath Hospital, Mr. Kennedy at the Mater Misericordiæ, and Dr. Quinlan at St. Vincent's Hospital.

The Hospital for Women and Children, Cork, is an admirable institution, but the present building not affording sufficient accommodation, the board of management have issued an appeal for funds to enable them to erect a suitable hospital. A sum of nearly £1000 has already been obtained, of which £700 has been received from the proceeds of a bazaar.

Considerable regret has been expressed by the untimely decease of Dr. William Thompson, of Lisburn, a surgeon of great skill and experience in the north of Ireland, and who commanded a very large practice. Last week after visiting a patient in Belfast he was returning to his home, and at Danmurry Station he incautiously crossed the line, and while doing so was knocked down by a passing train, which caused such injuries as produced death in a few minutes. The deceased was a M.D. of the University of Edinburgh and a Fellow of the Royal College of Surgeons in Ireland.

He settled in Lisburn some thirty years since, and became connected with the County Infirmary, while his skill as an able practitioner spread far beyond the limits of the locality in which he resided. The funeral took place last Monday, his remains being followed to their last resting-place by a very large concourse. Two of those who helped to carry the coffin from the Cathedral to the graveyard were Dr. Musgrave and Mr. Green, the first and last pupils of the deceased.

A nurse, aged twenty-two, belonging to the Belfast Royal Hospital, died last week from strychnine poisoning. At first her death was attributed to epilepsy, but further inquiries and an analysis of the contents of the stomach proved unmistakably that it was a case of poisoning from strychnine. The poison was obtained from the surgery of the hospital, which, from the evidence, it appeared, was more easy of access than it should have been, but the committee previous to the occurrence had framed new rules relating to its care.

### THE FIFTY-FIFTH MEETING OF GERMAN NATURALISTS AND MEDICAL MEN.

(From a Correspondent.)

THE above Association, corresponding to a combination of the British Association and the British Medical Association, has just concluded its annual meeting at Eisenach, so well known to the English tourist. The meeting passed off very well and, socially considered, was a great success, though its scientific outcome fell short of the expectations of many of the members, and for reasons which are not far to seek. The choice of the place had some share in this, for many preferred to study nature, which presents itself here in all its loveliness, rather than attend the "sections;" but a more powerful cause, and one which, I am afraid, will show itself in all the future meetings, more or less, is the establishment of so many congresses of different special branches of medicine, such as for ophthalmology, surgery, and psychiatry, and recently also for clinical medicine. The meeting was very numerously attended, though many of the best-known clinical teachers of the larger universities were absent, and those few present did not take a very active part in the several discussions. The scientific work done consists of general addresses and sectional meetings. Of the general addresses that of Professor Bergmann (the successor of Langenbeck) was the only one of purely medical interest, and had for its title "The Present Methods of Wound Dressings and their Relations to Antisepticity." It was a popular lecture on the antiseptic treatment of wounds and an appeal to the surgeons not to allow surgery to become merely a technical art, and not to forget other important points, such as the stoppage of hæmorrhage, the condition of the parts in and near the wound, and the process of wound healing. Amongst the other general addresses Hæckel's most lucid and masterly oration on Darwin formed the *pièce de résistance*. That Darwin's greatness and merits were done full justice to by this, the foremost of Darwin's expounders, may be easily imagined. It is impossible to give even an outline of this address, which will appear *in extenso* in the "Deutsche Rundschau" for October. I may, however, mention that Hæckel concluded his speech by showing that the adoption of Darwin's theory may be quite in harmony with religion, and he cited a letter written by Darwin in 1879 to a German student who felt his religious belief shaken by the new theory, and who addressed himself to Darwin.

Dr. Aasmaum's address on "Atmospheric Dust" was a clear, concise, and able *résumé* of all that is known respecting its meteorological, chemical, physical, and hygienic relations.

In the different medical sections there is not much new to record, and the absence, except in the Section for Children's Diseases, of a pre-arranged important subject for discussion is especially to be regretted; there is, however, every likelihood that in future the sectional work will be better managed. Nevertheless, some of the papers read were of more than average interest.

The Gynæcological Section was the most industrious, and

amongst the more important papers read were two by Olshausen; one detailing his further experience on the "Total Extirpation of the Uterus per Vaginam," and the other on the "Treatment of Retroflexion," and one by Professor P. Müller on "Puerperal Atrophy."

In the Surgical Section, presided over at one of its sittings by Langenbeck, Professor König showed a patient in whom he removed the greater portion of the sternum, which was the seat of a rapidly growing osteo-sarcomatous growth. The whole of the sternum, except the uppermost part and the xyphoid process, was removed, and during the operation air entered both pleural cavities, and also the pericardium, which was found adherent to the sternum, and was opened during the operation. The patient made a good recovery, and the wound is now almost entirely healed, except at one point where a portion of an adjacent rib is necrotic and keeps up some little suppuration.

The Section of Pathology, owing to its numerical weakness, had to be merged into the Section for Medicine. Prof. Weigert (Leipzig) described a new method of staining the nerve-fibres in the central nervous system, and showed some excellent preparations. The method consists in staining the preparations in acid fuchsin (Fuchsin, S. 130 of the Berlin Aniline Manufacture), washing in a weak alcoholic potash solution, and then mounting in the ordinary way in Canada balsam. This method has great advantages above all other methods; it selects the nerve-fibres only, of which it stains portions of the medulla, while it leaves the axis cylinder free, and it picks out the smallest fibres, such as no other reagent, not even gold chloride, does. (As aniline staining forms now such an important part in all microscopic examinations, especially in the detection of micro-organisms, and as the different staining agents vary so very much in their properties, as sent into commerce by the different aniline manufacturers, it will interest many of your readers to know that those used by Weigert, Koch, and other German pathologists are best obtained from Dr. Gübler, 17, Dufour-strasse, Leipzig.)

Of other papers of pathological interest may be cited Dr. v. Mering's paper on the "Removal of Portions of the Cerebellum in Dogs." The removal of superficial parts of both the vermis and the hemispheres produced simply temporary stiffness of the muscles of the neck (in harmony with Hughlings-Jackson's view on the function of cerebellar cortex); the removal of the whole of the vermis only was followed by permanent symptoms, consisting chiefly of inco-ordination (in harmony with Nothnagel's views). Dr. Gudden read, in the Neurological Section, a paper on the "Course of the Optic Nerves." From a series of experiments on young animals (cats and rabbits) Gudden does not believe either in Munk's or Ferrier's cortical centre, but places the centre of vision in the corpora quadrigemina, and distinguishes three centres—one for vision, one for the dilatation of the pupil, and one for the contraction of the pupil. The series of experiments is, however, not yet concluded. The only other incident in the pathological section was a powerful speech by Professor Zünker, in which he warmly defended Dr. Koch against the treatment the latter recently received at the hands of Pasteur at Geneva. From the feeling which this speech elicited it is evident that the arbitrary behaviour of Pasteur will still further increase the coolness existing between French and German savants.

In the Section for Medicine I wish to notice a paper by Professor Quincke on the Dyspnoea produced by large doses of salicylate of sodium, a paper by Professor Ewald on the Presence of Chloride of Leucin in the Gastric Juice, and one by Dr. v. Mering on the Anæsthetic Action of Acetal. Large doses of dimethylacetal and diethylacetal seem all to this author's experiments to produce anæsthesia, and even death, without affecting the heart's action. Their action would thus differ materially from that of chloral. Given to healthy men, even very large doses of these compounds produce simply sleep of a few hours' duration.

In the Section for Children's Diseases several important topics were discussed, such as animal vaccination (which found many and strong advocates), the feeding of infants and the different substitutes for mother's milk, milk as a carrier of infection, and such like. A subject for discussion at the next annual meeting, which is to be held at Fribourg, was arranged for; and at the suggestion of Dr. Steffen and Professor Demme, the tuberculosis in children, especially in its etiological and pathological relations, was chosen.

Eisenach, Sept. 24th, 1882.

## Medical News.

**APOTHECARIES' HALL.**—The following gentleman passed the examination in the Science and Practice of Medicine, and received a certificate to practise, on Sept. 21st:—

Marmaduke Pittard, Guernsey.

The following gentleman also on the same day passed the Primary Professional Examination:—

George Birnie Hill, University College.

At the Preliminary Examination in Arts, held at the Hall on Sept. 21st and 22nd, 142 candidates presented themselves, of whom 95 were rejected, and the following 47 passed and received certificates of proficiency in General Education:—

FIRST CLASS.—Wm. Rickwood Baeot.

SECOND CLASS (in alphabetical order).—E. Barrett, C. W. Bellamy, R. A. Bramber, S. W. A. K. Broadway, G. Brown, F. A. Collington, T. A. B. Cooke, C. W. Crassweller, E. J. Cross, C. H. Dixon, E. A. Field, H. B. Garrett, G. T. Giddings, E. C. Greenway, W. J. Hoasmad, H. G. Henry, W. H. E. Howes, M. Imray, J. Angell James, R. B. Jeune, H. B. Knoblauch, T. H. Leggett, I. MacCarthy, H. F. Mantell, E. E. Morrall, P. L. Nettlehip, F. J. Nisbet, F. J. J. Orton, Frank Osborn, C. S. Pethick, T. E. P. Pollard, E. M. Quinby, A. F. Richards, W. H. Robinson, W. H. C. Roughhead, C. H. Sandbach, H. B. Shepherd, H. Archbold Smith, Percival Smith, Charles Wade, Chas. S. Watson, Chas. H. Wild, Evan Jas. Williams.

The following passed in Elementary Mechanics only:—

P. H. Daniell. | J. G. Johnson. | Ewen C. Stabb.

A BAZAAR held last week in aid of the funds of the Frome Cottage Hospital realised upwards of £100.

THE new small-pox hospital at Leeds is now ready for occupation. The cost of the building has been £2400.

THE Princess Beatrice has consented to become President of the new Shetland and Orkney Islands centre of the St. John Ambulance Association.

THE foundation stone of the new Sunderland and Durham County Institute for the Blind was recently laid in Sunderland by the Earl of Durham.

DR. ALLATINI, a Turkish physician, and distinguished for his philanthropic labours, principally in connexion with the establishment of schools, has just died.

THE yellow fever epidemic still rages in Texas and Florida. The mortality from the disease is not very great, but the anxiety and distress caused by it are considerable.

A FEVER hospital, with accommodation for twenty-four patients, is being erected at Maidstone. The buildings are to cost £3630. The site was purchased for £900, and another £800 is to be expended in enclosing it.

THE Local Board of Brentford has agreed to a sewerage scheme, the cost of which is to be £25,000. The sewage will be submitted to chemical treatment at Ealing, where works for the purpose will be erected.

THE concert given last week by Madame Adelina Patti in behalf of the funds of the Swansea Hospital was very successful, and will result in a large accession to the pecuniary means of the institution.

THE Library of the Royal College of Surgeons, which has been closed for a month for the necessary repairs, dusting, and cleaning, will reopen on Monday, Oct. 2nd. The Museum, not yet being finished, will be closed until further notice.

**ROYAL ALBERT ASYLUM, LANCASTER.**—The anniversary festival in connexion with this asylum for idiots and imbeciles was held on Wednesday at Preston. At noon the Rodgett Infirmary was formally opened at Lancaster, by the Earl of Lathom. The new infirmary is intended to accommodate those patients in the asylum who are suffering from infectious diseases. After the opening of the infirmary the party proceeded to Preston, where the annual meeting of the subscribers was held in the Town-hall. The Mayor of Preston presided. The annual report showed the institution to be in a very flourishing position. There are at present 482 patients, and the annual expenditure is £17,500. Last year the income was £19,778. There is accommodation for 120 additional inmates when the funds will warrant the expenditure, and a strong appeal was made for additional contributions. The results of the treatment in the institution are described as having proved most beneficial. After the general meeting a banquet was held in Preston Town-hall.

## PRIZES AT THE MEDICAL COLLEGES AND SCHOOLS.

THE following prizes and scholarships have been awarded for the Sessions 1881-82.

ST. BARTHOLOMEW'S.—Lawrence Scholarship and Gold Medal, R. J. Collyns; Brackenbury Medical Scholarship, C. A. Morton and T. W. Shore; Brackenbury Surgical Scholarship, R. J. Collyns; Senior Scholarship in Anatomy, Physiology, and Chemistry, E. C. Pettifer; Open Scholarships in Science, J. Elliott, E. C. Stocker; Preliminary Scientific Exhibition, H. W. Gardner and F. N. Brown; Jefferson Exhibition, E. O. Fountain; Kirke's Gold Medal, R. J. Collyns; Bentley Prize, R. J. Collyns, R. D. Batten; Hieben's Prize, C. B. Innes; Wix Prize, J. Robinson; Harvey Prize, H. C. Chapman; 2, J. Gay; 3, G. L. Wallis; 4, H. H. Fisher; 5, S. K. Allcock; 6, Wunderlich; 7, G. P. Newbolt; Practical Anatomy, Senior, Foster Prize, C. Heath; 2, S. H. Habershon; 3, F. E. Mathews; 4, E. Jessop; 5, H. C. Chapman; 6, O. R. Julian; 7, S. J. Palmer; 8, F. P. Maynard; 9, J. P. Roughton. Practical Anatomy, Junior, Treasurer's Prize, K. Humphry; 2, T. M. Wright; 3, R. H. Coombes; 4, T. W. Duff; 5, R. F. Towers; 6, L. P. Shadbol; 7, B. Farnwall; 8, J. Soutter; 9, H. W. Gardner; 10, H. D. Rolleston. Junior Scholarships, W. G. Spencer; 2, J. Gow; 3, H. D. Rolleston.

CHARING-CROSS.—(Summer Session, 1881, and Winter Session, 1881-82).—Llewellyn Scholarship: certificate and £25, C. F. Clarke. Golding Scholarship: certificate and £15, H. A. Sheppard. Governors' Clinical Gold Medal, E. Atkins. The Pereira prize: certificate and £5, A. E. Dodson. Senior Anatomy: silver medal, H. A. Sheppard. Junior Anatomy: bronze medal, E. T. Gregory. Physiology: silver medal, E. S. Barnett. Practical Physiology: silver medal, A. R. Jolliffe. Chemistry: silver medal, F. O. Shedman. Practical Chemistry: silver medal, G. Morgan. Senior Medicine: silver medal, G. H. Phillips. Junior Medicine: bronze medal, G. Morgan. Senior Surgery: silver medal, G. H. Phillips. Junior Surgery: bronze medal, G. Morgan. Botany: silver medal, R. Fletcher; Materia Medica: silver medal, G. Morgan. Midwifery: silver medal, G. H. Phillips. Forensic Medicine: certificate, E. Atkins and H. d'Arcy Power, (equal). Pathology: silver medal, G. H. Phillips.

GUY'S.—Open Scholarship in Arts: Albert Edward White. Open Scholarship in Science: John Wychemford Washbourn. The Treasurer's Gold Medal for Medicine: Lauriston Elgie Shaw. The Treasurer's Gold Medal for Surgery: John Alfred Parry Price. Beane's Prize for Pathology: John Alfred Parry Price. Michael Harris Prize for Anatomy: George Elliott Caldwell Anderson. Fourth-year Students: Louis Albert Dunn, first prize, £25; Thomas Carr, second prize, £10. Third-year Students: Edgar Ernest Masters, first prize, £25; Francis Barclay Willmer Phillips, second prize, £10. Second-year Students: George Elliott Caldwell Anderson, first prize, £25; Reginald Maurice Henry Randall, second prize, £10. First-year Students: John Wychemford Washbourn, first prize, £50; Sydney Wachter, second prize, £25.

KING'S COLLEGE.—Warneford Scholars: Ernest Paul Alphonse Mariette, Richard John Stephens, Cecil Danford Greenwood, Sambrooke Exhibitors: Philip Henry Hensley, Evan Lewis Hickey. Clothworkers' Exhibitioner: James Wheatley. Senior Medical Scholar: Walter Tyrrell Brooks. Second-year Scholar: John Power Gray. Junior Medical Scholars: Albert Carless, James Wheatley, Albert Lindow. Winter Session: Jeff Medal, John William Kealy; Warneford Endowment, Herbert Crowley Dent and John William Kealy, prizes; Leathe's Endowment, Obadiah Johnson, prize; Anatomy, Charles Harry East, prize; Physiology, Cornelius Clement Caleb and Robert Chambers Priestley, equal, prizes; Chemistry, John Freeland Freeland, prize; Medicine, Robert Garner Lynam, prize; Clinical Medicine, Robert Garner Lynam, prize; Surgery, Robert Garner Lynam, prize; Clinical Surgery (Professor Wood), Walter Tyrrell Brooks, prize; Clinical Surgery (Professor Lister), Bertram Herbert Stevens, prize; Comparative Anatomy and Zoology, Arthur Egerton Hensley, prize. Summer Session: The Todd Clinical Prize, Lewis Archer Buck; the Tanner Prize, Herbert Crichton M'Donnell; Obstetric Medicine, Charles Harry East, prize; Forensic Medicine, Nathaniel Henry Turner, prize; Materia Medica, Augustus Frederick Dimmock and George Wale, prizes; Practical Chemistry, Philip Percy Manning, prize; Botany, Arthur Egerton Hensley, prize; the Carter Prize for Botany, Albert Carless, gold medal and prize; Pathological Anatomy, Nathaniel Henry Turner, prize; Practical Physiology, Ernest Paul Alphonse Mariette, prize; Practical Biology, Arthur Egerton Hensley, prize.

LONDON.—Entrance Science Scholarship: £60 scholarships, F. J. Smith; £40 scholarship, not awarded. Buxton Scholarships: £30 scholarship, S. R. Hodge; £20 scholarship, J. W. Pugh. Letheby Prize for proficiency in Chemistry, £30, A. J. Richardson. Anatomy, Physiology, and Chemistry: £25 scholarship, given by the Medical Council, F. Hichens; Anatomy and Physiology, £20 scholarship given by the Medical Council, H. Cropley. Clinical Medicine: £20 scholarship, given jointly by the House Committee and the Medical Council, R. F. Fox. Clinical Surgery: £20 scholarship, given jointly by the House Committee and the Medical Council, R. F. Fox. Clinical Obstetrics: £20 scholarship, given jointly by the House Committee and the Medical Council, A. J. Richardson. Dressers' prizes for zeal, efficiency, and knowledge of Minor Surgery, given by the House Committee: £15 prizes, J. M. Evans and J. E. Crisp; £10 prizes, J. Thomas and F. Hichens; £5 prize, not awarded. Dissection prizes: H. Jabboor, jun., and H. Jabboor, sen. Osteology prizes, in lieu of £15 not awarded for Minor Surgery: J. Vincent and C. T. Samman.

MIDDLESEX.—Broderip Scholarships for the best examination at the Bedside and in the Post-mortem Room: First, A. E. Tate; second, George Frost. Governors' Prize, W. H. Crago; Exhibition in Anatomy, first year, Bernard Lawson; Medicine, W. H. Crago, H. J. Thornton; Surgery, W. H. Crago, H. J. Thornton; Pathological Anatomy, W. H. Crago, H. J. Thornton; Practical Surgery, C. L. Hudson; Anatomy, C. L. Hudson; Physiology, C. L. Hudson; Chemistry, T. H. Williams; Dissections, E. G. Foot; Midwifery, C. L. Hudson; Forensic Medicine, E. G. Foot, J. S. Robertson; Materia Medica, T. H. Williams; Practical Chemistry, R. Trood, T. H. Williams; Botany, T. H. Williams; Practical Physiology, E. B. Osmond; Comparative Anatomy, C. L. Hudson;



Psychological Medicine, C. L. Hudson; Medical Society's Prize, C. L. Hudson. Entrance Scholarships, Oct. 1881, first, A. B. Hinde; second, E. B. Osmond. Certificates of honour in order of merit: Surgery, R. S. Bowker, W. W. Linney; Pathology, P. W. Bassett-Smith, V. H. W. Wingrave; Practical Surgery, A. F. Stace, E. H. Freeland, B. F. Hartshorne, N. H. Forbes; Anatomy, A. F. Stace, E. Foot, J. K. Frost, E. H. Freeland, J. S. Robertson, N. H. Forbes; Physiology, A. F. Stace, J. S. Robertson, A. Y. Rely, E. H. Freeland; Chemistry, J. Petherbridge, C. J. Tabor, H. Baldwin; Midwifery, J. S. Robertson, A. Kirby, A. Y. Rely, E. G. Foot; Materia Medica, Ifor Davis, W. J. Spoor, C. J. Tabor, R. Trood, B. Lawson, A. B. Hinde; Practical Chemistry, Ifor Davis, G. S. Ware, C. J. Tabor, W. J. Spoor, A. E. Brackenbury, C. E. Thomas, B. Lawson, A. B. Hinde, E. Nicholson, R. Roberts; Botany, B. Lawson, R. Trood; Practical Physiology, M. Bates, S. Nicholson, F. M. Cealy, C. J. Tabor, G. S. Ware, E. L. Buckland, B. Lawson, A. Thomas; Comparative Anatomy, E. T. Collins; Psychological Medicine, H. G. Nicholson, A. W. Ogle, J. S. Robertson, E. H. Freeland, E. G. Foot; Dissection, C. L. Hudson, W. E. Newey; Prosectors, R. S. Bowker, W. H. Livermore; H. G. Nicholson, J. R. Roberts.

DURHAM, Newcastle-upon-Tyne.—Summer Session, 1891: Botany, medal and first certificate, William Jaques; Practical Chemistry, medal and first certificate, W. Jaques. Practical Physiology, medal and first certificate, W. H. Wigham; Materia Medica, medal and first certificate, William Jaques. Midwifery, medal and first certificate, not awarded. Medical Jurisprudence, medal and first certificate, A. Hepworth. Therapeutics, medal and first certificate, A. Hepworth. Pathology, medal and first certificate, Charles S. Blair.—Winter Session, 1891-92: Senior Anatomy, medal and first certificate, J. S. Revely. Junior Anatomy, medal and first certificate, F. Proud. Dissections, medal and first certificate, T. Clifford. Senior Physiology, medal and first certificate, not awarded. Junior Physiology, Medal and first certificate, A. Green. Medicine, medal and first certificate, S. Brookfield. Surgery, medal and first certificate, C. H. Milburn. Public Health, medal and first certificate, S. T. Fruen.

OWENS COLLEGE.—Turner Scholarship, £25, no competition. Dumbley Surgical Prize, £20, John M. Beverley and John S. Withers. Platt Physical Exhibitions, £15 each, second year, no competition; first year, Robert Briggs Wild, and prox. acc., William Gordon Little. Dauntsey Entrance Scholarship, £100, Robert Briggs Wild. Class prizes: Third year—Medicine, £5 5s., W. Thorburn; Midwifery and Diseases of Women and Children, £5 5s., R. Jennings and Ernest Septimus Reynolds, and prox. acc., Gilbert Lacy Barritt and John Hervey Jones; Pathology and Morbid Anatomy, £5 5s., Wm. Thorburn; Medical Jurisprudence, £3 3s., William Jones Black; Hygiene, £3 3s., Wm. Thorburn; Practical Surgery, £3 3s., John Hervey Jones; Ophthalmology, £3 3s., Wm. Thorburn. Second year—Anatomy, £5 5s., Alfred W. H. Walker and Richard Thomas Williamson; Physiology, £5 5s., Otto Jackson Kauffmann; Surgery, £5 5s., Otto Jackson Kauffmann; Materia Medica, £3 3s., Richard Thomas Williamson. First year—Anatomy, £5 5s., George Frederick William Braide; Physiology, £5 5s., Robert Briggs Wild; Practical Physiology, £3 3s., Brian Melland; Practical Chemistry, £3 3s., John William Talent; Botany, Lectures, John Beard; Practical Botany, James Edwin Thompson.

QUEEN'S COLLEGE, BIRMINGHAM.—Winter Session: Medicine, medal and first certificate, S. C. Lawrence. Surgery, medal and first certificate, J. H. North. Pathology, medal and first certificate, S. C. Lawrence. Physiology, medal and first certificate, C. E. Puralow and G. H. Nelson (equal). Practical Physiology, medal and first certificate, G. H. Nelson. Anatomy, medal and first certificate, C. E. Puralow. Junior Anatomy, medal and first certificate, W. B. Featherstone. Practical Anatomy, medal and first certificate, C. E. Puralow. Junior Practical Anatomy, medal and first certificate, W. F. Emery. Chemistry, medal and first certificate, W. Aston.—Summer Session: Midwifery, medal and first certificate, C. E. Oldacres. Forensic Medicine, medal and first certificate, E. D. Vinrace. Practical Chemistry, medal and first certificate, S. Barwise. Materia Medica, medal and first certificate, S. H. Harrison. Botany, medal and first certificate, W. B. Featherstone. (The Sands-Cox prize was not awarded.)

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

ANDREWS, ARCHIBALD G., M.R.C.S., has been appointed a House-Physician at the London Hospital.

CASEY, PHILIP FORTH, L.R.C.S.I., L.K.Q.C.P.I., has been appointed Visiting Surgeon to Hay Gaol, N.S.W.

DESHON, FREDERICK PETER, M.R.C.S., L.S.A.Lond., has been appointed Medical Superintendent at the Beechworth Lunatic Asylum, Victoria.

DUNLOP, J. D., M.B. Edin., L.R.C.S.E., has been appointed Senior Medical Officer at the Adelaide Hospital, Australia.

FENTON, GEORGE, M.R.C.S., L.S.A.Lond., has been appointed Honorary Consulting Accoucher to the Western Dispensary, vice T. Chambers, M.D., F.R.C.P., resigned.

HENRY, THOMAS, L.R.C.P. Ed., L.R.C.S. Ed., has been appointed Medical Officer for the Pomeroy Dispensary District, co. Tyrone, vice R. Henry, resigned.

HODGSON, G. G., M.R.C.S., has been appointed Honorary Surgeon to the Bootle Borough Hospital, vice C. Swaby-Smith, M.R.C.S., resigned.

HORMAZDJI, ROBERT M., M.R.C.S., L.R.C.P., L.S.A.Lond., L.M., has been appointed Assistant-Surgeon to the Cape Copper Mining Company (Limited), at their Works at the Cape of Good Hope.

JOHNSON, THOMAS, L.F.P.S.Glas. & L.R.C.P.E., has been appointed Medical Officer to the No. 2 or Knottingley District of the Pontefract Union, vice E. Stone, resigned.

KNIGHT, CHARLES FRED., M.D., M.Ch. Q.U.I., has been appointed Physician to Mercer's Hospital, vice Duffey.

LEE, HENRY BOYNTON, F.R.C.P., late of the Leeds School of Medicine and Infirmary, has been appointed Demonstrator of Anatomy and Physiology at the Sheffield School of Medicine, vice Dr. White.

NEVE, ERNEST F., M.B. & C.M.B., M.R.C.S., has been appointed Resident Physician to Cowgate Dispensary, Edinburgh.

REDWOOD, THOS. HALL, M.D., C.M.Dur., L.R.C.P. Ed., M.R.C.S., has been reappointed Medical Officer of Health for the Rymney Urban Sanitary District.

SYMES, JAMES, L.R.C.P. Ed., L.R.C.S.I., has been reappointed Medical Officer of Health for the Briton Ferry Urban Sanitary District.

VIVIAN, GEORGE E., M.R.C.S., has been appointed Medical Officer for the Tollerton District of the Great Ouseburn Union.

WALLERS, WILLIAM, M.R.C.S., has been appointed House-Surgeon to the Blackburn and East Lancashire Infirmary, vice Firth, resigned.

WANKLYN, JAMES A., F.G.S., has been reappointed Public Analyst for the Borough of Buckingham.

WEBB, HUGH GEORGE, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer of Health for the Northleach Rural Sanitary District, vice the Poor-law District Medical Officers, whose appointments have expired.

WEISS, WILLOUGHBY, L.D.R.C.S.E., has been appointed Honorary Dental Surgeon to the Western General Dispensary, Marylebone-road, W.

WILLETT, GEORGE G. D., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the No. 2 District of the Bristol Union.

WINDLE, BERTRAM C. A., A.B., M.B., B.Ch., Dip. State Med. Univ. Dub., has been appointed Pathologist and Registrar to the General Hospital, Birmingham.

## Births, Marriages, and Deaths.

### BIRTHS.

BROWNRIGG.—On the 25th inst., at Hill House, Gravesend, the wife of T. Annesley Brownrigg, M.A., M.D., of a son.

DOUGLAS.—On the 26th inst., at Avenue House, Leamington, the wife of W. Douglas, M.D., of a son.

LEFTWICH.—On the 20th inst., at Newcross-road, the wife of Charles Harcourt Leftwich, Surgeon, of a son.

MANSON.—On the 13th inst., at Littlewood-park, Alford, Aberdeenshire, the wife of Dr. P. Manson, of a son.

### MARRIAGES.

BRANFOOT—OGG.—On the 16th ult., at Coonoor, Neilgherry Hills, Madras Presidency, Arthur Mudge Branfoot, Esq., M.B., Surgeon Indian Medical Department, to Alice Stewart, daughter of G. E. W. Ogg, Esq., M.B., Officiating Deputy Surgeon-General to Her Majesty's Forces, Secunderabad.

MEYERS—WOODLEY.—On the 21st inst., at the Parish Church, Lewisham, by the Rev. C. D. Farrar, Herbert Henry Meyers, M.R.C.S., L.R.C.P. Ed., of Battersea, to Jessie Amy, second daughter of John Woodley, of Forest-hill.

PHILLIPPS—ANDERSON.—On the 21st inst., at St. Bartholomew's Church, Sydenham, William Alfred Phillipps, M.D., L.R.C.P. Lond., of Faversham, Kent, eldest son of William Phillipps, Esq., of Plymouth, to Isabella Grace, eldest daughter of William Cuning Anderson, Esq., of Aberdeen House, Sydenham.

SAVILLE—BOOTH.—On the 21st inst., at St. Margaret's Church, Holyrood, Prestwich, Manchester, John George Saville, L.R.C.S., L.R.C.P. Radcliffe, Manchester, to Elizabeth, elder daughter of the late John Booth, Esq., of Radcliffe. No cards.

WILCOX—CROWLEY.—On the 23rd inst., at All Saints' Church, Shooter's-hill, Henry Wilcox, M.B., M.R.C.S., of Dorchester House, Herbert-road, Woolwich, to Edith Mary, eldest daughter of L. A. Crowley, Esq., of Cambridge House, St. John's, S.E.

### DEATHS.

BAIN.—On the 21st inst., at Fulham-park-gardens, London, James Bain, M.D., Surgeon-Major H.M. Bombay Army (retired), second son of the late John Bain, Esq., of Morriston, Lanarkshire, N.B.

BELL.—On the 20th inst., at Baby-place, Bath, Henry Bell, M.D., aged 85.

BIRD.—On the 21st inst., at Kirby House, Heaton Chapel, near Stockport, John Durham Bird, M.B., aged 44.

GREENLEES.—On the 10th ult., at Muskoka, Canada, Alexander Greenlees, M.B. Toronto, aged 39.

HOGG.—On the 21st inst., at Morar, Galloway, after a long period of illness, Francis Roberts Hogg, M.D., Surgeon-Major, eldest son of the late John Hogg, M.D., formerly of Truro, Cornwall, aged 44.

ROGERS.—On the 21st inst., at Seampur, Bedford, Charles James Rogers, Deputy Surgeon-General, Indian Medical Department, 1 his 60th year.

THOMPSON.—On the 22nd inst., William Thompson, M.D., F.R.C.S.I. of Lisburn, aged 76.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### A POETICAL VIEW OF DEATH FROM CONSUMPTION.

WE extract the following passage from a book, the "Life and Letters of Edgar Allan Poe," by John H. Ingram, published by Hogg. All biography, by the way, is a branch of study peculiarly proper to medical men, and not least so the biography of a man like Poe. Poe's constitution was intensely of the poetical cast, with strange, but not uncommon, relation to the abnormal and the morbid. His life and his death, his habits and his opinions, are all worthy of the attention of those who wish to understand man and the bounds of his mental range. Hearing of the death of a friend from consumption, he wrote:—"How could she die of consumption! But it is a path I have prayed to follow. I would wish all I love to perish of that gentle disease. How glorious! To depart in the heyday of the young blood, the heartfull of passion, the imagination all fire, amid the remembrance of happier days." Our object is not to criticise this romantic view of phthisis, which seems to us as false as can well be, but to record it.

*Beta.*—We think the charges mentioned are quite reasonable. We do not like to see separate charges for medicine; but this does not affect the reasonableness of the tariff as a whole.

### A DISAGREEABLE DUTY.

*To the Editor of THE LANCET.*

SIR,—I feel that on professional grounds the unpleasant duty of accompanying an injured person to a hospital should be well represented. A short time ago I took a serious case of accident to the London Hospital. There had been sudden and great loss of blood from an injury to the vessels of the upper part of the forearm, and the man had been insensible, with stertorous breathing, ten or fifteen minutes previous to my arrival. The only notice taken of my request for a chair was by the porter addressing himself to the patient with, "Ere, you can walk all right; catch hold of my arm." I insisted that the semi-unconscious man (whose brachial I still held under my fingers) should be provided with a chair. This was then procured, and he was wheeled into the surgery, where a nurse was ordered to attend on the patient. She approached with scissors, apparently to remove the compress I had applied, and proceeded to take the arm from me, to which I objected, and said I was a medical man, and wished the house-surgeon to take the case out of my hands. He was informed of this by the nurse, whom he ordered to apply an elastic bandage, and ostentatiously proceeded to examine a minor case. Eventually I gave my history of the injury without eliciting either a reply or a look from this official, who turned on his heel.

Now, although I am not one who expects to be treated with deference by a fellow professional, I certainly think that a house-surgeon, if he cannot practise absolute politeness in the consulting-room, should try to attain to the standard of courtesy which usually exists among medical men, and not treat with contempt an outside practitioner whose duty brings him within the precincts of the hospital.

I am, Sir, your obedient servant,  
Shoreditch, Sept. 19th, 1882.

ALFRED WISE, M.D.

### "CHRONIC URETHRAL INFLAMMATION."

*To the Editor of THE LANCET.*

SIR,—In reply to your correspondent, "Young Surgeon," may I suggest that he should satisfy himself as to the absence or presence of a gouty diathesis. If his examination leads him to suspect its possibility, I would suggest the trial of salicylate of lithia in ten-grain doses three times a day.

I am, Sir, yours faithfully,

Kineton, Warwick, Sept. 25th, 1882.

KENNETH W. MILLICAN.

### THE SAMARITAN MOVEMENT IN GERMANY.

THE question of affording instruction to members of the general public as to the first steps necessary to be taken in cases of accidents, &c., has excited a good deal of attention in German medical circles. Fairs have been expressed that the holding of certificates of competency would give those who have passed the examination an exaggerated idea of their medical skill. Dr. Esmarch, of Kiel, the promoter of the movement, has explained that it is not pretended to impart any instruction as to curative measures, but simply to diffuse information as to the steps which should be taken to prevent any aggravation of the injury pending the arrival of medical aid. The fact of the assistance of the Samaritans being in all cases gratuitous, tends, in his opinion, to remove any danger of the abuses which it has been feared might affect the value of the system.

### "MEDICAL OPPOSITION TO IMPROVED REMUNERATION TO MEDICAL MEN."

*To the Editor of THE LANCET.*

SIR,—As you have thought fit on the authority of an anonymous "correspondent" to make an attack upon me, I appeal to your sense of justice to allow me to reply. I assume that your "correspondent" was none other than Dr. Barnes himself, as no one but himself had any interest in the matter, and if he has not suppressed the fact you have, that he commenced the controversy by making a personal attack upon the guardians as a body and upon three of them individually by name. He says he wrote for the "benefit of the public" and also in "justice to himself." I replied in "justice to the guardians," which seems to have astonished you. The vice-chairman had pointed out that if the salary had not been increased Dr. Barnes had supplemented it pretty considerably by sending in a bill for "extras," almost equal in amount to the salary, and therefore the request for an increase was unanimously refused. I was not present myself on that day, being ill at home with erysipelas of the face, but had I been present I should have voted as my colleagues did. In my reply to Dr. Barnes's attack I pointed out that his extra charges in midwifery cases were unheard of, so far as I knew, and out of all proportion to those of the other district officers of the union.

He had recourse to instruments in about one case in five—i.e., in twenty-one out of ninety-nine; but I think one of these was a case of version and not of forceps, but it does not materially alter the percentage. I adduced statistics published by the Royal Maternity Charity, from which it appeared that out of 20,000 cases instruments were resorted to in only 501 cases, or about one in 400; from the Lying-in Charity of Guy's Hospital, where the proportion was one in 132, and from our Workhouse Infirmary, where 117 consecutive cases were delivered without any resort to instruments at all. In face of such facts as these I thought—and still think—that Dr. Barnes's charges were monstrously out of proportion to anything I had ever heard or read of.

You assert that there is nothing "more certain than that professional opinion is in favour of a more frequent use of instruments." I should esteem it a very great favour if you would give me your authority for so astounding a statement, inasmuch as all the teachers I have ever heard and all the books I have ever read—and they have not been few—have most emphatically protested against such a practice, and only to be had recourse to as a *dernier resort*. You also say that it is "greatly to be regretted that a medical guardian should raise such a question in the newspapers." I beg to say that I did not "raise" the question. It was "raised" by Dr. Barnes himself in the newspaper, and but for his attack upon the guardians my pen would have been silent. Your last sentence embodies a most extraordinary code of morality. You say that "most medical guardians, even if they approved of an adverse vote against a medical servant, would be thankful for a reasonable excuse for taking no part in the discussion." As it happens, not being present, I did not "take a part in the discussion." On the same grounds I suppose you would excuse a butcher, grocer, or baker, if such happened to be guardians, from not taking a part against a member of his fraternity. Are medical guardians more than others to sit silent or wink at any unusual charges made by their brethren? As you appear to have seen only one side of the correspondence, I send you the whole, not with any expectation that you will print it, still less read the whole of it, but I would draw your attention to the second paragraph of Dr. Barnes's letter, in which you will perceive that he flatly contradicts himself, admitting in one sentence what he had distinctly denied in the preceding one.

In conclusion, I would ask you if you think that "professional opinion," which you assert is in favour of the more "frequent use of instruments," would justify their use in one case in five, or, for the matter of that, one in fifty-five or a hundred and five? My own experience in a midwifery practice of considerable extent, extending over a period of close upon thirty years, in which I attended several thousand cases, enables me to say that they are really not urgently required oftener than about once in 600 or 700 cases.

I am, Sir, your faithful servant,

J. H. SHORTHOUSE.

Croydon, Sept. 26th, 1882.

\* \* We gladly insert Dr. Shorthouse's letter, which raises certain interesting points, the consideration of which, on account of the lateness of the arrival of the communication, we must reserve till next week.—ED. L.

## "A CASE FOR HELP."

THE following subscriptions, received through Dr. Stewart, in Mr. Gaffney's case (THE LANCET, Sept. 16th, p. 464) were announced to us too late last week for publication:—

Mr. W. H. Rix, Taunbridge Wells ..	£5	0	0
Mr. C. Coates, Bath ..	2	2	0
Dr. F. H. Alderson, Hammer-smith ..	1	1	0
Medicus, Surbiton ..	0	5	0

The following additional subscriptions have been received at THE LANCET Office on behalf of the above:—

Mr. Vacher ..	£2	2	0
Anonymous ..	2	0	0
Dr. de Havilland Hall ..	1	1	0

J. B.—It would serve the gentleman right to be made to pay the fee, and if our correspondent has been materially hindered in his movements or holiday by consideration for this engagement, he would do right to take him into court. If not, we should scarcely advise him to take the trouble to go legally into the matter with such a gentleman. It is surely unusual for a stranger to write and ask a medical man to see after a nurse for his wife. By our correspondent's perhaps too ready compliance with that instruction he certainly "greatly obliged" his correspondent, who proved very unworthy of the kindness.

## A SUGGESTIVE POST-MORTEM.

To the Editor of THE LANCET.

SIR,—I enclose you notes of a post-mortem made a few days ago at the coroner's request.

A young woman, aged twenty-seven, was found dead in her bedroom one morning, having retired in her usual health the previous night at 9 P.M. The brain and other internal organs had a healthy appearance, though the lungs were congested. The stomach contained about eight ounces of a brown-coloured fluid, smelling strongly of chloroform. On being filtered, this yielded half an ounce of pure chloroform, which settled to the bottom of the graduated measure in which it was contained. It answered to the different tests, passing the vapour through a red-hot glass tube, dissolving camphor, &c. The exact amount taken could not be ascertained, but four half-ounce vials labeled chloroform were found between the mattresses empty, and smelling strongly of that substance. I forward this as a matter of interest, so much chloroform unchanged and unabsorbed being found in the stomach twenty hours after it must have been taken: as she retired at 9 P.M., was found dead at 9 A.M. the next day, and the post-mortem was not made till 5 P.M. This case also shows the importance and probable benefit of using the stomach-pump promptly, if called to a similar case before life was extinct. Tanner gives a case where a gentleman swallowed two ounces of pure chloroform; the stomach-pump was used seven hours after, and the patient recovered. I am, Sir, yours faithfully,

Sept. 26th, 1882.

B.

Inquirer.—The name of Samuel Thompson Birchell, who in the local newspapers is described as a physician and surgeon, and who committed suicide at Spennymoor last week, does not appear either in the Medical Register or the Medical Directory.

A Young Practitioner.—Registration is necessary for either purpose.

## QUERY.

To the Editor of THE LANCET.

SIR,—Will you be so good as to inform me in your notices to correspondents in what book or books I should find an account of the Biology of Putrefaction and Allied Processes?

I am, Sir, yours truly,

Newark, Sept. 18th, 1882.

W. B. CLIFFORD.

\*. The question is a somewhat wide one, the subject being practically coextensive with that of the life history and properties of bacteria and the microscopic fungi and algae. The most recent researches are to be found mainly in various scientific journals and reviews, abstracts of which appear from time to time in our columns. For a general outline of our present knowledge our correspondent may consult especially Tyndall's "Floating Matter in the Air," Schutzenberger on "Fermentation," and Pasteur on "Wine." For more detailed and recent investigations, original papers in various foreign scientific and medical journals, such as *Comptes Rendus*, *Virochow's Archiv*, &c. The writings of Cohn, Pasteur, Billroth, Lister, Koch, Bastian, Wernich, and a host of others whose names might be mentioned. Very valuable information is contained in the "Mittheilungen aus dem Kaiserlichen Gesundheitsamte," Berlin, 1881.—ED. L.

## "SUDDEN DEATH THREE WEEKS AFTER DIPHTHERIA."

To the Editor of THE LANCET.

SIR,—Mr. Charlton, at page 515 of last week's LANCET, refers to a case of sudden death after diphtheria, requesting an explanation. A reference to my paper, section 819:6, will greatly aid him. Dr. Cumming's paper enters fully into the subject, and shows how paralysis of the cardiac branches of the vagus explains some cases.

I am, Sir, yours, &c.,

Boundary-road, N., Sept. 26th, 1882.

MEDICAL DIGEST.

## VENESECTION.

THE New York Medical Record states that Dr. Forjyce Barker advocates more frequent resort to this now nearly obsolete measure. "He is convinced that in certain cases it is essential to bleed the patient, and that life may be saved thereby." Surely this conviction has never been altogether absent from the minds of medical practitioners.

Mr. R. F. Woodcock.—The best hospital tents we are acquainted with are those manufactured by Messrs. Piggett Brothers, 66, Bishopsgate Without, E.C. They are provided with raised flooring, and with double walls and roofing. Good wooden tents can be procured from Messrs. Lascoll's, of Bunhill-row, E.C. Iron hospital buildings can be seen already erected on an open site in Victoria-street, S.W. As to the use of temporary hospital buildings, consult the recently issued Tenth Annual Report of the Medical Officer of the Local Government Board, pages 10 and 22.

M. G. E.—The practice is very objectionable.

## TREATMENT OF EPILEPSY.

To the Editor of THE LANCET.

SIR,—Would any of your correspondents kindly advise me, from their experience, as to the treatment most likely to be successful in a case of epilepsy in an adult (male, age twenty-five)? The patient in question has suffered from epilepsy for several years, and at the present time has attacks (petit mal) about once a week. Bromide of potassium in doses of twenty to forty grains has been taken by him daily for years, and latterly valerianate of zinc has been given in addition to the bromide, which he is now taking in about three-grain doses three times a day. After commencing the zinc there was an interval of five weeks without an attack, but since then, although the doses of the zinc have been increased gradually from one grain to two and three-quarters, the attacks recur about once a week. The diet has been throughout most carefully attended to, and the usual conditions which are considered essential to the proper treatment of cases of epilepsy have been thoroughly carried out. The mind is quite unaffected, but I am sorry to say the disease has shown itself in other members of the family, a brother and sister of my patient having both suffered from it, though they are now quite free from attacks.—I am, Sir, yours faithfully,

Sept. 26th, 1882.

ALPHA.

## THE D-TRAP.

To the Editor of THE LANCET.

SIR,—In your answer of last week to "Still an Old Subscriber," you have not noted what, to my mind, is the most objectionable feature of the D trap—viz., the impossibility of ascertaining the condition of the leaden tongue. Should it be injured by accident, or corroded by time, it may be absolutely useless as a trap, and yet present a perfect external appearance. The best trap yet invented is the simple syphon-bend—the quicker in the bend the better.

I enclose a sketch plan of the drainage system I am at present introducing into this asylum. It has been found efficient, economical, and well adapted to our special needs.—I am, Sir, yours obediently,

Murray Royal Asylum, Perth, A. R. URQUHART, M.D.,  
Sept. 1st, 1882. Physician Superintendent.

\*. We fully concur with Dr. Urquhart that the system of house-drainage as shown in the plan he sends us is thoroughly efficient. The essential points indicated are those embodied in the model by-laws of the Local Government Board as to house drainage.—ED. L.

Mr. Thomas Richardson.—The answer depends entirely on the nature of the diploma.

Pyrexia has not enclosed his card.

Melbourne had better write to the Secretary of the College.

## INFECTIOUS DISEASE HOSPITALS AND DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—Our infectious hospital is open (three combined authorities), and the Board have decided to admit diphtheria. I am not aware of any infectious hospital admitting such disease, and shall feel obliged if you will give me your opinion before I protest.—I am, Sir, yours truly,

Sept. 20th, 1882. SANTAS.

\*. Diphtheria is essentially a disease to be dealt with by such rigid isolation as can alone be provided in hospitals such as the one referred to, and unless all the wards are occupied by other diseases, cases of diphtheria should on no account be excluded. In the report on infectious hospitals, recently issued by the medical officer of the Local Government Board, many instances will be found of the isolation of this disease in hospitals provided by sanitary authorities.—ED. L.

## USE OF APOMORPHIA.

To the Editor of THE LANCET.

SIR,—Can you or any of your readers give me any account of the use of apomorphia hypodermically? Is it applicable in such cases of alcoholic coma as one gets in police practice frequently where there is great difficulty in administering an emetic? If so, is one-tenth of a grain sufficient, and should it be repeated? I do not find anything about it in the text-books.

I am, Sir, yours truly,

Sept. 26th, 1882.

ME M.

## THE MORTALITY AT GRANADA.

ATTENTION has recently been called to the fact that Geneva is the most healthy city in Europe, the annual mortality being 17 per 1000. Granada has the reputation of being the most unhealthy, the death-rate being as high as 65 per 1000 according to a continental journal.

## POISONING BY EATING MUTTON.

To the Editor of THE LANCET.

SIR,—In Husband's Forensic Medicine a case is given of a boy being poisoned by eating mutton. As there seem to be very few records of this form of poisoning, I beg to bring the following case to your notice. A family of four persons, with a friend, partook of an apparently sound joint of mutton. The next day, Monday, the whole family suffered from slight diarrhoea. On the Tuesday the youngest daughter, aged twenty, presented all the symptoms of severe peritonitis: pain, persistent vomiting, and pyrexia. On this day the father was also seized with severe vomiting, the two other members of the family still suffering from diarrhoea. I was informed that the friend had also suffered from diarrhoea. The youngest daughter and the father continued to present symptoms until the following Monday, when, after the usual treatment for peritonitis, the symptoms gradually wore off, leaving both patients extremely weak. We often hear of butchers being prosecuted for selling bad meat, but it is not often that we see or hear the result of eating this meat. In the above case the illness was most distinctly traceable to its cause, although the symptoms did not come on until the day following, and the cause of the illness might possibly have been overlooked if the accident had not happened to a highly intelligent family. I remain, Sir, yours faithfully,

Putney, September 26th, 1882.

EDW. F. GRUN.

*Difficulty.*—The case is a hard one. It happens almost by the hundred yearly, and, in the absence of any special circumstances, should not hinder the registrar from accepting certificates.

*Dr. Elder.*—Yes.

## "HABITUAL DRUNKARDS."

To the Editor of THE LANCET.

SIR,—Under the above heading a suggestion appears in THE LANCET of September 16th by "M.D.," in which he proposes to deal with them by sending them for a voyage in a testotal ship, which strikes one as not at all a bad idea; but when he proceeds to recommend the establishment of a retreat in a small island, "one of the Channel or Scilly Islands," it scarcely holds out the same prospect of success.

I would remind "M.D." that the ex-King Cetewayo declared that he had no distilleries in his own country, but he found to his regret that a shop had been opened recently on the confines for the sale of intoxicants, and he feared it would be impossible for him to prevent them being sent to his country from without. It is also matter for the grave consideration of "M.D." whether, in dispensing with the guides during the wanderings of his patients, he may not have eventually to institute an efficient staff of coastguardsmen, also liquor proof, or he may possibly find to his discomfort that, although the much-dreaded public-house is avoided, he has unwittingly opened up a new field to the smuggler, and that his patients have very rapidly developed marvellously aquatic tastes.

I beg "M.D." will pardon me for throwing cold water on his philanthropic project.

Sept. 21st, 1882.

I remain, Sir, yours faithfully,

G. P.

X. M. will oblige by forwarding his name and address, not necessarily for publication.

*Dr. Stanley Murray's* paper is marked for insertion.

*Dr. Dearden (Church).*—Soon.

*Mr. C. S. D. Rabbitt.* It is against our rule.

## "TESTIS IN PERINEO."

To the Editor of THE LANCET.

SIR,—Allow me to place on record another instance of this rare malformation, described in your issue of Sept. 10th. The deformity was observed at birth, and the child is now eleven days old, well-nourished, and healthy-looking. The right half of the scrotum is normal, and contains the corresponding testicle; the left half is slightly smaller, or apparently so, and without testicle. On the left side of the perineum, near the inner edge of the thigh, and encroaching slightly by its upper part on the angle between the scrotum and thigh, is a soft swelling of the size of a marble, covered by normal skin, and containing the left testicle. The latter is movable, but cannot be placed in the scrotum or groin. The spermatic cord is traceable upwards.

I am, Sir, yours obediently,

Oldham, Sept. 21st, 1882.

R. BRYDEN HILL, M.D.

## SEWER GAS.

To the Editor of THE LANCET.

SIR,—As much attention is now being devoted to the generation of syphilitic diseases caused by the leakage of gases from the sewers, it is interesting to know that the South Metropolitan Gas Company have just had the ground opened in several places to see if any leakage arose from the joints of the pipes laid in 1879, and they have found them perfectly tight. The material used for this purpose was Spence's metal.

I am, Sir, your obedient servant,

Lombard-street, London, Sept. 21st, 1882.

J. W. BARTLETT.

## DAY NURSERIES.

In answer to a request for information on this subject, a correspondent desires to direct attention to the "Crèche Annual" (Morgan and Scott), by Mrs. Hilton, who founded and still superintends the largest crèche in England.

*R. Scot Skirving, M.B.*—In an early number.

*Mater.*—The Middlesex Hospital.

## DRAIN-PIPES: A QUERY.

To the Editor of THE LANCET.

SIR,—Perhaps some of your numerous readers may be able to offer a hint or two in explanation of the following phenomenon, which has struck me, and probably many others, as being somewhat remarkable, and not without interest in connexion with the effects exerted by drain-pipes on the contiguous soil and atmosphere. Three feet below the surface of the lawn in front of my residence, which is situated miles away from any town, run three earthenware drain-pipes. Two of them convey the sewage from the house and stables respectively to the intercepting sewer; the third is simply a conduit for carrying off storm water. The point to which I wish to direct attention, and as to the rationale of which I should be glad of a suggestion, is the fact that the course of these drains is distinctly marked by the increased luxuriance in the growth and the deeper tint of the grass immediately over them as compared with the surrounding turf. To what can this variation in the condition of the grass be attributed?

I am, Sir, your obedient servant,

September, 1882.

M.D.

## ODE TO CARBOLIC ACID.

To the Editor of THE LANCET.

SIR,—Impromptu lines on reading a telegram that the wounded in Egypt were treated antiseptically:—

Now war is o'er, and times are placid,  
We'll sing of thee, carbolic acid!  
Thou art the friend I would repair to  
For many ills that flesh is heir to.

Our fathers knew thee not, but tried  
Their remedies with guesses wide;  
None approached to thee at all, some  
Used, however, Friar's balsam.

I proved thee first in '67,  
The wounded bless'd thee as from Heaven;  
They landed thee in grateful terms,  
Yet knew no theory of germs.

Should dreaded fever now appear,  
And friends avoid the place with fear;  
With thee we'll dire contagion meet,  
Confining it with sprinkled sheet.

Against pyæmia, putrescent fever,  
We hold in thee a mighty lever;  
For sarcina and ailments peptic,  
All hail to thee, great antiseptic!

Barcelona, Sept. 21st, 1882.

W.

## SPURIOUS HERMAPHRODITISM.

To the Editor of THE LANCET.

SIR,—It may be of interest to state that I have at present under observation a very similar case of spurious hermaphroditism to that mentioned in your columns as being born at the British Lying-in Hospital last Monday, and that I hope to show the child at our next medical meeting here in November. The child is now five-months-old, and although I attended the mother in her confinement, my attention was not directed to the genitals till six weeks later. The description given by Dr. Fancourt Barnes answers in every way for my patient; but it is possible to pass a bent probe into what seems to be the meatus urinarius, and feel its tip in the perineum, thus suggesting there is a vagina behind the perineum. Can Dr. Barnes pass a probe in a similar manner? If so, the question of an operation laying open the occluded vagina seems natural.

I am, Sir, yours truly,

Canterbury, Sept. 23rd, 1882.

BRIAN RIGDEN.

## "EXTRAORDINARY SURGICAL OPERATION."

To the Editor of THE LANCET.

SIR,—With regard to an article recently published in your journal on the above subject, I beg to state that neither Dr. Hinds, Dr. Cullen, nor myself had, directly or indirectly, anything to do with the production you so justly censure. We were all considerably disgusted when, a week or so after its appearance, our attention was called to it. None of us are subscribers to the paper in which it was published. I have ascertained that the article in question was written by a very young apothecary's assistant and embryo medical student ignorantly, but with the best possible intention. I at once remonstrated with the editor on his having published the article without consulting me, but thought best to let the matter drop there.—I am, Sir, yours truly,

Fermanagh Club, Baniskillen,

Sept. 23rd, 1882.

BAPTIST GAMBLE.

*Chandos.*—The main question is a little delicate, and does not admit of an absolute answer. But the case seems to us one in which the ordinary rule could not be held to apply in permanency and to a second generation. The distance and other facts make it unreasonable. At a convenient opportunity it will be right to come to an understanding. The amount of fee is a question to be determined by a due and combined consideration of the custom of the neighbourhood, and the rule which regulates our correspondent's charges in regard to patients at similar distances and in similar circumstances, with perhaps a little difference in favour of the family in view of its medical relations.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Miller, London; Mr. Richardson; Mr. F. Treves, London; Mr. Hawkins; Messrs. Talbot, Gloucester; Dr. Murray, Edinburgh; Mr. Barker, London; Dr. Drummond, Newcastle-on-Tyne; Dr. Gabbett, London; Dr. Neill, New Zealand; Dr. Shorthouse, London; Mr. Wingrave, London; Dr. Evtat, London; Mr. Molyneux; Dr. McVall, Glasgow; Mr. F. Churchill, London; Messrs. Evans, Sons, and Co.; Mr. Dolan, Halifax; Herr Gustav Fischer, Jena; Dr. C. S. W. Cobbold, Earlswood; Dr. Megarry, London; Mr. Rabbitt, London; Mr. Millican, Kington; Dr. G. A. Rogers, London; Mr. W. E. Williams, Dwyland; Dr. Barr, Glasgow; Mr. C. Bischof, London; Mr. Bartlett, London; Dr. West, London; Mr. Moore, Plymouth; Dr. R. B. Hill, Oldham; Mr. Fenton, London; Dr. Armstrong, Newcastle-on-Tyne; Brigade-Surgeon Oughton; Dr. Thomson; Mr. H. Weekes; Mr. R. Rawlinson, London; Dr. Watney, London; Mr. Bernard; Dr. Dearden, Church; Mr. Van Buren, Aylesbury; Mr. Gamble, Enniskillen; Mr. Skirving, Dublin; Mr. Stanley Murray, Richmond; Dr. C. J. Williams, London; Mr. Quinlan, Bombay; Mr. Wheeler, Wokingham; Mr. Hodgson, London; Mr. Grinling, Burton-on-Trent; Mr. Smith, Chipping Ogar; Dr. Nicoll, New-cross; Mr. Dreschfeld; Messrs. Krohne and Sese-mann; Dr. Jacob, Dublin; Dr. Collingridge; Mr. Marcus Beck, London; A Friend of the I.M.D.; Workhouse Medical Officer; S. W., Lancaster; Y. Z., Truro; Sanitas; Difficulty; B.; Alpha; Mater; Agathos; X. M.; S. J. C.; Trocar; D. S.; B. A. F.; Matron, Leicester; J. P.; F.R.O.P.; &c., &c.

LETTERS, each with enclosure, are also acknowledged from—Mr. Powell, Liverpool; Mr. Vacher, Birkenhead; Mr. Smith, Halifax; Mr. Lever, Stratford-on-Avon; Messrs. Harvey and Reynolds; Messrs. Smith and Sons, Norwich; Dr. Thompson; Mr. Graham, Malcolm; Mr. Palmer, Victoria-park; Messrs. Lee and Martin, Birmingham; Mr. W. Adams, London; Mr. Tallent, Sheffield; Mr. Williams; Dr. Clark, Folkestone; Dr. Linde, Ross; Mr. Mayers; Messrs. Jones and Son, Llanfyllin; Mr. Branfoot, Madras; Mr. Walker, Pottton; Mr. Savill, Radcliffe; Messrs. Black and Johnston, Brechen; Dr. Alpha, Hull; Mr. Lay, Great Aytton; Mr. Meadows, Leicester; Dr. Burnett, Mottram; Mr. Pace, Newcastle; Mr. Neame, Bircbington; Mr. Robson, South Shields; Miss Harris; Mr. Clough, Ambledon; Header; M.R.C.S.E.; F.R.S.; W. R., Bristol; J. W. D.; W. H.; H. M. C.; K. B. R.; Medicus, Wigan; Medicus, Worthing; Nemo; N. A., Dawley; C. M., Preston; Medicus, Brixton; A. B., Colchester; Marathon; Medicus, Rockferry; Registrar, Bath; Lombardy; X. Y. Z.; A. B., West India-road; O. K. R.; W. K., Newport; Surgeon; V. M.; W. L. B.; C. P.; H. W. R., Wood-green; Principal, Seaford; Surgeon, Swinton; T. G., Bristol; A. B. C., Paddington; M.R.C.S., Kennington; &c., &c.

Sanitary Engineer, Nottingham Daily Express, Manchester Guardian, Bristol Mercury, Leeds Mercury, Western Morning News, Driffield Observer, Ceylon Observer, &c., have been received.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, Sept. 28th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 a.m.
Sept 22	29.81	N.W.	56	52	104	65	47	..	Fine
" 23	29.95	W.	60	49	80	50	42	..	Foggy
" 24	29.95	S.W.	57	53	80	64	49	..	Hazy
" 25	29.87	S.W.	60	57	96	67	50	..	Cloudy
" 26	29.49	E.	57	54	89	63	50	..	Cloudy
" 27	29.24	S.	65	53	86	61	49	..	Hazy
" 28	29.67	W.	52	47	100	63	42	..	Bright

## Medical Diary for the ensuing Week.

### Monday, Oct. 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10<sup>1</sup>/<sub>2</sub> A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1<sup>1</sup>/<sub>2</sub> P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

### Tuesday, Oct. 3.

GUY'S HOSPITAL.—Operations, 1<sup>1</sup>/<sub>2</sub> P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

### Wednesday, Oct. 4.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1<sup>1</sup>/<sub>2</sub> P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1<sup>1</sup>/<sub>2</sub> P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1<sup>1</sup>/<sub>2</sub> P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2<sup>1</sup>/<sub>2</sub> P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown.—Dr. Hopkins Walters, "On a Case of Post-partum Avulsion of the Uterus, &c., followed by recovery."—Dr. Champneys, "On an Obliquely Contracted Pelvis of Unilateral Synostosis."—Dr. Gervis, "On a Case of Transverse Septum in the Vagina."—Dr. Matthews Duncan, "On a Case of so-called Imperforate Hymen."

### Thursday, Oct. 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1<sup>1</sup>/<sub>2</sub> P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2<sup>1</sup>/<sub>2</sub> P.M.

### Friday, Oct. 6.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1<sup>1</sup>/<sub>2</sub> P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

### Saturday, Oct. 7.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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# Introductory Address

DELIVERED AT

UNIVERSITY COLLEGE, LONDON,

*On the Opening of the Winter Session of 1882.*

By MARCUS BECK, M.S., F.R.C.S.

GENTLEMEN,—It having fallen to my lot to deliver the customary Address at the commencement of the present session, I have thought I could not better employ the time than in pointing out to you some of the theoretical principles upon which modern medical education is supposed to be conducted, and the reasons why the practice does not as yet, for all students, quite correspond with the theory.

Medical education, as we understand it now, is of comparatively recent origin. At the beginning of this century the profession was divided into distinct grades. There were, first, the physicians who had, as a rule, received such scientific education as was to be obtained at that time. They had mostly attended lectures at one of the English or Scotch Universities, and spent some time in practical study in a hospital. Then there were the surgeons, licensed by the College of Surgeons, then just founded in its present form. These also had received some education in anatomy and surgery. Lastly, there were the apothecaries, and to them fell the larger share of medical practice of the time. It was not uncommon, however, for these two last to be joined together in the person of one man, forming the surgeon-apothecary, who was the precursor of the modern general practitioner. The practice of the apothecaries differed from anything we have within the limits of the legitimate medical profession in the present day. They were essentially prescribing druggists, and could legally charge only for the medicine they prescribed. Thus they could receive no remuneration unless they ordered some medicine, and the more they ordered the more they got; a style of practice calculated to inspire a firm belief in the efficacy of drugs. It was not necessary for the apothecary to receive any medical education beyond being apprenticed to some one already in the trade, and the jurisdiction of the Society of Apothecaries, which necessitated even this amount of training, only extended to a distance of seven miles round London.

That the greater part of the practice of the country should have been in the hands of men like these seems to us now rather surprising; but we must not forget that even as late as the end of the last century science had not reached such a point of advancement as to make it a trustworthy guide to practice. The study of human anatomy was doubtless more advanced than other branches of medical knowledge, but even this was very far short of the perfection it has now reached. In chemistry oxygen had only been discovered for some twenty years, and the atomic theory had not as yet been established. The work of John Hunter and Billie had raised morbid anatomy to the rank of a science; but, from want of proper instruments, investigation into the finer processes of disease was almost impossible. In medical practice almost all the means of physical examination now in constant use, and without which we should feel it impossible in a great proportion of cases to make a diagnosis, were unknown. Auscultation, percussion, the use of the thermometer, the accurate chemical examination of the secretions, had yet to be invented, and the medical man had therefore little to do but to feel the pulse, look at the tongue, and listen to what the patient had to tell him. Surgery, being to a great extent dependent on anatomy, was, in some respects, more advanced than medicine; moreover, wounds and injuries require no special means of observation for their diagnosis.

At this time, therefore, science being of but little assistance, the apothecary was chiefly guided in his practice by empirical knowledge, handed down from generation to generation, and it was but natural that a long period of apprenticeship was considered the best means of acquiring such knowledge. The pupil was, as a rule, apprenticed at a very early age, and his term of service lasted seven years. His master during this time initiated him into

No. 3084

the art and mystery of healing, taught him to bleed and compound medicines; and from an early period it was his duty to attend to such patients as were willing to trust themselves to him. Being necessarily at first very ignorant, he thus learnt one thing, at any rate, to perfection, and that was the invaluable art of concealing his want of knowledge from the patient; and he probably learnt it much better than he would have done had he been troubled, as the young practitioner now is, with sufficient knowledge to raise in his mind any doubt as to whether he really knew what was the matter with the patient or not. Education by apprenticeship was, perhaps, fairly adapted to the knowledge of the time. It was useless for a student to spend years in the study of sciences which were not sufficiently advanced to be of any real practical service to him in his profession, and the mental training he would have derived from such a course of study would have been of but little use to him, when, from the insufficiency of the means of observation at his command, it could seldom have been possible for him to arrive at a conclusion as to the nature of a case by any logical process of reasoning. Perhaps his experience while an apprentice enabled him to jump to a conclusion as to what drug would best suit a given case as well as all the science of the time could have done. The instruction communicated to him by his master included a great deal that was true and useful, for much as science has done for us since that time, we are still as yet very far from being independent of traditional and empirical knowledge. The want of scientific training to instil a wholesome spirit of disbelief enabled the pupil to receive what his master taught him in faith, and to believe it with an earnestness rare in the present day. It was this that made him afterwards honestly believe that he knew a great deal in spite of what we should now consider his lamentable ignorance, and prevented his becoming the mere impostor that he is sometimes accused of having been. Under such a system of training it was, however, impossible for any but men of great original genius to break away from the trammels of tradition, and to take any part in the advancement of knowledge.

Yet the advance of medical knowledge at the beginning of this century was not without its influence on the lower branches of the profession, and many of the surgeon-apothecaries began to feel it a disgrace that so large a number of their branch of the profession had never received any proper medical training, and consequently a society was formed called the Association of Surgeon-Apothecaries of England and Wales, the object of which was in their own words "to improve the education of, and render more respectable, their own body." The effect of this agitation was the extension of the jurisdiction of the Society of Apothecaries to the whole of England and Wales, and after that no person was able to start in practice as an apothecary without having undergone a proper examination. From this time the old system of education gradually underwent a transformation. At first the period of apprenticeship was fixed at five years, the whole of which might be spent by the pupil in the service of his master. About ten years later it became the custom for every student to spend at least one year in a regular medical school. In 1826 this College, then called London University, was founded, and for the first time a systematic scientific education was given in London on essentially the same lines as are followed to the present day. Influenced by the example of this College, other schools quickly improved their arrangements for conducting the education of every student upon scientific principles. As the amount of scientific knowledge expected from the student increased, so it became necessary to prolong the time spent in the medical school at the expense of the period of apprenticeship. Twenty years ago it was the custom for the majority of students to spend one year, or sometimes two, as apprentices, and three years in the medical school. Now the change is almost complete, and it is rare for any student to be bound apprentice. The real cause which has been at the bottom of this change is that science has now so far advanced as to become an actual guide to practice, and consequently medicine and surgery can no longer be properly taught on the old empirical principles, but must be studied as sciences.

The change, however, from the old system to the new having been the result of a series of compromises, has succeeded in producing for the ordinary student a course of study which corresponds but imperfectly with the laws of scientific education. The amount of knowledge in every branch of medicine, and in each of the allied subjects, has

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enormously increased, and every student now has to learn a great deal more than was expected from his predecessors of twenty years ago; while at the same time there is no reason to believe that the human intellect is increasing in capacity. How, therefore, to enable the student to acquire such a proportion of the increased sum of knowledge as to justify him in considering himself even decently educated has become a problem of no little difficulty. At present the examining boards require from the student a standard of knowledge which, unfortunately, many find it difficult to attain to; but it is not because it is too high that they cannot attain unto it. The standard has only been raised proportionally to the increase of knowledge, and the student will doubtless feel inclined to say with Solomon, "He that increaseth knowledge increaseth sorrow," for it is a serious fact that the proportion of students rejected at their examinations has correspondingly increased as the standard has been raised; and it is not now only the hopelessly lazy, or those who have some natural difficulty in acquiring knowledge who are rejected, but the industrious student of fair abilities sometimes meets with the same fate. Since in an evil hour the Royal College of Surgeons commenced the publication of the numbers passed and rejected from each school, it has become the custom in some places to submit the student to a test examination of equal severity to that of the College before signing the necessary schedule. By this means an apparent improvement has been obtained in the work of some schools, but it seems to me to matter but little to the student whether he is plucked by his teachers or by the examiners. This test examination, it is needless to say, has been devised for the benefit of the school and not of the student, ignoring the fact that the school is made for the student, not the student for the school. It has never been instituted in this College, and I hope it never will. The real effort to meet the higher standard must not be by such tricks as these, but by adopting the best possible course of training to enable the student to think well and correctly, and so more easily to acquire the necessary amount of knowledge; and in this we must be guided by the laws of scientific education. These laws are founded on certain principles now more or less generally recognised as true. The first of these is, that those manifestations of the functions of the brain which we call the mind are as capable of being improved in quality and order by training as are our muscular movements, and that just as those wonderful coördinated movements involved in playing a complicated musical instrument can only be acquired by commencing with the simpler exercises and gradually increasing their complexity and variety, so in training the mind the course of education must proceed from the simple to the more complex subjects. Thus, in a scientific education, the study of the exact sciences must precede that of the inexact. Another principle of equal importance is that in estimating the value of a given subject we must take into account its influence in mental training, as well as its direct practical utility in the business of life. The material with which the teacher has to deal no doubt varies greatly. There are some few happy individuals possessed of true genius who can acquire knowledge even under great disadvantages, and whose minds are by nature accurate and logical, and for these systems of education are of but little importance. Of this class, perhaps, John Hunter formed the most conspicuous example. With the vast majority, however, a correct mode of observation and thought is only acquired by proper training. A man of ordinary intelligence but devoid of mental training possesses a mind liable to lead him into error in many ways. He is unable to observe any but the simplest facts correctly, and supposing facts of any complexity are placed before him he is unable to draw correct conclusions from them. Should he attempt to generalise he is almost certain to fall into the error of drawing general conclusions from insufficient data, and premature generalisation is worse than none at all. In the history of medicine innumerable instances of this fallacy in reasoning are to be met with, but I am afraid we need not go back to history to find examples. From the want of sound generalisation to consolidate his knowledge, the learning of such a man is composed to a great extent of isolated facts, and, consequently, unless he is blessed with an exceptionally good memory, it must be somewhat limited in extent. Undue credulity, especially under the influence of educational or emotional bias, is another natural failing only to be corrected by proper mental training. The spirit of disbelief thus cultivated by scientific education is not perhaps an unmixed source of satisfaction, as it often leads us to

demand evidence and to find it wanting, when we would gladly for our peace of mind be allowed to exercise a little faith. In reading the works of many of the writers of the last century, it is difficult not to envy their simple faith in the useless drugs with which they drenched their patients. Perhaps nothing, however, marks the difference between the trained and untrained mind more than the instinctive way in which the former turns immediately from an effect to think of and search for its cause, and as our only hope of ever raising medicine to a true science lies in our fully understanding the causes of the various diseases we are called upon to treat, the value of this effect of proper mental training can hardly be overrated. Lastly, in any proper system of education some attention must be paid to classification, so that the knowledge acquired may be methodically arranged and immediately ready for use when wanted. In no branch of knowledge is a mental training more needed than in medicine. In no science are the facts to be observed more numerous or more difficult of observation; in none is the plurality of causes and the intermixture of effects more marked, and upon the correctness of the conclusions we draw from our observation, depends frequently the health or even the life of a fellow creature.

The practical application of these principles is perhaps best exemplified by the course of education prescribed by the University of London for its medical degrees. This has remained practically unchanged for twenty-two years, and the influence of its example on other examining bodies has been productive of great improvements in medical education. The essential feature of the system is that, before commencing medical study proper, the student shall receive a thorough training in the allied sciences. Each of the subjects comprised in the preliminary scientific examination is supposed to possess some special influence in cultivating a correct habit of thought and observation, in addition to its direct value in the practice of medicine. Chemistry and physics illustrate in their simplest form the mode of arriving at truth by observation and experiment; they show the precautions necessary to avoid error, the mode of arriving at general laws, and the dangers of premature generalisation. They impress upon the mind the necessary relations of cause and effect, dealing as they do to a great extent with conditions in which the causes are few and their effects clearly defined.

Botany and zoology teach the student the art of observing details accurately, and train the mind in methodical arrangement and classification of facts; and, as Bain says, "to learn to classify is in itself an education." Zoology and comparative anatomy also form an excellent introduction to, and give broader views of, human anatomy, and the study of the simpler structures and functions of plants prepares the student for the more complex subjects of human histology and physiology. The direct practical utility of these subjects varies considerably. Without some knowledge of physics and chemistry it is impossible for any man to study or practise medicine intelligently. Botany, including as it does the study of the lowest forms of vegetable life, which take so prominent a place in the pathological theories of the present day, has some direct influence on medical practice; but its value in other respects is not what it was, when "every green thing from the cedar to the hyssop" was supposed to possess some medicinal virtue, and when the apothecary in remote country places frequently gathered and prepared for himself the herbs that formed the chief part of his *materia medica*.

For zoology and comparative anatomy it is, I am afraid, almost impossible to claim any great practical utility. The exact knowledge of the anatomy and life history of the various parasites that infest the human body has done something to enable us to prevent their attacks, but even in this respect it is far behind botany. If any subject had to be omitted from this part of a medical education, zoology and comparative anatomy would probably be generally considered the one. As a training in observation and classification it is not superior to botany. To teach it properly a museum and dissecting room are necessary, while botany can be taught very sufficiently without any such means. The time required for botany is less than that for comparative anatomy; the dissection of a plant takes only a few minutes, that of the simplest animal can scarcely take less than one hour, and often many hours of patient labour. It is not likely, therefore, that zoology could ever be made a compulsory subject in an ordinary medical education, at the same time it would be a

most grievous error to exclude it from the subjects required for the higher qualifications.

A student who has been thus prepared by a short preliminary course of science, commences the study of the more special subjects of the medical curriculum with a mind trained to a proper habit of thought, and prepared to follow the inductive reasoning upon which medicine is founded. He is sufficiently trained in habits of observation to commence without difficulty the study of anatomy and histology, and his knowledge of chemistry and physics is sufficient to enable him to understand those parts of physiology to which these sciences are essential.

I need not follow further in detail the course of education according to this plan; the same system is followed to the end. The student does not commence to study the diseases of the body till he is familiar with its structure and functions in a state of health; and in studying disease he is encouraged to apply himself to medicine and surgery simultaneously, in order that he may learn that the same general principles apply to both, and that they are in fact merely branches of the same science. The fault of this system of education a few years ago was that it was too theoretical, and contained nothing in it to take the place of the practical instruction given so abundantly in the old system of apprenticeship. This has, however, of late years been corrected by the institution of practical classes and compulsory hospital appointments, and by teaching in the out-patients' room, until, at the present time, I am inclined to believe that the student gets quite as much practical instruction in every branch of his profession, except pharmacy, as he did under the old system.

Although the University of London, being unfettered by any previous system of education, was able thus to establish a scientific course of training according to the best theoretical principles, it has been otherwise with the corporations, and the consequence is that the education of the student whose object it is merely to obtain a licence is now conducted on principles which do not agree accurately either with the old empirical or the new scientific system, and consequently, he does not get the full advantage of either. The great majority of students in the present day begin medical study immediately after they leave school, having first passed one of the preliminary examinations conducted by one of the corporations or the College of Preceptors. This examination includes no science as a compulsory subject, except the rudiments of mathematics, which, although of course a useful training in methodical thought, is, as a purely deductive science, of comparatively little value as a preliminary training for medical study. A student, therefore, who has passed only the compulsory subjects, arrives at his medical school without any preliminary training in natural science. He finds then that he is expected to attend three classes during his first winter session—anatomy, physiology, and chemistry. One of the first things he will learn also is that, if he follows the course perhaps most commonly adopted, the first examination for which he will have to present himself is the primary at the College of Surgeons, and that this includes two subjects only—anatomy and physiology—and will not take place for two years. Upon these two subjects, therefore, he concentrates his attention, in but too many cases neglecting chemistry more or less completely; for I fear it may be said of but too many that the fear of examinations is the beginning of wisdom. In anatomy, with a mind totally untrained in accurate and minute observation, he begins by trying to learn the infinitude of details concerning the bones; and it is not to be wondered at if he finds it not only a difficult but a distasteful task. The study of descriptive anatomy, however, makes no demand upon any of the higher faculties of the mind, and, consequently, preliminary mental training is, as far as it is concerned, of comparatively little importance; and if the student will only give time and attention to it, he will almost certainly succeed in reaching the required standard of knowledge; although, perhaps, he will not master the subject as quickly and easily as if he had had some preliminary training in biological science.

Physiology being a subject full of fascination and interest, should naturally be very attractive to any student who takes real pleasure in his work; but, unfortunately, it consists in great part of the application of chemistry and physics to the study of life, and the ordinary student is at first ignorant of both these subjects; it is therefore impossible that he should gain more than a confused notion of what he tries to learn. From this point of view of mental training physiology,

valuable as it is in its proper place, is perhaps the very worst of all subjects with which to commence a scientific education. It is not an independent and self-contained subject, nor has it as yet acquired, or is ever likely to acquire, a place amongst the exact sciences; and it is a rule of scientific education that some training in the exact sciences should precede the study of the inexact.

(To be concluded.)

## Introductory Address

DELIVERED AT

### ST. THOMAS'S HOSPITAL,

On the Opening of the Winter Session, October 2nd, 1882.

By SEYMOUR J. SHARKEY, M.A., M.B. OXON.,  
ASSISTANT-PHYSICIAN, JOINT LECTURER ON PATHOLOGY, AND DEMONSTRATOR OF MORBID ANATOMY AT THE HOSPITAL.

GENTLEMEN,—When I was requested by my colleagues to deliver the Introductory Address at the opening of the Winter Session of 1882, I had no little trouble in arriving at a conclusion as to the most appropriate subject for the occasion. It did not appear to me that anyone occupying the position which I do to-day, and filling the office of teacher in one department only of medical science, was peculiarly fitted to advise students in detail as to the best method for them to pursue in all the branches of their future study. Far more valuable advice would come from each teacher in his own department. Nor did I think that the social and moral difficulties which students are likely to encounter in their career would be lightened most effectually by counsel given *ex cathedra*. Such subjects are better adapted for private conference among friends, as occasion may arise. Questions of great public interest, such as the anti-vaccination and anti-vivisection movements, would have afforded fitting topics for consideration, had they not already been so thoroughly threshed out and their absurdities exposed by men of far greater ability and holding far more prominent positions in the profession than I. But it did appear to me that an attempt to point out some of the most striking characteristics of modern medicine might be of service not only to those who are on the point of commencing their medical education, but to those also who have already accomplished a portion of it. For it must not be supposed that the science and practice of medicine at the present time, with all their imperfections, are such as they were in the student days of many a man now living; or that the knowledge in some subjects which the merest tyro now possesses was within the reach of even the greatest masters of our art so lately as half a century ago. No, medicine, like other sciences, though a plant of gradual growth, has passed through the greatest vicissitudes. From time to time it has burst into bloom, warmed by the glow of some enthusiastic genius, and then again it has languished almost to extinction under the withering influences of unscientific culture or neglect. Age after age passed away before it entered upon its present period of uninterrupted growth.

In the earliest times of which we have any record, when the priests were the repositories of all knowledge, real or pretended, medicine also, such as it was, formed a portion of their craft. The gods were supposed to be the originators of all good and evil among men, to reward them with health and to plague them with disease; and the priests were the intermediators. Left in their hands, the practice of medicine grew rank with ignorance, superstition, and imposture. So absurd a position did the art occupy in ancient times, that among the therapeutic agents quoted by a writer are "an hexameter from the 'Iliad' to allay the gout, and a verse of 'Lamentations' to cure the rheumatism."

The medicine of those early days was productive of but little which could materially assist in its future development, except the votive tablets which were hung by grateful patients in the temples of the deities, and which contained

a rough record of symptoms, and of the means adopted for their cure. But amid this utter darkness there appeared a man whose genius shed the dawning light of truth upon the science of medicine—a light which has ever been, and ever will be, the guiding star to new discoveries, but which for generations shone only with fitful gleams through the haze of ever-changing theories. Accurate observation of facts, and correct generalisations from them, form, as Hippocrates asserted, the only rational basis of medicine. And although this principle is so universally accepted at the present day that it may appear almost unnecessary to refer to it, still to discover it for the first time amid the mysteries and superstitions of early days required the keen penetration of a genius. Wherever in the history of medicine the Hippocratic method has been pursued, there true knowledge has increased; and where it has been laid aside and other methods substituted, stagnation or untruths have invariably prevailed.

But Hippocrates was too philosophical to reject all theory and to rely only upon the results of experience, as did the pure empirics. His guiding principle was a rational empiricism, which meant the results of experience accompanied by theories which rested on a basis of carefully observed facts. These tenets of the "father of medicine" must ever remain the keystone of all true advances in science. Theories have, however, often proved the will-o'-the-wisps of medicine, leading those who followed them into bogs and quagmires without end. But such delusive theories have not been those formed upon legitimate data, but mere products of the imagination, to suit which facts have been warped in the most ingenious ways. Founded upon a reasonable basis, they are the most potent aids in the advancement of knowledge. They lead to accurate observation, classification, and comparison of facts, and they open up fresh and fruitful paths of inquiry. In theories we embody our ideas of causation and of the links which bind phenomena together, and we challenge our fellow-workers to test their reliability by the constantly increasing weight of experience.

But even if the successors of Hippocrates had rigidly followed his scientific method, they must still have made but tardy advances in medicine. For the progress of science demands not only the application of proper methods, but their application in the right direction. How would chemistry have fared if only the compound substances had been studied and no attempt had been made to analyse them into their elements? And so long as anatomy was neglected, as it was in the time of Hippocrates, and medicine consisted merely in the study of the complex symptoms of disease, so long had our art to wait for any great development.

Accurate and admirable observations were accumulated on the natural history of many diseases and on some methods of treatment by able practical men; but medicine cannot be considered to have entered upon its career as a science until men's minds became keenly alive to the importance of the study of anatomy, and until the superstitions and restraints which prevented them from pursuing it were finally removed. Although human anatomy had been worked at now and again before the sixteenth century, it was not till then that it received that constant attention which has ever since been directed to it. The mere mention of such names as Fallopius, Vesalius, Sylvius, Eustachius, and many others, will touch a chord, I hope, not yet altogether lost to most of us, and will indicate the strides which must then have been made in that branch of knowledge which is the foundation of our science.

The next step in development was one which might naturally have been expected to follow close upon the study of structure, and that was the study of function, or physiology. We may almost consider the latter science to have had its brilliant commencement in the discovery by William Harvey of the most vital and all-pervading function of the economy—the circulation. But although the anatomy and physiology of the healthy body made considerable progress, their necessary application to the study of disease was by no means so quickly perceived. For a long time the grossest absurdities disgraced the practice of medicine. As an instance of them may be given the "Sympathetic Powder" of Sir Kenelm Digby, Kt., of Montpellier, which even in the sixteenth century had a great reputation. If anyone had received a dangerous wound this potent remedy was applied, not to the wound, but to the weapon which had inflicted it, and the weapon was dressed with ointment two

or three times a day. Sir Walter Scott thus refers to this practice in the "Lay of the Last Minstrel."

"She drew the splinter from the wound,  
And with a charm she stanch'd the blood;  
She bade the gash be cleansed and bound;  
No longer by his couch she stood:  
But she has ta'en the broken lance,  
And washed it from the clotted gore,  
And salv'd the splinter o'er and o'er.  
William of Deloraine, in trance,  
When'er she turned it round and round,  
Twisted as if she galled his wound.  
Then to her maidens she did say,  
That he should be whole man and sound."

Discovery followed discovery in anatomy and physiology owing to the interest in them which now prevailed, and the unflinching energy with which they were studied. Nor did the grosser changes of structure, which occur in the various organs in disease, elude the observers of those days. And when it was recognised that the specific functions of individual organs depended on their structure, and that both function and structure were altered in disease, the foundation of modern pathology and of the classification of diseases according to their anatomical characters was firmly laid. But the discovery, which of all others has contributed the most magnificent results to anatomy, physiology, and pathology, and which gave birth to modern histology, was the discovery of the cell by Schwann. For it was subsequently found that the ovum itself was a cell, and that all the organs and tissues of the body were formed by aggregations of these microscopical structures, which assumed a variety of shapes, and were the direct descendants of the original germ-cell. Here, then, one had suddenly discovered the anatomical unit of the organism. It was seen, too, that the physiological changes which constitute the functions of each organ must of necessity be due to the sum of the changes going on in the cellular units of which it is composed. And more than this, it was found that the gross naked-eye changes which are discoverable in the organs after death, and which are accompanied during life by the altered functions of disease, are attributable to certain definite changes in the structure of the individual cells. This gave rise to the cellular pathology of Virchow. Thus, owing to one simple discovery, the whole aspect of medical science was completely altered. Not only were the realms of physiology and pathology suddenly extended into the untrodden regions of the microscope, and the accurate descriptions of morbid processes which we now possess rendered possible; but it likewise became evident that the phenomena which occur in health and disease could no longer be considered as separate. The physiological changes characteristic of normal and the pathological changes which produced abnormal function occurred alike within the circumference of the cell, and the alterations were so gradual that there was no clearly defined limit between health and disease. Physiology and pathology must henceforth be one.

Meanwhile the sciences of chemistry and physics have made enormous strides, and have necessitated great modifications in our views of physiology. Their application under the terms vital chemistry and vital physics to the phenomena of living beings has rendered it probable that all physiological processes consist of physical and chemical changes which will have to be expressed in terms of these sciences.

And now, gentlemen, if I were asked what is the great characteristic of modern medicine, I should say that it consisted in the union of anatomy, physiology, chemistry, physics, and pathology to form the compound science of medicine, and in the clear appreciation of their necessary interdependence.

There was a time, and that not so long ago, when most of these subjects were thought to have but little to do with the actual practice of our art; when physiology and pathology were talked of rather as subjects to be mastered by a few learned professors, to be more or less familiar to a certain number of leading practitioners, and to be all but ignored by the great mass of the profession. But things are so no longer. A knowledge of disease can only be acquired after one has become familiar with the phenomena of health. Take as an instance the diseases of the spinal cord. It is only within the last few years that we have arrived at anything like precise knowledge of the affections of the central nervous system. But now a great variety of diseases are known, which affect certain definite regions, are accompanied by well-defined characteristic symptoms, last different periods of time, end some in recovery, some in death, some in a slowly but surely increasing incapacity. It would be quite

impossible for anyone to examine a series of patients affected with these diseases, to diagnose the nature and site of the lesion, to give the probabilities as to its course, and appropriate advice and treatment, unless he were familiar not only with the pathology, but also with the anatomy and physiology of the spinal cord.

Disease is not, as was once supposed, something quite apart from and having no connexion with the body in a state of health. It is simply a modification, at first slight, then perhaps increasing in the structural units of the healthy organism, accompanied by a temporary or permanent alteration of their function. And with this structure and function, both in health and in disease, it is necessary for the medical man to be acquainted.

But, it may be asked, is it a well-ascertained law that the brains of medical students increase in direct proportion to the increase of medical knowledge? My own personal experience would lead me to have the gravest doubts about the truth of this proposition. And if no such law exists, what limit is to be put to the demand for increasing knowledge at examinations? For it is beyond dispute that medical students are required now-a-days to cover a far larger field than formerly, and there is every probability that the field will grow still larger. This would not be so serious a question if the knowledge, however small, which becomes the permanent possession of the student, were really as sound as the trouble he has spent in acquiring it gives him a right to expect that it shall be. He may perhaps forgive those who control his education for the necessity they put him under of erecting temporary fortifications of unreal knowledge against the assaults of examiners. But he may be excused for complaining if, after he is safely through, his possessions prove as flimsy as his defences. And yet this is frequently the case. The student's energy has been spent in cramming the largest possible amount of information into his unwilling brain; and the latter hurriedly rejects it as soon as the pressure is removed. And what of the remnant that is left? It is too often a mass of undigested and disconnected facts.

Instead of constantly using his knowledge of anatomy and physiology to elucidate the phenomena of disease, the student enters upon his clinical studies as if he were commencing something entirely new, something upon which his previous training has but little bearing. The reason of this anomaly is, that throughout his career he is working at so high a pressure with a view to cover sufficient ground and accumulate the requisite number of facts, that he has no time to think quietly of the dependence of one part of his education upon the knowledge which he has acquired during another. In short, from the period at which students enter upon the practical clinical portion of their studies, they drop, in a large percentage of cases, their anatomy and physiology. It seems to me that the time will shortly come when an attempt must be made to rectify this error, and when the amount of detailed knowledge required at examinations must be lessened. Some method of selection of the more fixed and certain facts in science will have to be adopted, and the student will then have a chance of mastering these in a thoughtful and intelligent way; and, appreciating their importance in the practical work of his profession, he will have a wish to extend his scientific knowledge gradually in future years.

But to return from this digression to the immediate subject of the address—the characteristics of modern medicine. What has been the effect of the rapid progress of scientific knowledge on the actual practice of our art? The increasing accuracy of our knowledge of the normal tissues, and of the structure of the various organs into the composition of which they enter, has led to a more minute comparison of them in health and in disease. As a result of this, we have been able to differentiate with greater and greater clearness morbid conditions which are confined either to some tissues extending over considerable tracts of the body, or to some particular organ. Hence one of the most striking characteristics of modern medicine is the localisation of disease. Nor have we contented ourselves merely with post-mortem localisation of pathological changes, but unremitting efforts have been made to recognise their exact position during life. Hence the wonderful improvements which have been effected in the physical examination of patients. What a flood of light Laennec threw upon the obscure regions of the chest; so that diseases which we either had no conception of before his time, or which at any rate we were utterly incapable of detecting by the bedside, now

come within the grasp of physical examination. Invention after invention has followed. The ophthalmoscope, the laryngoscope, the thermometer, and a number of other instruments, by their application to the detection during life of conditions which had previously been observed only in the post-mortem room, or by the suggestions which they have offered for further pathological researches, have been of incalculable service to medicine.

The medical man now-a-days is expected to ascertain definitely in what organs of his patient disease is situated. Nor is it even thought a very satisfactory, or scientific, diagnosis to state broadly that a person is suffering from disease of the heart, lungs, kidneys, &c. He must explain what the nature of the morbid changes is, and what the position which they occupy; and being clear on this matter, he is more likely to be able to say what the cause of the malady is, and to predict its future course. This predicting the future course of disease, or prognosis, which depends partly upon an accurate diagnosis, partly upon an intimate knowledge of the natural history of disease, and partly upon a certain shrewd estimation of individual peculiarities and conditions, and of their probable modifying influence in each case, is one of the most searching tests of a man's ability and of that kind of skill which, except in rare instances, results only from ripe experience. To the public, who are our patients, it is evidently of vast importance, as it not only enables us to estimate within certain limits the longevity of our clients, but also to warn them against baneful influences, and to give them sound advice in many important domestic and social matters.

But however essential prognosis may be for the welfare of patients, the great test of the efficacy of our art naturally lies in the results of treatment. What can be said of this? Have improvements in the treatment of disease kept pace with the advances in pathology and in diagnosis? This is a question often asked and often answered most decidedly in the negative. It seems to me, however, that this is hardly a fair conclusion, and that it depends upon an erroneous view of the matter. For a long time in the history of medicine, treatment other than dietetic and hygienic consisted in giving drugs with a view to removing certain morbid symptoms, the results of diseases not then discovered; and as disease was looked upon as an entity superadded to the economy, it was natural to search for something which would counteract this hidden enemy. Consequently the chief anxiety was to discover so-called "specifics," and this went so far that the greatest activity was shown in searching for the "elixir vitæ," or something which would stave off even death. But as pathology advanced, and the diseases which caused the symptoms were found to be localised in certain organs and tissues, producing in a large number of instances their irreparable destruction or alteration, and very often a slow substitution of some morbid product in their place, it became evident that the hope of finding specifics for such affections must be chimerical. What specific, for instance, can we ever expect to find for granular kidney, for valvular disease of the heart, for degeneration of arteries, for advanced cirrhosis of the liver, and for many other conditions too numerous to mention? But the discovery that there can be no specific cures for such diseases is not a retrogression in medicine, but a most distinct advance, and has led to far more effectual methods of treatment than existed in former times. It may be convenient for the moment to divide diseases into—

1. Acute specific diseases, many of which follow a more or less definite course when left to themselves.
2. Acute and chronic non-specific diseases, which are accompanied by definite structural changes in organs.
3. So-called "functional" diseases, which produce much suffering, and indicate their presence by the most varied symptoms, but which do not depend on changes of structure, which reveal themselves to our present methods of investigation.

As regards the acute specific diseases, there is not at the present time, nor has there ever been, any method of curing them. Left to themselves, by far the greater number of patients recover; and this fact, together with their varying intensity in different individuals, as well as in different epidemics, has given ample opportunities to discoverers of supposed specifics. If these maladies depend upon the introduction into the body of certain poisons or lower organisms, there is no reason why antidotes may not some day be discovered. It seems more probable, however, from recent investigations, that our hopes must lie rather in some



method of vaccination as a preventive, than in the administration of drugs as antidotes. That we must not, however, despair of the latter possibility is shown by the effects of quinine in ague, and of salicylic acid in rheumatism. But even in our present comparatively helpless condition in the face of most of the acute diseases, the plan of simply dieting the patients, and placing them in favourable hygienic conditions, and only interfering with reluctance to relieve some distressing symptoms, or to counteract some disastrous complication, is far more effectual for good than the heroic bleedings and antiphlogistic treatment of former days.

For the second class of affections—those, namely, which consist of definite structural changes in organs,—we cannot expect to find specific remedies. It was only the ignorance that such morbid changes existed, and were the origin of the symptoms which presented themselves, that led men to harbour such groundless hopes. But are we in a worse condition now than we were then? Quite the contrary. Our present knowledge of physiology teaches us that health consists in a certain equilibrium, more or less stable in different individuals, which depends upon the regular, unobtrusive, and coördinated working of all our organs. The activity of the latter varies constantly within certain limits. The heart, for instance, beats more rapidly and energetically, and respirations are more frequent, during physical exertion than during repose. The kidneys act more vigorously in a cold atmosphere; the skin in a warm. If one of these organs is diseased, the guide to treatment is mainly a consideration of the physiological or healthy state, and our object in chronic affections should be to re-establish an equilibrium, as far as is possible, even though it be necessarily less stable than the normal one. Take, for example, a case of dropsy dependent upon an incompetence of the mitral valve. Here the slowing and obstruction in the circulation, and the consequent exudation of serum, are due to the heart's failure from the extra work thrown upon it and the wrong direction which is given to the blood. Now we know that in health the heart's work is diminished by a good many beats in the minute, and the circulation made easier, by assuming the recumbent position; we know too that digitalis is a drug which increases the force and regularity of the cardiac beat, and diminishes the number of pulsations, and consequently acts beneficially where the heart is beating rapidly, feebly, and irregularly. The patient is therefore ordered to bed and given digitalis. He loses his dropsy and appears to be cured. The physician, however, knows well that the disease remains as before, and that the extra work thrown upon the heart by the same amount of exercise which would be harmless to a healthy man, would again bring on dropsy in his patient. But the latter may often lead for a long time a comfortable existence, if he recognises the fact that his condition of health is less stable than it used to be, and if he acts upon the advice of his medical attendant. And so it is with a great many chronic diseases. We have no specifics which will cure them, but we have a knowledge of physiology and pathology which is far better than drugs, and which may enable our patients to live more at ease, though on a lower level of health, so to say, than they could possibly do if we substituted drugs for physiological rules of life. The two should be combined, but less prominence must be given than of old to the contents of the Pharmacopœia. We have then, it seems to me, made great strides in the treatment of chronic diseases in modern times, though our methods do not always appeal to the feelings of the public in the same way as if we dosed them with medicines.

In the third category of diseases referred to above—viz., those which are accompanied by no tangible structural alterations—physiological rules of life, especially as regards dietetics and hygiene, are still more efficacious than in the class of maladies we have just been considering; and we can often do much by drugs and other means as well.

(To be concluded.)

ON the 28th ult. the Rodgett Infirmary, in connexion with the Royal Albert Asylum at Lancaster, was opened by Lord Lathom, and was accepted by the Earl of Bective on behalf of the central committee. The building, which has been erected in the grounds of the institution, at a cost of £4000, is the gift of Mr. Edward Rodgett, of Darwen's Bank, Preston. Mrs. Rodgett furnished one half of the building.

## THE CUTANEOUS DISEASES OF CHILDREN.<sup>1</sup>

By DR. ROBERT J. LEE, F.R.C.P.

IN looking over the records of cases of cutaneous disease in children which have come under my observation during the past ten years, it seemed possible to analyse and condense them into such a form as to make the results of interest and value to the members of this Society. The total number I have seen of such cases in the course of each year has been on the average two hundred, sometimes more and sometimes less. I doubt so much whether we should gain any very practical knowledge from a statistical analysis of them that I have determined to present only very general conclusions of this kind to consideration, and to reserve a full statement for another occasion. For a somewhat similar reason it appeared to me well not to dwell on those rarer forms of disease which from time to time have come under notice, for I have seldom found that what are termed "unique cases" in this class of disease leave much matter for thought or prompt to new inquiry. They stand alone like curious specimens in a museum, peculiar and attractive on account of their rarity. Perhaps one of the most interesting subjects which can engage attention in the study of the diseases of children in all their forms is the extent to which age and age alone appears to exert an influence in determining the characters of morbid action, that is to say, in producing a distinct difference between typical characters as they appear in early and adult life.

The questions, then, which we may endeavour to answer are these: In what respects do the usual forms of cutaneous disease present peculiar characters in infants and children? The second question: In what ratio do certain forms occur more or less frequently in children than in adults? The third: What explanation can reasonably be offered for these differences? And fourthly: In what way must our treatment be altered to suit them? Now, there are certain forms of cutaneous disease peculiar to children. There is one form extremely common, but it is not a very definite one. It is that which we see so frequently affecting the head, forehead, and face of infants, the back of the ears, and generally the tissues of the head, face, and neck. We must not attempt to name it by any of the ordinary names, for this reason, that its characters are too general to answer to the accurate definitions of dermatology. It shows a feeble apprehension of the true spirit in which we should regard the subject of skin diseases to try to find a name for every case we see. It is difficult, I know, to liberate our minds from the force of habit, at the same time we must not fancy that to find a name and a place for a disease is really of much importance towards the scientific knowledge of its nature and treatment. We may take a single term to include all the varieties of this common disorder of the skin—the term dermatitis; that is a term analogous to those we use in the case of inflammation of other organs and parts of the body, as, for example, bronchitis, peritonitis, &c. Dermatitis of the head, the face, and the body is the commonest cutaneous disease of children. In the year 1879, in a total of all forms of skin disease in my hospital practice, of 197 there were 129 cases of dermatitis of the kind referred to. Last year, in a total of 200 cases, there were also 129 cases of dermatitis, or rather more than 63 per cent.; and so in other years I find much the same ratio obtaining. Dermatitis of the scalp in the child includes eczema and impetigo in all their forms and combinations. We may define any particular case if we please by some pathological addition—such as serous or purulent, scaly or epithelial, tubercular, and so on. No one can object to this, because it is an accurate mode of description. It is clear that the cutaneous diseases of children do not resemble those of adults in regard to the 63 per cent. of cases of ordinary dermatitis. If, however, we analyse the 37 per cent. remaining, we find that these include forms more or less common to all periods of life.

It may be urged that this dermatitis occurs in grown-up persons; at least that we cannot tell the difference between it in children and adults. This is not the case, whatever may be said to the contrary. Adults are not liable to the same tendency to inflammation of the scalp and neighbouring parts as young children. In the ordinary practice of a

<sup>1</sup> Read at the Medical Society of London, Nov. 17th, 1881.

hospital for children, more than 10 per cent. of the total number of cases are suffering from some form of cutaneous disease. This alone shows how commonly the skin is affected in early life. It is clear, then, that one of the first points to which attention would naturally be directed is the causes of dermatitis—its nature, course, and treatment. The 37 per cent. of other cases would be found to contain examples of *tinea tonsurans*, herpes in different parts of the body, congenital diseases of the skin—which, by-the-by, have a singular relation to the condition of maternal health during pregnancy,—a large number of cases of syphilis, a few of scabies, of scrofulous or tubercular disease, and some very rare forms which I shall purposely exclude. Lately the relation of dermatitis to vaccination has been receiving some attention.

A few years ago I ventured to suggest what appeared to be the probable connexion between vaccination and the skin disease which so often follows it. Dermatitis of the head or face may follow any local sore, whether on the head, face, or any other part. I mean to say we may take it as a fact that if the skin of a young child is inflamed at any point—as, for example, by the application of caustic in the treatment of *nævus*, by an injury or fall, but most commonly by vaccination—if the skin at that point and around becomes inflamed, from want of care, cleanliness, or other cause, then some other part, generally the head and face, may become affected. The same thing happens often after chicken-pox, herpes, measles, and some other maladies.

Now, I could well occupy an hour in discussing the question what is the connexion between the first local sore and the secondary disorder. It would not be right to infer that every case of dermatitis must have arisen from a local cause, at least there is no evidence that such is the case, but it is quite true that when a woman asserts that the skin complaint followed vaccination we are wrong if we deny the connexion. The question of difficulty to decide is this, Does the dermatitis of the scalp or face arise from a nervous irritation of the skin, or is it due to the absorption of some morbid material developed in the primary seat of inflammation, and arrested in the tissues of the skin, which are affected much in the same way that joints are affected in gout or pyæmia? I am quite certain that the dermatitis is not due in these cases to an external cause—that is to say, not to infection by contact, not to the transference of matter from the local sore to the head or face. Lately Mr. Hutchinson has given some attention to this subject, but I do not feel satisfied with the explanation he offers. He is speaking of dermatitis when it follows varicella, variola, or any exanthem as measles, "which," he says, "possesses the power in exceptional cases of making the skin irritable, and thus laying the foundation for long-continued and most troublesome conditions of prurigo." You perceive that we want either a physiological or a pathological explanation, which is not provided by saying that the skin is made irritable unless the reason for such irritation be given. I am inclined, after most careful consideration, to the view that dermatitis, when secondary, is due to absorption of some product of inflammation as yet unknown. I would even go further than this, and express the belief that all cases of dermatitis are due to a similar cause—that is to say, that strophulus, ecthyma, eczema, and impetigo, all occurring in the same child, as they do, in different parts of the body, are due to the presence of particles in the blood which excite cutaneous inflammation. I advance this view very much for the sake of discussion, though I may say it is the result of the observation of many hundred cases and careful thought. It has certainly had the effect of making the study of cutaneous diseases more interesting than otherwise they would be; and not only this, but it has led to very satisfactory results in the best test of its value—that is, in the practical treatment of this important class of disease in children.

Let me say here that the subject of cutaneous diseases had a great interest for me when in Paris, fifteen years ago, from the fact that it was the opinion of Professor Hardy, the distinguished dermatologist and physician, that English physicians were in darkness as to skin diseases. I certainly formed the impression, when acquainted with Professor Hardy's views, and the scientific method which he pursued in his observations, that he was not far wrong. He makes, however, the statement in his published lecture that eczema, psoriasis and others of the same class, are diathetic, much as gout, rheumatism, and some other diseases are hereditary, or at least to some extent dependent on hereditary influences. So far as children are concerned this statement is not

correct, though it is a curious fact that a certain number of children, not many, have dermatitis in a somewhat different form when there is hereditary tendency—that is to say, in about 2 per cent. of cases of dermatitis of the head and face, the disease is more obstinate, more irritable, and more severe; and then we find there is a history of family tendency to cutaneous disease. It is not necessary to point out the practical use of this knowledge in the treatment of such cases beyond saying that to these the ordinary rules of treatment of eczema and others of the class may be applied, whereas in ordinary dermatitis no such treatment is required. Dermatitis in its common form in children is not the eczema of dermatologists, nor impetigo, nor any offspring of theirs, but a simple inflammation of the skin of a more or less transitory nature, variety of degree, and frequently of uncertain origin.

It will be asked, Are we to regard strophulus, ecthyma, eczema, and impetigo, the four common names given to dermatitis in its various forms, as due generally to a local cause where a morbid product has been absorbed—that is to say, for example, whether in the process of dentition, in derangement of the digestive organs, as well as in some spot in the skin itself, are we to look for the local origin of the dermatitis which so frequently affects children? I would ask that this view may be considered impartially, and tested by past and future experience. It may be proper to be prepared with some reason for the fact that adults do not suffer in the same way as children in respect to the frequency with which the skin is affected. This is a difficult question, and may be submitted to dermatologists for an explanation. It is sufficient for me to observe simply the frequent connexion between dermatitis and some previous disturbance of the system of a young child, and so to look beyond the local treatment of the skin, although that is of the utmost importance, and endeavour to ascertain the primary cause of the dermatitis. This view indicates a very different system of treatment of dermatitis in young children from that which is required for the eczema of adults.

Let me now make a few remarks on the 37 per cent. of cases I have mentioned. We might take every form of cutaneous disease, and we should find that in the child or infant it is somewhat different from what we see in adults. For example, this is observed of herpes zoster, which occurs in from 3 to 3½ per cent. of all cases of cutaneous disease in children. Herpes does not so frequently affect the abdomino-dorsal region in children as in adults. We meet with it in relation with most of the important nerves of the face, head, trunk, and the humeral and femoral regions. Herpes is not so serious an affection in children, and often produces a little, if any, constitutional disturbance, or apparently much local pain. It has occurred to me to think that sometimes herpes is suppressed, and certainly I have seen instances where the vesicles were apparently arrested, and only faint indications seen of a change in the skin where the pain was located. Probably the same thing has been observed in adults, though I do not recall any special notice of it. During the five years from 1875 to 1880 inclusive thirty-three cases of herpes passed under my observation in hospital practice, of which only six were cases of herpes zoster—that is to say, were abdomino-dorsal in the seat of eruption. In the other cases, the face, forehead, arm, coccyx, or thigh was the part affected. We hardly find an explanation of this liability to herpes occurring in various parts in the supposition that the nervous system of young children is more sensitive than that of adults; and as I see no satisfactory reason for this difference, it will be better not to hazard any theories upon it.

The syphilitic cutaneous cases occur in the ratio of about 5 per cent. of all cutaneous cases, and the chief point of interest seems to me to be the relation which exists between the particular form of eruption and the history of the case. By proper management, I was enabled to obtain from both parents in many cases a succinct account of their history previous and subsequent to marriage, and thus to determine how far the condition of the child depended upon that of the parents. For instance, the form of eruption on the child, when marriage had occurred within twelve months of infection in the father, was very different from that where two or more years had elapsed between infection and marriage. I am speaking now, of course, of the first child. Within certain limits it seems possible to predict from the state of the child what was the history of the parents. That, at least, is the impression produced on my mind by the careful study of this subject, and after having

obtained the history of more than twenty families, the number of whose children born dead and alive was above sixty. Very many interesting and important details I am obliged to refrain from mentioning on this occasion, in regard to the subject of family syphilis, as they do not bear directly on the subject of the cutaneous diseases of children. At one time this subject seemed a hopeless one, for syphilis is not like variola, scarlatina, and that class of maladies, so that analogy rather misleads than assists. To take an example: The second child is brought for treatment; its age is between two months and six months. The first child, we are told, died soon after birth, and had symptoms of well-marked syphilis. In the second child we notice that the surface and deeper tissues of the skin are affected, the nasal and oral orifices are cracked, the skin of the nates is sore or ulcerated, and we are inclined to dismiss the case without a question. Compare this with a case of condyloma in a child over twelve months old; or one of softened gummata which have become furuncles, bluish, painless, soft boils, generally on the thighs or buttocks, and full of thick creamy pus. The family history of these two cases will be quite different. In the first the infection of the father is almost certain to be recent, and the mother will have suffered. In the latter, years will probably have elapsed since the father's infection, and the mother will be free from any trace of disease. These are typical cases. Between these cases, however, such varieties are met with as to make artificial classification of but little assistance in the study of this class of disease. The treatment of syphilitic dermatitis, as I have been accustomed to call the common form of infantile syphilis first described, as well as of the softened gummata and furuncles, is so simple and well known that it requires no remark.

Of the cases which remain there were about 6 per cent. of tinea tonsurans; sixty-four of these, which occurred during the years 1875 to 1880, were treated on the principles advanced in a short communication to the *British Medical Journal* (1877, p. 74). The principle rested on the ordinary laws which preside over the development of spores like the trichophyton, which may be destroyed by many agents when fully developed, but in the early stage resist their action. Further, that the value of the agents employed depends on their specific action as germicides, and not on their irritant properties, which inflame the cutaneous tissues. So that the method and frequency of application are the chief points to attend to, particularly in hospital practice, where cases are seen only once a week. The cases now remaining of any interest are too few to be considered in classes, and on account of their special peculiarity of character need not be referred to at the present time.

## SEVERE INJURY TO PELVIS AND RIGHT KIDNEY, AND SUPRA-RENAL CAPSULE.

By HARRY LUPTON, L.R.C.P. LOND., &c.,  
SURGEON TO THE STRATFORD-ON-AVON INFIRMARY.

THOMAS W—, aged sixty-nine, was admitted into the Stratford-on-Avon Infirmary on the 4th of August last, about 6 P.M. He stated that when in charge of a timber waggon, loaded to some three tons, he was overtaken by the front wheel which caught his boot, threw him down on his back, and passing between his legs went over his pelvis, and passed over his body above the left ilium. The accident had occurred some three hours prior to admission, about five miles out of town.

On admission he was suffering severely from shock; pulse was small and weak, extremities cold, and he was bathed in a cold sweat. Chief pain referred to ramus of left pubic bone. He was put to bed, hot bottles applied to the feet, and hot blankets to the abdomen. A little brandy and milk was given him, which was shortly rejected, together with some fragments of bacon and blood-stained fluid. The sickness persisted till about 5 A.M. on the 5th. The vomit consisted of dark bloody fluid, in quantities of a tablespoonful or so each time. The patient stated that he had passed urine about an hour before the accident. He had had no desire to pass urine since. An attempt to pass a catheter failed, the instrument being palpably deflected to the left on reaching the membranous portion. No history of prior

stricture or urinary trouble. Ordered small pieces of ice to suck. At 8.30 P.M. my colleague, Mr. Nason (senior surgeon to the infirmary), kindly saw him in consultation with me. There had been no effort or desire to pass urine. An endeavour to pass a catheter was made both by Mr. Nason and myself, with a similar result to the former attempt. The instrument passed no farther than the membranous portion, when it was palpably deflected to the left. To continue treatment with small quantities of brandy and milk and beef-tea. The patient had rallied considerably since admission.

On the 5th he was seen again at 10 A.M. by Dr. Kingsley (physician to the infirmary), Mr. Nason, and myself. Condition much the same; no attempt or desire to pass urine; no evidence of distended bladder or of extravasation of urine; but considerable distension of scrotum from effused blood, evidently the result of the bruising. At 3 P.M. seen again by Dr. Kingsley and myself. Some increase of scrotal effusion; no evidence of distended bladder. With the concurrence of Dr. Kingsley I aspirated above the arch of the pubic area of dulness limited to some two inches above this bone; no result. At 8.30 P.M. again visited by Dr. Kingsley, Mr. Nason, and myself. Symptoms, area of dulness, &c., unchanged. Scrotal swelling increased; but evidently no urinary infiltration. Total absence of red, brawny, inflammatory swelling, &c. Query—Had he total suppression of urine? But the characteristic symptoms of this grave condition were wanting. No odour of breath; no coma, &c.

No alteration of symptoms took place till August 6th, at 8.30 P.M., when the scrotal swelling having much increased, it was punctured in a number of places with a flat double-edged needle. A considerable amount of blood-stained serum drained from these punctures, but which was markedly free from the slightest urinary odour; though there was no increase of supra-pubic dulness. It was considered advisable to again aspirate down the pubes, as it was now some eight-and-forty hours since any urine had been voided, and all attempts to pass any instrument into the bladder failed as formerly. A small quantity of blood-stained serum was obtained as the needle passed into the subcutaneous cellular tissue, and again from the abdominal cavity, but this fluid was also markedly free from any odour of urine. General condition worse; pulse small, rapid, and weak; skin cold; temperature slightly below normal; perfectly conscious; no urinary odour of breath; no coma; no abdominal tenderness or evidence of peritonitis manifested all through, but hiccup at intervals since 6.30 P.M.

On Aug. 7th, about 3.30 A.M., sickness recommenced, and at 5 A.M. he died.

I had omitted to state that faeces passed involuntarily and without the patient's knowledge on the 4th, 5th, and 6th. Examination per rectum merely revealed the fact that there was no distended bladder beyond the prostate. It was thought by Mr. Nason and myself that the pubic arch was incomplete, but on this point we were not certain.

An examination of the body was made on Aug. 9th at 11 A.M., fifty-four hours after death, in which I was kindly assisted by Dr. Kingsley and my partner Mr. Gairdner, Mr. Nason being unavoidably absent. On opening the abdomen it was seen that there was absolutely no trace of peritonitis. The peritoneum was healthy, saving a little staining and bruising of some coils of small intestine in the left iliac region. Below the vesical fold of peritoneum was a collection of serous fluid, perhaps six ounces, distinctly not urine, and free from the slightest urinary odour. The pubic bones were separated (not fractured) at the symphysis, and gaped something like two and half inches apart. The only portion of the wall of the bladder remaining was a portion of the posterior wall, before and above the prostate, about two inches and a half square. The whole of the fundus and anterior wall of the bladder had simply "gone." It was destroyed, disintegrated. The very prostate itself had evidently undergone crushing, yet the peritoneal fold was uninjured and healthy. A sound introduced per urethram passed, somewhat to my discomfiture, with ease into the space where was once the bladder, and there was no rupture of the urethra. The left kidney was uninjured and normal, but the right kidney was deeply bruised at its upper end, and its supra-renal body crushed and torn. Evidently the man must have been mistaken as to the direction taken by the wheel.

Remarks.—The case appears to me to be one full of interest. The gravity of the injuries sustained, and the absence of such symptoms as one would anticipate, I take to

be very unusual. Separation of the pubic bones without fracture at the patient's age, sixty-nine, must be rare. I think I may take it that the patient had total suppression of urine. But the usual symptoms were absent. Absence of peritonitis in such a case must be unusual. Whether the shock, combined with the injury to one kidney and suprarenal body, be sufficient to account for total suppression of urine, I must leave for abler pathologists to determine. I should state that the right kidney, in addition to the injuries, contained on its lower aspect an ancient cyst lined with an old inflammatory membrane, of about the capacity of a middle-sized walnut.

Stratford-on-Avon.

### A SUCCESSFUL CASE OF NEPHROTOMY AND NEPHRECTOMY FOR SCROFULOUS PYELITIS.

By GEORGE ELDER, M.D.,  
SURGEON TO THE HOSPITAL FOR WOMEN, NOTTINGHAM.

MRS. W—, aged thirty-six years, was admitted into the hospital under my care on April 29th, 1882, with a large fluctuating abdominal tumour. There was no family history of phthisis, and the patient, who was a multipara, had enjoyed fairly good health till two years and a half back, when she first experienced severe pains down the left side and leg, aggravated by exertion and accompanied with painful micturition of scanty and turbid urine. At no time was there hæmaturia. To these symptoms were superadded rigors, fever, night sweats, occasional sickness, anorexia and progressive emaciation, and loss of strength. Latterly she had a troublesome cough with purulent expectoration and dyspnoea. On admission the urine was strongly ammoniacal, muco-purulent, and containing triple phosphates in abundance. The amount passed was small; not more than sixteen ounces in twenty-four hours. Lithia water *ad lib.*, speedily increased the flow. During the first few days, owing to the exhaustion induced by the journey from her home, a considerable distance, to Nottingham, and the extreme tenderness of the abdominal superficies, I confined myself to treatment of a sedative and restorative character. Her condition having somewhat improved, on May 10th, whilst under the influence of an anæsthetic, I examined the swelling, with the result of finding dulness to extend from the anterior superior iliac spine up to and continuous with the cardiac area, and in the transverse direction from an inch to the left of the umbilicus round to the spinal column. The tumour was most prominent in front, and the wave of fluctuation was so distinct that it gave me the impression of the kidney having been converted into one large abscess. A chest examination revealed distinct evidence of tuberculous disease, particularly in the right apex.

The nature of the case having been pretty clearly made out, nephrotomy was performed by the usual lumbar incision. A large quantity of curdy pus was given vent to from two large abscess sacs, into which the kidney had been converted, a friable partition dividing them, which in the course of the operation I broke down with my fingers. A considerable quantity of similar tissue was removed in the same manner. The kidney was found to reach down to below the level of the iliac crest, and its adhesions to surrounding tissues were firm and extensive. Its interior bled freely, which, after washing out with carbolic water (1 in 80), I controlled by plugs of lint saturated with carbolic oil. The usual antiseptic precautions were observed during the operation. There was little shock, and on the evening of the operation it was noted that the patient was quite free from pain and that the temperature had fallen one degree. For some few days the urine was freer from pus than formerly, and the general condition of the patient was somewhat improved. The wound discharged freely. For over three weeks matters were pretty much as above. The urine was never free from pus. The temperature fluctuated between 99° and 103°, and night sweats only ceased when pilocarpine was administered. It is an interesting fact in the case that the temperature in both axillæ was never the same; usually higher on the right; the variation occasionally amounting to nearly two degrees. The sweating was most marked on the right side of the body; both

symptoms pointing to morbid innervation of the cervical sympathetic. An attack of septic pleuro-pneumonia of the right base, which all but ended the record of the case, coupled with the want of benefit following the nephrotomy, strengthened my resolve to extirpate the kidney as soon as the patient's condition warranted it. This I did on June 20th by enlarging the former incision and supplementing it by a crucial. There was very great difficulty in enucleating the kidney from its capsule, mostly experienced at the point of insertion of the vessels. The friability of its structure also contributed to this, and at the same time gave rise to copious bleeding, which pressure by means of sponges checked. I tied the bloodvessels and ureter *en masse* with strong carbolic Chinese silk, and then cut away the kidney. Under the strain of the ligature, the friable tissue of which the pedicle was composed gave way, and for a time the hæmorrhage was appalling. A second and then a third were applied higher up, with the effect of stopping all bleeding, except from a few small arteries which were separately ligated. A few loosely applied metallic sutures, simply used to approximate the edges of the wound, after it had been washed out with carbolic water and tamponed, finished a very tedious operation. Through failure of the spray producer it was not done antiseptically.

The shock after the operation was extreme, so much so that for several hours it was doubtful whether the patient would rally. Frequently-repeated rectal injections of paucetrised beef-tea, and brandy, stood her in good stead. For the first forty-eight hours the scantiness of the renal secretion assisted in making the outlook more gloomy, but at the end of this time the quantity became natural in amount. After the operation its quality became normal, and has remained so ever since. With the above exceptions the patient made an uninterrupted good recovery, and when she was discharged from hospital on account of the annual cleaning she had got quite plump, and there remained of the wound only a small sore.

*Remarks.*—This was a very unpromising case upon which to perform such a grave operation, not only on account of the prostration induced by the condition for which relief was sought, but also because of the state of the chest and the drinking habits of the patient. I regret that the major operation was not at first performed, as by it time would have been saved and the intercurrent attack of pleuro-pneumonia averted. The variations in temperature before alluded to ceased with the nephrectomy, as also the hemihyperidrosis, and before her discharge there was an improvement in the chest symptoms.

Nottingham.

### ON FATTY EMBOLA OCCURRING AFTER FRACTURES.

By R. SCOT SKIRVING, M.B.,  
LATE RESIDENT SURGEON TO THE ROYAL INFIRMARY, EDINBURGH.

THE following case, which I venture to think worthy of record, occurred last winter under the care of the late Professor Spence.

The patient, a temperate and healthy man of forty, was admitted into the Edinburgh Royal Infirmary on Feb. 18th, suffering from a compound fracture of both bones of the leg. The external opening was a very small one; indeed the injury was the minimum of a compound fracture. The wound was dressed antiseptically, and the leg laid on a wire splint. At night, as there was considerable oozing, the wound was again dressed and a compress applied. The next day, after an easy night, the pad was removed and the leg again dressed. In the afternoon of the same day, the patient, having been in conversation with a man in the next bed, ceased to speak; he was supposed to have fallen asleep, but it was soon noticed that something was amiss. His condition then was as follows:—Pulse 130 per minute, full and soft; respiration 24 per minute, regular, and not stertorous; temperature 100° F. On auscultation, a few crepitations might be heard at the bases of the lungs. The face was somewhat dusky; lips pale; pupils contracted, and sluggish in response to light. He was unconscious, and peripheral stimulation was but slowly responded to. The patient yawned at intervals. During the night the respiration was

occasionally of the sighing character described by Cheyne-Stokes. The urine being voided in bed, some was drawn off with a catheter, introduced purposely without oil; this, on examination, contained neither sugar, albumen, nor acetone. Microscopically, a few granular tube-casts and a good many oil-globules were seen. Throughout the following day (the 20th) the patient remained much in the condition just described; but towards night the respiration became markedly quickened, the pulse rose to 156 per minute, and the temperature to 104° F. His face was extremely dusky, and bathed in a copious perspiration. The respiration was now over 60 per minute, and he gradually sank, dying at 1.30 A.M. on the 21st. After death the temperature rose to 105.8°.

On post-mortem examination the following conditions were found:—The pericardial sac contained half an ounce of blood-stained serum. The cardiac cavities were nearly empty. There were numbers of punctiform hæmorrhages on the endocardium of the left ventricle. The lungs showed likewise numerous punctiform hæmorrhages on their pleural aspects; they were slightly oedematous, and congested at their bases. The pleural cavities contained a little blood-stained serum. Microscopically, it was found that the whole of the small vessels of the lungs were plugged with oil emboli, some of them filling several branches of the vessels. The liver and spleen were normal. The medullary portions of the kidneys were congested, and many of the straight tubes contained some yellow oily-looking deposit. Microscopically, the vasa recta were found to be plugged with large oil emboli. In the afferent vessels of the glomeruli well-marked staining of the fat contained in them could be demonstrated with osmic acid; the presence of the fatty matter in the vascular loops of the glomeruli themselves could similarly be made out. Unfortunately a microscopic examination of the brain was not made.

About the same time two other cases presenting almost exactly similar symptoms came under my notice, but in neither could the diagnosis be proved, as no autopsy was permitted. These two cases, both elderly women, had sustained respectively simple fractures of the femur and humerus. The accident had, in both instances, happened in the country about six or eight days previous to my seeing them. Their friends, finding it difficult to treat them at home, had sent them into town in country carts, where no doubt they received a good deal of jolting, as the parts required readjustment on their arrival. About three days after their admission coma came on, culminating, as in the previous case, in dyspnoea and death.

**Remarks.**—In most accounts of this complication of fractures it is almost invariably stated that dyspnoea is the prominent early symptom. In the above cases dyspnoea did not occur till near the close, the cerebral functions being plainly the first involved. I regret that a fuller microscopic examination of the brain was not made, as the presence of oil emboli in that situation, as noted in Professor Czernay's case, would explain to a considerable extent the sequence of the symptoms. On looking over the cases on record, specially those quoted in Drs. Saundby and Barling's paper on this subject in the *Journal of Anatomy and Physiology* for July, 1882, it would seem to be almost invariably within the first three days after the accident that fatal cases of fatty emboli occur—that is, when, from laceration of the tissues, the veins and lymphatics are most liable to take up the oily material. In my last two cases coma did not come on till about a week after the fracture had occurred, but I am inclined to attribute the accident to the disturbance sustained by the parts incident to the transit of the patients to hospital. So far as these three cases go, they seem to show that no great injury or comminution of the parts is necessary to lead to this untoward event, and that its onset is sudden and unexpected. Treatment in cases sufficiently severe to be diagnosed as that of fatty emboli is at present of little avail; whilst prophylaxis in the way of as little handling of the injured parts as possible appears our best indication.

Edinburgh.

**ST. BARTHOLOMEW'S HOSPITAL MEDICAL COLLEGE.**—The open scholarships in science, of the value of £130 each, tenable for one year, have been awarded to Mr. F. W. Andrewes, B.A., Christ Church, Oxford, and Mr. W. S. Whitcombe; and the Jeaffreson Exhibition, of the value of £50, has been awarded to Mr. C. S. Pethick.

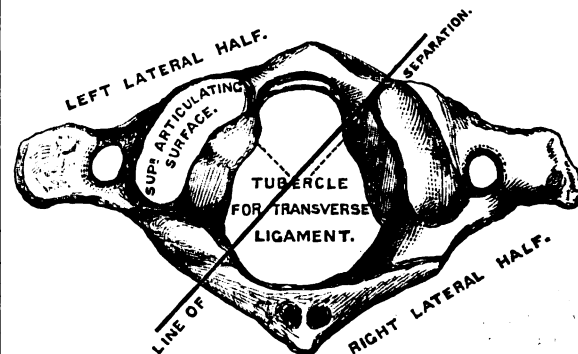
## CASE OF CARIES OF THE ATLAS AND AXIS.

By JOHN DEARDEN, M.D., F.R.C.S.E.

THE following case appears to present some features of interest, which I have thought worthy to place before the readers of THE LANCET.

On Dec. 26th, 1881, I was called to attend B. H—, aged forty-two. He is of medium height, tolerably well-developed, pulse and temperature normal, lungs and digestive organs apparently healthy, and of temperate habits. He complained of acute, darting pains up the left side of the neck, extending to the head, taking the course of the trapezius muscle of that side; he also complained of a dull, aching pain on the top of the head, about the junction of the occipital and parietal bones. The pain in the neck was aggravated on the slightest movement of the head. There was enlargement of two of the cervical glands to about the size of a walnut, also considerable rigidity of the muscles of the neck. No difficulty was complained of either in swallowing solid or liquid food, of which he took a fair quantity. The head was drawn slightly forwards and towards the right side; the intellect was quite clear, and there was no impairment of muscular movements in any part of the body. His only complaint was the "excruciating" pain already referred to, and which rendered it difficult to raise himself from the recumbent to the sitting posture, the head having to be steadied by both hands.

The patient stated that he lived in Australia eleven years ago, and had frequently "camped" out on the open ground; also that he had a severe fall from a considerable height



(fifteen feet), alighting upon his back, but "thought he got completely over the effects." He first noticed "the pain" about three and a half years ago, but had been able to attend his business, that of a grocer, up to the time of my first visit. He stated that he never had syphilis. On the date first mentioned he was not confined to bed, but was able to be up and about, taking short walks. In March, 1882, as there had been no improvement he expressed a wish for change of air, so he went to Blackpool. After a short stay he went to Buxton, and placed himself under hydropathic treatment. Finding himself getting weaker and the pains considerably increased, he returned home, arriving on May 23rd. From that date he was not able to sit up more than a few minutes at a time, and that at intervals of nearly a week. On June 23rd the voice became squeaky, and diminished in resonance daily until the termination. Bilious vomiting occurred at intervals; increased secretion of mucus about the fauces and pharynx, which was got rid of with some difficulty; dribbling of saliva from the right angle of the mouth; the above symptoms indicating that the pneumogastric and recurrent laryngeal nerves were implicated in the disease. On June 30th he was seized with violent muscular contraction, raising himself suddenly to the sitting posture, the legs being shot off the bed quite rigidly. He immediately expired.

By his special request the head was examined (Dr. Ruttle of Accrington kindly assisting). On removing the calvaria extensive adhesions were found existing between the dura and pia maters, chiefly situate at the apex; the brain appeared healthy throughout. On looking into the foramen magnum the bare and roughened surface of the top of the odontoid process was visible. An opening was then made



along the posterior border of the sterno-mastoid muscle. A large collection of pus was found on the anterior surface of the spinal canal, but not opening into it, the theca spinalis being whole. The left lateral half of the atlas was extensively necrosed and completely separated from the other portion (the dotted line in the diagram showing the separation), and could be easily removed by the fingers. The right half was represented by only small pieces of necrosed bone, both articulating facets of the occipital bone, and all those of the atlas, were also found to be necrosed; the transverse ligament of the atlas was absent.

It does not need any lengthy description or vivid portraiture to see what the effect of violent and sudden contraction of the sterno-mastoid muscles must be. The head would be drawn forwards, the transverse ligament being absent allows the odontoid process with the axis to slip backwards, crushing the medulla oblongata against the posterior part of the foramen magnum in this case, as there was little of the atlas left—ergo, instant death.

The treatment had been various, chiefly iodide of potassium at one time, quinine at another, now counter-irritation to the nape of the neck, again sedative applications. The only medicine I gave him was quinine with gelseminum and a liniment composed of equal parts of chloroform, tincture of opium, belladonna, and aconite, which he used freely, and expressed himself relieved by it, at least for a short time.

He had been seen and attended by several gentlemen, but the (apparently hidden) nature of the disease was, I think I am right in saying, never discovered during life. I thought the symptoms pointed either to aneurism of a basilar artery or abscess at the base of the brain.

Church, near Accrington.

## REPORT OF A CASE OF SEPTICÆMIA.

By G. STANLEY MURRAY, M.D.

SEEING some peculiar cases of septic poisoning recently reported in THE LANCET, I submit the following, which occurred in my own practice, as being of special interest.

On the morning of the 30th of March a gentleman called at my house to see me, complaining of feeling unwell, though unable to point to any special ailment; describing his state as a general malaise, accompanied by weakness and debility. He was of rather a slight build, aged about twenty-seven, his complexion being dark and much tanned by exposure to the weather. He said he had recently returned from South America, where he had been living several years. His pulse was weak, and he seemed languid and somewhat depressed; complained of feeling drowsy and indisposed for exertion. He had a slight cough, but on examining his chest I could detect nothing wrong. I put him on a mixture of ammonia, strychnia, and digitalis, desiring him to come and see me again in a day or two. On the 2nd of April I was requested to visit him at his house. I found him in pretty much the same state, but complaining of headache, and saying his cough was becoming much more troublesome. His relatives, with whom he was staying, mentioned that he was restless, and they seemed to think he was really worse than he wished them to believe. Again examining his chest, I found slight crepitation in both lungs, accompanied by a hot dry skin. Fearing he was threatened with pneumonia I altered his medicine, and directed him to remain in bed, ordering hot fomentations and poultices to be constantly applied to the chest. On seeing him the following day, I found him decidedly worse, and learned that he had passed a restless night, that his cough had been very troublesome, the pain in the head more intense, and also that he had a slight attack of rigors during the night. On examination I found the chest symptoms now very marked. Making inquiries about his preceding history, I learned for the first time that some years ago he had gone to live in South America for the good of his health in consequence of a tendency to lung affection, where he seems to have led a very rough life, his principal occupation being cattle herding. His food largely consisted of dried beef, as hard and tough as boot leather, which he was obliged to grease and roll up in small quantities and swallow whole in consequence of his teeth being too bad to allow of his being able to masticate it. Indeed, his return to England was solely in order, I

believe, to have his teeth seen to, and the state of his mouth rectified before continuing his life in South America. I then learned that about three weeks before the time I first saw him he was taken up to one of the London hospitals by his brother (a student), and there put under ether, when eighteen stumps were removed by one of the house-surgeons. The next day he went again and had three more taken out, and the following day one, making in all twenty-two teeth removed within three days. His mother told me that afterwards the state of his mouth was dreadful, and for days it was impossible to stay long in the room owing to the smell of his breath. This completely altered the aspect of the case, and left no doubt in my mind that I was dealing with a case of septic pneumonia.

I need not go into minute particulars, but only add that from day to day the patient gradually grew worse, signs of exhaustion setting in. Beef-tea, wine, raw eggs and milk were administered, and ammonia and bark prescribed, but without avail. On the 7th heavy sweating was manifested, and on the 9th his sleep began to leave him. After this the patient became dull and apathetic, only complaining of intense headache and thirst. On the 13th he fell into a state of low delirium, and on the 15th he died.

I cite the case as being one of interest, and as showing the effects of what may be considered a severe operation acting upon an enfeebled constitution.

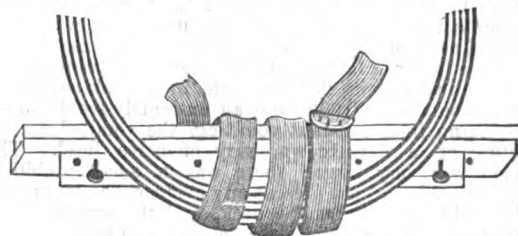
Putney, S.W.

## A NEW CRADLE,

SPECIALLY ADAPTED TO FIX EITHER TO A BACK-SPLINT OR TO THE LIMB, AS REQUIRED.

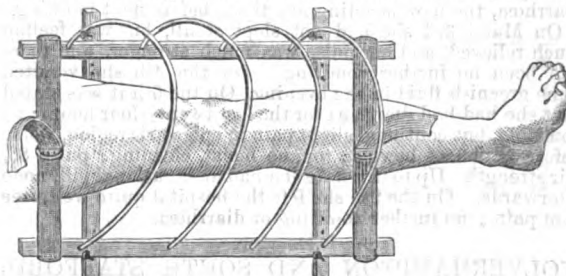
By WM. THOMAS JACKMAN, M.R.C.S., &c.

THESE small cradles will be found of great service to surgeons where it is desired to keep the bedclothes raised from an inflamed joint, either to avoid pressure or to increase the efficacy of evaporating lotions, by allowing above the limb a space into which evaporation can take place. They can be fixed securely to a back-splint, or to the limb if no splint is being used, by means of a broad strap of webbing;



The cradle packed for carrying.

the space between the limb and the hoops of the cradle can be regulated as required. The cradles for the knee and ankle are made of wood, and consist of four movable cane hoops three inches and a half apart, capable of being fixed at any desired height over the limb into side bars of wood sixteen inches long. The cradle is further secured by means



The cradle for the knee, adjusted.

of two sliding laths which pass under the limb and are fixed by pegs; these being adjusted, assist in the regulation of the height of the hoops. The whole apparatus is very portable, light, cleanly, and of easy adjustment. The length of the cradle is such that only the inflamed joint is

protected from the clothes, thus avoiding discomfort to the patient, which the large cradles resting on the bed, as at present used, necessarily cause. The cradles, being really one with the splint or limb, can be conveniently used in cases where the limb is slung. The small space the cradle takes up in the bed is a great convenience. For the elbow-joint light angular cradles of stout iron-wire are more suitable; these are fixed to the splint or limb in the same manner as the wooden cradles. Messrs. Ferguson and Co., of Smithfield, are the makers.

Coggeshall, Essex.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### ST. THOMAS'S HOSPITAL.

OBSTRUCTION OF THE BOWELS; UMBILICAL HERNIA;  
PREGNANCY; RECOVERY.

(Under the care of Mr. SYDNEY JONES.)

M. A. S—, female, aged thirty-six, married, was admitted on March 2nd, 1882, suffering from symptoms of obstruction of the bowels. The following history was obtained. She was about seven months gone in pregnancy, and during the whole of that time had suffered from sickness and anorexia; but on the evening of Feb. 26th she was attacked with violent diarrhoea and constant vomiting; she vomited about every ten minutes, and was unable to keep anything down. The diarrhoea ceased next morning, and from that time until her admission on March 2nd nothing had passed, although she had taken several doses of castor oil. She became very weak and prostrate, and the continued retching caused her much pain; the vomit was at first dark green, but on the day before admission became brownish in colour and very offensive. For the last five years she had had a swelling over the umbilicus, which she stated had never been reducible, but varied in size; it had not become larger of late, nor had it been more painful.

She was a very stout, florid woman, in a weak condition, with a temperature of 98° 8' and an extremely feeble pulse, and suffering from constant vomiting, the vomited matter consisting of a dark-brown, very offensive fluid. The abdomen was very large; there was a small umbilical hernia, but this did not present any evidence of strangulation beyond tenderness at the neck, and this was not more marked than the abdominal tenderness, which was generally diffused. There was a swelling in the lower part of the abdomen, evidently the pregnant uterus, the foetal heart being distinctly heard. Pulse 120, almost imperceptible at the wrist; tongue moist, furred. The patient suffered much from thirst. She was ordered one grain of opium pill at once, to be repeated every four hours; the vomiting stopped shortly after the first pill; she was able to keep down a little brandy and milk. About three o'clock she had a good deal of diarrhoea, the bowels acting five times before next morning.

On March 3rd she had not slept at all, but was feeling much relieved, and her pulse was much stronger, and there had been no further vomiting. On the 4th she vomited some greenish fluid in the evening. On the 6th it was stated that she had had diarrhoea for the last twenty-four hours; no vomiting, but continual slight pain in epigastric region, worse before action of bowels; tongue moist, cleaning; pulse 86, fair strength. Up to this date she had an occasional pill, none afterwards. On the 9th she left the hospital quite well, free from pain; no further vomiting or diarrhoea.

### WOLVERHAMPTON AND SOUTH STAFFORDSHIRE HOSPITAL.

SOME CASES OF EXCISION OF JOINTS.

(Under the care of Mr. VINCENT JACKSON.)

CASE 1. *Excision of Hip; Recovery.*—Henry T—, aged three, admitted May 10th, 1882, with hip disease. The joint was disorganised, and a large abscess had formed. On

June 1st the hip-joint was excised. The joint was exposed by a T-shaped incision. The head of the femur was found eroded, and the ligaments had ulcerated through in the front of the joint; the acetabulum was healthy. The wound was washed out with chloride of zinc solution, and brought together by silk sutures, a drainage-tube being put in the most dependent part. Carbolic oil and absorbent wool-dressing were used, and the limb was fixed on an interrupted long splint. On the first evening after the operation the temperature was 102°, and up to the sixth day the evening temperature was close on 100°; after that it was normal. The wound took three months and a half to heal. The patient was discharged on Sept. 16th with an insignificant sinus; his general health was much improved by the operation.

CASE 2. *Excision of Hip; Recovery.*—William C—, aged five, admitted on June 28th, 1882, had suffered from hip disease for a year. On July 13th the hip was excised in the same manner as in the previous case. The bone and cartilage of the head of the femur were carious, and the ligaments pulpy. The wound healed well in two months. The temperature rose to 102° on the third and fourth evenings, and kept a few points above normal for the first fortnight. Health continued good throughout.

CASE 3. *Excision of Shoulder; Recovery.*—James W—, aged thirty-six, was admitted on Nov. 23rd, with disease of the right shoulder. The joint had been diseased for over four months. An abscess had formed, and there were sinuses connected with the joint. On Jan. 18th the shoulder was excised. The joint was exposed by making a semi-circular flap from the deltoid, and the head of the humerus removed below the trochanters. There was pretty sharp hæmorrhage, which was controlled by Spencer Wells' forceps. A sequestrum as big as half-a-crown lay in the interior of the joint. The dead bone corresponded with a cavity at the back of the head of the humerus. The wound-edges were brought together with harelip pins, and a carbolic oil and wool dressing was used. On Feb. 26th the patient was discharged. There were then insignificant ulcerations in the cicatrix and a small sinus. A few weeks later the cicatrix was quite sound, and the patient was able to lift his hand to the back of his head. The patient being nervous in using his limb, it was some time before its motions were strong and vigorous. The temperature went up to 102° 8' on the third evening; normal after the fourth day.

CASE 4. *Excision of Shoulder; Recovery.*—Alfred F—, aged eighteen. In January, 1881, the patient had rheumatic fever, and from that period he dated the disease of his shoulder-joint. He was admitted on March 1st, 1882. He was then suffering from sinuses opening on the posterior margin of the deltoid. On March 23rd the shoulder was excised in the same manner as in the preceding case. The head of the humerus was carious. The wound healed well, and on April 20th the patient was discharged cured. Owing to the perseverance of the patient in moving his arm the limb soon became strong and useful.

CASE 5. *Excision of Elbow; Recovery.*—Francis N—, aged fifteen, had a compound backward dislocation of the elbow on July 21st, 1881. The dislocation was reduced under ether and dressed antiseptically. In August the joint was not doing well. It was soft and pulpy, and a sinus remained which communicated with dead bone. On August 18th Mr. Jackson excised the joint. The epiphyses of the humerus, radius, and ulna were necrosed. The limb was put on a splint for a week and then passive motion was used. The wound healed in a month and the patient was discharged on September 9th, 1881, with good movement at the elbow.

CASE 6. *Excision of Elbow; Recovery.*—Thomas F—, aged ten, was admitted on May 31st, 1882. He was a pale weakly little boy, badly nourished and poorly clad, but possessing excellent spirits. A trivial injury, his mother said, would cause an abscess. In February, 1879, he had knocked his right elbow. The joint became disorganised, and was excised by Mr. Jackson at that time. He now attended the hospital with disease of the left elbow, the result of injury. His health being improved by a good diet and a little wine Mr. Jackson excised the elbow on June 29th. The bones entering into the composition of the joint were carious, and the soft structures friable and pulpy. After the bones had been removed the diseased tissues were cut away with scissors or scraped with a Volkmann's spoon. The limb was put on a splint and kept wet with a spirit

lotion. On Sept. 13th the child was sent to a convalescent home. The wound had healed, and the motion at the elbow was good, considering what flabby muscles there were to work it. The case is almost unique from both elbows having been removed.

### NEWCASTLE-ON-TYNE INFIRMARY.

LOCOMOTOR ATAXIA; NERVE-STRETCHING; NO IMPROVEMENT.

(Under the care of Dr. OLIVER and Mr. PAGE.)

EDWARD C—, aged forty-four, married, a farm labourer, was admitted on March 2nd, 1882, complaining of difficulties of walking and standing, and also of a tendency to fall. Patient had always been a temperate man, never had venereal disease, and had enjoyed good health up to a year ago, when he noticed a pricking and numbness in both his feet. At times the floor felt soft and spongy; his gait was markedly ataxic; he fell when his eyes were closed; had never experienced pains in his joints till his illness began; had never had the girdle pain, but had felt a weakness. Sensation in both legs was somewhat imperfect; patellar tendon-reflex was entirely absent. There was well-marked internal strabismus of the left eye, which, he stated, came on a month or six weeks before. The vision of the right eye was somewhat impaired.

On March 8th Mr. Page cut down upon the left sciatic nerve, and exposed and stretched it, allowing the whole weight of the limb to be supported by it. No ill effects followed the operation. On the 9th the patient's temperature rose to 103.4° F., and he complained of burning pain and thirst. Pulse 128. He recovered from the operation perfectly, and on the 27th was out of bed for the first time; but the difficulty of walking and his attitude were found to be more marked. He remained in the hospital some little time longer, but went out without any improvement having taken place in his symptoms.

## Reviews and Notices of Books.

*Clinical Lectures on Diseases of the Nervous System.* By THOMAS BUZZARD, M.D. Lond., F.R.C.P., Hon. Fellow of King's College, London; Physician to the National Hospital for the Paralysed and Epileptic. London: J. & A. Churchill. 1882.

### [FIRST NOTICE.]

THIS book has two kinds of value. The author throughout it shows a minute and precise acquaintance with that now complex department of medicine—neurology—in its most recent developments. For this very reason he does not dwell with exaggeration on nervous symptoms; he knows them too well for that. It is valuable also because, as the clinically minded reader will easily see, there is displayed in every lecture, without undue prominence over the particular topics of each, a wide knowledge of general medicine. Although comparatively few diseases of the nervous system are expressly considered under their names, the reader from each lecture will not only learn much that is new of the nervous disease there particularly treated of, but will also find that what he may already know of neurology is put in new relations, scientific and clinical; what the reader knows is made more available for use at the bedside. The author deals largely in cases; the narrations and descriptive comments are often so vivid that we might say he places patients before us. The first lecture is a good example of his method. He begins by narrating two cases so as to compel the reader to realise clearly the different diagnostic values of the exaggeration, and of the absence of the knee jerk. Here and elsewhere many highly technical questions are considered. It could not be otherwise. The author deals faithfully with the reader; he does not exhibit the intellectual vulgarity of varnishing over difficulties by popular explanations. The busy man has some natural impatience with details about single symptoms when he has all day long to

treat patients; he very properly expects guidance in his investigation and treatment of individual cases. He will find it here, but he will not find that the complexities of the problems stated are ignored. Much technical knowledge is necessary for bedside work. The experienced man occasionally fails to make a correct diagnosis of a case for want of a little easily learned technical knowledge, when a correct diagnosis of it may readily be made by one of narrower experience and of much less clinical acumen who has that little technical knowledge. He who wishes to become an accomplished musical performer must practise scales, and he who wishes to be a good diagnostician must study symptoms. We should not only study groups of cases, but should also analyse the group into its factors, and see what each means by itself. It is an error to suppose that we can make fruitful generalisations without previous careful analysis of the things to be generalised about. On the other hand, the possession of technical knowledge without clinical acumen derived from close personal experience is somewhat ludicrous, or would be did it not occasionally lead to painful results. To locate the changes answering to a group of symptoms, granting that it were done with absolute accuracy, is of little clinical account if the condition of the patient as to syphilis, Bright's disease, &c., be underrated. But there is no reason why both methods, technical and clinical, should not be harmonised. This harmonisation is indeed very often done after a fashion. We do not call that a good kind of clinical work which consists in merely noting, for example, slight transitory paralysis of some part of the body, and also that the patient is gouty, and then hastily "combining the two" after the manner of the celebrated article on Chinese metaphysics. The author's double method is not after this superficial fashion. For example, in showing the several different clinical circumstances in which the knee jerk is lost or those in which it is exaggerated, he, in an admirable manner, *pari passu* states the several corresponding local pathological conditions; he does this in such a way that the symptoms are easily seen to be dependent on particular flaws here and there in the nervous system. Moreover, he never loses sight of the fact that the spinal cord is but one part of the patient who has to be treated. As an example of a methodical harmonisation of pathology, clinical medicine, and physiology, the exposition deserves high praise; it is not a mere juxtaposition of the clinical and the technical; the dry bones of technicalities in his pages become clinically clothed and live. The organisation is so thorough that it is difficult, with justice to him, to give quotations; only quotations too large for our space would show the orderly continuity which is so characteristic of his exposition of the very complex subjects he deals with. The method by which he conveys wholes of knowledge, technical and clinical, in his narrations of and comments on cases, is so smooth that the reader may easily "read over" very many valuable practical hints for the investigation and management of patients.

In the first of his twenty-five lectures Dr. Buzzard considers Westphal's symptom. In his judgment, to quote from a later lecture, "Westphal's test, the absence of the knee phenomenon, provided that this is associated with fair voluntary power and idio-muscular contraction of the vastus internus muscle (a provision which Erb, as well as myself, has insisted upon) is the most constant and important symptom of tabes dorsalis." He, however, adds a caution regarding the possibility of diphtheritic paralysis, for, as he says, some cases of this kind superficially resemble tabes dorsalis, in some of them there is no patellar tendon-reflex. Two things are to be noted. There may be tabes dorsalis—there may be posterior sclerosis—without ataxy. Again, the knee jerk is lost in other kinds of cases, as the author illustrates profusely in several lectures. After speaking of the absence of the knee jerk in cases of tabes dorsalis, he

points out a source of fallacy. "When the blow is allowed to fall where the plump of muscle somewhat projects above and to the inner side of the patella (the vastus internus), there is a very slight upward movement of the foot. It is important to distinguish this action from the patellar tendon-reflex proper, which is present in health but is lost in locomotor ataxy. Examining the movement, we see that it is slow as well as slight, and is occasioned by the contraction of a very limited number of the muscular fibres of the vastus internus. That this contraction is confined to the muscular bundles of the part struck is shown by the very palpable wave which appears at the spot. The wave is deep, slow in movement, and its direction is obliquely downwards and outwards, corresponding with the direction of the bundles of muscular fibres. It contrasts as strongly as may well be with the sudden and rapid thrill of contraction which may be felt or seen to occur in various and distant parts of the quadriceps in response to a blow upon the patellar tendon in a healthy person." In this lecture he discusses the "deep reflexes" in general, foot clonus among them. In the next lecture the nature of the knee phenomenon and of other so-called tendon-reflexes is considered, and, again, important cases are related in illustration of the questions which arise. Dr. Buzzard thinks the phenomena are really reflex. By means of diagrams he shows how in different diseases the reflex is lost by "fault" seated at different points of the reflex nervous arc—sensory nerve, posterior column, anterior horn, and motor nerves. By this means he simplifies his subject without in the least ignoring its difficulties. He believes that there is ankle clonus in some cases of hysteria; this is a thing of great moment in diagnosis. Were his opinions as to the nature of the knee phenomenon disproved, the lecture embodying his researches would lose little, if any, clinical value, since as symptoms the absence and the exaggeration of the knee jerk are grouped with other symptoms in a methodical manner for diagnosis of the positions of the diseases in different kinds of cases. At the close of this lecture he gives a brief but very excellent account by Dr. De Watteville of the observations and opinions of those who do not consider the knee jerk to be a reflex phenomenon.

In Lecture III. he takes up the subject of acute anterior polio-myelitis, a convenient kind of nomenclature, which tells us that the pathological lesion treated of is inflammation of the anterior spinal horns. Under this name come cases of "infantile paralysis," which disease is now known to have the pathology indicated, and, if we may be pardoned the expression, to occur occasionally in adults. Numerous cases are related. Great stress is laid on the diagnostic uses of electrical currents. In other lectures he does the same, stating clearly his views and describing very carefully this important method of research in particular cases. He points out that in this disease voluntary power may return before the nerves show excitability to electrical currents. Since, in this class of cases, the anterior spinal horns are diseased, he thinks the explanation of the seeming anomaly is that some fibres passing down the lateral column gain the anterior roots without direct connexion with the ganglion cells of the anterior horns. After remarking on the commoner types of acute anterior polio-myelitis, he suggests that facial paralysis is rarely seen from such a pathology on account of the vital surroundings of the facial nucleus; that nucleus may be involved, but rapid death would, he rightly concludes, occur from anterior polio-myelitis of the medulla oblongata. Later on, as we shall see, he considers morbid affections of still higher motor nuclei, which are no doubt homologous with the spinal anterior horns.

Next comes a lecture on the differential diagnosis between certain hysterical conditions and myelitis. Some important

cases are related. The reader will find that the occasional serious difficulties in diagnosis are fairly faced. It is in such cases that shrewd men are sometimes too shrewd. No one should trust solely to emotional temperament, to shock, and the like, in diagnosis. These are valuable aids to diagnosis no doubt; but it is by the application of technical knowledge that the real condition of things in difficult cases may be ascertained with greatest certainty. The man who has a practical knowledge of electrical testing, who has studied the condition of "reflexes" in a large number of different cases, is the one who is least liable to fall into the error of mistaking organic disease of the spinal cord for hysteria, or into the reverse error. Very many cases of disseminated sclerosis in their early, and even in very late stages, are mistakingly put down as being cases of hysteria. It must be admitted that not unfrequently the diagnosis betwixt hysteria and organic spinal cord disease is exceedingly difficult. This lecture certainly, however, makes it less difficult than it was, and may be especially commended to the "busy practitioner."

Locomotor ataxy, or, as the author prefers to call it, *tabes dorsalis*, is considered at great length. Whilst not under-rating the most striking symptom, the ataxy, he shows clearly that *tabes dorsalis* often enough exists without ataxy. There are numerous other tabetic symptoms which can be trusted for the diagnosis of posterior sclerosis when the gait is perfect. We strongly commend the following: we have no doubt of its accuracy. It is what an able and original-minded physician of large experience has concluded, from hard and steady work, on a matter of direct practical importance. By carefully pondering this one short paragraph, many practitioners will save themselves from the regret of having misinterpreted cases of *tabes* before time made the correct diagnosis of *tabes* for them. In a word, we say to them, Do not wait until the supervention of ataxy makes the diagnosis of the real condition of a patient for you.

"It appears to me that, in the present condition of the question of *tabes dorsalis*, we are not quite warranted in saying of a case which does not show any ataxy that it has not yet arrived at a certain 'stage.' Our grounds for dividing the course of this disease into different stages, appear to become less and less secure as we observe that various parts of the sensory nervous system may be involved in degrees of intensity which bear no fixed relation to any chronological order. Although the point can only be determined after a considerable lapse of time, it seems most probable that ataxy of gait is no more a necessary symptom than optic atrophy, although it is a much more frequent one. Whilst allowing, then, this highly characteristic symptom when present to retain all its former value for diagnostic purposes, it is well to recognise the fact that not only may the incoördination of movement be entirely wanting, but some other symptom which may not ordinarily be at all a striking one may come to occupy the most prominent place. In these circumstances it is apt to absorb the attention of the observer to such a degree that, without some considerable care, the general disorder, of which it is only a symptom, is masked, and the symptom itself is liable to be referred to some entirely different pathological condition."

THE parishioners of Marylebone appear resolved to remedy a defect in their parish which has long caused complaint—viz., the want of a proper public mortuary. A communication from the Local Government Board has been received by the vestry, in which objections are pointed out to the mortuary in Paddington-street, chiefly on account of the absence of accommodation for conducting post-mortem examinations or provision for the holding of coroners' inquests. The matter has accordingly been removed from the charge of the select committee, who seem to have done nothing in it, and referred to the Sanitary Committee, from whom it is to be hoped it will receive more prompt attention.

**Abstracts**  
OF  
**INTRODUCTORY LECTURES**  
DELIVERED AT THE  
**MEDICAL SCHOOLS OF LONDON**  
AT THE  
**Opening of the Session 1882-83.**

**ST. GEORGE'S HOSPITAL.**

INTRODUCTORY ADDRESS BY DR. HERBERT WATNEY.

AFTER referring to the loss sustained by the medical school through the resignation of Dr. Barclay, the lecturer spoke of the new examination instituted by the Royal College of Surgeons to be held by the teachers of anatomy and physiology. He considered that it will be only a guide and help to the ordinary hardworking student, and will be so easy as not to discourage any, but will prevent the first year of student life being partially wasted, as has sometimes been the case. A short account was then given of some of the sciences bearing on medicine. He said anatomy, the foundation of the medical sciences, can now be satisfactorily studied by all who enter our profession; but this has only been the case during the last hundred years. It is, however, a question whether the pendulum has not now swung a little too far; whether the examination in the minor details of anatomy, and, consequently, the teaching of these details, have not gone further than there is any need; whether the oldest science does not engross too much of the student's powers, not as regards its essential principles, but for its minutiae. And the very strong opinion of William Hunter was quoted to the same effect. Dr. Watney then dwelt on the importance of physiology and its fascination as a study, bringing us face to face as it does with the problems of life and death, and leading us to "the borderland of the material and the immaterial"; but he pointed out that the same evil of overrating the importance of minutiae is sometimes met with in this study, saying that there is a physiology whose devotees seem to think more of the instruments or the specimens, soon to be set aside for newer and better ones, than of the valuable observations obtainable by such means. Pathology was described as being at present divided into two great branches—one, which may be fairly classed as belonging to the two sciences of anatomy and physiology, dealing with the anatomical or physiological changes wrought in the body; the other quite different in its character, aiming at much deeper knowledge, seeking to discover the causes of certain diseases, even, it is said, cultivating these causes, and so controlling them that they become innocuous. It is probable that vaccination is a remarkable instance of this method of rendering a virulent poison harmless by means of a series of cultivations in the bodies of the lower animals. The great necessity for the study of pharmacology was next referred to, and the study of *materia medica* was alluded to as being only a "survival." The value of hygiene was then spoken of, and the change in the death-rate of the population during a number of years was considered a clear indication that hygiene is giving us most valuable aid in our struggle with disease. The lecturer remarked that during the time that the sciences bearing on the healing art have been developing, much work which may truly be called scientific has been accomplished in medicine and surgery; but we are still obliged in great measure to act from the basis of experience and from a knowledge which, though it has the authority of time, has never had a scientific foundation.

He then attempted to answer the question, What should be the due relationship between the scientific and the practical in the training of the student, and in his after-life as a medical man? After showing that there is generally an intimate union of these two apparently opposite principles in those whom we regard with the greatest respect, he proceeded: "A scientific education implies study with a view to the acquisition of knowledge apart from any ulterior object—that is, seeking to know what has been accomplished in any subject, and to be so placed that future progress is possible, supposing that the patience and abilities of the individual are equal to such

advance. It should, however, also include the acquisition of the scientific method. Practical education implies the study of any subject in such a manner that we can bring our knowledge to bear at the present or at a future time. The scientific worker is remarkable for his dissatisfaction with the present state of our attainments and his desire to know more; further, he is noted for the accuracy of his knowledge, it may be only in a very limited field, but in that field he is not only aware of what has been discovered, but of the manner in which the discoveries were arrived at and the extremely unsatisfactory basis on which much of our supposed knowledge rests. On the other hand, the sympathies of the practical worker are with that portion of mankind which exists near and about him, and his energies and abilities are concentrated to produce, with the present fund of knowledge, the greatest results and the utmost benefit. He said it cannot be too strongly insisted on that the study of the sciences bearing on medicine will not alone enable you to become a safe guide in surgery or medicine; these last have to be studied, they have their methods and instruments of precision, some of which, such as chemical reagents, are well known to the chemist, others, as the thermometer, to the physicist, yet it is impossible for any physicist or chemist, or even for those who have studied the sciences more nearly allied to our profession, to understand the value of certain phenomena taken in conjunction with others, unless they have studied medicine itself. "Therefore, in answer to the question, What is to be the relationship between the scientific and the practical in your course of study? I would say, If you wish to follow the practice of medicine do not devote too much time to the study of the sciences. They are to be only portions of your education; they are the sources of much knowledge, but they are not the knowledge itself."

Dr. Watney then continued: "Science is not liked by some because it makes so little of the individual opinion, and treats so lightly that power which some men have of enforcing their views and persuading their fellow men. In politics and in art we see the immense influence of the individual—how his word is taken almost as law. Yet the habit of accepting without question what is told us has been the most fatal stumbling-block to the advance of medicine. The reputation of Galen helped to retard for centuries the advance of anatomy; and the deference paid to authority during the Middle Ages did incalculable injury to the large body of practitioners of that time, who learned to work in a mechanical, self-satisfied manner, impatient of any advance, unobservant, allowing centuries of time to pass and millions of sick folk to be under their hands, without attempting anything further than to struggle with one another as to who should be the greatest, 'seeking rather to conquer their opponents in argument than to penetrate the secrets of nature.'"

"It is, however, easy, standing on the platform of our present knowledge, to point out the failures of the past generation, but the question which every thoughtful man will put to himself is, not what were their absurdities, their mistakes, but what can we learn from their failures? It is clear that ability will not prevent mistakes, and even absurdities; for many of the older practitioners were men of great genius, and we have no proof at all that there is more ability now than formerly, nor can anyone imagine that we take more pains than formerly were taken. Must we, then, assume that we have a better method? And yet who can say that he has a better method than Harvey? At last we are driven to the conclusion that medicine is a progressive science, and that we are profiting by the information obtained by others, reaping the fruit sown by them at great expense, after many failures and much disappointment."

"Now, with regard to the question, What is to be the relationship between the scientific and the practical in your future life? I would urge that everyone who practises the medical profession should, besides his ordinary avocations, work in a scientific manner at some subject, and aid in the advance of knowledge. It is very necessary that you start with one humbling thought, that you cannot finish your studies, and that you must go into practice to a certain extent incompletely prepared. It is impossible that you should be a good anatomist, or physiologist, or pathologist, or a good practitioner, when you leave this or any other school of medicine. It has lately been debated whether four years are enough for study, and whether the curriculum ought not to extend over five years. Surely ten years would not be enough to master anatomy and physiology alone, and by the end of that time so many advances would have been made that you would



hardly be able to keep your knowledge current with the times; thus physiology is being split up into various departments, and few are skilled alike in physiological chemistry, in experimental physiology, and in the use of the microscope. If you grieve at the thought that your knowledge must necessarily be imperfect, console yourselves with the fact that it is found, in planting trees in exposed and windy situations, that it is necessary to take quite young and small ones, for that the older and taller trees, which have had the advantage of good surroundings and have been accustomed for a long time to cling to their supports, do not grow so well in such situations as shorter trees, which, though smaller when first put in, eventually become more vigorous. So the well-taught but not too fully-taught student, though at first he may seem behind the artificially-forced stripling, will send his roots down deeper, and obtain a firmer hold in any new undertaking he may choose. And you are sure of true success. Your aim will be to allay pain, to prevent the effects of wrong-doing, and to combat death. It is true your patients will suffer for their follies, will at times be wrong by pain, and will, at length, all die; yet you will be successful, because you will not set before yourselves, or others, the false chimera that you can finally resist death, or prevent its painful accompaniments. You will accomplish what you hoped to do—alleviate pain, in a great measure prevent the effects of evil, and delay the advent of death himself. Yes, you will succeed; but let not that be our only success, great as it may be. We may look forward to the time when we shall meet Him and be with Him who alone has conquered pain and sin and death, and who has won a complete success for us.

#### LONDON HOSPITAL.

ADDRESS BY MR. JONATHAN HUTCHINSON.

THE address of Mr. Hutchinson was given at the conversation, and was devoted almost entirely to a sketch of the life of Thomas Carlyle, with a critical survey of his work.

"About a year ago there appeared," said the lecturer, "immediately after the death of one who was perhaps, take him for all in all, the greatest man of the present generation, two volumes of *Reminiscences*. In these we found amongst much that we valued much also that needed excuse, and some things that it was hard to forgive. Those, however, who were most pained by certain passages in that work will, I cannot but think, have been greatly relieved by the reading of the two volumes of biography which Mr. Froude has just given us. In these latter we have, full and complete, the story of Carlyle's life, his struggle, and his victory; and the hero now again claims, if I mistake not, that lofty position in our estimation from which he had been almost threatened with dethronement. Here we are permitted to see, in full disclosure, the sources alike of his weakness and his strength, and our marvel at the work which he did, and at the uses to which he put his troubled life rises higher than ever. The unconquerable independence, the industry, the faith in the future, unclouded in the main by the deep-rooted melancholy of his nature, the sense of duty in his work, are features in which the character of Carlyle attains sublimity. His letters to his wife and to his mother, and perhaps above all those to his brother John, claim our admiration in the very highest degree. Especially to all young men, and to all young medical men, for they were addressed to a struggling young physician, I would commend his letters to his brother. .... Over and over again, in his letters to his brother and in his entries in his own diary, Carlyle enforces the paramount duty of keeping clear of the 'gig-man' spirit. In one of his most pathetic letters to his wife, when their prospects were at the lowest, and he is endeavouring to incite her fortitude to further effort, he reminds her with pride that her soul was never that of a 'gig-maness.' .... The words in question are designed to denote merit and respectability as indicated by externals alone and without regard to the inner character of the man. To be above the gig-man spirit is to be capable of maintaining our proper position in the forum of our own feelings irrespective of success in life, and to be in the habit of according such position to others quite irrespective of theirs. It is to take measure of the soul rather than of the body's trappings. There is yet another word frequently occurring in these letters which it may be necessary to explain. It is the German word *entsagen*. Carlyle repeatedly congratulates his brother on having learnt the meaning of

this word, and in one place he writes 'My main comfort about you is to see the grand practical lesson of *Entsagen* impressing itself in ineffaceable devoutness on your heart.' He regards *entsagen*, he says, as the first lesson in all true life. With Mr. Froude's help we may interpret his meaning to be that we should in the first place learn the doctrine of renunciation of worldly gains and become able to say firmly that we can do without any and all of the various pleasant things with which the world usually rewards those who render services to it. It is, in fact, to learn, as we find it expressed in 'Sartor Resartus' 'to do without happiness and to find in its stead blessedness.' .... Were we to attempt to sum up in brief the secret of Carlyle's strength, I think we should have to say that it consisted in his perception of the reality of things. This was a feeling which was ever present with him. Men were real to him, spirit-possessing beings, never wholly without the capability of affection, never even in the degraded condition of part-ridge-shooters or gig-men, losing all share in the divine element of life. Their differences, too, were real and must be taken carefully into account. The world was real, the universe real, the past had really been, and the future would most certainly come. In truth, this sort of perception is the secret of strength in us all, and its absence is the cause of all weakness. It is the very basis of all motive and of all effort. It measures our devotion to truth and our belief in its value, upon it is rooted the distrust of all shams, the hatred of all forms of lying. The gospel of duty, self-restraint, and devotion to work, was one which Carlyle had well learned, perhaps no man ever better. But there was a great failing in his attainments, one which marred the happiness of his life, and which not only robbed him of the reward which was his due, but considerably diminished the usefulness of his teaching. He had not learned what we may, I think, without irreverence style the Religion of Patience. By patience I mean not the mere passive virtue of endurance, which indeed is not unfrequently no virtue; I mean rather the ability, when we have done our best, under all possible circumstances to rest undesperingly and trustfully for the result. Dare I venture for one moment to assume the prophet's mantle myself, I would foretell that the worship of patience in this exalted sense is one upon which the present age is about to enter. If we glance back over the great mythologies of the past and note their hidden meanings, we shall observe the worship under various types, of various forms of power, of beauty, and of virtue. In the earliest ages the gods were symbols of force; they did, and not always beneficently, the great deeds which controlled the destinies of men. Next, as in such types as that of Hercules, we see force combined with human-heartedness, but still force, gross and almost purely physical in its efforts. Side by side with this sprang up the worship of beauty, especially in human and female forms, and the shrines of Juno, Minerva, and Venus, under various names in different climes, claimed their countless votaries. As the moral sense grew and human sympathy expanded, the unsatisfying nature of these Religions of the external became felt and the world witnessed events such as the self-renunciation of Buddha and the advent of what has been well termed the Worship of Sorrow. In these sublimely loving creeds there were, however, elements of weakness and of unfitness for the everyday work of the world, and the pendulum of human sentiment, as it was sure to do, swung back again towards an exaggerated estimate of physical force and natural beauty. In truth, the worship of these was far too deeply rooted in our very being for it to have ever been put aside. The other had been added, but these had not been dethroned. Nor will the introduction of a new goddess effect the displacement of any one of her predecessors. We may pay vows at the altar of patience without ceasing also to render due homage to courage, energy, and physical vigour, and without bating one jot of our admiration for the charms of external beauty, or of our reverence for that glory of soul which can find the happiness of life in pouring blessings on others. .... Part of Carlyle's impatience was creditable, being due to the greatness of his nature in other directions, his keen appreciation of the true making him correspondingly intolerant of what seemed to him false. This topic of life-patience is one which concerns us as medical men, perhaps, more directly than some of the others which I have mentioned. To a large extent impatience of life in its various forms—acute, chronic, and paroxysmal—is undoubtedly a

result of inherited organisation or of derangement of health. Its cure, if cure there can be, must be sought from physical means, and not from any new development of opinion or fresh insight into the order of the universe. That, however, the influence of opinion and of creed upon the mental health is often very great, no one knows better than the medical observer. .... I have said that Carlyle was impatient, and that he formed, under the influence of prejudice, very unjust opinions on some topics. Amongst others, he spoke of the doctrines of Darwin as too contemptible to be worth a moment's consideration. In putting them thus scornfully aside, I think he missed a main source of comfort in life. The truth is that what Carlyle himself was proclaiming in the language of the mystic, Charles Darwin was explaining in the language of science. Carlyle was asserting that there is a spiritual power in nature, was bidding us reverence that power as supernatural, and as working through rough and mysterious ways towards certain and definite good. Darwin, looking at the same facts from a biologist's standpoint, explained how this result did indeed come about, and that, too, through the simplest and most unmythical ways. It has been thought by many, by believers as well as sceptics, that Darwin's explanations are melancholy ones, and that they would in short land us again in regions of mere brute force. I cannot think that this view is correct. Darwin did not impose any new 'law,' he simply interpreted the facts of nature, and nature, whether his explanations be true or false, will go on in the future as it has done in the past. .... Many ages have had their prophets and their seers, those who in the uttermost earnest have set themselves to deliver the messages with which they have been entrusted. If I am not mistaken, however, no age and no country has been more favoured in this respect than our own. I will name to you four, not that they are the only ones, but rather that they stand foremost, and because, also, I think they may be fitly held to represent the four divisions of social religion to which I have referred. To Carlyle, of course, we give the chief place, and to him we assign the priesthood of the worship of Strength. .... There can be not the slightest doubt as to whom I ought to name as our Seer of the Beautiful. What Carlyle has done for the worship of Strength, his pupil, John Ruskin, has done for that of Beauty. .... To Wordsworth must, I think, be assigned the office of latter-day priest at the shrine of self-renunciation and human sympathy. .... If we go to Wordsworth to learn sympathy we must, I think, turn to another poet for initiation into the cultus of Life-patience. In this noble worship, if I mistake not, Robert Browning stands as chief priest."

His reasons for the above selections having been set forth, Mr. Hutchinson concluded as follows:—"Now, gentlemen, students of our college, in conclusion, I can but hope that none of you will consider that I have unduly neglected an opportunity of speaking to you on subjects directly pertaining to your education. I hope to have other opportunities for doing that. It has seemed best this evening to address you on topics which concern us all as men. I might have devoted the hour to eulogy of the profession which you have chosen, but surely it needs no praise. So, also, I might have praised the school which you have selected, and paid compliments which would have been very sincere, however blunt, to those at present concerned in its management and to my colleagues. But here, again, facts speak for themselves, and you are familiar with them. I have preferred to try to find you motives for work and to give you strength and confidence in study. If now I were to sum up in one sentence what I have been enforcing it would be this: the secret of all noble life lies in belief, and the characteristic of all noble minds is the vigour with which they believe that which is true. Try to attain belief in the reality of all things, so shall you never want for motives, so shall you be able to live and work without hurry and without sloth. Finally, permit me to commend to you this formula: prize strength, love the beautiful, practise self-denial, and be patient."

#### MIDDLESEX HOSPITAL.

##### INTRODUCTORY LECTURE BY DR. CAYLEY.

DR. CAYLEY commenced by alluding to the great calamity which had just occurred, and said: "A blow has fallen upon us so suddenly in the death of Dr. Lyell, who was to have delivered the address to-day, that we are unable as yet to estimate the extent of our loss. When we remember his

great abilities, his untiring industry, and his blameless and pure life, we feel the bereavement great indeed. We are, however, in the position of soldiers on the field of battle, where if one is struck down there is no time to indulge in lamentations, and like them we must close up the ranks; and although we must feel the proceedings of to-day to be indeed clouded with gloom, we must endeavour as far as we can to go through the necessary business and not allow the occasion to pass without a few words of advice to students from their teachers."

After referring to the object of the meeting, and wishing "God-speed" to the neophytes in medicine, the lecturer went on to notice the various points of view from which medicine may be regarded; first, as a science, in which they investigated the growth, structure, and functions of the human body, and the various causes by which it was disturbed; next, as a practical art in relation to the cure of disease and all the means for its prevention; and, lastly, as a profession in which those who entered it might hope to pass an honourable career. Of all these objects the one most liable to misapprehension, especially on the part of the outside world, was the scientific one. The pursuit of knowledge in a scientific spirit aimed at the investigation of natural laws rather than any immediate practical advantage. Medicine was now threatened with a new danger, the arrest of experimental research, and it behoved the profession to meet the arguments of their opponents and to defend the cause which they believed to be so essential to the welfare of mankind. The objections raised to experimental research were based upon a misconception of the whole system of nature. We see through the whole domain of life an inter-necine struggle for existence, and man himself extirpates without scruple those animals he finds injurious to his predominance. He kills them for clothing and food, makes slaves of them, and slaughters them by thousands for mere amusement. If Harvey had lived in the time of Victoria (instead of that of Charles the First), under the present restrictions he would never have discovered the circulation of the blood, whilst the deer upon which he would have experimented would probably have been hunted to death by the royal stag hounds. Turning to the practical side of medicine, the lecturer impressed on the students the fact, that their profession required all their energies in the study of its various branches, and in the ordeal of examinations. He counselled them to let this pursuit be foremost in their thoughts, so that they might not devote too much time to mere amusement. Many people thought the medical profession was overlooked in the distribution of honours, but they were cut off from the main source of honour—e.g., high office in the State—which was beyond their sphere of activity. Neither were they in a position to acquire wealth, but must be satisfied with obtaining a competency. On the other hand, into whatever house they entered they went for the benefit of the sick, and they would win not only the respect, but the esteem and love of their fellow citizens. If so fortunate as to acquire this, they might well let the rest go, and they should so spend their time as to be worthy of the hospital in which they had been trained, and of the country of which they were citizens.

#### ST. MARY'S HOSPITAL.

##### INTRODUCTORY ADDRESS BY DR. THOMAS KING CHAMBERS.

THE lecturer began by saying that an "introductory" is usually delivered by some active junior member of the staff, who has at his fingers' ends all the special advantages which a new pupil at St. Mary's inherits. He, however, had not that personal experience now, and, in fact, was saying the farewell to his old chair, which illness prevented him saying a few years ago. He had, therefore, selected as his subject "The Relation of the Medical Student to the General Medical Council." He was the junior member of that mysterious body, and therefore supposed to be a proper person to introduce it. The Medical Council's most important duty is to watch over the student, to see that he gets justly that education for which he gives his time and money, to show him the path by which he may become a useful and honoured Englishman, and to make that path as easy and direct as possible. That the Council is performing this duty is graphically shown by contrasting the medical student as described—and truly described—by Charles Dickens, and the medical student of to-day. "I will take this opportunity of

giving you a few words of warning. Do not on any consideration make the mistake of accepting places as assistants before you have passed the qualifying examinations. By so doing you will be mixing yourselves up with a set of men who have lost all ambition of being legitimate practitioners, who have degenerated into mere drudges, whose manners and morals and education unfit them to be your companions. You run great risk of becoming like them and being equally despised; and by delaying your fitness for going up to your final examination, you are making your education more tedious, and therefore more expensive in the end. But when you have cleared examining boards off your minds, then, indeed, I do not know a more valuable part of education than that which can be got by a good assistantship. For having learnt systematically and thoroughly how to learn, you will understand quickly the details of the application of your knowledge and profit in direct proportion as you have not muddled your brains with those details beforehand. They are selfish and cruel persons who tempt you to be unqualified assistants. They do it for their own dirty profit, and it is a very bad bargain for you." Dr. Chambers then pointed out that a very great portion of this improvement of the *status* and comfort of the medical student was due to the action of the Medical Council in forcing upon parents and guardians the duty of giving a sound preliminary education to those destined for the profession. "When a student feels the satisfaction of ease in acquiring technical knowledge and a fitness for belonging to the cultured classes which early education bestows, he should not forget his indebtedness for it to the Medical Council. To the influence of the Medical Council is also due another great comfort to the student—the substitution of several examinations for that one which used to hang like a sword of Damocles over his whole career. Perhaps some may exclaim that this is worse and worse—it is the hanging up of several swords instead of one. But that is a superficial view of the matter. It is in reality a 'dilution' of the single examination, which spread over several years ceases to be a legitimate object of fear altogether. If an old man's pupilage could come over again he would certainly choose that body to examine him which most divided its examinations; for he knows that he would eat, drink, and sleep the better for his choice. Then, the curricula of the different licensing boards have been the subject of serious thought and arrangements by the Council. They are made as harmonious and as equal as possible. The student may rest assured that by following them strictly and honestly he will be making the best use of his time to ensure success in the examinations; and success in the examinations is a pledge to you that you have those qualities which lead to success in after life. Do not, my dear fellow teachers, take umbrage at what I have said as to the need of keeping examinations constantly in view. Observe the signs of the times; examination, as an engine of education, is becoming more and more powerful, and, wisely or unwisely, all orders of men are agreed in reposing their confidence in it. Trust has begotten a resolve to deserve trust; and I feel sure that the schemes of instruction suggested by the medical examining boards and approved by the Council are the best guides we can have. Your responsibility is very great; yet it is not too great to be borne by the exercise of the simple commercial virtues of (1) sobriety, (2) punctuality and (3) attention to business. Let your 'sobriety' be known unto all men in deed, in thought, and in speech. Words, as Homer tells us, have wings, and they fly to the ends of the earth. You can hardly fail to have been startled, if not awestruck, by the quotation of some chance sentence of yours out of a lecture or conversation in the mouth of an old pupil or pupil's pupil; it may reappear in the colonies or come back from America. Take care, then, that is a true message which thus travels forth. Avoid all paradox, exaggeration, or inexact illustration, however brilliant. Be assured it will haunt you, and start up when you least desire. 'Punctuality' is the homeliest of virtues, but the neglect of it by teachers is visited with very public loss of reputation. Pray remember that every minute students are kept in waiting is most likely occupied in criticising you, and in commenting, not favourably, sometimes not quite fairly, upon your person, your manners, and your teaching. I will leave you to judge if that conduces to your influence for good. 'Attention to business' is an expression which seems to demand an opinion as to what your chief business is. You will, of

course, say it is to make pupils into the best and safest practitioners that the time afforded us allows of their being made. Yet teachers differ somewhat as to the surest mode of attaining this end, and, possibly, some of you may dissent from my concluding sentences. A frank submission to the mastery of the inevitable examiner is, I am sure, the wisest course, and I expect this will lead in the end to changes in our method of communicating instruction. It must gradually become less professorial and more catechetical or tutorial. I mean that a considerable part of the time devoted to each study should be occupied in question and answer on matter previously prepared by the class. The subject should be explained and enforced from the chair; not, as of old, given out fresh from the chair and learnt up by notes afterwards. The catechetical method gives a shrewdness in catching the point of a question and a facility in answering it which contribute greatly to success in examinations and to readiness in the emergencies of future life, and by bringing their two minds into more immediate contact it gives the teacher a power of measuring the progress and declaring when sufficient advance has been made to sanction the issue of a certificate of sufficient attendance. To try to gain this early would be a sharp spur to early diligence, and would ensure the presence of minds as well as bodies on the benches of our theatre. Students complain, not entirely without reason, of the number of lectures they have to sit out and of the days broken up into fragments and consumed. If you adopted this plan the remedy would be in the complainer's own hands, for he would only have to show a mastery of his subject to be free for the rest of the session and give his time to reading and ward-study. I am satisfied, by observation not limited to medical schools, that the catechetical is, of all methods, the most sure and effectual for teaching Englishmen. I should not have dared to say so much had I not observed tentative efforts made here to introduce the principle I have advocated. To succeed, the efforts must be combined, and, my new young friends, they must be co-operative: assistance on your part, hearty and forbearing, must be given or the experiment will not be a fair one." The lecturer then took leave of the theatre, where, he said, he had begun to lecture before the plaster was quite dry upon its walls, and where he left one of his first pupils as his successor.

#### WESTMINSTER HOSPITAL.

##### INTRODUCTORY ADDRESS BY DR. DE HAVILLAND HALL.

AFTER expressing his approval of the custom of opening the session by addressing a few words of advice to the students who are commencing their medical studies, of encouragement to those already known, and of farewell to those about to take flight from their alma mater, Dr. Hall pointed out some of the advantages of a small school. He thought that Westminster had deserved well of several of its larger rivals, and cited the names of men formerly on its staff who had migrated to other hospitals carrying with them the experience they had acquired at Westminster. It should not be forgotten that, in the language of one of the old reports, Westminster is "the parent of all the medical and surgical charities of these kingdoms that are supported by voluntary contribution." Then, addressing the students who had just entered, Dr. Hall pointed out the necessity of settling down to work steadily if they would avoid the temptations incidental to the life of a medical student. The lecturer regarded the examination at the end of the first year, recently instituted by the Royal College of Surgeons, as likely to be a useful check to the lazy student, and serve as a beneficial stimulus to all. In insisting upon the mental discipline of a thorough course of anatomy, and the habit of exactitude fostered thereby, he said that it was the anatomy learnt by actual dissection which was required, and not the counterfeited obtained by the aid of cram-books and tips. He therefore advised that every opportunity of dissecting should be seized, so as to get a practical knowledge of the subject as well as to acquire the manual dexterity, which he stated to be almost as important to the physician as to the surgeon. Dr. Hall discountenanced attendance in the out-patient rooms and wards before the primary examinations had been passed. "If you begin to go round the wards before you are capable of understanding and taking an intelligent interest in what you see and hear, you will in all probability

acquire the habit of doing things in a casual manner, which is destructive to anything like thoroughness." He therefore advised that only the minimum amount of attention required by the regulations of the College of Surgeons should be devoted to surgery until the primary examinations had been passed. He urged all students to make an effort to pass the first examination of the Royal Colleges of Physicians and Surgeons within the first two years, so as to leave two whole years for the practical part of their studies. He also insisted upon the importance of students having a clear understanding as to what degrees or diplomas they intend taking. "Much time is lost and inconvenience caused by the student discovering, after he has started on his career, that he requires a degree in medicine, or that the Fellowship of the College of Surgeons will be necessary. When you are once launched into practice it will be almost impossible for you to obtain a British medical degree (unless you be over forty), as all the universities except the London require residence, and the curriculum of the latter puts that out of the question." Dr. Hall was distinctly in favour of enforcing attendance at lectures; he considered that lectures could lay stress on the more important points, and that in such a progressive science as medicine attendance at lectures was the only feasible way for students to keep abreast with the daily increase of knowledge. He advocated the plan of taking short notes at lectures, to be amplified at night. In speaking of the necessity of thoroughness, he said: "If you begin your medical career with an inaccurate knowledge of the sciences on which medicine is based be sure that you will never practise your profession with anything like satisfaction to yourself or advantage to your patients. At the best you will be little better than empirics."

"Of equal importance with the mental training is the necessity of seeing that the physical needs of the body receive their due share of attention." In speaking on this subject Dr. Hall drew attention to the demands upon a medical man's energy and decision, and to the importance of good health, unless the doctor is himself to fall a victim to the very disease he was called upon to treat. As a means of preserving health regular exercise was highly praised, and students were advised as much as possible to make their recreations such as would take them into the open air, and to avoid the billiard-room. In speaking of purity of life, Dr. Hall said: "If your purview is limited to this world only it is worth your while to lead a moral life. Infringements of the moral law are frequently visited, as, alas! you will too often have an opportunity of seeing, by immediate punishment, and by what I consider as more awful a punishment, which in certain cases is shared by innocent victims. Ruined health, early death, or premature old age, to say nothing of the misery and wretchedness communicated or transmitted to those nearest and dearest, have been in many instances the lot of youth who commenced life with bright prospects; so true is the apostolic saying, 'The wages of sin is death.'"

After a few words of caution as to the choice of friends and on the means of keeping out of the way of temptation by being always busy, Dr. Hall proceeded to discuss the different openings possible to the medical man. He assumed that the majority of his hearers were destined for general practice, and he told them that with fair education, good health, and tact, they might rest content that they would earn for themselves a living, and in many cases a very comfortable one. He strongly advised those who were intended for general practice to go as assistants for a time before starting on their own account, so as to learn something of the requirements of general practice. He then spoke of different modes of starting in practice. Those who were anxious to see something of the world before settling down had a wide field of choice—i.e., there were travelling appointments to be had or surgeoncies in the mercantile or emigration services. For those who wished for work of a still more permanent character, the three branches of Her Majesty's service were open—viz., the Army Medical Department, the Indian Medical and the Naval Services. "Ten years ago and less the Indian Medical Service was the only one which attracted good men; the two other services were literally starved. But of late years, owing to the increased pay and improved regulations, there has been a keen competition for all these services. For instance, at the last examination, held in August, there were ten vacancies for the army and thirty candidates, the same number of vacancies for the navy and twenty candidates, whereas for the eight vacancies in the Indian Medical

Service there were forty candidates." Dr. Hall then discussed the respective advantages of the different services, and pointed out that there was ample scope for scientific workers in the department of public health. After reading the Hippocratic oath *in extenso*, he concluded his address as follows:—"The enlightened morality of the oath, and the admirable rules laid down in it for the conduct of the medical man towards his patient, leave little to be desired, and if you only act up to the spirit of this document, over two thousand years old, you will attain, if not wealth, at all events the respect and esteem of all with whom you come in contact, and a happy hereafter."

## THE PROTECTIVE POWER OF VACCINATION.

To the Editor of THE LANCET.

SIR,—In your last issue, under the above heading, you refer to the importance of inoculating vaccinated persons with variolous virus to furnish undeniable evidence of the protection afforded by vaccinia against variola. This has been done, as you know, over and over again, especially during the earlier years of this century; and if such a test would convince "anti-vaccinationists," or would inspire confidence in vaccination among those hesitating as to its efficacy, I would refer them to the literature on vaccination and small-pox issued in Dr. Jenner's time, in which they will find scores of experiments recorded like those suggested by Dr. Cory and Dr. Mitchell. Those opposed to vaccination who will not listen to reason need no further notice; but others, who have perhaps thought and read more on the subject—who at all events are amenable to conviction—will say, inoculated variola is a very different disease from contagious small-pox, and is indeed, so mild a form that it was employed for many years as a prophylactic against contagious variola. This brings me to record an instance which occurred to me some years ago, and no doubt many such experiences have to other general practitioners, though they have not published them. A few years since, when small-pox was raging here, I was notified of a certain case in a house in Birkenhead; and, as public vaccinator there, I visited the house to offer its inmates the advantages of vaccination and revaccination, and thus to stamp out what might have initiated an epidemic. I found the subject of small-pox to be a tramp's child, living with its mother in the attics. With this patient I had nothing to do; but on inquiry I learned there lived in this house two other families, consisting each of a father, a mother, and half a dozen children. Of the children only one was under six months old, and accordingly the only subject for compulsory vaccination. The mother readily agreed to its being vaccinated. The other children bore marks of successful vaccination during infancy. Of subjects suitable for revaccination (that is, persons over twelve years old who had not been successfully revaccinated previously) there were only the parents. Therefore I arranged to visit the house again when the men would be at home, and on offering both husbands and wives revaccination, warning them that if they did not accept revaccination they would be attacked by variola, the women agreed and were revaccinated, the men "trusted to Providence." Father, mother, and children of each family slept in the same room, several of them together in the same bed. On that day week, as predicted, the mothers and the infant showed vaccinia, the fathers showed variola. They continued to sleep together but no more cases of small-pox occurred in this house. The original source of variola was removed to hospital. Here is an undeniable instance of contagious variola being prevented by vaccination from attacking children of various ages and adults, while it found victims sleeping in the same bed.

I am, Sir, yours truly,

P. M. BRAIDWOOD.

Liverpool, Oct. 2nd, 1882.

THE THIRLMERE WATER SCHEME.—The hearing of this case has at last terminated, and the arbitrator will, it is expected, make his award on the 30th inst. The owner of the property required by the Corporation of Manchester demands a sum variously assessed at £75,000, and £93,000, whereas the Corporation consider £20,000 a sufficient equivalent for the property.

# THE LANCET.

LONDON: SATURDAY, OCTOBER 7, 1882.

THE medical students who came up to their winter's work on Monday last will have no reason to blame the Introductory Addresses if they begin work in an unintelligent mood, or prosecute it with low motives and on wrong principles. It is true that the range of topics discarded on by the lecturers was very great, embracing everything, from the biography of CARLYLE to the peculiarities of Englishmen which explain the success of the expedition to Egypt. But even this fact does not detract, in our judgment, from the general excellence of the addresses. It is not to the point to complain of the occurrence of commonplaces and platitudes in them. Such things are not such to the young minds who are hearing them for the first time, or even, as in the case of the fourth-year student, for the fourth time. They belong to that class of truths which never pall on serious minds, and, as Dr. T. KING CHAMBERS said in his address at St. Mary's, the medical student of the present day realises that he is engaging in a serious undertaking, and is prepared to give a hearing to any respected teacher who sets forth in fairly clear terms the nature of the duties immediately or distantly before him. In no previous session that we recall has there been a better exposition of the principles of medical education than that contained in the address of Mr. MARCUS BECK, which, though delivered with singular quietness, was listened to from beginning to end with unbroken attention, or attention only broken by the appreciative laughter which was called forth by sundry very happy pieces of humour. Mr. BECK was unsanguine enough to say, in the presence of a Royal Commissioner, that we are no nearer a better examining system than we were before the investigation of the Royal Commission. We do not agree with him here; but *nous verrons*. We heartily agree with him in his suggestion that the time has come when the Apothecaries' Company might be allowed to retire from examining work, while fully admitting also with him its usefulness in times when more pretentious corporations were above their business. Not less able and complete was the address at St. Thomas's by Dr. SHARKEY, in which the foundations of medicine in anatomy and physiology were well laid, and the claim of physiology to be considered an exact science was shown to be bound up with the careful practice and use of vivisection. Dr. SHARKEY dealt iconoclastically with homœopathy, and showed that in a scientific conception of medicine the doctrine of specifics had no place. Both Mr. BECK and Dr. SHARKEY found occasion in their addresses to note the remarkable advance of surgical medicine, and to pay a well-merited tribute to PASTEUR and LISTER. Dr. HERBERT WATNEY, at St. George's, was most happy in describing the respective claims of the scientific and the practical in the studies of the medical student. Dr. CHAMBERS spoke, as he always does, in admirable English, and with equal sense. He might have had a better subject than that which he took for his

principal thesis—the eulogy of the Medical Council. But as the youngest member of that “mysterious body,” it was at least gallant in him to undertake its defence. His audience would be apt to think that he had caught some of the “mysteriousness” of the Council when he spoke of the obligation of the student to that body for the “great comfort of several examinations instead of one,” and the simplification of the curricula. This is rather bold, when we consider that there are still nineteen existing Bodies, scarcely two curricula alike, and that each Body has about three examinations. His advice to unqualified students not to put themselves into the relation of assistants to practitioners is very good as applied to those practitioners whom Dr. CHAMBERS doubtless had in his mind, who conduct a number of sham practices. The best part of his address was that in which he advocated less lecturing and more close contact between teacher and pupil. Dr. HAVILLAND HALL, after vindicating the institution of introductory lectures, enjoined thoroughness, commended attention to physical health, and summed up the duties and responsibilities of medical men by reading *in extenso* the oath of HIPPOCRATES, which is still unsurpassed after some two thousand years. The school of King's was honoured by the presence of Mr. W. H. SMITH, who described the interest he used to feel in the administration of the hospital in the days of TODD, BOWMAN, and FERGUSON, and the value of hospitals as places of education, both to the pupil and the public.

Students are thus introduced by one man or another, by one argument or another, to the great work of learning medicine, and then they are thrown on their own responsibilities, with the terrible option to be idle or industrious, to be hinderers of others or helpers, to lay the foundations of respect and reputation or otherwise. Let them count the cost. Their life now will be private, their work done in secret. Let them see to it that it is well done, so that when the examination time comes round, as it will with rapidity, the high morality of the opening lectures may be realised.

It is a remarkable fact that until quite recently our knowledge of the changes occurring in the bloodvessels of a limb after amputation has been most scanty, and the subject has been dismissed in our text-books by a bare statement that the bloodvessels of a stump are obliterated up to the next collateral branch, with in some cases a reference to the cases of aneurismal varix recorded by CADGE and AGNEW. M. VERNEUIL has studied the vessels carefully and has greatly enlarged our knowledge, and in two recent numbers of the *Revue de Chirurgie* M. SEGOND has brought forward more evidence of the same nature in a paper in which the facts upon which a judgment is to be founded are clearly stated and ably discussed. The observations have been made on limbs at very varying periods of time after amputation, and they have mainly consisted of a careful comparison of the vessels of the two limbs, which has been simplified by the previous injection of tallow through either the arch of the aorta or the abdominal aorta. The chief result obtained has been to show a marked diminution of the calibre of all the vessels in a member after amputation as a constant and early effect of the mutilation. One of the most striking cases quoted by M. SEGOND is one of amputation of the forearm, in which this mode of comparative research showed that



all the bloodvessels of the mutilated limb, even as high up as the subclavian arteries, were markedly reduced in size. In another case of old amputation of the leg the arteries were found considerably diminished in size from the end of the stump quite up to the bifurcation of the aorta. Accurate measurements showed that the loss of calibre in the arteries varied between four-fifths to one-fourth of the primitive calibre, being greatest at the extremity of the stump. Precisely similar changes have been demonstrated in the veins of these limbs, and in a case of amputation through the lower third of the thigh, the femoral vein was found to have lost three-fourths, and the external iliac vein three-fifths, of their primitive calibre. As a result of these changes in the bloodvessels there is a smaller supply of blood to these parts, and it is a familiar fact that stumps are colder than the rest of the body, though it is not so generally known that this is true of the whole of the shortened limb, and that the pulse is less strong than on the sound side, while, if re-amputation is subsequently demanded, there is less hæmorrhage than on the occasion of the primary amputation. The dissections which showed this diminished calibre of the vessels demonstrated also a wasting of the nerves, muscles, and bones of the same parts. The bones were lighter than their fellows, and were found to have undergone concentric atrophy, with in some cases marked thinning of the compact tissue. Thus, in the case of a man who had submitted to amputation through the lower third of the left forearm, the clavicle and scapula were respectively four and twelve grammes lighter on the left than the right side, and between the two arm-bones there was a similar difference of fifteen grammes in weight and seven millimetres in length. This same case illustrated well the changes in the muscles, for while the right deltoid weighed 300 grammes, the left weighed but 220 grammes; and similar differences were found in all the scapular muscles as well as those of the arm and forearm.

Several interesting questions arise in connexion with these facts. Is there any causal relation between the atrophy of the limb and the shrinking of the bloodvessels, and the attendant lessened blood-supply? Are the two events coincident? Are they both effects of one common cause? When does the shrinking of the bloodvessels commence? What is the actual force causing it? What changes are to be observed in the coats of the vessels? To some of these questions no answer can at present be given with confidence. But it appears that in no case has atrophy of the soft parts been observed without attendant lessening of the size of the bloodvessels where this has been looked for, while in a case of amputation of the leg examined after ten days by M. PONCET the femoral artery was already noticed to be smaller than its fellow of the opposite side; and although the muscles were not accurately compared, it is hardly likely that in so short a time they would have materially wasted. As the result of direct experiment upon a dog, M. SEGOND found in one case that two months after amputation of the right thigh the gluteal muscles of the two sides were of equal weight, while the right iliac and femoral arteries were visibly smaller than were the left. We may thus infer that the shrinking of the bloodvessels does not follow, but may precede, the wasting of the other tissues, and that it is a very early change in amputated

limbs. If this be so, we may with great probability ascribe the wasting of the soft parts to the lessened supply of blood received by them. The cause of this lessening of the supply of blood is not very apparent. M. SEGOND states that from experiments he has made he can affirm that when a ligature is placed on an artery in its continuity the blood-pressure on its cardiac side at once falls to a considerable extent, and he is disposed to attribute the shrinking of the bloodvessels to this fall in the local blood-pressure. The question then remains by what mechanism this fall in blood-pressure is brought about, and why does the blood-pressure fall in the iliac arteries after amputation of the leg. Again, by what histological change is a temporary contraction of the wall of a vessel converted into a permanent diminution of its calibre? At present there are no facts at hand to show the actual condition of the tissues of these shrunken vessels. M. SEGOND mentions a case of a dilated subclavian artery with very hypertrophied walls which he found in a man who had lost his arm at the shoulder. MAURICE RAYNAUD, CHAUVEL, and PIHET describe thinning of the walls of the vessels after amputation, but M. SEGOND did not observe this in any of his cases, so that we must consider this as a question awaiting solution. Much light will be thrown upon this inquiry by similar precise observations of the bloodvessels under other somewhat analogous circumstances, such, for example, as paralysed limbs, limbs with one or more stiff or useless joints, and limbs after excision of joints.

THERE may be a difficulty or an impossibility of obtaining actual uniformity in the minimum examinations of England, Ireland, and Scotland. But there should neither be difficulty nor impossibility in roughly equalising the examinations which in the three divisions of the kingdom respectively correspond to each other, and which confer the same imperial privileges. It is easy to believe, what a study of the evidence taken by the Parliamentary Committee before the Legislation of 1858 will show, that there was an understanding among the licensing authorities in the different parts of the kingdom that in sweeping away territorial limits of qualification there was to be an honourable attempt to make qualification mean the same amount of knowledge and skill. Such an understanding was of the very essence of that legislation. Practically this question has reference almost exclusively to the medical corporations of England, Ireland, and Scotland. It is not pretended that any university in the kingdom now so far forgets its own dignity as to confer its degrees on really unworthy candidates, at any rate on any large scale. The important question is this, Are the corporations in each division of the kingdom holding up the minimum examination, by which the bulk of the profession is admitted to practice. Differences in the curriculum are not so important, though this subject deserves much more attention than it has yet received, as does also the question of differences in the fees for diplomas. The difference between twenty pounds and thirty for a diploma is very much the same in London as it is in Edinburgh, and there is no good and substantial reason for any difference. The care of the Hunterian Museum involves the College in an annual expenditure, according to the accounts of the College given in the Appendix of the Blue-book, of £2360. But this

work of the College is done for the nation, and should not be paid out of the fees of candidates for the diploma. But, we repeat, questions of difference in either the fees or the curriculum, though important, are infinitely less serious than questions of difference in the substantial severity of the examinations.

The testimony of the witnesses before the committee is almost unanimous to this effect—that the examinations are not equal, that one examination is defective in one thing and another in another, and that men who are unable to pass in one place pass with considerable certainty in another. As regards the London corporations, the general impression conveyed is that the examination of the Apothecaries is less severe than that of either of the Royal Colleges. The examination of the Royal College of Physicians is very generally approved and escapes criticism the most. That of the Royal College of Surgeons of England, according to some witnesses, is objectionable in that it is uncertain, and that the candidate is too much hurried. Sir JAMES PAGET and Mr. HEATH seem to think that it is pitched fully high enough. The uncertainty of this examination and the haste of it were remarked on by the visitors of the General Medical Council. The uncertainty of it is so generally admitted by teachers and students that the College itself should make the complaint a matter of inquiry. It is only fair to the examinations of the Scotch Corporations to note that one witness at least, Mr. COOKE, said with regard to them that “they are conducted in a more uniform and reliable way as regards the results—that is, the results of the pass and pluck. I could feel much more sure that a man fairly up in his work would pass at the Scotch examinations than that the same man or even a more brilliant man would pass the English examinations.”

Nearly all the witnesses were unanimous in saying that there is a great tendency in students to go from the examinations of the English and Irish corporations to those of the Scotch corporations, and that many who failed in the English and Irish examinations came back with flying colours and a double diploma from Scotland. One explanation of English and Irish students taking the double diploma in Scotland was scarcely mentioned—namely, a vague notion that the licence of the College of Physicians entitles the holder to use the title of “Dr.” In all the history “of inform basis,” as Artemus Ward would say, there is none more shaky than this basis for an academic title. But it counts for something in the explanation of an undoubted fact. But the most serious thing is the evidence of such men as Sir JAMES PAGET, Mr. HEATH, Mr. SAMPSON GAMGEE, Dr. JACOB, and others, to the effect that men rejected at one examination pass easily at another, and that the easy examination, where everything is made pleasant, is that of the Scotch corporations. Sir JAMES PAGET says, “I have to admit reports which I am bound to believe that in the Scotch corporations they are admitted too low.” We all know Sir JAMES’S carefulness and his mastery of language. But even when pressed by Professor TURNER to mollify this conclusion, he stuck to his point, and said, “I cannot give you names, and I cannot give you numbers. If it were to be denied and disproved by numbers, I should be surprised; I cannot say more than that.” This is grave testimony. The evidence of Mr. HEATH as an examiner in the English College

of Surgeons was more direct. Mr. HEATH said distinctly that he had known many men who fail here go to Glasgow or Edinburgh and return with the double licence. Mr. GAMGEE’S evidence was equally founded on personal knowledge. He says he has several times addressed his class in confidence and said, “How is it that A. B.— went to Edinburgh or Glasgow? Can you tell me anything about what is the feeling of students on the choice of examination?” They have said, “We know very well that the Scotch colleges give the easiest examination. If a man is plucked here he can go there, and,” to use a student’s expression, “bring his ticket back.” Another serious evil brought out in the evidence before the Royal Commission is the fact that men can take part of their examination in one place and part in another, picking and choosing according to their estimate of the chance of passing. This too is an evil chiefly affecting the Scotch corporations and the Apothecaries’ Society of London. Dr. SEMPLE, asked to explain how so large a number of young men came to the Apothecaries’ Hall for their final examination who get their earlier examination elsewhere, said, “They consider our earlier examination too severe. They go to the College of Physicians of Edinburgh and get over the Chemistry somehow or other, or to the Faculty of Physicians and Surgeons of Glasgow. At any rate, they get over it somehow, and then they come back.”

It would thus seem that the Scotch corporations look as compassionately on those who dread the examinations of the Society of Apothecaries as on those who break their heads against the rocks of Lincoln’s-inn. The general impression left on the mind of the reader is that there is a complete absence of that fair approach to equality which the equal privileges enjoyed by the corporations should imply. Such aspersions on the insufficiency of the examinations of the Scotch corporations constitute a great hardship to those who hold the diplomas of these bodies, the majority of whom doubtless wish for no favour, but for a fair examination. Unless they can be refuted—and we are bound to say we see nothing in the evidence of the Scotch witnesses that does so—these diplomas must suffer seriously in public estimation, and the corporations which grant them will incur a heavy responsibility in opposing legislation which has for its object to secure that bodies professing to apply the same tests shall really do so.

THE present is essentially an age of observation and experiment. In science generally, whether we consider the pure scientist like DARWIN, or he who, like Dr. SIEMENS or Sir W. THOMSON, seems to strike the happy mean between the purely speculative and the rough-and-ready application of scientific truths to practical matters, we find that it is by experiment chiefly that advance is made, and that whatever cannot subject itself to this test must expect but scant courtesy or consideration. The remarkable success which the method has met with during this century, and more especially during the past few years, would at first sight indicate the present year of grace as a most unfitting time to question whether the rigid restriction now put upon the imagination in science is likely to help or hinder the progress of the latter. The exceeding exactness of every test seems not only to have left no room for the

poetic faculty, but has to a large extent, in the minds of many, deprived the accurate logical method of much of its value. To the deductive logician at least there is little of hope left; and if MACAULAY'S views of the Baconian method be correct, a formal adoption and study of its laws of thought can little help the man of science. Judging entirely by experience, and giving due credit to the patient toiler, it would appear that many of the most brilliant discoveries were made by some grand intuitive process which we call genius, and some of these, though most firmly believed in and accepted by all, may not even now be capable of demonstration. It was not by experiment that BLACK was enabled to declare the theory of latent heat; NEWTON could not demonstrate satisfactorily his theory of gravitation; GROVE or FARADAY could not perhaps by the modern method satisfy his hearers as to the truth of the far-reaching ideas of the conservation of force and matter; nor could Dr. TYNDALL, practical though he is, get gathered together that wonderful waistcoat-pocketful of etherial particles of which he speaks so eloquently. Such flights of fancy are now left to the poet, poetry and science being considered almost as repellant forces. In medicine we go on assiduously gathering cases as representing facts; but the observers are few who from these can boldly and correctly generalise, and timidity is felt in giving expression to views which cannot be fully proved. In the past, especially when theories were put forward by men of standing in their respective professions, there was some chance that, if incorrect, they might lead to dangerous practices; but now that criticism is so keen and tests are so rigid, there is little risk that harmful results will follow the enunciation of views that may be somewhat wild. The wings of fancy have been clipped, with doubtful advantage to science, and we might do well to more fully appreciate "the instinctive grasp which," according to Mr. RUSKIN, "the healthy imagination has of possible truth." When Sir J. PAGET says to the student, "There are such things as green roses: show the analogies between a green rose and a rickety child?" he but asks that breadth of view may be given to our studies, and exemplifies the grace which imagination has so often lent to his own discourses. While desiderating the due exercise of the higher mental powers of generalisation, and foreseeing that, without these, accumulated experience may often be little better than a rubbish heap, it would be absurd to depreciate the immense advantages to medical as well as all other science arising from the patient and profound observations of workers who have less fully developed the imaginative faculty. RUSKIN has said, "I believe there has been no true discoverer, from GALILEO and KEPLER, to DAVY, OWEN, and our own GOODSIR—the Nimrods of possible truth,—without wings"; and in this connexion SCOTT'S delighted expression on seeing the process of *singeing* muslin, by passing it rapidly over a rolling bar of red-hot iron, may be quoted: "The man that imagined this was the SHAKESPEARE of *Wabsters*."

IN consequence of the death of Dr. Silver and domestic affliction in the families of various members of the staff of the Charing-cross Hospital, no introductory ceremonies or festivities were engaged in at the opening of the School on Monday, Oct. 2nd.

## Annotations.

"No quid nimis."

### TREATMENT OF THE SICK AND WOUNDED IN EGYPT.

CERTAIN damaging statements having been made with respect to the treatment of the sick and wounded, and the administration of the Army Medical Service in Egypt, we have much pleasure in publishing the following extracts from letters by our special correspondents at Cairo and Ismailia. It will be seen that the testimony given entirely refutes the current allegations of mismanagement and failure.

Ismailia, Sept. 17th.

I have had an opportunity of seeing all the cases that have been treated antiseptically. So far, the results appear highly satisfactory, and I question if any small field hospital *dépôt* ever did more or better work in the time on the 13th than was accomplished here. Since my arrival here yesterday I have seen a large number of the cases in the hospital, also on board the *Carthage* and *Orontes*. All that could have been done at home seems to have been done; and as far as I can ascertain there is an ample supply of surgical and medical stores. We only want independent transport to be perfect. People do not understand the principles of the field hospital system; practically it is capable of going anywhere and doing all that can be reasonably required of it.

Cairo, Sept. 22nd.

At Tel-el-Kebir, on September 13th, an advanced *dépôt* (No. 3) field hospital was found at one of the entrenchments vacated by the enemy. The tents, stores, and establishment went down the Fresh Water Canal on the previous night in a flotilla of boats. On arrival the stores and *personnel* were disembarked, and the flat-bottomed horse-boats were littered with hay and supplied with planks for the easy access of the wounded. At 9.30 A.M. the first wounded European came in, and from that time until after dark the hospital was fully worked. There were twenty-five tents in all pitched. Seventeen non-commissioned officers and three of the Army Hospital Corps (exclusive of Captains Pringle and Osborne); two surgeon-majors, viz., Surgeon-Major Robinson in charge and Surgeon-Major Troup; three surgeons, Battersby, Beatty, and McGrath; Surgeons Reynolds, O'Kief, and Surgeon Sykes, I.M.D., dropping in, lent a hand at the work. The wounded were all treated antiseptically—that is, washed with carbolic solution, then the wounds themselves were dusted over with iodoform, a protector applied, and a large pad of boracic acid lint on carbolic gauze. Dr. Crookshank, House-Surgeon, King's College Hospital, undertook the preparation and arrangement of the antiseptic dressings. Two amputations were performed, and twenty bullets extracted. Two hundred Europeans were received, fed, and treated, and had opium by mouth or hypodermically, including eight officers, five of whom were seriously injured. Seven men were buried, and a grave dug, the Church of England Service being read. The Egyptian wounded received (amounting to 200) were treated as nearly as could be like the Europeans. The wounded were sent down the canal in two batches, being towed in large boats. The first batch left at noon. The boats returned at 6 P.M., but all the wounded could not be got off before 8 or 9 P.M. Their transit was admirable; easy and smooth, as if going over glass. The naval officers did splendid service, and were most untiring and obliging in their efforts. On arrival at Kassassin Lock Hospital (ten miles) the last batch of wounded were left on board the horse-boats; but hot food and drinks were supplied them, with opium and brandy, and a medical officer was left in charge. At Tel-el-Kebir Railway Station, from the 14th to the 17th September, the

following service was performed under the superintendence of Surgeon-Major Walshe:—Five large tents were pitched; 534 wounded Egyptians in all were collected; all the cases were dressed antiseptically; twenty-seven capital operations were performed; 202 of the wounded were sent to their homes; the rest were taken charge of by their own native doctors and sent by special train to Cairo. They were supplied with twenty-five tins of meat, 1000 biscuits, three bottles of brandy, and a large skin of cold water was supplied to each railway truck. The medical officers in charge were Surgeon-Major Walshe; Surgeons Rogers, Gallway, Kelsall, and Gardner (Grenadier Guards).

#### FOOD MAKES THE MAN.

SPEAKING roughly, about three-fourths, by weight, of the body of man is constituted by the fluid he consumes, and the remaining fourth by the solid material he appropriates. It is therefore no figure of speech to say that food makes the man. We might even put the case in a stronger light and affirm that man is his food. It is strictly and literally true, that "A man who drinks beer thinks beer." We make this concession to the teetotalers, and will add that good sound beer is by no means a bad thought factor, whatever may be the intellectual value of the commodity commonly sold and consumed under that name! It cannot obviously be a matter of indifference what a man eats and drinks. He is, in fact, choosing his animal and moral character when he selects his food. It is impossible for him to change his inherited nature, simply because modifications of development occupy more than an individual life, but he can help to make the particular stock to which he belongs more or less beery or fleshly or watery, and so on, by the way he feeds. We know the effect the feeding of animals has on their temper and very natures; how the dog fed on raw meat and chained up so that he cannot work off the superfluous nitrogenised material by exercise becomes a savage beast, while the same creature fed on bread-and-milk would be tame as a lamb. The same law of results is applicable to man, and every living organism is propagated "in its kind" with a physical and mental likeness. This is the underlying principle of development. Happily the truth is beginning, though slowly and imperfectly, to find a recognition it has long been denied. It is possible that in the natural desire to secure the best and purest supplies of food and drink for man we are pushing matters a little to extremes and becoming ridiculous. Utopia is a long way off, and "Hygeia" has not yet been built. It is, however, desirable that we should aim high and make the teachings of physiological science the precepts of our daily life and conduct. We may not be able to reach our ideal, but progress will be advanced by striving to make its attainment an object. "What to eat, drink, and avoid" is a rational proposition; and if some of us are becoming a little unreasonable in the attempt to solve it, at least we are on the right road, and ought to be encouraged rather than abashed by the, not unkindly, criticism our endeavours are calling forth.

#### GROCERS' LICENCES AND "LOCAL OPTION."

WE have no sympathy with the policy of Sir Wilfrid Lawson. Our professional judgment in regard to "stimulants" has been uniformly delivered in favour of moderation in their use—neither abuse nor total abstinence. We do not think society has any right to put it out of the power of its members to procure stimulating beverages because these happen to be intoxicating when taken in excess. Therefore we are opposed to "local option" as the teetotal baronet understands and would establish it. In regard, however, to the *mode* in which drink shall be supplied to the public, we think the ratepayers of a locality might be fairly consulted. At first sight it may seem that we surrender the principle for

which Sir Wilfrid Lawson contends by urging that the householders of a licensing district should have the power of prohibiting, by a vote of their majority, the issue of licences to the grocers within their locality. It may be, and is argued, that the limitation or prohibition of grocers' licences at the will of a local majority stands on precisely the same footing as the interdiction of retail licences, generally, would stand if "local option" became the law of the land. Practically the two schemes are entirely different because the refusal to allow "public-houses" for the sale of drink on draught would put it out of the power of the bulk of the population to purchase alcoholic beverages. It is with that intent "local option" is promoted! The working man could not lay in a stock wholesale, or if he did he would be exposed to the temptation of consuming it too rapidly. Sir Wilfrid Lawson and his friends distinctly mean to embarrass the consumer and cut off his supplies. We have no such purpose in recommending that the ratepayers of a district should have power to prevent the issue of grocers' licences. The refusal to allow grocers to sell bottles of brandy, gin, and sherry—which weak-minded women conceal in their boudoirs and consume in secret, to the serious detriment of their health and the destruction of their domestic happiness—would not in any way affect the liberty of the subject to drink spirits or wine with his meals. At Burnley the view of the householders has been tested, and 7776 of the citizens have decided against the issue of grocers' licences, while only 508 were in favour of their being granted within the district, and 387 were indifferent. We anticipate a similar expression of opinion elsewhere, and therefore we wish it were possible to establish "local option" in relation to these particular licences and them only.

#### SMALL-POX AND VACCINATION IN STEPNEY.

THE medical officer of health for the Board of Works district of Limehouse has recently issued his annual report for 1881, which contains some interesting facts bearing upon the prevalence of small-pox and the work of the public vaccinator within the district. The sanitary district of Limehouse appears to be co-extensive with the registration district of Stepney, such confusion of names being matter for regret. During last year 42 deaths from small-pox occurred among the residents of the district (of which but 12 were recorded within the district), 27 in the hospitals of the Metropolitan Asylum District, and 3 in the Highgate Hospital. These 42 fatal cases were 11 above the average annual number in the preceding ten years. The medical officer states that 246 cases of small-pox were reported to him during the year, 161 of which occurred in the five months ending June. Satisfaction is expressed at the zeal with which the Vaccination Acts are administered in the district, but some important figures are quoted from the report of the vaccination officer of the Stepney Union, which call for the serious attention both of the Local Government Board and of the General Register Office. The number of births registered within the district during 1881 was 2204; 1870 of these infants were successfully vaccinated, 183 died, in 16 cases vaccination was postponed or proved unsuccessful, 25 cases were removed to other unions and notice was duly sent to the respective officers, 9 remained unvaccinated, and in no fewer than 101 cases false addresses had been given by the informant at the registration, with the purpose, it may be presumed, of evading vaccination. There can be little doubt but that these 101 children, or as many of them as may be still alive, remain unvaccinated. The medical officer of health points out that, if this practice prevail to the same extent in other parts of the metropolis (which we should hope is scarcely probable), more than 6000 children annually "escape vaccination in London alone, by the simple device on the part of the

parent of giving a false address when registering the birth of a child." The inquiry is naturally suggested, how many escape vaccination by the omission to register at all? Surely such a state of things calls for thorough investigation at the hands of the central authorities for vaccination and registration.

### VASO-MOTOR PHYSIOLOGY.

THE vaso-motor effects which are produced by faradaic stimulation of the peripheral segment of the lingual nerve have been lately studied by M. Vulpian. This stimulation is well known to cause a considerable dilatation of all the vessels of the corresponding half of the tongue in the region in which this nerve is distributed. The experiment is easily performed on a dog under the influence of morphia, or which has been curarised and subjected to artificial respiration. The mucous membrane in this region, and also on the corresponding side of the frænum, becomes bright red, and a similar change may sometimes be observed in the mucous membrane of the gum on the inner surface of the lower jaw near the canine and incisor teeth. The principal vein of this part of the tongue becomes turgid, and the blood contained in it and its tributaries becomes bright in colour, resembling that of arterial blood, while there is a corresponding rise in the temperature of the part. These phenomena are produced sometimes after the lingual artery has been tied, and even after the internal and external carotid arteries of that side have been tied just above their origin, and the carotid itself has been tied in the middle of the neck. Nor are they prevented even by the ligation of the common carotid and the vertebral. The effects are equally marked after the section of the vago-sympathetic trunk, and after excision of the superior cervical ganglion. When the circulation has been definitely arrested, as by the farado-puncture of the animal's heart through the thoracic wall, the opposite half of the tongue becomes pale before that on which the lingual has been faradised. Thus the effect of the stimulation is opposed to the occurrence of the constriction of the vessels, which occurs throughout the body almost immediately after death. Another remarkable fact noted by Vulpian is that at the moment when the dilatation occurs, in consequence of the faradisation of the nerve, there is a distinct contraction of the vessels on the opposite half of the tongue. It is not merely the result of the determination of blood from one half of the tongue to the other, but is the effect of a distinct activity of the vaso-constrictor nerves, for there is a distinct darkening of the blood. This condition, however, does not last so long as the dilatation of the vessels on the faradised side. The latter may continue for ten minutes, while the former has disappeared in half a minute. This vaso-constriction appears to be reflex, for it is far less conspicuous if the vago-sympathetic trunk on that side has been previously divided. The lingual nerve seems thus to possess a certain amount of recurrent sensibility, which is manifested by this reflex action when the peripheral extremity of the divided nerves is stimulated.

### SHAM DISPENSARIES.

IN a recent number of the *Queen* appeared an article directing the attention of ladies who visit the poor to the fact that there are dispensaries and dispensaries. We have several times pointed out that by sham dispensaries a great fraud is practised on the poor, especially in the metropolis. Here it is hopeless for the applicants to distinguish between one man and another, between the qualified principal and his unqualified *locum tenens*. The word "dispensary" is greatly to blame for the extent of this fraud. It has very much the same significance to the poor as the word surgery. It may be used by the most unqualified person with nearly the same effect as a medical title, but with this advantage that

it is not included in the penal clauses of the Medical Act. It is true that the Medical Council has determined that a qualified medical man who sanctions by his name a dispensary where the patients are attended chiefly by an unqualified assistant is guilty of infamous behaviour in a professional respect, and lays himself open to be taken off the Register. But there is still need of such articles in the general press as that we allude to, and there is equal need for ladies and gentlemen too, who concern themselves with the welfare of the working and poorer classes, to study the question of their medical attendance. They should know that the connexion between cheap and unpleasant things holds especially in medicine; that the poor can for a guinea or two a year, in a provident way, in instalments, have the attendance of a respectable practitioner living near them, and that if this is not practicable and beyond their resources, the free dispensary or the Poor-law dispensary is available.

### THE INFLUENCE OF SCHOOL-WORK UPON THE HEALTH OF THE YOUNG.

AT the suggestion of the departmental authorities of Alsace-Lorraine, and under the supervision of the Imperial German Government, a commission of nine leading medical men of Mulhouse and Strasburg has been for some months occupied in the framing of an educational scheme based on the fundamental requirements of corporal and mental health. The specific object of the investigation was to see how far existing regulations are in harmony with those requirements, and to arrive at an idea of the most essential points which should be kept in view in the drawing up of further educational schemes. In their report, which has recently been issued, the opinions of the commissioners are expressed at considerable length, and stress is laid upon the fact that the principles of mental education have not partaken during late years of that progressive improvement which has characterised most branches of knowledge. Thus the greater variety of instruction which is imparted by modern education fails in many cases to accomplish its purpose, and is of advantage only to pupils of more than average capacity. It is urged that the experience of every doctor will confirm the assertion that much evil arises from school-children remaining too long in a cramped or otherwise restrained position, and from the excessive and premature strain to which the youthful brain is often subjected; while the dangers of moral and physical infection are always present. Improvements in the ventilation and the sanitary arrangements of schools, however important in themselves, are, it is urged, of comparatively little use, when the pupil is kept for too long a time every day in a combined state of bodily inactivity and mental tension. Dr. Finkelnburg's experience shows that amongst the young men who have of late years passed the educational standard which qualifies them for voluntary military service, no less than 80 per cent. were physically unsuited for the army; this proportion being nearly double that of the ordinary recruits who for temporary or permanent reasons fail to satisfy the medical officials. Between the ages of twelve and fourteen the average duration in Germany of school attendance (inclusive of the time devoted to singing and gymnastics) is thirty-two hours a week. Adding to this work the necessary home preparation of two to three hours a day, there is a diurnal task of eight hours' duration (involving for the greater portion of the time a sedentary posture) imposed upon youthful pupils at an age when fresh air and exercise are specially necessary. It is suggested that the pauses for rest should be of ten minutes' duration after every two hours of study, even if this pause comes at a comparatively short time before the close of work. The best time for holidays is stated to be from the beginning of August



to the middle of September. The necessity of clearing the class-room at intervals to allow of fresh air being freely admitted is recommended. The effect upon the visual organs of the manner in which the light is admitted, and the best style of printing for school-books, are also discussed in a practical and exhaustive manner.

#### "FEEDING LUNATICS."

IN another column we gladly print a letter from Dr. Cobbold, who, after an able and meritorious career as "assistant medical officer" in some of the largest and best conducted asylums for lunatics in this country, has been appointed medical superintendent of Earlswood, in succession to Dr. Grabham, who has been chosen as inspector of lunatics in New Zealand. Dr. Cobbold's communication is on the "feeding of lunatics," and he writes with the authority of a man who has had very extended experience in the performance of a most unpleasant duty. We respect his opinion, and are not only willing, but anxious, to give it the full weight it deserves. Nevertheless, we must be excused for adhering to the view, rather implied than expressed in our recent annotation, to the effect that it is because the task of inducing lunatics to feed naturally is left to attendants the need for forcible feeding arises. We do not blame the medical officers. When the active superintendence of some five hundred insane persons is expected of a medical man, it is no reflection on his zeal or skill that he cannot possibly fulfil the requirement. It would be absurd to say that forcible feeding is unnecessary. There are cases in which it is indispensable to use the tube. It is a very grave charge which Dr. Cobbold brings against his *confrères* when he says, "I have reason to fear that in some instances the patient's life has been sacrificed rather than the doctor's opinion." We had not the most remote suspicion that such an act of obstinacy had ever been committed or was possible. We will go farther, and, with all deference to Dr. Cobbold, affirm that we do not believe anything of the kind has ever occurred in a British asylum. If medical men err, they do so with the most earnest desire to benefit their patients; and no medical man could possibly stand by and see a patient die of starvation rather than use the tube. At the same time, we believe there is far too much feeding in asylums, simply because, although a most unpleasant and thankless operation, it is more rapidly performed than the task of inducing a perverse lunatic to eat or drink. There is no moment to spare in a large asylum. Certain cases, of course, require the tube, but these are few. It is not because they have no bad cases that some superintendents do not require to feed by force, but because they have the tact and time to exert that personal influence which no lunatic except the wholly self-engrossed can possibly resist.

#### SCARCITY OF SUBJECTS.

WE regret to hear that there is a great dearth of subjects in the various metropolitan medical schools. The proportion ready for dissection at the commencement of the session was only about one-half of the number required by the senior students, so that some time must elapse before the junior pupils can begin their dissections. Since the amendment of the Anatomy Act, which permits subjects to be kept from the summer months for the winter session, the supply has been so very good that the present scarcity has come upon both teachers and students as an unpleasant surprise. It is mainly to be attributed to the low rate of mortality during the past few months; but the increasing amount of pathological research in our workhouse infirmaries has, doubtless, had some influence in diminishing the supply to the anatomical schools.

#### UNQUALIFIED ASSISTANTS AND THEIR PRINCIPALS.

ANOTHER case of wrong diagnosis and wrong treatment by an unqualified assistant, in which the parents were deceived by all the appearances of a regular medical establishment, is recorded this week among the inquests. The case was investigated by Mr. E. Cartar at Deptford. It was that of a child aged two years and a half. The parents sent for Mr. Bowden, whose name was on the house door of No. 69, Amersham Vale. There was a red lamp over the entrance; and on the door of the consulting-room there was the name of "Dr." Scott. Mr. Scott described himself as L.S.A., and justified the title of "Dr.," when interrogated by the coroner as to its use, by saying that he was a "Doctor of Medicine of the United States of America." Dr. Billings, of the United States Army, might well decline, as he did, before the Royal Commission, to recommend the indiscriminate recognition by this country of the diplomas of the seventy-five institutions of the States which grant diplomas. We never heard before of a "Doctor of Medicine of the United States." There is a very suspicious vagueness about that title. But to return. Mr. Bowden continued to attend the child for some time, till the friends became dubious as to his diagnosis and treatment of the case, when Mr. William Kelsey was called, only to find the child past hope of recovery, and, in his belief, the victim of wrong treatment. Instead of scarlet fever, as alleged by Mr. Bowden, a post-mortem examination by Mr. Alexander Forsyth, of Greenwich, showed that death was due to pleuro-pneumonia, as had been diagnosed by Mr. Kelsey. We gather from the narrative that there was everything in this case calculated to mislead the public, as in so many other cases now accumulated: the name of a recognised medical man on the house, who, however, seems to have lived elsewhere; the assistant's name on the house too. The assistant said he had been practising nine years, which may enable the public to form some estimate of the scale of the harm done by such arrangements amongst the poor and undiscerning portions of the community. He said in his evidence that the case was reported daily to "Dr." Scott, who directed the treatment. The least satisfactory part of the investigation was the ending of it. This was most impotent. The coroner said that, although Bowden might be morally responsible, he was not criminally so. Addressing Mr. Scott, he said the jury held him "in a measure" responsible for allowing an unqualified man to prescribe in a critical case, and so the matter ended as far as the coroner and his jury are concerned. It remains to be seen what view the Medical Council will take of Mr. Scott's conduct.

#### SURGERY IN GERMANY.

IN a retrospect of the Surgical Congress which met at Berlin some months ago, the *National Zeitung* has recorded the fact that since the Franco-German war surgery has occupied a more important position in Germany than previously. This is partly attributed to the circumstance that in no country has Lister's system of treatment been more studied and appreciated. It is further stated that the replacing of portions of the human frame which may have been destroyed forms an important element of modern surgical practice in Germany. Various instances are referred to illustrative of the above remarks; amongst others the excision of a tumour from the biceps and the filling up of the cavity with a prepared piece of muscle taken from a dog. In connexion with Lister's antiseptic treatment of wounds, Germany seems to have taken up with zeal the question of a substitute for carbolic acid, and proposals have from time to time been made as to the use of salicylic acid, thyme oil, and eucalyptus oil, and more recently of naphthalene and a

preparation of common turf. Iodoform was supposed to have solved the difficulty; but despite its value in healing wounds, it occasioned such derangements in the system generally that it fell into disfavour. Dr. von Langenbeck is, however, of opinion that it is the most successful antiseptic he has yet found, but he recognises the necessity of trying to avoid the disturbances which he acknowledges it is capable of producing. Sublimate (in conjunction with a special treatment in which ordinary quartz sand is used) has been tried with success by Dr. Kümmell of Hamburg.

### DRUNK OR DYING?

ANOTHER instance in which disease was mistaken for drunkenness occurred last week in Belfast, where a man, aged forty-five, was found lying on the footpath and removed to a police cell. The next morning he was charged with being drunk, and as he then appeared to be under the influence of drink he was discharged, with an order to be summoned for another day. On being sent home, he was so unwell that a medical practitioner was sent for, who procured his admission to the Belfast Royal Hospital, where he died. A post-mortem examination showed extravasation of blood on the brain. The deceased was a man of temperate habits, and on the day he was arrested by the police had taken half a glass each of claret, port, and rum. The jury returned a verdict that death was the result of apoplexy, the jurors adding that in their opinion there had not been sufficient care bestowed upon the deceased through his not having the benefit of medical advice while in the police office. It is sometimes difficult for a medical practitioner to discriminate between alcoholic poisoning and cerebral hæmorrhage, and much more difficult for a layman; it therefore follows that where speedy recovery from apparent drunkenness does not occur, the police should invariably obtain the assistance of a medical man without delay.

### HERBALISM AND INQUESTS AT DRIFFIELD.

Two inquests here have some interest. One was demanded by the poor widow of a hostler, who obtained a dose of castor oil at a chemist's. The assistant, with a kindly view of taking the taste off, suggested mixing it with mint-water. He made a mistake and put in liquor ammonia, which caused some suffering from which the patient soon recovered, but only to die of acute tuberculosis, from which he seemed to have been suffering in the first instance. In the other case the deceased, Robert Crozier, suffered from heart disease and was prescribed for by a chemist and a herbalist. The herbalist gave a graphic account of his curriculum. Asked why he called himself a herbalist, he said, "Why, I was nineteen years in the army, and saw a good deal there, and after I took to herbs." In a free country we presume that patients must be allowed occasionally to consult chemists and herbalists. But had Crozier taken the advice of Dr. Ridpath, who detected heart disease and recommended rest, he would not have died in the harvest field, and probably now would have been alive. Freedom has its drawbacks.

### THE MEDICAL SOCIETIES.

THIS month, which in London may be said to commence the medical year, is the period for the re-assembling of the several Societies. The Obstetrical Society met on Wednesday last, the 4th inst.; the Ophthalmological Society of the United Kingdom will resume its work on Thursday the 12th, followed closely by the Clinical Society, which will commence its session on the 13th. The Medical Society will meet on Monday the 16th, and the Pathological Society on Tuesday, the 18th, whilst the Royal Medico-Chirurgical Society will open its session on Tuesday, the 25th.

### HEALTH OF THE PRIMATE.

WE understand that there is no material change in the condition of the Archbishop of Canterbury since our last report. He is free from any other suffering than that which follows from muscular weakness. There is a freer secretion of phlegm, which is now quite bronchial in character. The pulse continues quiet, 96, regular, and respiration 32. The food is relished and the sleep almost uninterrupted. The renal secretion is neutral in character, and of specific gravity, 1010; urea less than half the average quantity, but the food is not very nitrogenous. His Grace is soon tired by the small amount of business which he manages to transact. He takes great interest in the questions of the day, but his physician continues to prohibit any serious mental work.

### SMALL-POX AND QUARANTINE.

ACCORDING to the *Sydney Daily Telegraph*, the directors of the Eastern and Australian Company recently requested the medical officer of health for the City of London to advise them as to the measures which they should adopt in the event of small-pox showing itself on board a ship entering a port. Dr. Saunders has evidently convinced the Australians of the uselessness of quarantine, if we may judge by the remarks of our contemporary. They, in the first place, deal with the matter from a commercial point of view, and admit that, so far as the owners of such ships as belong to the Orient or the Peninsular and Oriental lines are concerned, the vessel might just as well founder. Then as regards those on board and the inhabitants on shore, they say they can see the sense of quarantining people, but they utterly fail to see the value of quarantining the ship, which after the removal of its crew and passengers can at once be thoroughly disinfected; and, further, they agree that such action as is necessary as regards those on board should be limited to vaccination and isolation, the isolation to be effected away from the ship, so that all chance of further infection may be put an end to. They do not, we think, attach sufficient value to the vaccination of all persons immediately after they come on board before starting for the colony, and this because such a measure would not prevent small-pox amongst any who had received the infection some eight or ten days before. This is true; but it would prevent any spread of the infection amongst the passengers even if a case broke out the day after sailing, for vaccination performed as late as two completed days after exposure to infection has been distinctly shown by the late Mr. Marson to prevent the development of small-pox.

### FIFESHIRE MEDICAL ASSOCIATION.

THIS Association of medical men practising in the county of Fife was formally inaugurated by a meeting and dinner at Cupar on the 29th ult. It is intended that the Society shall meet once a year, and exert itself more in the way of securing cordiality between the members than in scientific work. The first meeting, under the presidency of Professor J. Bell Pettigrew, of St. Andrews, was entirely successful, and he was able to offer hearty congratulations as to the numbers of members already co-operating, and to predict excellent results from these friendly meetings. The rules for the Society were agreed to, and the following gentlemen were elected as the council for the year:—Dr. Lumgair, Largo, President; Dr. Archibald, St. Andrews, Vice-President; Dr. Douglas, Cupar, Secretary; Dr. Macdonald, Cupar, Treasurer; and Dr. Constable, Messrs. Porteous and Gordon, M.B., Members of Council. The meeting was largely attended. The preliminary work has been chiefly in the hands of Dr. Douglas, and he may be congratulated on his successful efforts.

### THE COLLEGE OF PHYSICIANS IN IRELAND: CERTIFICATES IN SANITARY SCIENCE.

THIS College, following the example of the University of Dublin and the Royal University of Ireland, has recently made arrangements for granting certificates in Sanitary Science. Stated examinations will be held in January, April, July, and October. Every candidate must be a Licentiate in Medicine of the College, and must lodge a fee of five guineas, which will not be returned in case of rejection. The examination will comprise the following subjects: 1. Engineering, including hospital and house construction, sewage, drainage, ventilation, and water-supply. 2. Law: the Acts relating to Public Health; duties of health officers. 3. Etiology and prevention of disease: epidemiology, contagion, infection, hereditary influence, accommodation and conveyance of the sick, and the management of hospitals. 4. Chemistry: air, water, and food. 5. Meteorology and climatology; vital statistics. The candidate will also be examined in the analytical chemistry of air, water, and food.

### CAPTAIN SHAW'S REPORT ON THEATRES.

PART of our scheme has been adopted. Captain Shaw, C.B., the enterprising chief officer of the Fire Brigade, has been commissioned to examine and report on the state of the London theatres, and to make such suggestions as he might deem necessary. We are glad the advice we have given has been acted upon up to this point; but it remains to carry out the proposal in its entirety—namely, to place the control of the theatres, so far as their protection from fire is concerned, in Captain Shaw's hands. Put an end to the practice of dressing up supers, or at best the unskilled *employés* about the doors of places of public amusement, in the garb of firemen, and let a certain number of the trained men of the brigade be told off every night for the duty—not permanently attached to the theatres, but detailed for special duty, as soldiers are placed on guard. This would prevent anything like habitual neglect. They would be visited by their own officers at proper times, and it would be the duty of these officers to inspect all apparatus, thus securing its efficiency in case of need. The measure in progress to protect the play-going public will not, we are convinced, be complete until this scheme is adopted without reservation or abatement.

### MEDICAL ATTENDANCE AT NIGHT.

OUR contemporary, the *Globe*, comments sensibly on the absence of a provision for prompt medical attendance at nights in London, such as exists and is found to work well in Paris. We have frequently suggested such a provision. It would be liable to abuse, as every good thing is. But precautions against this could be devised. The benevolence of the medical profession is thought equal to any emergency. It is undoubtedly great, but it has been unfairly strained, and it is time for the public to understand that it has its limits.

### THE SCARLET FEVER EPIDEMIC.

THE control of the wide and subtle extension of scarlet fever in the metropolis should exercise the ingenuity of all sanitary and public authorities—and let us add, of all private families. The opinions of medical attendants should be asked not merely in regard to actual cases, but with a view to the prevention of cases. The proprietors of schools and school managers should take special steps for receiving early information of cases, and for excluding the members of infected families for a reasonable time. Where a case does occur in a family the principles of isolation and disinfection should be mastered under medical advice, and applied by

one responsible person. Where the circumstances are such as to render isolation impracticable, the case should be removed to a hospital. In the pressure of the epidemic great liberality should be extended to the London Fever Hospital, whose resources are greatly strained, but whose disposition to do good is unbounded.

### THE CHOLERA.

THE report of the appearance of cholera at Tangier has been contradicted by Her Majesty's Acting Consul-General at that port. The disease has ceased at Japan, whilst at Manilla it is still raging. The Government of the Hague has received official information of the existence of cholera at Kotta Radja, the principal settlement in Atchin. A French journal announces an outbreak of the scourge at Modane, on the French side of the Mont Cénis Tunnel. The mail-bags are consequently to be disinfected, and a medical commission has been despatched to investigate the matter.

### HOSPITAL SATURDAY FUND.

It is estimated that the collection this year will exceed that of last by £1500, and will reach £10,000. It is premature, however, to comment on the Fund, as it will be kept open till the end of October.

THE correspondent of the *Daily News*, in a telegram dated Alexandria, Oct. 3rd, states that, in spite of cooler weather, the health of the army is far from satisfactory. Since Alexandria has been again the base of operations nearly 800 sick have passed through, and 200 more are now expected. Every care is taken by the authorities to make the sick comfortable on board ship, but the discouraging part is the number who are being invalided. A later telegram, however, states that the health of the troops has undergone improvement.

AT the opening of the winter session at Owens College, the Dean of the medical school, Professor Gamage, stated that it was hoped the new medical buildings at the College would be completed by January next, so that they might expect to have them ready for the summer session of next year. When these buildings were completed, the medical school of Owens College would possess a range of laboratories and lecture-rooms which he thought would be second to those of no medical school in England.

DR. B. W. RICHARDSON, LL.D., F.R.S., having been requested by influential Liberals in Finsbury to contest the borough whenever a vacancy in its Parliamentary representation or a general election occurs, has written to the Executive Committee of the Finsbury Liberal Association to say that he shall be happy to meet them for the purpose of explaining his views as soon as his engagements will allow.

ADVICES from Cape Town, dated October 2nd, represent the small-pox in the colony as declining. The South African newspapers are, however, still much occupied with matters relating to the epidemic. Compulsory vaccination has been instituted at Natal, and the benefits of the operation are to be explained to the natives.

AT the meeting of the board of guardians of the Strand Union on the 27th ult., Dr. Rogers mentioned that he had at that time a case under his hands of erysipelas following vaccination. He followed the mother of the child to her home, and found it in so foul a state as fully, in his opinion, to account for the erysipelatous condition of the vaccinated arm.

It may be of interest to the friends of the late Dr. Lyell to learn that his funeral is to take place this day (Saturday), at Nunhead Cemetery, at 3.30 P.M. The first portion of the funeral service will be previously held at St. Andrew's, Wells-street, at 1.30 P.M.

THE typhoid epidemic at Bangor appears to exhibit no signs of abatement, notwithstanding the diversion of the water-supply from the polluted filter-beds. The fatality from the disease is, however, slight. The School Board has decided upon re-opening the elementary schools.

DR. ANDREW CLARK will deliver the Inaugural Address of the Midland Medical Society for the session 1882-83, on Wednesday, November 8th, at Birmingham.

SURGEON-MAJOR T. CAMPBELL TOLMIE is reported to be amongst the unfortunates wounded by the recent explosion and fire at the Cairo railway station.

THE medical officer of Accrington has reported to the Town Council the occurrence of twenty-seven deaths in his district from scarlet fever during September.

DR. DAVID WILLIAM CHEEVER has been appointed Professor of Surgery in Harvard Medical College.

## THE MINUTES OF EVIDENCE BEFORE THE ROYAL COMMISSION ON MEDICAL ACTS.

### THE INEQUALITY OF THE MEDICAL AND SURGICAL EXAMINATIONS.—(Concluded.)

MR. NELSON HARDY made a statement on behalf of the Medical Alliance Association, including the following remarks on modified examinations. The result of these has been known to be as follows :—

A candidate obtains the lowest possible qualification, that of the Apothecaries' Company, he then applies to the Edinburgh College of Physicians, and gets admitted to a modified examination for their licence. He then purchases a higher step, and becomes a member, and shortly after purchases another step higher, and becomes a Fellow of the said College, with really no more knowledge of his profession than that required to pass the modified examination at the Apothecaries' Hall.

DR. BARTON, *Vice-President of the Royal College of Surgeons of Ireland*, having expressed the opinion that changes of the present licensing system are requisite, replied as follows :—

4986. (*Dr. McDonnell.*) What are the chief grounds upon which you base that opinion?—I think that the want of uniformity is a loss to the public and to the profession. The exceeding difference that there is in the curriculum, in the mode of examination, and in the fees prevents it from being at all a perfect system; and I think that that is the chief direction in which the necessity for legislation or improvement exists.

4987. If I understand you rightly, you would be in favour of a more uniform system as regards fees, curricula, and examinations?—Yes, certainly; but I may add, perhaps, that whilst I think that those things warrant the answer that there ought to be changes, yet upon consideration it appears to me that greater evil would be done in getting those changes than good would be accomplished, unless the condition and status and effect of the present corporations, as they now exist, be taken into consideration, because if legislation were to take place which would destroy, or partly cripple, those corporations, I myself think that that would

do more harm in the end than leaving things just as they are would do.

*Examination of Mr. WM. STOKER, A.B.T.C.D., F.R.C.S.I., for four years examiner in the Queen's University, and having had experience in private medical teaching.*

5174. Of your own pupils educated in Ireland do many of them go to Scotland to pass?—Yes, a fair number do.

5175. Do many of them go to Scotland after having been rejected in Ireland?—Yes.

5176. From what body?—From the Queen's University.

5177. Where do they go to?—To Edinburgh.

5178. Do they prefer Edinburgh or Glasgow?—Edinburgh.

5179. Of your own pupils do a large majority of those rejected at the Queen's University go to Edinburgh to pass?—All who do not remain to re-present themselves for examination at the Queen's University.

5180. They do not, as a rule, try any of the corporations in Ireland?—No, they could not do so.

5181. Why is it that young gentlemen rejected at the Queen's University do not present themselves to our College of Surgeons or to our College of Physicians?—They have not the necessary certificates to do so.

5182. The curriculum of the Queen's University suits them in fact for Edinburgh, but would not suit them for Dublin?—Yes, that is so. The previous examination of the Queen's University is one of those accepted by Edinburgh in lieu of their own previous examination; but the College of Surgeons of Ireland will not accept any previous examination in lieu of their own. Thus a disappointed Queen's University candidate, disappointed either through having presented himself and being rejected, or disappointed from being informed that he has no chance of passing, goes to Edinburgh, where he simply has to pass the final examination of the corporations, he having already passed the previous examination at the Queen's University.

5183. I wish to understand distinctly, is it on account of the curricula rather than on account of the examination that those candidates go to Edinburgh?—Yes, that is so.

5184. You are aware, are you not, that some corporations require that the candidate before presenting himself shall sign an engagement that he has not been rejected at any place else for three months before?—I am.

5185. That regulation would lead most persons to understand that a pupil cannot be rejected in one place and very soon afterwards go and pass in another. Have you ever known any cases in which that regulation has been evaded?—I have.

5186. Can you tell the Commission how it is evaded?—A candidate, dreading the result of the examination to which he has presented himself, or to which he is about to present himself, would send in an application to the other licensing body to be admitted to examination. He says, "I am in for one examination; I am afraid I shall be rejected, and I now send in an application to another licensing body, which may make this restriction, and I state that I have not been rejected for the past three months by any licensing body."

5187. Therefore that pupil tries his hand at the first examination?—Yes.

5188. And having been rejected he goes to the other?—Yes.

5189. Do you know of your own personal knowledge of that having occurred?—Yes, clearly.

5190. (*Mr. Simon.*) You clearly have had a great deal of experience in the preparation of men for examinations, and of observing the results, and have a pretty good notion of your own of what a good and honest examiner would consider a fair and proper standard of admission to the medical profession?—Yes.

5191. Is it your experience, for I have seemed to gather this from the things you have said, but I should like explicitly to ask you, is it your experience that by certain portals men pass on to the Register with very imperfect qualifications?—It is my belief.

5192. Does that apply to both sections of the examination, that they pass their scientific examination with very imperfect scientific qualifications, and their practical examination with very imperfect practical qualifications?—It applies more markedly to the scientific examinations than it does to the practical examinations.

5193. And I believe I gather rightly that it is your experience that candidates, with advice, can dodge in particular

sections of examination, so as to get off very easily in them at particular portals?—Yes.

5212. With regard to the system, of which you have evidently had so much experience, of candidates passing, say the early examination at one board, and then going to a second board for the final examination, do you think that that system is one which leads to much abuse?—I do.

5213. Because, as the examining boards do not all have the same standard for their first examination, a candidate can pick out the easiest one, and then, having got through that, he can go on to the final examination of another board, perhaps, which gives a more reputable diploma?—You are taking things as convertible in truth which are only nominally convertible.

5214. So that a candidate may appear with the diploma of a particular body when he has not gone through the whole series of examinations of that body?—Yes, and he frequently does so.

5215. You look upon a system of that kind as not a good system?—It is open to abuses, but it is a very convenient system; and where equal things replace each other there is no objection to it in the world.

*Examination of Dr. JOHN WM. MOORE, Hon. Sec. of the Irish Medical Association.*

5434. (*Dr. McDonnell.*) Are the tests for fitness to enter the profession unequal and irregularly applied?—The Council of the Irish Medical Association are fully aware that the tests for fitness to enter the profession are so unequal and so irregularly applied that candidates rejected by one licensing body can obtain diplomas to practise from another; and that candidates who have successfully passed examinations for diplomas in medicine are rejected at examinations for diplomas in surgery, and *vice versa*. It has happened (see Lord Emsly's speech on the Lord President's Medical Act, 1858, Amendment Bill, delivered in the House of Lords on March 20th 1879) that the rejected of the King and Queen's College of Physicians have crossed the water and come back in a few weeks from Scotland as full fledged doctors or licentiates. On this point see also "Reports of the Visitors of Examinations deputed by the General Medical Council, 1873, page 213.

5618. (*Dr. B. W. Richardson.*) Has it been proved, or is it to your knowledge the fact, that any of the universities at the present time have a lower standard of examination than that which prevails elsewhere or than that standard which is a fit and fair public standard?—I do not wish to say a word bearing upon the relative positions of the universities, except this, that I am quite sure that there is great inequality.

5873. (*Dr. Struthers.*) There is a temptation, is there not, in the case of a corporation which does not exist in the case of the university?—There is, in that sense, but I do not think that the corporations are animated by such a spirit.

5874. And it has been given before us in evidence by witnesses that that temptation has led to unfortunate results?—There have been weak points in the corporations, and I confess I do not think that my friends in the Edinburgh corporations have latterly acted judiciously; it is the continuing of these half examinations that has brought all this upon them. Also, they accept one another's primary examination; if a man passes his primary at one corporation he can go up for his second at another. A man may pass the primary examination of the Apothecaries' Society here, the anatomy of which, I am quite sure, must be very poor anatomy, and then go up to the Edinburgh corporations, and that examination by the Apothecaries' Society is accepted by the Edinburgh corporations. I have here the regulations for the Edinburgh joint corporation examination, which the late Dr. Andrew Wood and I constructed more than twenty years ago, on the part of the College of Surgeons, and that regulation respecting the acceptance of other bodies' primary examinations has got into it since; I venture to say that if I had continued there that would not have got in without a protest from me; but there it is at page 10, Law 15. The result of that (though I do not say it is very common) is that when a man passes the Apothecaries' Society here, and goes up with his primary certificate, he virtually skips his anatomy and physiology. I say it is wrong of these corporations to do so, and they have brought Scotland, to a certain extent, into discredit by that. The London College of Physicians does the same, but in a better way; it accepts the examination in anatomy of any surgical body. That is safe. But if we had a conjoint examination by the corpora-

tions in each metropolis, that would be all right; they could except one another's first professional examination with entire security.

Dr. QUAIN in his evidence gave a history of the conjoint scheme in the Medical Council and put in the following important extract from the Report of Committee on Professional Education, 1869, which was afterwards adopted by the Council:

"One of the great evils at the present moment is the inequality of the examinations for the licence. This inequality of the test of efficiency is the more unfortunate, as every licence confers an equality in the right to practise everywhere. The easy examination of one licensing body tends to depress the standard of the examination in all the rest. Visitations of examinations doubtless partly remedy this state of things, but to completely remove it a bolder course is necessary. The time has now arrived when, leaving to the universities and corporations full liberty to deal as they please with their honorary distinctions and degrees, the Medical Council should endeavour to effect such combinations of the licensing bodies included in Schedule A as may form a conjoint examining board for each division of the kingdom, before which every person who desired a licence to practise should appear, and by which he should be examined on all subjects. Any higher degrees he may wish to take should come after, and should be optional.

"This plan is one which the Council has often approached, and has recommended in principle.

"We feel assured that the examinations for licence will never be made satisfactory without it, and therefore that it is for the public good to enforce it without delay."

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5717 births and 3344 deaths were registered during the week ending the 30th ult. The annual death-rate in these towns, which had been equal to 20.0 and 20.8 per 1000 in the two preceding weeks, declined again last week to 20.6. The lowest rates in these towns were 13.7 in Derby, 14.4 in Bristol, and 14.8 in Nottingham. The rates in the other towns ranged upwards to 26.1 in Salford, 27.0 in Manchester, 30.7 in Sunderland, and 32.6 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 536, showing a further decline from recent weekly numbers; 162 resulted from diarrhoea, 130 from scarlet fever, 75 from whooping-cough, 73 from "fever" (principally enteric), 49 from measles, 37 from diphtheria, and 10 from small-pox. No death from any of these diseases occurred in Plymouth, whereas they caused the highest death-rates in Preston and Cardiff. Diarrhoea caused the highest death-rates in Hull and Preston; scarlet fever in Sheffield, Leicester, and Cardiff; whooping-cough in Halifax and Preston; measles in Hull and Sunderland, and "fever" in Birkenhead, Liverpool, and Leeds. Of the 37 deaths from diphtheria in the twenty-eight towns, 28 occurred in London, and 2 both in Liverpool and Leeds. Small-pox caused 10 deaths in London and its outer ring of suburban districts and one each in Birmingham, Leeds, and Newcastle-on-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which had steadily declined from 114 to 79 in the four preceding weeks, were 80 on Saturday last; 17 new cases of small-pox were admitted to these hospitals during last week, against 9, 10, and 13 in the three previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 178, 193, and 263 in the three previous weeks, further rose to 300 last week, and exceeded the corrected weekly average by 87. The causes of 66, or 2.0 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Brighton, Portsmouth, and in eight other smaller towns; whereas the proportions of uncertified deaths were largest in Preston and Sheffield.

### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 20.9 and 18.1 per 1000 in the two preceding weeks, rose to 21.0 in the week ending the 30th ult., and exceeded by 0.4 the mean rate during the week



in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 103 and 83 in the two previous weeks, rose to 117 last week; they included 36 from diarrhoea, 23 from diphtheria, 22 from scarlet fever, 17 from whooping-cough, 13 from "fever," 6 from measles, and not one from small-pox. The death-rate from these principal zymotic diseases averaged 5 per 1000 in the eight towns, and exceeded by 1·7, or more than a third, the rate from the same diseases in the large English towns. The highest zymotic death-rates occurred last week in Perth and Leith. The 34 deaths attributed to diarrhoea showed an increase of 2 upon those in the previous week, and were equal to a rate considerably exceeding that which prevailed from the same cause in the English towns. The 17 fatal cases of whooping-cough, included 11 in Glasgow and 3 in Paisley. The deaths from diphtheria, which had been 12 and 9 in the two previous weeks, rose to 23 last week; 15 occurred in Glasgow, 3 in Aberdeen, and 2 in Greenock. The 22 fatal cases of scarlet fever also showed a marked increase upon recently weekly numbers, and included 12 in Glasgow, 4 in Dundee, and 4 in Edinburgh and Leith. The 13 deaths referred to "fever" showed a further slight increase upon the numbers in the two previous weeks, including 7 in Glasgow, and 2 both in Edinburgh and Perth. Two fatal cases of measles occurred in Edinburgh, and 2 in Dundee. The deaths referred to acute diseases of the lungs in the eight towns, which had been but 61, 70, and 72 in the three preceding weeks, further rose to 102 last week, and exceeded by 19 the number attributed to the same diseases in the corresponding week of last year.

## HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 25·8 and 26·1 per 1000 in the two preceding weeks, declined to 23·7 in the week ending the 30th ult. During the thirteen weeks ending last Saturday the death-rate in this city averaged 23·1 per 1000, against 18·6 in London and 17·8 in Edinburgh. The 158 deaths in Dublin last week showed a decline of 16 upon the number in the previous week; they included 8 which were referred to diarrhoea, 2 to whooping-cough, 2 to diphtheria, one each to measles, scarlet fever, and "fever," and not one to small-pox. Thus 15 deaths resulted from these principal zymotic diseases, against 28 and 15 in the two preceding weeks; they were equal to an annual rate of 2·2 per 1000, while the rate from the same diseases was 2·8 in London and 3·4 in Edinburgh. The fatal cases of diarrhoea, which had declined from 19 to 10 in the four previous weeks, further fell to 8 last week, and were equal to a rate considerably lower than that which prevailed from the same cause in Edinburgh. The deaths referred to whooping-cough and "fever" showed a decline from recent weekly numbers, while those from diphtheria were more numerous. The deaths of infants were fewer than those of the previous week, while the deaths of elderly persons showed an increase. The causes of 30, or 19 per cent., of the deaths registered during the week were not certified.

## THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major Robert Batho has been granted retired pay, with the honorary rank of Brigade Surgeon.

INDIA OFFICE.—The Queen has approved of the retirement of Surgeon-Majors John Berry White, Thomas Edmondstone Charles, M.D., of the Bengal Army, and George Edward Whitton, of the Madras Army.

BREVET.—To be Deputy Surgeon General: Brigade Surgeon David Boyes Smith, M.D., of the Bengal Army.

ARTILLERY VOLUNTEERS.—1st Fife-shire: William Hessman Goodenough, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—2nd Gloucestershire: Peter Buchanan, Gent., M.B., to be Acting Surgeon.

ADMIRALTY.—Staff Surgeon John Mulvany has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority of 22nd ult.

The following appointments have been made:—Fleet Surgeon Henry Hadlow, to the *President* (additional); Fleet Surgeon John Mulvany, to the *Constance* (commissioned); Staff Surgeon Alexander Mitchell, to the *Dragon*; Surgeon

Charles James, to the *Royal Adelaide*, vice William E. Bennett; Staff Surgeon Robert J. M'Morris, to the *Crocodile*; Staff Surgeon George Kell, to Portsmouth Dockyard, vice Mulvany; Staff Surgeon Richard J. Coppinger, M.D., to the *Vernon*, vice Kell; Staff Surgeon John R. Burke, to the *Belleisle*, vice Fisher; and Patrick C. Gorham, to be Surgeon and Agent at Roundstone, county Galway; Staff Surgeon Edward W. Doyle to the *Hercules*, vice Staff Surgeon Gorham.

## Correspondence.

"Audi alteram partem."

## THE BOGUS FELLOWSHIPS OF THE EDINBURGH COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—In your leading article for September 30th, I notice some severe yet well-merited strictures on the sale of Fellowships by the Edinburgh College of Surgeons. As one of the minority of its Fellows who regard the present system as a crying abuse, permit me not only to endorse your opinions in the article above referred to, but further to add to them other revelations of a state of matters still more anomalous.

Before inquiring into the why and the wherefore of the persistence of such an obsolete system, it may not be uninteresting to adduce one or two additional facts in corroboration of the statements advanced in your article. In so doing, I shall strictly confine myself within the limits of my own personal experience.

When I was a very young Fellow, and had still to learn the manners and customs of my corporation relative to the admission of all sorts and conditions of men, I was surprised to find one day among the list of candidates the name of a gentleman who, to my certain knowledge, after being rejected again and again at the M.B. Examinations in the University of Edinburgh, had finally taken refuge in the arms of the College, whose licence, after sundry little accidents, he had at last managed to obtain. Acting on strong conviction as to the unsuitability of this candidature, I endeavoured, so far as in me lay, to prevent his election; but at the final ballot, I was informed that as the name had been approved by the President's Council, its rejection by the College would be a thing unheard of. The gentleman in question was duly elected.

So much for an old instance; now for a modern one. Not long ago I received a letter from a very young practitioner with whom I had the slightest possible acquaintance, asking me as a mere matter of form to propose for the Fellowship a friend of his own, whom I had never seen or heard of, and who did not even hold the licence of the Edinburgh College. I hunted up the name of the aspirant in the Medical Directory, and finding his qualifications to be of the most ordinary description, I felt constrained to return a civil refusal. To my astonishment, at the very next meeting of the College, this gentleman, duly proposed and seconded, was brought forward, and balloted for in the ordinary course after approval by the Council, his election being, I need scarcely say, a foregone conclusion; indeed, since I became a Fellow, I have never known a single instance of rejection by the College after approval by the President's Council. In many cases a sufficient number of black balls to exclude some worthless candidate might easily have been mustered, but for the "bated breath and whispering humbleness" with which the opinion of Council is invariably received. It may be asked, Why does not the general body of Fellows on the roll of attendance resist such attempts at dictation? Many good and sufficient answers might be returned to this query.

In the first place the would-be reformers are in a minority—a large minority it is true, but still a minority. They have little cohesion or organisation, and are for the most part juniors, that is to say, men between thirty and forty years of age. Many of them are actuated by an absurd awe of their seniors, altogether unintelligible to Englishmen unacquainted with the system of cliques and coteries whose favour is the shortest cut to professional success in Edinburgh. They are confronted too by a compact body of seniors, who

treat their opinions with such supercilious hauteur, that the more weak-minded begin at last to entertain serious doubts as to whether or no they have any right or title to form opinions for themselves at all.

Secondly, the Council virtually possesses the power of self-election. Every year the retiring Council prepares a list of its successors, and of the examiners for the ensuing year; and these nominations can only be overturned by a most troublesome and humiliating personal canvass, on the part of any aspirant to these important positions. Men who from pride or delicacy hesitate to encounter the numberless impertinences to which such a procedure exposes them are left hopelessly in the background.

A place in the Council, or on the Board of Examiners, thus becomes a distinction reserved only for the favoured few, who in the vast majority of instances are men whose qualification lies in the extent of their local influence. This abuse is perhaps most glaring in the case of the examinerships. Specially qualified persons are passed over; an examiner once appointed is virtually installed in his office for life. The character of the examinations falls behind the standard of the day; the same questions are set over and over again, so that some of the "grinders" know almost all of them by heart. Good-for-nothing students flock to the Edinburgh Colleges from all parts of the kingdom, and pass; and thus a great school is brought into disrepute in the teeth of its own disgusted lecturers, many of whom have no chance of an examinership for years to come. In the meantime general practitioners of no special acquirements examine in the subjects to which such non-examining lecturers are devoting a lifetime of unrewarded study. By one of these gentlemen a student was, not long ago, asked at the examination-table how much fibrine was contained in the blood circulating in the vessels during life? Surely such a system of examination is an anachronism.

Were the Edinburgh Fellowship to be granted after examination, the examiners, unless ludicrously incompetent, would of necessity require to be drafted largely from the junior Fellows, many of whom are graduates of the University of Edinburgh with the highest honours, and lecturers licensed by the College itself. Perhaps this consideration may have some bearing on the desperate reluctance evinced by the seniors to adopt a change which would otherwise appear little short of a self-evident necessity.

These things, Sir, call imperatively for reform. Were they as well known to the profession at large as they are within the confines of the northern metropolis, their lease of life would, it is to be hoped, be short. In widespread publicity alone lies the chance of their early abolition; and the thanks of all true friends of the Edinburgh College of Surgeons are due to you for the strictures you have already passed upon the action of a certain section of its governing body. These, however, are as nothing compared to the many more which might still be made,

I am, Sir, your obedient servant,

ONE OF THE MINORITY.

October, 1882.

To the Editor of THE LANCET.

SIR,—I am sure that the profession, as a whole, will support you in your exposure of the Edinburgh "Bogus" Fellowship. It is most unfair to those who have worked harder than their brother students in order to gain the Fellowship of the Royal College of Surgeons of England, to find that others hold the same title, "F.R.C.S.," without work, and by payment of a fee, coupled with the presentation of a minimum qualification in surgery. I notice that few fellows of the Edinburgh College add "Edin." to the title, which would give the public a better chance of distinguishing them from those of the London College. That it is a qualification is undoubted, as many appointments are advertised where the Fellowship of the College of Surgeons of England or Scotland is mentioned as a *sine quâ non*. I remember when I was an undergraduate of a certain university in Scotland, two men failing, after repeated efforts, to pass the first professional examination there. Like the friends of the Claimant, they had "more money than brains," so after repeated trials, in which their ignorance of the usual details of the subjects of examination was shown each time more distinctly, they were advised by their teachers to give up all thoughts of entering the profession. They were, however, not to be daunted, and being

"rare plucky ones," they reminded their friends that there was no one-portal system to medical diplomas. They went to Edinburgh, got the "double qualification," and after a time blossomed out into the higher (!) dignities of—the one, F.R.C.S.E., the other, M.R.C.P.E. (of course with the addition of the title "Dr." on his card). Whether these gentlemen are alive or not now I know not, and would rather not know. The circumstances were much commented on at the time by those who had known them, and many others, who were "wasters," intended to follow their examples. I do not mean to say that there are not excellent men who hold this title, and it is for their sakes that the honour of the College should not be prostituted for the sake of gold. Let the Fellowship be looked upon once more as a distinction; let there be a further examination for it, severe in its nature, and then men would willingly come forward and try to obtain it; but as long as it is to be bought it will be looked upon with some suspicion, and the minority of those holding it as a title of real honour will be few and far between. I see by the new regulations of the Royal College of Physicians of Edinburgh that the election to the membership is abolished, and that candidates now are required to be examined in medicine, pathology, and midwifery. This is a right move, and one which I hope the sister College of Surgeons will follow shortly, and do away with the idea that the fellowship is simply a question of £ s. d.—I am, Sir, yours faithfully,

Oct. 2nd, 1882.

M.B.

### "FEEDING LUNATICS."

To the Editor of THE LANCET.

SIR,—Lest your annotation on this subject in to-day's LANCET should lead to the belief that the forcible feeding of lunatics is an unnecessary form of coercion, I venture to offer a few remarks in reply.

This operation, when necessary, devolves in almost all asylums upon the assistant medical officer. As I held that office for more than eight years in three of the largest lunatic asylums in this country (over 5000 patients having at one time or another during that period been under my care), I have had considerable experience in the matter. The operation of feeding through the œsophageal tube is certainly not without its difficulties, but these may, I believe, be always overcome—indeed, I never once failed to complete the operation satisfactorily. I have never seen the procedure do harm to any patient; but, on the other hand, I am perfectly certain that several patients who have since recovered and resumed their positions in the outer world would have died if they had not been forcibly fed with the tube.

It would, of course, be inexcusable to feed any patient through the stomach-tube until every other means of inducing him to take nourishment had failed. Such a patient should always be placed in a ward where the best nursing is available. The attendants should be impressed, both by precept and example, with the necessity of inducing their patient, either by coaxing or by judicious firmness, to take his food in a natural manner. Many attendants are very successful in this respect, but even the best occasionally fail. It is then the province of the doctor to intervene. The great influence and prestige which he ought always to possess and maintain with his patients will frequently enable him to prove successful in persuading a patient to take proffered food after all the efforts of the attendants have proved unavailing. When the patient's chief reason for refusal is mere obstinacy, it is often sufficient for the medical man to produce his feeding apparatus and explain kindly but firmly to the patient that unless he drinks the fluid food prepared, the tube will be passed down his throat into his stomach, with certain discomfort to himself.

There will always, however, be a certain number of patients who, owing to delusion, suicidal intent, or some other cause, can neither be charmed nor threatened by the above-mentioned, or any other methods, into taking the food offered to them, and who will not swallow what is placed in their mouths; these must consequently be fed by means of the tube. I am quite aware that it is the boast of some medical superintendents that they have never found it necessary to feed a patient in this manner, but I have reason to fear that in some instances the patient's life has been sacrificed rather than the doctor's opinion. I

can quite believe that in an asylum containing only 100 or 200 patients it might often happen that for many years at a time no case would require to be forcibly fed; but in our largest lunatic asylums, which contain from 1000 to 2200 patients in each, it rarely happens that many weeks pass without some patient requiring this treatment. Asylum medical officers can have no reason for performing this operation with unnecessary frequency, as it is by no means a pleasant duty, and brings neither pecuniary gain nor professional *κῶδος*. Instances are on record in which patients have been thus fed daily for many months, and even years; but it is my belief that when a patient has acquired an undesirable taste for being fed in this way, his trouble-some habit may almost always be successfully combated by the exercise of a little tact on the part of the medical attendant. I have no experience of any case in which the necessity for forcible feeding has existed for longer than three or four weeks at a time.

It is no part of my object in this letter to describe the best methods of forcible feeding, but merely to affirm that the operation is sometimes an absolute necessity for the saving of life, and that the lives saved are in a considerable proportion of cases those of patients who ultimately recover and return to their homes. If there are abuses in asylums (and what human institutions are perfect?), by all means let us have them exposed and remedied; but at the present time, when the public mind is, causelessly, as I believe, somewhat uneasy upon the subject of the care and treatment of the insane, it is most undesirable that the idea should become general that insane persons are needlessly subjected to the discomfort of having tubes passed into their stomachs, even though the object be to supply them with the food necessary to their sustenance and recovery.

I am, Sir, your obedient servant,

CHAS. S. W. COBBOLD, M.D.,  
Sept. 23rd, 1882. Medical Superintendent, Earlswood Asylum.

#### "A SIMPLE OPERATION FOR VARICOCELE."

To the Editor of THE LANCET.

SIR,—In to-day's number of THE LANCET Mr. A. Barker reports three cases of varicocele under the above heading. It may perhaps be of interest to him and others who intend to try this method to know that I have also had a case in which I performed the operation in the same way as Mr. Barker, and with an equally good result. The case was a man aged fifty years, a miner, who was admitted under my care into the York County Hospital in April last, suffering from a large varicocele on the left side. I performed the operation in almost identically the same way as Mr. Barker, encircling the veins with a piece of Chinese silk (which had previously been boiled for half an hour in a ten per cent. solution, and afterwards left to soak for some hours in a twenty per cent. solution of carbolic acid); after tying, the ends of the silk were cut short, and dropped into the wound, which was closed up over them. The wound healed in a few days with scarcely any suppuration. I kept the man in the hospital for a fortnight after everything seemed quite well, and when he went out there was no sign of inflammation at all about the wound, which was soundly healed, and all that could be detected was a small nodule on the seat of ligature.

I am, Sir, yours faithfully,  
W. H. JALLAND, F.R.C.S.  
York, Sept. 30th, 1882.

#### THE QUEEN'S UNIVERSITY DEGREES.

To the Editor of THE LANCET.

SIR,—Your correspondent "J. W. M." takes exception in last week's LANCET, to a statement made by me before the Royal Commission on the Medical Acts to the effect that "A student attending a Queen's College may obtain all the lectures necessary for a Queen's University Degree (or Scotch double diploma), in two years," which, he says, "is not a fact." That the statement is accurately true may be proved by anyone who pleases to examine the regulations of the Queen's University, published in your Student's number for 1881 and previous years. Two courses of lectures, at most, were required by the University in any subject, and these were readily obtained in two years. Indeed, I have

known many students who—having put in, in a Queen's College, the essential two courses of medical, and two courses of non-medical lectures, *all in one Winter Session*—have taken all the remainder of their curriculum in Dublin, and have possessed their M.D. Q.U.I., and L.R.C.S. and C.P. Edin., long before the lapse of the statutory four years. It is true that the Q.U.I. required twenty-four months' hospital, so that a student commencing in November of any year could not theoretically complete his hospital curriculum until two years and three months had elapsed, but that difficulty was always easily adjusted with the hospital authorities. Therefore, it is quite true, as I stated, that a student could (and many did) complete his entire curriculum for the M.D. Q.U.I. and Scotch Double Diploma in a couple of months over two years, and that a great number of Irish students, therefore, took these qualifications in preference to the M.B. Dublin University, or L.R.C.S.I. or L.K.Q.C.P.I., which would have cost them an additional year's work and fees.

I am, Sir, yours, &c.,

ARCHIBALD H. JACOB, M.D. Dub., F.R.C.S.I.  
Dublin, Oct. 4th, 1882.

#### DISTRIBUTION OF THE REPORTS OF THE LOCAL GOVERNMENT BOARD.

To the Editor of THE LANCET.

SIR,—I have this day forwarded to the President of the Local Government Board a memorial from the North-Western and Yorkshire Associations of Medical Officers of Health, of which the enclosed is a copy.

I am, Sir, yours truly,

Manchester, Oct. 4th, 1882. FRANCIS VACHER.

To the Right Hon. J. G. Dodson, M.P., President of the Local Government Board.

The memorial of the North-Western and Yorkshire Associations of Medical Officers of Health.

Respectfully sheweth,—That your memorialists are a body of Medical Officers of Health practising in the counties of Lancaster, Chester, Derby, and York. That your memorialists having been from time to time instructed and informed by the annual reports of the medical officer of your Honourable Board, and forming a high estimate of the importance of the topics discussed in the said reports, and having experienced difficulty in obtaining copies of the same owing to the small number printed, humbly pray that your Honourable Board will order that a copy of the said report, with appendices, may henceforth annually, as issued, be presented to every medical officer of health whose appointment shall have the sanction of your Honourable Board. And your memorialists will ever pray, &c.

(Signed on behalf of the North-Western Association of Medical Officers of Health.)

WM. HUGH HUGHES, President.

FRANCIS VACHER, Hon. Sec.

(Signed on behalf of the Yorkshire Association of Medical Officers of Health.)

S. W. NORTH, President.

J. MITCHELL WILSON, M.B., Hon. Sec.

100, King-street, Manchester, Oct. 4th, 1882.

#### NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

AT the sanitary meetings on Thursday, the 23th ult., the following were read and discussed:—Address by Professor Robinson, C.E., Vice-president of the Section, in which he strongly pointed out the necessity of proper training for inspectors. W. Eassie, C.E.: "The Desirability or otherwise of providing Town and Country Houses with Grease Intercepting Chambers in Scullery Sinks." J. Lemon, M.I.C.E.: "The Separate System of Drainage." E.C. Robins, M.I.C.E.: "On the Original Experiments of Dr. Renk of Munich, with Sewer Gas, and the Mode of its Exclusion from Dwelling Houses." W. G. Laws: "Sewer Ventilation." John Price: "Industrial Dwellings." W. Eassie, C.E.: "On the Sanitary Needs of Town and Country

Houses." In the evening a lecture was delivered to the Congress, "On the Food and Energy of Man," by Professor F. S. B. De Chaumont, M.D., F.R.S., in which he advocated variety as advantageous, and, indeed, thought that tobacco and alcohol might often be used with benefit.

On Friday the following was the order of business:—Address by Arthur Mitchell, M.A., M.D., F.R.S. H. C. Bartlett, F.C.S.: "On the Influence of Minute Suspended Matter on Health—its Detection, Collection, and Examination." The Hon. F. A. Rollo Russell: "The Improvement of Climate with Slight Elevation." R. Carr Ellison, J.P.: "The Influence of the Purity or Impurity of the External Atmosphere on Public Health, Public Comfort, and on the Domestic Habits of the People." R. B. Grantham, M.I.C.E.: "On the Establishment of a Library for a Special Branch of Sanitary Information at Newcastle." At 5 P.M. the closing general meeting of the Congress; and at 7 P.M. the public dinner at our Assembly-rooms, which was a spirited and lively entertainment—a great contrast to Tuesday's luncheon, which was rather flat and forced, rather like a wedding-breakfast *minus* the bride and bridesmaids, and with scarcely an opportunity of "toasting" the ladies, or of giving the bachelor members a chance of descanting on "youth and beauty," the fair sex being "only conspicuous by their absence." It has been decided to hold the next Congress at Glasgow. On Saturday His Grace the Duke of Northumberland kindly invited the members of the Institute and the associates of the Congress, to the number of 300, and entertained them to luncheon at his historical seat, Alnwick Castle. This was arranged with the princely munificence customary to the house of "the Percies." Other excursions to points of interest in the vicinity took place, and the week's business may be said to have finished up with a lecture to the working classes by Dr. W. B. Richardson, F.R.S. Now that the *fanfare* of the Congress has subsided, and the echoes of congratulations from many sanitary voices have died away, we may ask ourselves, What have we gained? Well, the question is not so easily answered. Many of the papers read reached a high scientific standard; others, again, might be described as "medium quality"; while a few possessed an ephemeral character, and would soon be forgotten. For some reason, or for no reason, the intelligent classes of our citizens appeared to take very little interest in it, as judged by their attendance at the discussions, which might as a rule be characterised as tame. As a set-off, it is only fair to acknowledge the very full reports of the proceedings given by our local newspapers. In the discussion on Captain Hildyard's paper, "The Influence which Medical Men might exercise on Sanitary Progress in their Private Practice," our medical officer of health said "he did not think that medical men took a sufficient interest in sanitation," and instanced (in support of this curious view) the petition signed by forty-six medical men of Newcastle, "who at the time they put their names to the petition did not know what was in the Bill." On the other hand, Captain Galton, the President of the Congress, held that "medical men had been the originators of all sanitary improvements," while Mr. T. P. Barkas said that "at the time the petition was signed, the compulsory notification of diseases clauses remained in the Bill." It is felt here that our usually intelligent health officer did not display this quality of mind on this occasion. The forty-six medical men knew perfectly well what they were signing. In the Town Improvement Bill, which was an application for money and for power to carry out various improvements, these compulsory clauses were involved or "smuggled" into the legislature. The citizens were denied a public meeting where our profession might, as ordinary members of the community, have discussed these clauses. So a manifest attempt is made to keep our profession in ignorance and to stifle public opinion, and then it is blamed for what it could not help. Our health officer is not a practising medical man, and hence he can only see one side of this coercive sanitarian question. I mean the official side; for as regards the domestic and medical aspect he is evidently colour blind. Has anyone in this Congress suggested, say a few years' experience in general practice, as one of the qualifications for a medical officer of health? if not, it would be highly desirable. It must be remembered that these forty-six medical men who have been so rashly and publicly charged with ignorance and obstruction, will represent about one-half of the practising men of our city, of all grades, too, as to age and experience. Does our medical officer of health consider

when he gets on his sanitary stilts that he embodies the sanitary wisdom of the North of England? and that the profession here is to sit still in awe like the scholars of Goldsmith's pedagogue, when—

"Still they gazed, and still the wonder grew,  
That one small head could carry all he knew."

The magnificent Marine Exhibition at Tynemouth, alluded to in my last letter, still continues to draw its tens of thousands daily. I am glad to see that it is to remain open until Oct. 14th, and that the railway company has given increased travelling facilities in visiting it. Professor Corfield, in presenting the prizes at the Sanitary Exhibition here, which is also to remain open for a longer period, said it was an exceedingly good and successful one. I have only space here to mention some of the most successful and interesting exhibits—viz., Messrs. Mather and Armstrong, Newcastle, for Siemens' patent regenerative gas burners. Messrs. Hayward, Tyler, and Co., for full-flush valveless closets. La Société Hygiène Française, Paris, for their exhibits of books on health. Messrs. Brady and Martin, Newcastle, for scientific instruments. This firm has a well-furnished stand of articles of domestic and medical interest, including the popular Montserrat lime-juice of Messrs. Evans, of Liverpool. This juice has the confidence of the profession here, and is largely prescribed for domestic and marine consumption. Messrs. Mawson and Swan have also a stand characteristic of the scientific energy and taste of this eminent firm, making a strong point of their disinfecting exhibits, and issuing very useful "Notes on Hygiene." Not the least interesting exhibit to a medical visitor is that of Messrs. Irvine & Co., Mustard Manufacturers, Gateshead, established 1791. Their stand shows the processes in the manufacture—viz., the brown seed whole, its crushed state, its pulverised state, and lastly, as the finished article, sifted into an impalpable powder. Irvine's mustard has unmistakable qualities as a counter-irritant, while as a condiment their "Durham mustard" is in high favour here from its purity and flavour. The winter session of the College of Medicine here was opened yesterday with great *éclat*. Dr. Gibson, in the absence of Dr. Heath, presided, while our Mayor, in the absence of the Bishop of Newcastle, presented the prizes. Dr. W. B. Richardson was present, and made some very pointed and happy remarks. Dr. Thomas Oliver, physician to our infirmary, read the inaugural address "On Medicine, its Progressiveness and Relation to Civilisation." I need make no comment on this address as it will doubtless be noticed under its proper heading in THE LANCET, but I may say it met with well-merited applause. This College, while it has increased in quantity as to students, I fear has deteriorated as to "quality." The behaviour of the young "gentlemen" was simply outrageous. Making every allowance for the high flow of spirits natural to the student, I have sat on many benches in many countries and never witnessed anything like the disorder of yesterday's proceedings. Would not a *conversazione* another time have a more soothing effect on these turbulent tyros?

Newcastle-on-Tyne, Oct. 3rd, 1882.

## EDINBURGH.

(From our own Correspondent.)

THE VACANT ASSISTANT-SURGEONCY TO THE ROYAL INFIRMARY. — THE VACANT PATHOLOGISTSHIP TO THE ROYAL INFIRMARY.—THE NEW UNIVERSITY BUILDINGS.

AUGUST and September are essentially holiday months here, both patients and doctors being out of town and nothing of medical interest occurring. This year the usual monotony has been somewhat interrupted by the contest for the assistant-surgeonship to the Royal Infirmary, which is still being actively carried on. The vacancy, which is occasioned by the promotion of Dr. Miller to the full surgeoncy, will be filled up on the 16th. Drs. Caird, Cathcart, Cotterill, and Macgillivray are the candidates, and so far as I can learn Drs. Cotterill and Macgillivray are generally considered to have the best chance.

On the same date (Oct. 16th) the pathologist to the Royal Infirmary will be appointed in the place of Dr. Hamilton, the recently elected Erasmus Wilson Professor of Pathology in the University of Aberdeen. Dr. Hamil-

ton's loss is no small one to Edinburgh, and his successor will find it no easy task to maintain the pathological department of the infirmary in its present high state of efficiency. The candidates are Drs. Byrom Bramwell, Alex. Bruce, and Woodhead.

The new University Buildings are now so far completed that the whole of the medical classes, with the exception of materia medica, medical jurisprudence, and chemistry will be carried on there during the forthcoming session. It is difficult without a personal visit to form an adequate conception of these palatial buildings, but the reader will gain some idea of the facilities for teaching and original work which they afford by perusing the following description, which appeared a day or two ago in the pages of the *Scotsman* :—

"With the exception of the classes of materia medica, of medical jurisprudence, and of chemistry, which are to be located in the Tiviot row, or north and west sides of the north quadrangle, the several departments will be ready for occupation in the ensuing month. As matters at present stand, there would seem to be no hope of having the other departments ready for occupation for at least eighteen months or two years to come. Only that portion of the buildings has so far been got ready for the work of the school which forms the sides of the south quadrangle. And even on this portion a great deal of expensive work yet remains to be done. The grouping of the departments round this quadrangle is, roughly stated, as follows :—On the east side are those of surgery and practice of medicine. Anatomy occupies part of this side and a large part of the south side, whilst physiology claims parts of the south and west sides, pathology and midwifery taking up the remainder of the west side of the quadrangle. On the north side is what promises to be an anatomical museum worthy of the rest of the buildings; but so far only the bare walls and the iron supports of a gallery running round the hall are in their places. Meanwhile, it may be noted that into this museum are let several openings, by which ready access will be got to it from each of the departments, to suit whose convenience for teaching purposes the museum specimens will be arranged in corresponding sections. The departure from the Continental system, which had been necessarily followed in the old buildings, of splitting up the practical departments, has in the new buildings been adhered to with the best effect. In the magnificent central dissecting-room, measuring 108 feet long by 30 feet wide, and 27 feet high, not only is practical teaching carried on with perfect thoroughness and efficiency, but it is carried on with an amount of general comfort, and for the benefit of an increased number of students, that could not possibly have been provided for in the old rooms. In this, and in what may be styled the overflow dissecting-room above the first-mentioned, which measures 30 feet long by 20 feet wide, practical teaching can be given to over 500 students, as against 300 in the old rooms. The conveniently placed cloak-rooms, lavatories, demonstration and demonstrators' rooms, are also an immense advance upon what anatomical students had not long ago to put up with. Then, the roomy, comfortable, and well-appointed bone and microscope rooms, are, both of them, in the best sense, aids, and even inducements to study; whilst the opportunity which the latter affords for the investigation of objects of microscopic anatomy would have been gladly welcomed by the predecessors of the present generation of students. Lastly, the lecture-room has been arranged to give comfortable sitting-space for about 500 persons; and the arrangements for profitable tuition and study made by Professor Turner are in keeping with the completeness of the building arrangements.

"In the immediate neighbourhood is the department of the Practice of Medicine. Professor Grainger Stewart has obtained for this department a large and comfortable classroom, with a museum, retiring-room, and five other rooms, which he proposes to arrange for the purposes of practical work in connexion with his course. The class-room, which is provided with a gallery, which last session's experience proved to be happily constructed, so far as hearing and seeing the lecturer are concerned, has its students' door opening on a staircase that enters from the south front of the north quadrangle, and is common to the departments of Anatomy, Surgery, and Practice of Medicine. The class museum is to the west of the lecture-hall, and was last year used as the professor's retiring room. Two compact rooms, which enter from the north side of the lecture-room, will now be used as retiring-rooms for the professor; and to

these private access is had by a spiral staircase opening on to the east front of the north quadrangle. This staircase, and the professor's retiring-rooms, open in turn upon the suite of five rooms which the professor purposes to arrange for practical illustration and teaching in connexion with his chair. One he has already set apart for practical teaching of the use of the ophthalmoscope; and another for that of the laryngoscope. The others he will utilise for purposes which may suggest themselves in the course. In the ophthalmoscope-room, it is proposed, by means of a light placed centrally in the apartment, to enable about six students at a time to practise with this important instrument upon dummy specimens, so as to enable them to gain facility in its manipulation before using it on the living subject. A like plan will be followed in the laryngoscope-room. The Surgery Department, to which Mr. Cheyne, the new professor, will be inducted at the opening of the School next month, was in full working order last session, and its rooms are situated on the same floor with those just described. The lecture-room is laid out much after the same plan as that of the Anatomy Department, being a large theatre, with seats arranged semicircularly round the professor's lecture platform. It does not, however, accommodate so large a number of students as does the Anatomy lecture-room. Attached to it are professors' retiring-rooms, and rooms also in which the practical work of the chair has been, in the past winter, comfortably and successfully carried on.

"As already stated, the Midwifery Department of Professor Simpson is situated at the west side of the south quadrangle. It is entered by a corridor, opening upon the south-west corner of the north quadrangle, and also upon the Middle Meadow Walk; and has, in the first place, a lecture-room, with a compact and ungalleried auditorium, seated for about 250 students. The lecture-room is in communication with the professor's rooms and with the museum. The former consist of a retiring-room and a work-room, whilst the latter is elegantly and conveniently fitted with glass cases and presses and open stands. There is further a large practical room, intended for tutorial classes and original investigation, and supplied with models and other appliances for the thorough training of the students in their practical work.

"But it is perhaps in the departments of Physiology and Pathology that the most striking and manifest improvements are to be found. To take first the department of Pathology, which also is in the western part of the buildings, there is in this a suite of rooms admirably fitted up for the carrying on of pathological teaching, both systematic and practical, and, in addition, several rooms which may be used for pathological investigation of various kinds. It is unfortunate in being entered by an imperfectly lighted stair and corridor, the latter being nine feet wide. Then the dimensions of the lecture-room of the department, like those of all the other departments, have been found to be insufficient to meet the wonderful growth of the school in the past few years. But here complaint ends. Endeavour has been made, by the addition of a gallery, to provide the requisite accommodation in the lecture-room, which is on the upper floor, and opens, with the practical and other rooms of the suite, from a common corridor. The gallery extends round three sides of the room, at the height of about thirteen feet above the level of the lecture platform, is seated for 132 students, and is entered by a spiral staircase situated at each end. Altogether, the room is seated for about 350, allowing 24 inches for each student, and the room is lofty and well-lighted, and will compare favourably with the other class-rooms. Opening into it is the retiring-room of Professor Greenfield, which measures 18½ feet by 15½ feet, with a height of 18 feet, is well lighted and comfortable, and is fitted with ample accommodation for storing diagrams, &c. Opening from this again, and having like it a door to the corridor, is a room of similar dimensions, fitted up as a private workroom for the Professor of the department. A few steps across the corridor at this point bring one to the entrance to the pathological section of the great museum. Farther south along the corridor, and to the right hand, is the large class-room set apart for practical work, perhaps the most beautiful room in the whole building. It measures 39 feet by 40 feet, and has a height from floor to ceiling of 27 feet. It is lighted on its north, south, and west fronts by large windows measuring 16 feet in height and 6 feet in breadth, and is, besides, magnificently fitted with every requisite for carrying on the work of a large practical class. Slate tanks for storing material, troughs, &c., and wash-basins, are placed at intervals round



the room, and there are five long tables in the centre, and also tables fixed by each window, at which students may carry on microscopic work. During the summer session, five classes, each consisting of about thirty-six students, met daily for practical work. Adjoining this is another fine room, measuring 30 feet by 30 feet, and 20 feet high, also most completely fitted up for pathological research, with various apparatus, chemical, &c., and intended for the use of more advanced students. On the floor below are three smaller rooms, intended for special work. These average a little over 40 feet in length by 14 feet in breadth, and each is lighted by three windows placed in the west wall. The north room is set apart and fitted for photographic work, &c., in this department, and possesses a dark chamber and other necessary apparatus for this work. The central room is for chemical and experimental pathological work, and the most southerly room of the three is at present used for storage and work in connexion with preparations for the practical class. In all the rooms which are intended for practical work, the gas and water fittings are most complete; and a large ice-house and cellars for storage, entered from the lower court, complete the accommodation for the Pathological Department.

"In the Physiological Department, presided over by Professor Rutherford, the provision made for carrying on the teaching, practical and systematic, and for experimental work is equally generous and quite as complete. To adapt the lecture-hall, which is in the south-west corner of the building, for the numbers attending the class, certain internal walls had to be removed and the superstructure supported on two large iron girders. With this structural change, a lecture-room which will seat nearly 500 students, and will meet the requirements of the department, without the addition of a gallery—in the mean time at any rate—has been secured. For the practical work of the department, Professor Rutherford has a suite of some sixteen rooms. These are divided between the ground and first floors of the south and west sides of the southern quadrangle. The class museum is placed opposite the lecture-room on the ground floor, and is fitted with the same completeness as has already been noted in the other departments, having a wealth of glass cases, tables, and other requirements. To the back of, and *en suite* with, the class museum are several smaller rooms, designed and fitted for the preservation of subjects for the class demonstrations. Ascending to the first floor, access is got to the practical and experimental rooms of the department. Beneath the large practical pathology class-room are three smaller rooms, in which the teaching of microscopy or histology is to be carried on. Of these, the largest has an area of 33 feet by 21 feet, and it is furnished with ebonised mahogany tables, sinks, water-taps, &c., after the style adopted in the pathology department. A smaller room, intended and arranged for the like work, is in communication with the larger apartment, whilst the students' lockers are placed in a third. Alterations which had to be made on the original plans to meet the needs of the department have lowered the roofs of these rooms considerably in comparison with the pathology room above. The professor's retiring and work rooms are placed in the west side of the building, over the Midwifery class museum, and are admirably furnished for private work. At the end of the lobby from which these enter are the students' lavatories. Opening off a lobby, which runs at right angles to the one just mentioned, is a series of rooms fitted up for the experimental and practical study of physiology, as well as for physiological chemistry, and for the use of the professor's assistant and other purposes of the department."

When these buildings are completed, the University of Edinburgh will enjoy every facility for original investigation which spacious accommodation and the most modern appliances can afford, and it is to be earnestly hoped that each department will produce an amount of original work commensurate with these facilities.

## GLASGOW.

(From our own Correspondent.)

Two cases of poisoning from whisky drinking have been noted in our daily papers during the past week. One man had been drinking in a public-house till a late hour, and on going home he procured a further supply of liquor; shortly

afterwards he fell asleep, and in a few hours fell from his chair, dead. The other case was that of a man who, in drunken bravado, agreed to drink a whole bottle of whisky "without taking it from his head," and did so, with the result that he soon became comatose, and had to be removed to the infirmary.

Another poisoning case, in which a man, his wife, and three children suffered severely from the effects of some irritant poison, is reported, the symptoms being caused by eating from a tin of preserved salmon.

At the last quarterly meeting of the trustees of Anderson's College the proposal to move the medical school, and perhaps also the whole institution, to a more westerly site, was again discussed; but no decision was come to, the matter being left in the hands of the managers for consideration. The medical faculty of the College should know their own business best, but I believe they err in leaving such a noble field as the Royal Infirmary (the largest in Scotland) solely to the little Infirmary School, while their own students, on going westward, will naturally still further block up the already overcrowded wards of the Western Infirmary; nevertheless, they are quite agreed that such a change is eminently necessary for the further prosperity of the school. There are no funds at present in the hands of the College available in aid of this transference, but it is hoped that either the trustees will assist the medical faculty in their projected move, or that the whole College will migrate. One of the directors made some statements, which passed unchallenged, and which form a strange commentary on the swelling statistics published in the College's Calendar and referred to here a few weeks ago. He advanced it as an argument in favour of the proposal to move westward, that as the greater part of the city's population is now to the west of the site of the College, and as the eastern parts of the city are well supplied with other institutions in which popular science and art are taught, the number of students in the evening classes is now considerably less than it was a few years ago. Looking back only ten years, at the old endowed classes, anatomy, chemistry, and natural philosophy, the number of students now is not one-half what it was then!

The grand annual battle of the schools took place at the October meeting of the Faculty of Physicians and Surgeons on Monday last, with the result that the supporters of what is known as the *status quo ante* were triumphant along the whole line. Strangers to Glasgow medical politics should be aware that at the annual meeting of the Faculty, when vacancies occur by rotation in the examiners' board, the representatives of the various local medical schools contest fiercely for the posts, and canvas freely among the Fellows for support, a part of the business much deplored by the President. The object of these contests is, of course, to strengthen the schools, students being probably attracted to that which has most representatives on the Faculty's board of examiners. It is doubtless a bad thing that the Faculty should be made the field for such strivings, but it is not easy to see how it can be avoided. Bad as this is it is scarcely a less evil than the opposite extreme, which is apparently favoured by a large party in the Faculty—namely, a tendency to regard the annual retirement as merely nominal, and to look with extreme suspicion on any proposal to change the *personnel* of the board. The provision that a certain number of examiners should retire every year was surely meant to give an opportunity for the introduction of fresh men into the board at regular intervals.

A fully equipped little hospital, "intended for the care and treatment of the poor when suffering from disease or accident," has been presented to the people of Largs by Mr. John Clark, of Curling Hall, Largs. The hospital proper is a neat, one-storeyed edifice, built of red stone, and standing in its own grounds; the wards, two in number, are lofty, roomy, well lighted, and cheerful, the flooring being of red pine laid in three inch breadths. The building has been so arranged that it can easily be divided into two separate portions, one for accident cases and one for infectious diseases. The officials live in an upper flat, while the offices (laundry, mortuary, &c.) are in a separate building.

Pullokshawa, a suburb of Glasgow, is to-day in the throes of a municipal election, the only noteworthy point about which is that both candidates for the provostship are medical men, Dr. A. Ritchie and Dr. W. Walker.

Glasgow, Oct. 2nd.

## SCOTTISH NOTES.

(From our own Correspondent.)

A PROPOSAL for the erection of a new asylum for pauper lunatics at Aberdeen is now under consideration by the St. Nicholas Parochial Board. It appears that Elmhill House has been several times enlarged, that its accommodation is now overtaxed, and that the Lunacy Board do not consider further extension desirable. In the meantime many of the Aberdeen lunatics must be sent to Montrose, Banff, or Elgin, and additional cost is incurred. It is now decided to adopt the report by a committee of the board, recommending that a parochial asylum should be built, that accommodation should be provided for from 250 to 300 patients, and that the cost should be from £12,000 to £15,000. Though it is thus decided to provide an asylum for the poor of St. Nicholas only, it is the opinion of many members of the board that a house sufficient for the wants of the district should be built.

Dr. Ogston has now formally received all the support, in his candidature for the surgery chair at Aberdeen, predicted in the columns of THE LANCET a few weeks ago. A considerable majority of the professors testify in his favour, and it is noticeable that the whole of the teachers, who are originally Aberdeen men, favour his claims; the staff of the Royal Infirmary are unanimously in his favour; a large number of professors and teachers of surgery at home and abroad express their appreciation of his high scientific attainments; while the profession in the north of Scotland and the present students of the Aberdeen school also present memorials. Mr. F. F. M. Moir's letter of application is published, from which the Home Secretary will see that his experience in teaching is considerable, dating back to a period when he was but thirteen years of age. There is not such an array of favourable testimony on behalf of Mr. Moir as that mentioned in favour of Dr. Ogston; indeed, so far, a singular reticence has been shown in publishing any evidence whatever of his fitness for the responsible position he seeks to fill.

What appears to be a rather serious outbreak of scarlet fever has occurred at Dundee. As typhus, measles, and typhoid were recently epidemic, and still exist in the town, the fact that the authorities have at length been roused to action need not be surprising. They have obtained by their recent local Act compulsory powers of notification, and already it is found that this is of little service while they have such a meagre amount of hospital accommodation for infectious diseases. A small-pox hospital was provided some years ago, and this they propose to utilize; while it is further asserted that the proportion of beds available at the Royal Infirmary, in the event of an epidemic, is too small. A meeting has been held at which the public authorities and the infirmary managers discussed the question, and it is not unlikely that a temporary arrangement may be effected, increased ward space being devoted to fever cases.

A case of considerable interest has just been settled by the Sheriff of Midlothian. It appears that the sanitary condition of certain property in the village of Loanhead was so unsatisfactory that the local authority ordered the proprietor, an Edinburgh lawyer, to have the nuisance removed, and that the defendant denied the title of the pursuers to sue. His lordship, expressing the opinion that by Section 7 of the Public Health Act local authorities have power to sue in such cases, and to appoint committees of their own body to take proceedings, pointed out in detail that the premises were in a filthy condition, and that the state of matters was injurious to public health and offensive to public decency. The defendant must take steps to remove the nuisance.

## PARIS.

(From our Special Correspondent.)

A CURSORY mention was made in THE LANCET of Sept. 23rd of Dr. Felizet's case of gastrotomy. The patient is now convalescent, and I will now complete the account of this case by a description of the operation and the subsequent treatment. Peter Genisca, for such is the name of this spoon-swallower, is a young Swiss of nineteen years of age. On the night of Sunday, Sept. 10th, he was amusing the

customers of the *café*, where he was employed, by introducing a long spoon, such as is used for stirring coffee when served in glasses, into the œsophagus, pushing it as far down as he could and then withdrawing it. The performance was brought to an abrupt ending by the spoon slipping out of his fingers and disappearing down the alimentary canal. The following morning he was seen at the hospital by M. Felizet. Palpation revealed the existence of a foreign body, which projected in the left hypochondrium. Pressure upon this spot was painful, and caused a pricking sensation below the liver. The patient complained also of a feeling of constriction in the epigastrium, of difficulty of breathing, and of a painful sensation with each movement of the diaphragm. There was a constant flow of saliva and mucus from the mouth. Opium and ice were given to allay the pain, but in spite of this no sleep could be obtained, and bilious vomiting set in. This symptom, together with the patient's anxiety and suffering, decided M. Felizet to operate. In order to lessen the chance of the escape of any liquids from the stomach into the peritoneum, and to manipulate the abdominal organs as little as possible, the following plan was devised: A small india-rubber tube was introduced through one nostril into the stomach. The outside extremity terminated in a Y-shaped branch, upon one division of which was a funnel, whilst the other was in communication by means of a tube with a recipient containing ether. To begin with, the stomach was washed out by pouring a solution of bicarbonate of soda into the funnel, and then depressing the end of the tube below the level of that organ, so as to act as a syphon. The patient was then brought under chloroform and the operation continued with antiseptic precautions. An incision was made seven centimetres long, parallel to and one and a half centimetres below the edge of the false ribs, extending from the line of hepatic dullness, three centimetres below and external to the xiphoid appendix, to a point on the left side on a level with the junction of the ninth and tenth costal cartilages. The sheath of the rectus, and some of its fibres were divided, and the peritoneum exposed. Hemorrhage having been entirely arrested by torsion and ligature, the recipient containing ether was plunged into a vessel of water at 60° Centigrade, and the stomach at once became distended by the vapour, and the peritoneum, being divided upon a director, protruded through the wound. Ten sutures in all were then made to fix the stomach to the abdominal wall, the ether being allowed to escape, in order to ascertain whether the juxtaposition of the surface was complete. One spot appearing defective the stomach was distended again, and another suture inserted. An incision six centimetres in length was then made in the axis of the wound. After the vapour had escaped the stomach was found to be perfectly clean and empty. The spoon was felt, lying transversely across the stomach with one end in the pylorus and the other in the greater curvature; it was then extracted without difficulty. After the operation the patient was kept under the influence of morphia by small hypodermic injections. Tea and rum were given as a drink, with small pieces of ice. Antiseptic dressings were applied. The after effects of the operation were not serious. There was no fever or tenderness of the abdomen. The most distressing symptom was great thirst, but this was relieved most satisfactorily by enemata of cold water. Notwithstanding the dressings, the liquids swallowed passed through the wound. On the fourteenth day, a little milk was given, but this oozed through the dressings, and was not renewed. On the fifteenth some meat was tried, but caused uneasiness. On the first of October, a considerable portion of the wound had healed, and all that remains is a fistulous opening, closed by a pad. The patient eats meat, vegetables, and pastry.

## NEW YORK.

(From our Correspondent.)

I ATTENDED the recent meeting of the American Association for the Advancement of Science, at Montreal, Canada, and offer a few notes of papers read there. Professor Alexander Graham Bell explained in detail his methods employed in constructing an instrument for locating the presence of metallic substances in the human body. It will be remembered that such an instrument was twice used upon

the person of President Garfield without success. On the first attempt the failure was due to the imperfections of a hastily constructed instrument, and on the second occasion an area of sound was discovered, which led to the idea that the bullet was within that area. This proved to be incorrect, as the indications were caused by a steel mattress under the President's bed. The instrument now constructed by Professor Bell was recently tested upon the person of Colonel Clayton, who has carried a bullet for many years. The result is stated to have been perfectly satisfactory, and Professor Bell now claims that with his apparatus the presence of a bullet in any part of the human body can be located with accuracy. The principle of the instrument appears to be the use of the telephone in conjunction with the inductive balance invented by Professor Hughes; the action of one set of coils is neutralised by the reversed action of another set. The approach of a metallic body within a certain distance disturbs this state of equilibrium, hence a signal is given. At first no indication was afforded by the instrument beyond two inches; to make it practical this distance had to be extended. Professor Bell now obtains satisfactory results at five inches, and has modified and improved the instrument in other respects, until a degree of perfection has been reached which warrants him in placing the apparatus before the medical profession as a perfect instrument.

Professor A. G. Bell also exhibited the model of an apparatus for producing Artificial Respiration. His idea is to place the subject in a metal cylinder closed with ends of rubber, which should fit tightly around the shoulders and legs. By means of a force-pump, the air can be exhausted from the closed space, when the pressure of the atmosphere forces air through the mouth and nose into the thorax, causing a depression of the diaphragm, and consequent expansion of the abdomen, the alternate rarefaction and condensation of the air confined around the abdomen causing alternate inspiration and expiration.

Dr. William Osler, of Montreal, in speaking of the Microcytes of the Blood, referred to the unsatisfactory explanation of their origin. He said that he had seen their production in the spleen-tissue and in the bone-marrow by a sort of budding from the ordinary red corpuscle. In the conditions under which microcytes are usually found, particularly after hæmorrhages and in profound anemia, he said the red corpuscles often presented great irregularities of outline. The author added that in fresh specimens of spleen and bone-marrow, he had seen these little particles become detached from the blood cells, moving about in the current on the slide, and when so detached presenting all the characteristics and appearances of the microcytes. Dr. Osler has promised me abstracts of other interesting papers which he read on this occasion, and I will probably refer to them later.

Dr. Louis Elsberg, of New York City, read a paper on Plant Cells and Living Matter. I will postpone a description of Dr. Elsberg's views, as explained in his paper, and refer to an interesting discussion which it provoked. All living matter—bioplasm—is supposed to be made up of reticulations of living substance, with inert matter filling the reticulum. It is said that the reticulum can be easily demonstrated by microscopic observation; that one has only to look for it, and it can be found; that it exists in the white blood-corpuscles and in the amoeba, and can be seen in them without reagents. At the conclusion of the paper, Dr. Carl Seiler and Mr. Romya Hitchcock, while reserving their opinion on the theory in question, asked information of Dr. Elsberg "just how the network could be found." They acknowledged that they had looked for it, but could never find it. In reply, Dr. Elsberg stated that no preparation or manipulation was necessary; the object has merely to be placed under the microscope with a suitable objective, and the network could be seen at once; beyond this Dr. Elsberg would give no information. The members of the Biological Section (Dr. Elsberg excepted) had never seen the reticulations, and doubted their existence. They are shown illustrated in various standard works. May I ask have they been seen by any English microscopist? If so, will he state the conditions under which their presence can be demonstrated?

Professor W. A. Rogers, of Harvard College, who is favourably known for the very exact ruling of micrometric scales, called attention to the fact of a claim set up by Mr. Fasolat, of Albany, N.Y., that he had succeeded in ruling lines 1,000,000 to the inch. Professor Rogers doubts if lines as close as 152,000 to the inch have yet been resolved by a

microscope. It is therefore impossible to test the claim of those who profess to rule lines above that limit. As an interesting test of human vision, Professor Rogers stated that single lines 155,000 of an inch in width can be seen without a microscope.

Dr. Thomas Taylor, of Washington, showed his new Freezing Microtome, which was much admired by those present. The centre of the microtome is fed by a rubber tube with iced water and salt supplied from a pail placed on a bracket; there is also a discharge tube leading to a lower pail, by which means a circulation is kept up. No necessity arises for hardening or otherwise preparing tissue if this instrument be used; the substance is immersed in gum water, and frozen in a condition for cutting in less than one minute. To regulate the thickness of the section, the outside rim of the microtome plate has an engraved scale and revolvers, and a pointer indicating the thickness. Several members present, who have used every form of microtome, acknowledged that Dr. Taylor's was the most simple and perfect as yet made. Dr. Thomas Taylor is the microscopist to the Agricultural Department at Washington.

I examined two hospitals at Montreal, and will first speak of the Montreal General Hospital. The building is far from creditable to a city which boasts of the "remarkable number and variety of its philanthropic institutions, and of the number of its churches." Of the latter one has evidence in every street, Mark Twain having at a public dinner expressed his regret that he could not throw a brickbat without breaking a church window. I therefore regretted to find the city hospital in such a poor building, the interior having the appearance of a workhouse. The medical staff appear to be doing their best under the circumstances, and admit the want of accommodation and a suitable building. While the building is a disgrace to the city, the citizens are charged by the hospital authorities with failing to contribute the usual means for its support. The last report shown to me—1880-81—indicated an increase of the number of patients, and of course an increase in the expenses incurred. In the face of which the secretary states, "it is a matter of regret and disappointment" that the voluntary contributions had fallen short even of the last year by the sum of nearly 50,000 dollars. I fear that in the seventy-four large and costly churches of Montreal the parable of the good Samaritan is preached with very poor effect. The wards of this hospital were clean and creditable to the management, but the inconvenience of limited accommodation was apparent everywhere, and a proper classification was simply impossible. A little chamber with a few old raised benches is called the operating-room, and does duty also as a chapel. I presume the operating-table, covered with a cloth, is used for the communion, the box of sawdust under such a covering not being visible. The hospital was full to its limited capacity, and three cases of typhoid fever had just terminated fatally.

The Hôtel Dieu, a Catholic Institution founded in 1644, next claimed my attention. This is a combination of a nunnery and a hospital, each occupying a wing separated by a spacious church. The present building was completed in 1861, and is a handsome stone erection situated in a garden enclosed by high walls. The entrance doors of the hospital are kept closed, and on ringing a bell you find yourself in the presence of a nun. A request to inspect the hospital was courteously acceded to, and I forthwith examined every room under the guidance of a sister of mercy, who explained in detail their system of management. The contrast to the hospital I had just left was indeed great; instead of having to cut and contrive with limited means, here they appeared to possess *embarras de richesses*. I regretted, however, to find so many beds unoccupied at a time when the general hospital was crowded beyond its limit. Religious instruction and cleanliness appeared to be the chief ends in view. Nuns were reading aloud in every ward, and the wood floors had been scrubbed until their texture was destroyed, presenting a soft velvety sensation to the feet. The hospital has a high reputation for good surgical work, and the arrangements for the care of the sick are doubtless of a very high order, the eighty professed sisters and novices devoting their lives to that object with a tender regard for the patients under their charge. I was surprised to find the wards filled with heavy four post bedsteads with white dimity drapery on top and enclosed with four curtains. It seemed a defiance of all modern rules for hospital management. Although over 3000 persons annually receive treatment at this hospital, no house-surgeon was in attendance at the time I called, and in

the absence of all members of the medical staff I found it difficult to obtain information respecting many important details of management. In the grounds of the hospital was a building, then closed, which I understood to be a medical school. A very creditable monthly journal is published in French relating to the cases treated at this hospital.

## Obituary.

J. T. CLOVER, F.R.C.S. ENG.

JOSEPH THOMAS CLOVER was born at Aylsham, Norfolk, in 1825. He received a general education at Grey Friars Priory, Norwich, and at its conclusion he became a pupil of the late Mr. Gibson, a surgeon of high standing and large practice in that city. In 1842 he was entered as a dresser at the Norfolk and Norwich Hospital for two years, and it would appear that the malady which more or less marred his working in after life began at this time, for there is an entry in the hospital book which shows that he was absent from ill-health nearly four months. In 1844 he commenced his studies at University College, London, and the same defective health is proved by a letter received by the writer of this notice (then a senior student) from the late Dr. Lubbock, of Norwich, telling of his fear that his young friend, for whom he felt so warm an interest, would injure his frail health by overwork. It was probably on this account that Clover did not compete for honours in the various classes, but he was regarded by his fellows and teachers as one of the most promising and prominent students of his time, and we find him, after filling the duties of dresser, clinical clerk, and physician's assistant, elected as house-surgeon to Mr. Morton, and subsequently to Mr. Syme in January, 1848. Such was the confidence in his capabilities and steadiness felt by the Medical Committee that in August of that year he was made the responsible head of the working staff of the hospital and became resident medical officer. So highly did Mr. Syme estimate his house-surgeon's services, that on his return to Edinburgh he offered Clover a similar position at the Royal Infirmary. This, however, he was unable to accept, because of the more important appointment at his old hospital which was offered to him. During the five years he held this office, the cholera epidemic of 1849 occurred, which taxed to the utmost the courage and endurance of all hospital residents, and the duties also included the administration of chloroform to all who needed it. In 1853 he settled in practice in Cavendish-place, and there he resided until the sad event of last week. Patients and work came to him quickly, so quickly that had he enjoyed a fair measure of vigour and health, with the sterling qualities he was known to possess, there can be little doubt that he would have reached a high position amongst the leading surgeons of his day. Periods, however, of disabling illness, not unfrequently recurring, obliged him, by degrees, almost to relinquish ordinary practice and to restrict himself, however unwillingly, to the administration of anæsthetics. In this important department of practice it is needless to say he was pre-eminent. Quite early in his career he commenced his inquiries and experiments; it is probable that he was present in the theatre of the University College Hospital during the performance of that first successful operation under ether, in England; and, if the scene impressed him as profoundly and vividly as it did others, it might well incite him to thought and study. The operation was a thigh amputation. Mr. Squire administered ether; the patient inhaled it without a movement; Liston hurriedly removed the limb (in thirty seconds), and the ominous silence of the patient, so unusual in those days, caused anxiety for his life. Presently he awoke, and when the cloth was removed from his stump, and he saw that his leg was gone, the unbounded wonder and delight of the patient was scarcely greater than that of the spectators. The great surgeon was almost overcome with joyful emotion as his mind grasped the full meaning of this new era in surgery, which had just opened with such a startling, unexpected, and complete success. In the development of this discovery, after the first few years, during which Dr. Snow was the leading spirit, and chloro-

form had supplanted ether, Clover took a prominent part. The potency and danger of the new agent soon showed themselves by fatal accidents. He saw that some of these were due to faulty administration, and he set himself to discover a means by which the chloroform vapour could be applied in definite, well-ascertained strength. His mind was markedly of a constructive and contriving order; his knowledge of mechanics and his inventive faculty were great, and, after many trials and much experimenting, he constructed a portable bag, which he ingeniously filled with vapour of safe strength. When the chloroform committee of the Medico-Chirurgical Society conducted their work they chiefly used this bag. Clover, although not a member of the committee, attended most of the meetings, carried out many experiments, administered the anæsthetic, and so aided the work as to secure the fullest acknowledgment and thanks of the members. He was appointed chloroformist to the Westminster, University College, and the Dental Hospitals. He became the companion, in their operation cases, of very many of the chief surgeons and dentists of London. The double anxiety which all surgeons feel so keenly when they are compelled to trust the anæsthetic to inexperienced hands was never felt when Clover was present; he never hesitated to push the agent, when necessary, to the very verge of danger; he would use it when organic visceral disease was known to exist; but his resolute courage was governed by caution and a vast experience. When other agents came to displace chloroform, with open mind and without prejudice he set about to discover their respective uses and merits; he entered into discussion on the various points in the medical journals and at scientific meetings, and, if I mistake not, an article on anæsthetics by him will shortly appear in the Dictionary of Medicine, edited by Dr. Quain, now immediately forthcoming. In other departments of surgery Clover, with his fertile brain and inventive faculty, produced many improvements and new adaptations, but chief amongst them was his exhausting bottle and catheter for the removal of calculous debris from the bladder after lithotomy. If the idea of suction belongs to Sir P. Crampton and others, to Clover is due the credit of perfecting the apparatus by which to accomplish it, while to Bigelow belongs the thought of continuing its use at one or two prolonged sittings until all the stone is removed.

Such is a brief record of Clover's professional work and life; to speak of him as a man and a friend is easy enough, for surely no blemish or fault can be found in his blameless life, which friendship might wish to hide but truth would compel to mention. Every man has some few prominent points of character which give a tone to his whole life. These, in Clover, were his gentle modesty, his absolute unselfishness, and his active sympathy with the joys and sorrows of others. He had no "push," no ostentation or love of display. He worked steadily; his happiness consisted in honestly doing the duty which lay clear before him. None ever heard him speak harshly or unfairly of any; he was without guile or bitterness. He had hosts of friends, for he made many and lost none. Reference has been made to his ill-health. This consisted in chronic pulmonary disease, which, during many years, had frequent periods of arrest and frequent outbursts. In the grey and silent days of this depressing illness he was seldom depressed; as year after year travelled away, leaving his stock of health and strength a diminishing quantity, his cheerfulness endured, and was wonderful; he was contented and happy, resolute to work and help others so long as failing strength permitted; but when the end approached he murmured not, but contentedly resigned himself to the inevitable. "His end," writes Dr. Sydney Ringer, his constant friend and medical adviser, "was quite in keeping with his whole life—gentle, amiable, uncomplaining, grateful, to the last. The world wants one true man since he was taken away."

Mr. Clover has left a widow, daughter of the late Rev. T. C. Hall, Prebendary of St. Paul's, and four children.

ROBERT WISHART LYELL, M.D., F.R.C.S.

THIS young surgeon, who has been suddenly carried off at the outset of a career of great promise, was born in London in 1849, and received his early education at St Olave's Grammar School, Southwark. Already he evinced considerable talent and industry, so that when proceeding to King's College he obtained the distinction of Warneford Scholar. He

passed through the whole of his curriculum at King's College, gaining the esteem of his teachers and fellow-students. In 1871 he graduated in medicine at the University of London, taking honours in all the subjects of the examination; and in 1872 he obtained the degree of M.D., and was also appointed house-physician to the Seamen's Hospital, Greenwich. Soon after this he seems to have decided to turn his attention rather to the pursuit of surgery than that of medicine; for in 1873 he was elected house-surgeon to the Royal Infirmary, Manchester, an office which he held until his return to London at the close of 1874 to take up the appointment of surgical registrar at the Middlesex Hospital. His path was now clear before him, and for the remaining seven years of his life the main part of his labours was within the walls of this hospital. Four years of this period were passed in the post of surgical registrar, which, owing to the cancer department at this hospital, is by no means a sinecure. Dr. Lyell evinced much assiduity and scientific knowledge in this office; and his annual reports of the surgical practice of the hospital are among the best of their kind, and upon their compilation he must have bestowed much labour. A few months after his appointment as registrar, the School Committee made him tutor, feeling that few could discharge its duties more satisfactorily. As a proof of the correctness of their judgment it may be pointed out that he continued to hold the office until his death, and year by year the students have learnt to appreciate highly the value of his instruction and help. Added to this in 1879-80 he undertook the superintendence of the post-mortem examinations of the surgical cases, at the request of the Committee; and the aid thus rendered to the pathologist was invaluable. It might be thought that all this was work enough for any man to have undertaken, but Lyell took up other duties still. He had long a desire to practise ophthalmic surgery, and became clinical assistant at the Royal London Ophthalmic Hospital, Moorfields, besides being elected to the Great Northern Hospital as ophthalmic surgeon, and comparatively recently he was elected assistant surgeon to the former institution. But he followed this special branch only as a part of his general pursuit, and as a vacancy occurred in the surgical staff of the Middlesex Hospital in 1879, he applied for and was elected to the office of assistant-surgeon.

The medical world in general knows hardly anything of Lyell, for he published but little; and in an age when the facilities for publication are so abundant it is remarkable for this to be said of one to whom many opportunities were given of observing disease and adding to knowledge. Doubtless it would have been different had he not been so hemmed in and hampered by the necessary routine of the practical duties he had undertaken. He certainly was never idle, and took far too few holidays to be consistent with the maintenance of health in a not over-robust frame. Indeed, he was always at work, and worked for others as well as for himself. Those who knew him best could not help fearing that he undertook too much; but this they could never get him to admit, and although he was industrious beyond measure, there can be no doubt that he was overtasked. Had he lived, future years might have seen the fruit of his labours in a form more obvious to the world at large; but dying as he has done, more literally in harness than often happens, he has been deprived of any such opportunity of becoming known to the world. Such published work as has appeared from him fully bears out the high opinion that his friends formed of him. In addition to the Surgical Reports of the Middlesex Hospital for 1875-9, he served as Secretary to the Committee of the Clinical Society upon Excision of the Hip, whose report was presented last year; and it may be remembered that in conjunction with Dr. Powell he read before the Royal Medical and Chirurgical Society a case of Drainage of a Pulmonary Cavity. We believe he was also engaged at the time of his death in connexion with the new edition of the System of Surgery, which is being prepared under the joint editorship of Messrs. T. Holmes and Hulke.

Dr. Lyell had been assiduously at work during the past two months in his hospital practice, and was preparing his introductory lecture when the fatal blow came. On Saturday evening, the 23rd, he had a rigor; but he fancied only that

he had taken a severe cold, and could hardly be persuaded by his friend and colleague Mr. Andrew Clark, who saw him on Monday morning, to desist from his work at the lecture. It was plain that his illness was graver than he himself thought, and Dr. Cayley saw him in the course of the day, and attended him throughout. On Tuesday the physical signs of pneumonia were developed, but although there was high fever his strength was well maintained for some days. He was, however, not able to withstand the advance of the disease, and on Sunday, the 1st instant, his condition became very grave, and he died the following morning at nine o'clock.

Of a retiring disposition, good-natured to a fault, so that he was always willing to assist, Dr. Lyell has fallen, we fear, a victim to his love of work; for physically he could hardly be considered a strong man, and yet he submitted to the wear and tear of London hospital practice to an excessive degree. His death came just upon the day when his friends and pupils were assembling at the Middlesex to give him a hearty welcome in his capacity of introductory lecturer. Many learnt for the first time on entering the door of the hospital that the lips whose utterances they had come to listen to were sealed in death; and to all, the necessary proceedings of the opening day were clouded by this one mournful fact. It will be long before the event of that day passes from the memory of those who, knowing what a loss had been sustained to their hospital and to surgical science, felt also the bitterness of a personal bereavement.

#### STAFF-SURGEON W. ST. GEORGE DAVIS, R.N.

THE death is announced of a veteran in the medical department of the Royal Navy, in the person of Staff-Surgeon William St. George Davis, which took place at Hove, near Brighton, on the 30th ult., aged ninety-six. The deceased was the "father" of the medical branch of the navy. He entered the service as far back as 1806. In 1808 he passed his examination for naval surgeon, and was promoted to the rank of surgeon in the same year. He had seen much active service, and was present at many of the numerous sea fights which took place at the early part of the present century. For his services he was awarded the Naval Medal with three clasps. The deceased retired from the department in 1829.

### Medical News.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Sept. 28th:—

Brinton, Roland Danvers, College-terrace, Balize-park.  
Mac Donogh, Wm. Frederick, Clapham-park-road.  
Plimmer, H. George, Anerley-road, Upper Norwood.  
Rigby, Percy Alfred, Westoby-terrace, Earl's-court.  
Smith, William Herbert, Weston, Bath.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Arthur Ogle and W. P. Bassett-Smith, Middlesex Hospital; Claude S. Sparkes, King's College.

AN inquiry is proceeding respecting the desirability of establishing a local board for Seaford.

ON Saturday last the Duke and Duchess of Westminster opened a Convalescent Home in connexion with the Chester Infirmary.

THE 90th section of the Public Health Act, 1875—that, namely, referring to houses let in lodgings—is officially declared to be in force in the district of Isleton and Isleworth.

OWING to the prevalence of infectious diseases in Sunderland, the School Board have cautioned their officers not to enter houses when making inquiries concerning absentees from school.

AT the meeting of the Board of Guardians of the City of London Union on Sept. 27th, in reference to a letter received from the Local Government Board suggesting the need of certain alterations in the Homerton workhouse, it was decided to refer the whole matter to a special committee, which should report upon it fully.



THE committee of the Essex and Chelmsford Dispensary and Infirmary have resolved to proceed with the erection of the new building, the tender placing the cost at £3485 having been accepted.

**GUY'S HOSPITAL MEDICAL SCHOOL.**—The entrance scholarship of 125 guineas in arts has been awarded to Mr. John Lloyd Roberts of Llanrwst, and the entrance scholarship of 125 guineas in science to Mr. William Frederick Clarke of Kensington.

THE Holborn guardians are advised by the Local Government Board to provide an entirely new workhouse for the union, planned to accommodate, in the first instance, not less than 600 inmates, and capable of further enlargement, as may be found necessary.

THE sum of £2600 has been given to the University College Hospital, London, by Mrs. Nathaniel Montefiore. It is to be invested for the permanent endowment of a bed in memory of her late brother, Sir Francis Henry Goldsmid, and a cot in memory of her son, Mr. Leonard Montefiore.

THE novel dramatic entertainment conducted recently by Dr. George Macdonald and his family in the Pavilion, Brighton, on behalf of the local Association for Nursing the Sick Poor, has, it appears, been very successful, and will result in a considerable addition to the funds of the charity.

**CASUAL WARDS ON SUNDAY.**—At the meeting of the Hackney Guardians on the 27th ult., Dr. Millar informed the Board that he went through the casual wards on Sunday, and what he saw was rather unsatisfactory. He moved that a committee be appointed to have the oversight of these wards, which seemed to have no regular supervision. The motion was carried.

**PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.**—On Wednesday the session of this Society was opened at Bloomsbury-square. Mr. Cartishe presided, and the prizes awarded to the successful students were presented by Mr. James Ince, who also delivered the inaugural address. Professors Redwood and Bentley gave favourable reports of the classes of chemistry and pharmacy and of botany and materia medica respectively; whilst Professor Atfield's account of the work done in the laboratory last session was also satisfactory.

**LONDON FEVER HOSPITAL, LIVERPOOL-ROAD.**—The resources of this valuable institution have recently been taxed to the utmost by a serious outbreak of scarlet fever in the district. Every available bed in the hospital is now in use; and unless additional accommodation is promptly provided the house directors, much against their wish, will have to begin refusing admittance to new patients. This, in the circumstances, would be a serious public calamity; but, unless the necessary funds are at once supplied, the managers are helpless, and will be compelled to reduce the outlay at a time when the pressing necessity exists rather for increasing the accommodation.

**SCARLET FEVER IN LONDON.**—At the meeting of the Metropolitan Asylums Board on Saturday last, Mr. E. Galsworthy presiding, Sir Edmund Hay Currie drew attention to the fact that there were at the present time 500 cases of scarlet fever in the Homerton, Stockwell, and Deptford Asylums—cases brought from all parts of London; and he moved that the Local Government Board be requested to give its permission to the opening of the Fulham and Hampstead Hospitals for the reception of cases, more especially of those which might arise in the parishes and unions near those asylums. In the course of the proceedings protests were made by the members representing the southern and eastern districts against the asylums in those districts being used for all the fever cases in the metropolis, and it was stated that the poor fever patients of Fulham and Hampstead were sent to the south and east while there were empty hospitals in their own districts. The chairman suggested that the Board should proceed in regard to one hospital at a time, and it was agreed to ask the Local Government Board to permit the opening of the Fulham Asylum for fever cases.

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Nice and its Climate. By Dr. A. Baréty. Translated, with Additions, by Charles West, M.D. And an Appendix on the Vegetation of the Riviera by Professor Alimans, F.R.S. pp. 162, with two Maps.
- TROW'S PRINTING AND BOOKBINDING COMPANY, New York.  
Contributions to Practical Gynecology. By S. J. Donaldson, M.D. pp. 131, with 16 Wood Engravings.
- Our Sanitary Laws, how they are Administered; by R. Kirkwood, M.D.—Die Hauptstadt Budapest im Jahre 1881; von Josef Körösi.—Tableaux Internationaux des Recensements de 1880-91.—La Vaccine au point de vue Historique et Scientifique; par Hubert Boëns.—

Treatment of Fractures of the Skull; by Moses Gunn, M.D.—Album für Krankenträger; von Dr. G. A. Rühlmann.—Eighteenth Report of the City Hospital, Boston, U.S.A.—Nomenclature and Classification of Diseases of the Skin; by Dr. L. D. Bulkeley.—Birmingham Medical Review, Sept.—Letta's Map Catalogue.—Medical Communications of the Massachusetts Medical Society.—A Study of Rupture of the Bladder; by Alex. W. Stein, M.D.—On the Unity of Poisons; by Dr. G. de G. Griffith.—Pamphlets issued by the Association for the Advancement of Medicine by Research: Dr. Bowman's Address on Surgery, Dr. McDonnell's Address at the Surgical Society of Ireland, Dr. Humphry's Speech on Vivisection at Ryde, Mr. Simon's Address on Experiments on Life at the International Medical Congress. (Kolekmann).—Plant for the Manufacture of Iodine; by Robert Harvey, Assoc. M. Inst. C.E.—Measles and Whooping-cough; by John Iatham, M.D.—On the Meaning of the words "Nyctalopia" and "Hemeralopia"; by John Tweedy, F.R.C.S.E. (Harrison).—La Mortalité dans ses Rapports avec les Phénomènes Météorologiques dans l'Arrondissement d'Avignon, 1878-77; par le Dr. A. Parnard.—The Malignity of Syphilis, with an Analysis of 450 Cases; by Dr. L. D. Bulkeley.—A Successful Ovariectomy in 1866; by Dr. Robert Newman.—Contributions from the Chemical Laboratory of the University of Michigan; edited by Drs. Prescott and Vaughan.—Ten Years' Experience in the Treatment of Stricture of the Urethra by Electrolysis; by Dr. Robert Newman.—Elephantiasis Arabum in the Samoan Islands; by Dr. A. C. Heffenger.—Fraser's Magazine, Oct.—Knickerbockers for both.—Cruelty to Animals, as frequently practised in every-day life; by Lieut.-Col. J. R. Campbell.—Proceedings of the Allahabad Medical Society.—De l'Ataxie Héréditaire; par le Dr. A. Brousse.—A Key to all the Waverley Novels; by Henry Grey. (Griffith and Farran).—The Disease of the Scythians; by Dr. W. A. Hammond.—Recherches Expérimentales sur le principe Acide du suc Gastrique; par le Dr. V. Poulet.—Address in Surgery; by William Stokes.—Catalogue of the Anatomical and Pathological Preparations in the Museum of the Madras Medical College. Second Edition.—The Surgical Treatment of Hemorrhoids; by Walter Whitehead.—Notes on Poisons; a Toxicological Chart designed for ready reference; by J. Mayne, M.D., L.R.C.S. Ed. (Churchill).—Good Words, Sunday Magazine, Leisure Hour, Sunday at Home, Boy's Own Paper, Girl's Own Paper, for October.

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

APPLEYARD, JOHN, F.R.C.S. & M.B. Lond., has been appointed Honorary Surgeon to the Bradford Infirmary, vice Philip Miall, retired.

BARRINGTON, FRED. ALBERT, L.R.C.S.I., has been appointed Medical Officer for the Western District of the Freebridge Lynn Union.

BLAGO, ARTHUR F., M.R.C.S., L.S.A. Lond., has been appointed Resident Medical Officer to the Rochdale Infirmary, vice Stevenson, resigned.

CARTER, THOMAS, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for Richmond (Yorkshire) and the Union, vice Atkinson, resigned.

COLLYNS, R. J., M.R.C.S., L.R.C.P., has been appointed House-Physician to the Royal Hospital for Diseases of the Chest, City-road, vice Duncan Burgess, M.A., M.B., whose appointment has expired.

CUMBE, JOHN BATTEN, L.R.C.P. Ed., M.R.C.S., L.S.A. Lond., has been appointed Medical Officer for the Wargrave District of the Wokingham Union.

DOUTY, J. HARRINGTON, M.R.C.S., L.S.A. Lond., has been appointed Second Assistant Medical Officer to the County and City of Worcester Pauper Lunatic Asylum.

FIELDEN, JAMES, M.R.C.S., has been appointed Medical Officer for the St. Faith's District and Workhouse, St. Faith's Union, vice Hawkes, resigned.

HITCHCOCK, CHARLES KNIGHT, M.D., M.A. Cantab., has been appointed Deputy Superintendent to the Warnford Asylum, Oxford, for six months from the 2nd inst.

LAEN, T. LENNARD, B.A., M.B., C.M., of Bute Docks, Cardiff, has been appointed Medical Inspector of Seamen to the Board of Trade for the Port of Cardiff, vice Dr. T. O. Pratt, resigned.

NEWCOMBE, FRANK, M.R.C.S., L.S.A. Lond., has been appointed Medical Officer for the Dunham District of the East Retford Union.

O'REILLY, ARCHIBALD THOMAS, M.R.C.S., has been appointed Government Medical Officer, also Medical Officer to the Stanthorpe Hospital, Queensland.

POWELL, SCUDAMORE KYDLEY, M.D. Dur., M.R.C.S., L.S.A. Lond., has been appointed Medical Officer for the Madley District of the Dore Union.

RINGER, SYDNEY, M.D., F.R.C.P. Lond., has been appointed Consulting Physician to the North-West London Hospital, Kentish-town-road, in conjunction with Dr. Andrew Clark.

ROBERTSON, DONALD W., L.R.C.P. Ed., M.R.C.S., has been appointed Medical Officer for the Pickering District and the Workhouse of the Pickering Union, vice Smalles, resigned.

ROSS, DOUGLAS M., M.B. Ed., M.R.C.S., has been appointed Medical Officer to the Brighton Workhouse and Warren Farm Industrial Schools, vice D. Richards, M.R.C.S., L.S.A. Lond., resigned.

SANGSTER, CHARLES, M.R.C.S., has been appointed Surgeon to the D Division of the Metropolitan Fire Brigade, vice G. F. Browne, resigned.

SMITH, WILLIAM BEATTIE, L.R.C.P. Ed., F.R.C.S. Ed., has been appointed Deputy Medical Superintendent of the Ararat Lunatic Asylum, Victoria.

UNWIN, JOHN BROOKE, L.R.C.P. Ed., L.R.C.S. Ed., has been appointed Medical Officer for the Dunchurch District of the Rugby Union.

WATSON, FRANK S., M.R.C.S., L.S.A. Lond., has been appointed Colonial Surgeon to St. Helena.

WEBSTER, GEORGE LEONARD, M.R.C.S., L.S.A. Lond., has been appointed Medical Officer for the Bewdley District of the Kidderminster Union.

WICKHAM, HENRY, M.R.C.S., L.S.A. Lond., has been appointed Medical Officer for the Fourth District of the Ormskirk Union.

WILSON, J. MITCHELL, M.B. S.Sc. Cert. Camb., has been reappointed Medical Officer of Health for the Rural Sanitary Districts of the Doncaster, Goole, Selby, and Tadcaster Unions, and the Goole, Selby, and Tickhill Urban Sanitary Authorities, for a term of seven years.

## Births, Marriages, and Deaths.

### BIRTHS.

HAY.—On the 10th ult., at Aden, the wife of Surgeon-Major G. W. R. Hay, I.M.D., of a daughter.

HUNT.—On the 8th inst., at 101, Queen's-road, Dalston, the wife of Joseph W. Hunt, M.D., B.S. Lond., of a daughter.

JAMES.—On the 29th ult., at Napton Villa, Biggleswade, Beds, the wife of Alfred James, M.R.C.S., L.S.A. Lond., of a daughter.

MITCHELL.—On the 25th ult., at Old Rain, the wife of Patrick Mitchell, M.D., of a son.

STOCKER.—On the 28th ult., at Peckham House, Peckham, the wife of Alonzo H. Stocker, M.D., of twins (sons).

TURNER.—On the 26th ult., at Harcourt, Bournemouth, the wife of John A. Turner, M.B., C.M., of a daughter.

### MARRIAGES.

CAMERON—THOMPSON.—On the 27th ult., at Skene, John Cameron, L.R.C.S.E., of Kintore, to Elizabeth Marion, eldest daughter of the late James Thompson, Merchant, of Buckie.

FOULDS—NICHOLLS.—On the 26th ult., at Christ Church, Lea, Kent, Henry John Foulds, M.R.C.S., of Derby, to Marianne, fifth daughter of the late John Nicholls, of Champion-hill, Surrey.

HUTTON—GILFORD.—On the 3rd inst., at Holy Trinity, Micklegate, York, E. R. Hutton, L.R.C.P.L., of Tottenham, Middlesex, to Rose Gilford, eldest daughter of W. Gilford, late of North Luffenham, Rutland.

LAEN—SINCLAIR.—On the 6th ult., at Wick, N.B., by special proclamation before the High Sheriff of Caithness, Thomas Lennard Laen, B.A., M.B., C.M., of Cardiff, to Helen Emily, youngest daughter of Sinclair of Achinabest, Reay, Caithness.

MARTIN—BAYNES.—On the 21st ult., at St. Oswald's, Knutsen, John M. H. Martin, M.D., of Arnheim, Blackburn, to Thomasine Edith, younger daughter of the late John Baynes, J.P., D.L., of Blackburn.

PRICE—GRANTHAM.—On the 4th inst., at the Cathedral, Manchester, by the Rev. R. W. Arthy, Thomas Price, Surgeon, of Manchester, to Fanny, daughter of John Grantham, of Rothay-place, Old Trafford.

WILLIAMSON—BRUCE.—On the 28th ult., at Bridge of Allan, by the Rev. R. P. Watt, of Edinburgh, James M. Williamson, M.D., of Ventnor, Isle of Wight, to Janet Ellis, daughter of the Rev. Wm. Bruce, D.D., of Edinburgh.

WOOD—GOULSTON.—On the 27th ult., at Holy Trinity, Newington, Arthur George Wood, M.R.C.S., L.R.C.P., & L.M., to Ada Jane, younger daughter of Edmund Goulston, of Trinity-square, S.E.

### DEATHS.

CLARKE.—On the 1st inst., at Great Yarmouth, Robert Whitmore Clarke, Deputy Inspector-General R.N. (retired), aged 71.

DAVIES.—On the 20th ult., at Hova Villas, Cliftonville, Brighton, W. St. G. Davies, M.D., Staff-Surgeon, R.N. (retired), aged 96.

HART.—On the 28th ult., suddenly, of heart disease, Robert Alfred Hellingas Hart, L.S.A. Lond., only son of the late Walter Hart, M.R.C.S., of Stonessend House, Southwark, London, aged 28.

LYELL.—On the 2nd inst., at Harley-street, Cavendish-square, Robert Wishart Lyell, M.D. Lond., F.R.C.S.E., aged 83.

MORE.—On the 26th ult., at Chapel-street, Salford, Huseon More, L.R.C.P., aged 38.

SHANN.—On the 2nd inst., at his residence, 69, Petergate, York, George Shann, M.D., aged 73.

UNTHANK.—On the 1st inst., at Derby-road, Nottingham, Anthony Unthank, M.R.C.S., L.S.A. Lond., aged 66.

WEST.—On the 29th ult., at Yeolmbridge, Edward Lawrence West, M.R.C.P. Ed., M.R.C.S., of Launceston, aged 58.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Oct. 5th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Sept 29	30.25	W.	56	55	73	57	48	.84	Cloudy
30	29.94	W.	51	59	90	52	44	..	Overcast
Oct. 1	29.85	S.	67	62	99	70	48	..	Bright
2	30.01	S.W.	55	52	107	68	48	..	Hazy
3	30.20	W.	57	53	100	65	48	..	Bright
4	30.47	N.W.	53	50	81	60	45	.12	Foggy
5	30.60	E.	54	51	83	61	46	..	Cloudy

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

## "MEDICAL OPPOSITION TO IMPROVED REMUNERATION TO MEDICAL MEN."

WE recur to this subject in connexion with Dr. Shorthouse's letter of last week, in which he assumes that Dr. Barnes is the correspondent on the strength of whose statement we "made," as he puts it, "an attack on him." It is always dangerous in an argument to assume anything. The present case is not an exception. Our comments were based on an elaborate letter in the newspapers on the frequency with which instruments should be used in midwifery, sent us by a stranger to both Dr. Barnes and Dr. Shorthouse. But that is a point of no importance when the dispute has actually got into the newspapers. There are two points in which we seem to be at variance with Dr. Shorthouse, and we fear must continue so, much as we regret to differ from him. The first is the seemliness of a medical guardian who, by what may be called a providential illness, was hindered from attending a meeting of the Board at which a reasonable request to raise a medical officer's salary was refused, taking up the cudgels against the medical officer in the newspapers, and suggesting that his bill of extras was raised unduly by a too frequent use of instruments. The vote had gone against Dr. Barnes without the assistance of Dr. Shorthouse. It is never seemly to be the accuser of the brethren. Here it was, to say the least, unnecessary. The second part of our difference from Dr. Shorthouse has reference to our statement that professional opinion is in favour of a more frequent use of instruments, and that there are the gravest reasons for not leaving lingering labours to take their own course. It is somewhat surprising that Dr. Shorthouse should dispute either of these propositions. It is a matter of notoriety that the best practitioners in town and country perceive the danger of prolonged labour especially in the second stage, and that the forceps, or some instrument with a similar purpose, is used more frequently and with the most beneficial results. Let us change the basis of our opinion from common notoriety to something more definite. The late Dr. Thomas Edward Beatty, whose father took the lead in Ireland in the more frequent use of forceps, tells us that when he read in 1842 a paper on the use of the forceps before the Obstetrical Society of Dublin, a gentleman, who had been once Master of the Lying-in Hospital and for forty years had enjoyed one of the largest practices in Dublin, stated that he had *once tried* the forceps and failed. How different the case in Ireland now. But Dr. Shorthouse would like an English opinion, and, in spite of the name, will admit its force. Dr. Robert Barnes ("Obstetric Operations," second edition, page 53) says, "In no respect has modern midwifery given more satisfactory evidence of progress than in the extending practice of applying the forceps to obviate delay in the second stage of labour." We disapprove of meddling midwifery as much as Dr. Shorthouse does; but labour is a painful and perilous process if unduly prolonged, and as it is to the infinite credit of medical men to devise gentle and safe means of shortening it, it is to the credit of medical guardians to be generous in judging fees charged for the use of such means.

## "MEDICAL OPPOSITION TO IMPROVED REMUNERATION TO MEDICAL MEN."

To the Editor of THE LANCET.

SIR,—Dr. Shorthouse makes an assertion that the forceps are required in only 1 case in 600 or 700. This I take to be very far-fetched indeed. The statistics of the Royal Eastern Maternity, which he quotes, are not to be relied upon as being the rule, for they are founded on a condition of data the most favourable and the most unusual. Would we, for instance, compare the death-rate in a well-appointed fever hospital, with all its hygienic surroundings, its skilled nurses, &c., with that of the fever dens of the metropolis? With regard to the said statistics, I may point out that in the year 1820 we find the average of forceps cases 1 in 550, and the average of craniotomy cases 1 in 300. Every practical man is bound to admit that such a comparison of forceps with perforator is utterly at variance with his own experience. The statistics given by Churchill, when the sources of information are taken individually, show a divergence of opinion as to the use of the forceps, from 1 case in 10 to 1 case in 300. In Leishman's valuable work we have twelve conditions given in which the forceps may be required, and, as far as my experience serves me, one or other of those conditions will arise in about 1 case in 30. I can give the exact particulars of 15 cases in 330, in which their use was imperatively demanded to save mother or child, or both; whilst I can add 11 other cases where I used them to terminate a protracted labour, which reason I hold perfectly justifiable, not only in the interests of the mother, but also those of other patients awaiting my services. Dr. Shorthouse must bear in mind that the parish doctor is bound to discharge duties other than obstetric ones, and also that in the poverty-stricken homes where he goes he cannot leave his patient in suffering upstairs whilst he adjourns to the drawing-room or the library. Amongst the poorer classes the doctor is sent for only as a *dernier resort*, in the belief that he can do something more to relieve the sufferer than the friendly neighbour or midwife who nurses the patient has done.—I am, Sir, yours, &c.,

Oct. 2nd, 1882.

HENRY LOVE, M.B. Univ. Dub., &amp;c.

To the Editor of THE LANCET.

SIR,—In Dr. Shorthouse's letter on this subject last week there are two conclusions drawn which appear to me to be entirely fallacious. In the first place, the large amount of "extras" is held to be a reason for considering the salary of Dr. Barnes sufficient. Now, to anyone conversant with the working of unions, it must be well known, seeing the comparative unfrequency of cases that can be charged for as "extras," that a very great amount of work must be done in the ordinary way. The amount of "extras" seems to me to be an argument in favour of the salary being increased. In the second place, Dr. Shorthouse's reasoning in the matter of the statistics of forceps cases is eminently misleading; for, in the majority of unions, an order is only given when a midwife is unable to complete delivery, or, when from some previously ascertained cause, a bad labour is anticipated. A medical neighbour of mine, who holds a large union appointment, told me only the other day that it was the exception in his case to get a parish midwifery case where instrumental interference was not necessary.

Everyone will agree with Dr. Shorthouse as to his right as a guardian in checking over-charges on the part of his medical officer; but I venture to think he is not justified in using statistics in the way he has done without some explanation, for it is evident that such statements must cause that part of the general public who may read them to look upon Dr. Barnes as either a designing man or a bad practitioner.

I am, Sir, yours faithfully,

Shipdham, Oct. 2nd, 1882.

IRVINE K. MILNE.

To the Editor of THE LANCET.

SIR,—In your last issue Dr. Shorthouse expresses himself utterly astonished at your statement as to the more frequent use of the forceps in midwifery practice, and asks for some obstetric authority to support it. Will one quotation suffice to lead him into fresher fields of inquiry? On the first page of Dr. Playfair's second volume on the science of midwifery, he will find these words:—"Less than thirty years ago the forceps were not used more than once in 310 labours, while, according to the report for 1873, the late master (Rotunda Lying-in Hospital) applied them once in eight labours."

In the later volumes of the Dublin Obstetrical Society he will find ample corroboration of your assertions and also in a report of the discussion in the London Obstetrical Society, published in THE LANCET, vol. i., 1879, p. 689 *et seq.*, and vol. ii., p. 93.

I am, Sir, yours obediently,

Cambridge, October 4th, 1882.

ROBT. N. INGLE.

*Medical Etiquette.*—The advertiser and the advertisement are alike beneath notice.

R. H.—We know nothing of the case or of the person named.

## INTRA-VEINUS INJECTION OF FLUID IN SEVERE HÆMORRHAGE.

To the Editor of THE LANCET.

SIR,—Transfusion is, under ordinary circumstances, impossible, and we must all welcome the substitution of a practicable operation. Dr. Jennings's plan (particulars of which appeared in your last issue) might be still further simplified by using as an injection water with salt and brandy, and having a cannula which could be fitted to the common obstetric syringe.—I am, Sir, yours faithfully,

Leeds, Oct. 2nd, 1882.

PHILIP FOSTER, M.D.

## STATISTICS OF SUICIDE IN PRUSSIA.

ACCORDING to details from official sources which have recently been published in the German press, suicide is on the increase in Prussia, the annual proportion of self-inflicted deaths per 100,000 of population having risen from 13 in 1880 to 18 in 1880. The manner in which these suicides are carried out does not seem to have varied much, with the exception of a greater preponderance of poisoning amongst the female cases. May, June, and July are the months most fatal in this respect. The number of suicides in each period of human life seems to increase with more or less regularity until the stage between fifty and sixty years of age is reached, which shows the highest proportion. There is an excess of deaths shown for the period between twenty and twenty-five years of age; still it does not alter the general fact as to the later portion of middle-age showing the most cases of suicide.

*M. D. Edin.*—The cases are somewhat different. The Edinburgh College of Physicians has lately determined that an examination shall be passed by candidates for the membership, except in certain cases. Only members of one year's standing are eligible as Fellows, who are elected by ballot. In the College of Physicians of London, too, members only are eligible to the Fellowship, and members are elected after examination. Here also the appointment of Fellows is rather a process of selection than of election.

## "THE POSITIVE OR RATIONAL TREATMENT OF GONORRHOEA."

To the Editor of THE LANCET.

SIR,—In reply to the kindly notice of my letter on the above subject by "C. H. W.," with a request for further information, allow me to say that, regarding as I do this ailment as an inflammation due to specific causes for which there are specific remedies, I know of no earthly reason why, excepting those to which I will here briefly allude, its cure should not be reasonably expected and effected within such limits of time as are demanded for the cutting short and treatment of simple ophthalmia, &c., these several drawbacks being—1st, the heastly and objectionable character of the medicines given, which effectually sicken the patient, and make him dread and refuse to take the remedies with that perfect regularity which is absolutely and essentially necessary to its early subdual; 2nd, the utter want of sympathy manifested by most practitioners with young patients when they happen to have got into trouble of this character—a sort of holding aloof from them, which folly has the undoubted effect of driving them into the hands of druggists and advertising quacks, who lose no opportunity of cultivating the impression that medical men do not understand this class of ailment; 3rd, the not unfrequent want of means to meet the high charges in ready money demanded by medical men (who very properly decline to allow accounts to run on with men who, being as a rule unmarried, have no settled home, and thus offer no security for payment); whilst, 4th, there always exists the possession of a consciousness that in going to the doctor they may be recognised or watched—a suspicion which haunts them, and not unfrequently deters them from that steady perseverance which is so absolute a necessity if early cure is to be expected or effected. From long experience I am certain that a single dose of medicine missed is actually detrimental to an early cure; the late Dr. Peatson, of the Manchester Lock Hospital, seldom or never failing to cut the ailment short by drachm-doses of fresh cubebs given in cold water every three hours of the waking day, and this entirely without the use of any injections. Finely ground cubebs are not very objectionable to take, excepting for their bulk, being infinitely preferable to the smallest dose of balsam or any other preparation with which I am acquainted, the much belauded alkaline solutions of balsam, buchu, &c., being enough to turn the stomach of the typical horse of which we hear so much, and certainly expensive boilings and distillations, against the purchase or use of which, from practical experience, I would warn my brethren. Now, whenever gonorrhoea patients come to me, I distinctly give them to understand that I will not undertake their cases unless they are prepared to take a bottle of medicine daily for at least two or three weeks. For this course I kindly, but firmly, give them my reasons, not the least of which are that, having before they came to me been under treatment (for medical men seldom get these cases at first hand), I will not allow them to play with me as they have done with my predecessors, nor will I give them room after a certain time of desultory trial with me to go away and tell "some other man" I cannot cure them, whilst the fault of non-cure lies entirely with themselves. For the rest, I try to give them confidence, enter into sympathy with them, arrange the method of fetching the medicine, try to meet their circumstances of payment, and thus, in ordinary cases, never fail in shortly proving to them by their steady improvement the absolute certainty of a speedy cessation of the discharge, scalding, and other evidences of an existent inflammation, which surely yield to those common-sense remedies which patients have a right to expect from the youngest qualified practitioner.

And now as to treatment. I always recommend the wrapping round the glans penis an inch wide piece of lint several inches long, held lightly on with thread, which lint I order to be kept constantly wet with cold water. This usually prevents sensitive erections, and the pain attendant on the chordee, which is so much to be dreaded. For my empiric recommendation of five grain doses of the iodide of potash, all I can say is that, besides its solvent influence on the essential elements of the powder, I can but further refer my brethren to its well-recognised

action on the various mucous surfaces, as evidenced by the discharges to be noticed very frequently from the nostrils, eyes, &c., when exhibited for rheumatism, &c.; but whatever its action in combination with full doses of cubebs, I believe it to be simply invaluable in subduing and killing the poison of gonorrhoea, and this I assert after a very extended experience of its use. Personally I do not believe that any number of cases of this ailment occurring to the same patient have the slightest influence over each other. Each case stands simply on its own merits, each one being due to the contact of fresh poison. A cure is a cure, and there is an end to the business. Protracted cases are neglected cases. A patient may have it twenty-eight days, twenty-eight weeks, or twenty-eight months, just accordingly as he proceeds to get rid of it.

With regard to your correspondent's inquiry as to whether gleet is contagious or not, I answer if gleet is, as I understand it to be, a thin, sanious discharge left after a protracted gonorrhoea—such slight discharge as is to be noticed occasionally and especially in a morning—then undoubtedly it is; and a medical man does a most monstrous thing when he recommends or allows a patient to marry or have coition with his wife while the slightest trace of any such discharge exists.

I am, Sir, yours, &c.,

TROCAR.

Sept. 27th, 1882.

*Mr. Guesdon.*—We are not aware. Probably the information may be obtained from the publisher of the book mentioned.

*Auld Reekie.*—The papers, we believe, are not published, and can be obtained only through private sources.

*Mr. John Gill's* (Bangor) communication arrived too late for insertion in our present number. It shall receive attention next week.

*Mr. Robert Jones's* cases will be published shortly.

## BELLADONNA POISONING.

To the Editor of THE LANCET.

SIR,—A few notes of a case of this nature, which occurred in my practice lately, may be worth recording.

A little boy, four years of age, drank part of a solution of extract of belladonna, which was being used by his father for an affection of the eye; I could not ascertain exactly the strength of the lotion, but was told that a piece of the extract, "about the size of a bean, was dissolved in a little hot water." I first saw the child at 4 P.M., an hour after the poison had been taken; he then presented no unusual appearance, except a little suffusion of the eyes and restlessness. An emetic had already been given, followed, after vomiting subsided, by a strong aperient. At 8 o'clock I saw him again. He now showed rather alarming symptoms; the pupils were dilated, the face, upper part of chest, and ankles were congested and swollen, he had slight delirium and frequently recurring convulsions, the tongue and mouth were parched, and the temperature was high. A warm bath was ordered and small doses of brandy. I next saw him at 9.30, when all the symptoms were aggravated except the convulsions, which were not so strong; the pupils had now become completely dilated, delirium increased, and the whole body was intensely red and tumefied. Earlier in the evening one dose of opium had been given, but I now resolved to put the boy under the influence of the drug; with this view, three minims of tincture of opium were given every quarter of an hour for two hours. At 12 o'clock the convulsions had almost ceased, the delirium had somewhat abated, and the pupils were less dilated, but not contracted; the child was now becoming drowsy and shortly afterwards slept; the sleep being quiet and the breathing free, he was left undisturbed. At 5 A.M. he woke up, asked for water to drink, and again dozed off to sleep. When I saw him at 9 he appeared well, but still a little drowsy. In the evening he had completely recovered and was running about the room.

I am, Sir, yours truly,

J. D. MILLER, M.B. Edin.

St. Anne's-road, Notting-hill, W.

*Mr. T. Richardson.*—The College of Physicians and Surgeons of New York is above reproach.

*Mr. Arthur Price.*—Our correspondent had better make application to the Secretary to the Post Office.

*Dr. James Nicholls.*—The subject is referred to in another column.

## "MORPHIA POISONING BY HYPODERMIC INJECTION."

To the Editor of THE LANCET.

SIR,—I read with great interest Mr. Hill's case of the above. It will be seen from the account of the case that the patient was suffering from cardiac disease. I have always used morphia subcutaneously with great caution in cardiac cases, as I believe such patients are very susceptible to its influence, and this case would seem to corroborate the idea. I have certainly seen one-sixth of a grain of morphia subcutaneously produce considerable drowsiness. In cardiac dyspnoea I have found one-twelfth of a grain of morphia subcutaneously relieve the symptoms and give a night's rest, and do not like to give a larger dose.

I am, Sir, yours faithfully,

M.D.

Oct. 2nd, 1882.

To the Editor of THE LANCET.

SIR,—In reference to the case published by Mr. Hill in THE LANCET of last week, may not an explanation of the evil effect of the administration of an opiate be found in the pathological changes in the kidneys which are usually associated with valvular disease of long standing?

I am, Sir, yours truly,

Heckmondwike, Oct. 2nd, 1882.

JAMES TURTON, M.R.C.S.

## THE TYPHOID OUTBREAK AT DRYSDALE, AUSTRALIA.

DR. J. G. CARSTAIRS, medical officer of health for Billaraine shire, has reported to the local board on this epidemic. The report, as it appears in the *Australian Medical Journal*, is brief, but states the investigation to have been careful and minute. All the ordinary causes of typhoid outbreaks having, in the opinion of the reporter, been excluded, he concludes there was "ample cause for its appearance in the season," which has been exceptionally hot and dry, and marked by sudden alternations of temperature.

W. F.—As far as we know, no observations on the boiling point of milk have been recorded. No doubt it varies with the composition of the milk. The only temperature that could be observed would be the point at which the boiling commenced. The thermometer would of course rise as evaporation went on.

## "TREATMENT OF EPILEPSY."

To the Editor of THE LANCET.

SIR,—In reply to your correspondent, "Alpha," I can advise him from personal knowledge to try the treatment of epilepsy recommended by Professor Ball of Paris. It consists of the simultaneous administration of the bromides, with oxide of zinc and belladonna.

The formulae are as follows:—1. Bromide of sodium and bromide of ammonium, of each ten grammes; water, 300 grammes. Begin by taking four tablespoonfuls daily in an infusion of valerian, and increase to eight or ten daily. 2. Extract of belladonna and oxide of zinc, of each one gramme. Make forty pills, of which two are to be taken daily. In obstinate cases they may be increased to four. 3. A drastic purge once a week.

Two years since I was asked by a lady to prescribe for her nephew in Algeria, whose father had forwarded a very clear description of his son's case, wishing for further advice. Four epileptic attacks of a most unmistakable character had occurred within the previous three months, the last one being followed by heavy sleep and subsequent prostration. In the opinion of the local practitioner the attacks were due to an "excess of health;" he considered that the young man (age nineteen) had *tropé de santé*, and recommended marriage as a fit and proper exortory. I am at a loss to conceive upon what grounds he based this theory, for it was expressly stated in the father's report that the patient was perfectly free from any vicious proclivity. It is almost needless to say that I put my veto upon the matrimonial project. The medicinal part of the treatment prescribed was comprised in the preceding formulae, and this was supplemented by a few hygienic and dietetic suggestions. Ten months later the same lady called to tell me that the treatment had been completely successful, the patient having been entirely free from any recurrence of his malady.

I may mention that I submitted the father's report quite recently to Professor Ball, who agreed with me that it was an undoubted case of epilepsy. Should your correspondent think it worth his while to pursue the subject further, he will find it fully developed in a recent Paris thesis by Dr. G. Boyé, on the Treatment of Epilepsy, and also in Nos. 1 and 3 of *L'Encéphale* for 1881.

Two other plans have been recently recommended, but with these I have no personal acquaintance. The first consists of the subcutaneous injection of curare. Dr. Kunze has so treated thirty-five cases with nine successful results. The solution used is—curare, fifty centigrammes; distilled water, five grammes; hydrochloric acid, one drop; one-third to two-fifths of a syringe-full to be injected every fifth day. The second is the ligature of the vertebral arteries as practised by Dr. W. Alexander, who contributes a paper on the subject to the last number of *Brain*. The thirteen cases related in the periodical, and in an article which appeared in the *Medical Times and Gazette*, Nov. 19th, 1881, are certainly most encouraging.

To conclude, I would refer "Alpha" to Dr. Gowers' monograph on Epilepsy. It is by far the best treatise on the subject of modern date.

I am, Sir, yours obediently,

Paris, October 2nd, 1882.

OSCAR JENNINGS, M.D.

To the Editor of THE LANCET.

SIR,—I beg to reply to your correspondent, "Alpha," who seeks for information relative to the treatment of others who have had experience in cases of epilepsy.

I have had not a few persons under my care suffering from that malady. I have found chloral hydrate in combination with either bromide of potassium or bromide of ammonium the very best line of treatment. It is advisable to vary the treatment by substituting occasionally for the chloral a mixture of belladonna with spirits of ammoniated valerian and tincture of lavender, or solution of strychnine, spirits of chloroform, and quinine, more especially if the patient shows symptoms of debility and loss of muscular power. The bromides must then be stopped for a period. Of course the secretions must be attended to, diet, &c., and moderate exercise and very little, if any, stimulants. I have a gentleman now under my charge who had epileptic convulsions a short time back, requiring six people to hold him, which I stopped by injecting morphia, &c., into his arm. Another man of powerful build and constitution I had to give 170 grains of chloral in thirty-six hours before I could arrest the fits and procure sleep. After six hours continued rest he woke up quite restored. The treatment was somewhat heroic and caused me much anxiety, and I would not care to repeat it, but trust to the atropia capsules and morphia.

I am, Sir, yours faithfully,

Sarratt House, Sarratt, Oct. 3rd, 1882.

J. WRIXON.

## THE F.R.C.S. EDIN.

A CORRESPONDENT, who is pleased to sign himself *L.R.C.S. Ed.*, has chivalrously undertaken to defend the practice followed by the authorities of his College of selling their diploma of Fellow. He has doubtless eased himself by penning his lucubration, in which such choice expressions as "intense hatred of Edinburgh," "to throw dirt at the Edinburgh Corporations," "paltry gossip," "cockney minds," "the jealousy of London, a city where the art of teaching is simply unknown," give piquancy to what would otherwise be a silly tirade of abuse, misrepresentation, and error. It is needless to pursue the matter further.

## COTTAGE HOSPITALS IN AMERICA.

DR. C. A. HART, of Plainfield, New Jersey, in a communication to the *New York Medical Record*, claims the distinction of being a pioneer in the cottage hospital movement in the States for the Mecklenburg Hospital of Plainfield. The building, says Dr. Hart, combines the latest known advances in hospital architecture, accommodating twenty-five patients. The cost of the building was about 5000 dollars.

*Enquirer*.—Even under the circumstances it would be an unseemly thing for a practitioner to apply for appointments held by another medical man.

## "A DISAGREEABLE DUTY."

To the Editor of THE LANCET.

SIR,—Mr. Wise's letter in your last issue makes charges of intentional and ostentatious discourtesy against me, in my capacity as house-surgeon, which are, to say the least, inaccurate.

I did my duty to the patient and listened much more politely to Mr. Wise's opinion than either his manner to me, the professional knowledge he displayed, or the qualifications he possesses would call for. Mr. Wise is not registered and his name does not appear in the Medical Directory, and though he signs himself M.D., he can scarcely expect to be considered a brother professional. Mr. Wise ought to have presented his card, and should certainly have had the politeness to remove his hat instead of wearing it the whole time he was in the hospital.

The patient was suffering from an incised wound of the forearm, dividing the ulnar artery, which was quite superficial, and should have been secured by Mr. Wise at once. The radial was not injured, as he asserted in our receiving-room, and it certainly was not then and has not since become necessary to amputate the limb, as suggested at the time by him.

Mr. Wise has omitted to state that I offered that he should accompany the patient into the ward, and that, should he desire to watch the case, he would be very welcome to do so. I need scarcely add that no one at this hospital would willingly be discourteous to anyone.

I am, Sir, yours, &c.,

London Hospital, E., Oct. 3rd, 1882. R. HINGSTON, M.R.C.S., &c.

*Students* has not enclosed his card.

*Mr. Mussey*.—It would be contrary to our rule.

*Mr. Donald McAlister*.—The suggestion shall have attention.

## THE EFFECT OF LIGHT IN AIDING SNEEZING.

To the Editor of THE LANCET.

SIR,—For many years past I have noticed that when I feel that uncomfortable sensation of wanting to sneeze and not being able to, I have only to go to the light and look at a bright sky or white cloud, or, best of all, the sun, and the effect is magical in producing a comfortable sneeze. I never take snuff. I have noticed this effect of light in inducing sneezing in other people. Can you explain its action?

I am, Sir, yours, &c.,

Sept. 28th, 1882.

A LAYMAN.

*Scrutator*.—We cannot express an opinion on conduct, of the motives for which we are so uninformed as in this case. A bare statement of the facts might be inserted.

*T. C. D.*.—No card enclosed.

## THE CONTAGIOUS DISEASES ACTS.

To the Editor of THE LANCET.

SIR,—Would it not be a good thing if some of your chief medical authorities on this question were to invite the clergy to a conference, or to hear papers read upon this subject? I believe the majority of my clerical brethren know little or nothing of the aim and objects of the Contagious Diseases Acts, and that if they did know more about them they would, with you, advocate their extension.

I am, Sir, yours truly,

Margaret-street, W., Sept. 30th, 1882.

ARTHUR BRINCKMAN.

*Mr. A. E. W. Cason*.—Apothecary.

*C. Y. B.*.—1. No.—2. We are not aware.

## CARFERAL.

To the Editor of THE LANCET.

SIR,—Will you or any of your subscribers kindly give me some information about the Netley filtering medium, Carferal? Where is it to be obtained, at what price, and what is the best mode of using it?

I am, Sir, yours faithfully,

Chiswick, Oct. 2nd, 1882.

ÆSCULAPIUS.



### Medical Diary for the ensuing Week.

## An Address ON THE ANTISEPTIC TREATMENT OF DISEASES OF THE LUNGS.

*Delivered at the Inaugural Meeting of the West London  
Medico-Chirurgical Society.*

By I. BURNEY YEO, M.D., F.R.C.P.,  
PHYSICIAN TO KING'S COLLEGE HOSPITAL ETC.

GENTLEMEN,—When your secretary, Mr. Keetley, did me the honour of inviting me to bring before this Society the subject of the Antiseptic Treatment of Pulmonary Diseases, I confess I at first hesitated to accept that invitation. I felt that although I had given some attention to the subject, my time was at this moment so fully occupied, that I should not be able to deal with the subject so fully and completely as its importance merited, or as was due to a Society so learned and influential as yours. I also felt that it was a subject which was only just beginning to be looked at from something like a firm scientific standpoint, and that from this point of view the question of the antiseptic treatment of diseases of the lungs was in its initial stage, a stage certainly full of suggestions for future investigation, but the work of examination, of experiment, of comparison, of testing, and of criticism—serious, helpful criticism,—for the most part had yet to be gone through. It might then, I thought, seem premature to introduce this subject to this Society for discussion in its present stage; but when I reflected on the intrinsic importance of the subject itself, when I thought of the vast interests, direct and collateral, involved in its discussion, and of the power and influence the members of such a Society as this would possess in collecting evidence bearing upon it, I yielded to your secretary's request, relying on your kind indulgence to excuse the merely suggestive character of this address and the many shortcomings and defects which future research alone can supply. It is remarkable when we begin to look into the history of almost any subject, how little there is that is new in its facts and its phenomena. What is new resides in our mode of regarding them, our comprehension of them, our application of them. The truth is always there in the facts and phenomena of Nature, but it is often only discovered after ages of observation, of experiment, and of opposition. Of opposition: how remarkable is this spirit of opposition! how remarkable has it been in the history of one of the latest and greatest triumphs and discoveries in the art and science of surgery, the antiseptic system. As if the work of discovering truth in this universe was not hard enough, men are perpetually encountering from their fellow-men the most ardent opposition in this task. In proof of what I say I need only point to the present agitation on the part of a well-known Society against all experiments on animals—a Society which, reversing the exclamation of the dying Goethe for "more light," might be fittingly designated "The Society for the Maintenance of Darkness."

The idea of an antiseptic treatment of pulmonary diseases is certainly new in our present mode of regarding it, in our comprehension of the phenomena with which it is concerned, and in the extended application which we propose to give to it. But the thing itself is not new, the phenomena are not new. The adoption and the success of antiseptic methods of treatment of pulmonary affections have been recorded again and again, and they have, again and again, met with opposition, and not rarely with a sort of sneering contempt. This, gentlemen, you may be satisfied will never be the case again, and for the following reason. Hitherto, or till quite lately, such efforts were empirical, and without any strictly scientific basis, but now our antiseptic methods are founded on scientific knowledge—on principles, principles that have been evolved from a series of most patient and at the same time most fruitful investigations, which will go far to make this latter half of the nineteenth century the most illustrious in the history of medical science. A very few historical illustrations will suffice to prove what I have said about the antiquity of the fact of the antiseptic

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treatment of pulmonary affections. Hippocrates and Galen used to advise the inhalation of balsamic vapours in pulmonary affections, and the latter used to recommend phthisical patients to settle in the vicinity of Vesuvius and Etna, where they could inhale sulphurous vapours as well as sea air. But we will confine ourselves to the history of pulmonary therapeutics during the last hundred years, and one of the most noticeable facts in this period is the frequency with which tar vapour has been advocated as of great value in the treatment of lung diseases. Dr. Rush of Philadelphia in 1787, Dr. Beddoe in this country about the same time, and Sir Alexander Crichton in 1817, all stated that they had met with great success in treating cases of phthisis by inhalation of the vapour of boiling tar, and Dr. Solis Cohen, in his excellent book on "Inhalations" in connexion with this testimony, says: "The use of tar vapours in phthisis deserves to be fully and systematically studied, so that safe indications may be laid down as to the character of cases to which it is most applicable." Between 1819 and 1830 the French physicians Gannal and Cottereau, and Sir James Murray in this country, reported excellent results from the treatment of cases of phthisis with dilute chlorine vapour. One of these had noticed that the workmen in bleaching factories with chest disease visibly improved, and another reported thirteen cases of phthisis cured by inhalation of chlorine, and Louis in Paris, and Dr. Elliotson and A. T. Thompson in London, spoke well of it.

In 1835 Sir Chas. Scudamore became an enthusiastic advocate for the inhalation of iodine vapours in phthisis, and after ten years' experience of its use he expressed himself as convinced of its remedial power. Piorry (between 1850 and 1860) also was an advocate for the continuous inhalation of iodine vapour in phthisis, and for this purpose he used to have several saucers containing iodine placed about the patient's pillow. He treated thirty-one patients in this way for two years; twenty were decidedly benefited, both as regards symptoms and physical signs; in seven cases both symptoms and physical signs disappeared, and four cases died. Later still Skoda used inhalations of the vapour of turpentine with much success in phthisis, pulmonary gangrene, and in catarrhal affections of the air passages.

I have selected these few illustrations almost at random from the history of pulmonary therapeutics to prove to you that I was right in saying that there is nothing new in the facts, and they also go towards disproving the statement that I have lately seen made by one or two writers in the journals of the small amount of success that has attended the antiseptic treatment of phthisis.<sup>1</sup> I suppose I have as much right to speak on this subject as any of those writers, for during ten years I saw personally over 27,000 applicants in a hospital devoted to the treatment of this affection, and of all the methods of treatment of which I have had any knowledge or experience, those into which some antiseptic measure entered as an important element were certainly attended with the best results. The difficulty, however, always was to secure anything like a proper application of an antiseptic agent; and after trying various devices for this purpose, I at length devised a very simple method of continuous inhalation, which answers the purpose better than any other with which I am acquainted. I have described this elsewhere,<sup>2</sup> and you can examine the specimens of the little apparatus I have devised for this purpose that are on the table.

Let me here make a remark which as practical men you will at once see the force of. It is useless to attempt to test any method of treatment by applying it to cases of advanced phthisis. In such cases the mischief is done. No antiseptic agent will cause numerous suppurating cavities to close up and heal, or replace lung tissue that has been destroyed by progressive ulceration and disintegration, or remove extensively disseminated tubercular and inflammatory infiltrations. And yet how many cases of phthisis come before us already in this state. It is greatly to be regretted that certain physicians should ever have pretended to have cured such cases, and that others should seriously have tested their statements by the application of any special method of treatment to cases so advanced and so hopeless. In order that any case may be cured by any method of treatment the first and essential condition is that it should be curable. And cases of phthisis too often come for the first time under our observation long after the possibility of cure is passed.

<sup>1</sup> In my recently published Lectures on Consumption I have collected a mass of contemporary testimony in favour of this treatment.

<sup>2</sup> Lectures on Consumption. London: J. & A. Churchill.

But the question for us to examine and to satisfy ourselves about now is this, Is an antiseptic system of treatment applied to lung diseases true in principle? If we can convince ourselves that the principle is a true one, modes of application and developments in practice will be certain to follow. In the first place, then, let us inquire, What is antiseptic treatment? Antiseptic treatment applied to the lungs is one or both of two things: First, it is the prevention of a hurtful, poisonous (septic) agent getting to the lungs from without; and, secondly, it is the destruction, or the limitation of the action of a hurtful poisonous (septic) agent already within them.

And now let us ask ourselves if there is any *a priori* reason why it should not be possible to satisfy both these indications. It was argued warmly not many years ago, as a necessary preliminary to this discussion, that it was impossible to bring medicinal agents into contact with the pulmonary surface by inhalation. That argument has been abundantly disproved by the most varied and elaborate experimental investigations.<sup>3</sup>

So, then, supposing a hurtful septic agent to exist in the lungs—and in phthisis the presence of such an agent has been demonstrated beyond all question, and its virulently septic quality established—the problem of the antiseptic treatment is this: Do we possess, or can we discover, any agent which we can convey, in the form of gas, vapour, or solution into the lungs which shall be inimical to the life and activity of this septic body? Or can we place our patient under any possible conditions of life which shall prove hostile to its growth and development? It would be illogical and absurd in the extreme to deny the possibility of such a method, or of the discovery of such an antiseptic agent, if we do not already possess one or more. The second indication must therefore be admitted to be quite possible. Now, let us turn to the first indication. It is not only necessary to destroy any septic agent that may be already in the lungs, but we must be able to prevent septic agents from entering them with the respired air. Now, this may be accomplished in two ways: (1) We may place our patient in an atmosphere which by examination we know to be absolutely pure and free from septic particles; or (2) we may diffuse through the air he breathes an agent hostile to the life and activity of any septic particles there may be in it. This, again, is a true antiseptic treatment, and it is certainly possible in either of these two forms. If then we limit ourselves (which we had better do on this occasion) to the consideration of the treatment of phthisis, we have two things satisfactorily proved. First, there does exist a hurtful specific septic agent in the lungs. Second, an antiseptic treatment is possible. There is no beating the air in this. Gentlemen, we are here on sure and certain footing; we have reached a principle. This is only the first stone of the edifice we have to build, but it is the foundation stone. The next thing for us to do is, by patient labour in the way of observation and experiment, to apply this principle. Our object is to discover what agents there may be within our reach capable of being administered without inflicting injury to the pulmonary tissues, which may have the power of destroying, or neutralising, or arresting the activity of the septic organism, which seems to be the operative cause in the origin and propagation of phthisis. I am disposed to believe that other common forms of disease of the respiratory organs have a septic origin also, and call for antiseptic treatment, but we must for the present concentrate our attention on this subject of phthisis.

Already we have abundant and incontestable proof that pure air—pure, cool dry air, in unlimited amount—is such an antiseptic agent. Wherever such air is found—on the high table-land of Mexico, in the elevated valleys of Switzerland, on the Kirghiz steppes of Asiatic Russia, in the pine forests of Central Germany, and on the open sea—wherever men live a life in the open air, away from the emanations of cities, and from too close contact with humanity,—in all such places we hear of consumption becoming arrested and cured. The bacillus tuberculosis seems to love hot, moist air, and air freely charged with the exhalations of humanity; warmth and moisture seem to provoke it into special activity, while dry air at a comparatively low temperature seems to be inimical to it. Whoever has watched, as I have done, a large number of cases of phthisis in this country, must have been struck with the frequent occurrence of rapid advances

in the disease during the first warm moist days of spring and early summer.

And here again I am tempted to quote a passage to which my attention has been recently called by my friend, Dr. Frank of Cannes, to show how true it is that the facts we are discussing are not new. It occurs in a very able book by a German writer, "Hausrath on New Testament Times," an English translation of which has been published by Williams and Norgate. He is alluding to the mountain air of the fortress of Masada, a mountain fortress on the borders of the Dead Sea, where John the Baptist was imprisoned. There, he says, Josephus tells us provisions retained their freshness for over 100 years "because the air at the altitude of the fortress was purified from all earthly and corrupt particles!" It is precisely such air—air purified from all "corrupt particles"—that we require for our phthisical patients; and if we cannot send them where such air is naturally found, we must artificially create for them an antiseptic atmosphere which they can breathe where they are; and if we are to perpetuate consumption hospitals, it is with such an atmosphere we must fill them. But the time will probably come when instead of crowding a number of consumptive patients together in the centre of a populous district of a crowded city, we shall acquire for the same purpose a good-sized pine wood with a dry subsoil a few hundred feet above the sea-level, and build a certain number of scattered cottages through the wood, and hang up a number of hammocks between the fir trees and send our consumptive patients there to be aired into health! In wet weather they would make up fires of fir wood and pine cones, and so fill their cottages with balsamic and antiseptic vapours; and with open windows and a dry soil they would find the wet weather less injurious to them there than in towns. But we have other antiseptic resources more manageable than a pine wood. And here let me call your attention to the peculiar anatomical conditions of the respiratory organs, by which they are rendered peculiarly prone to septic attack, and specially needing of antiseptic defence. The lung is the only deep-seated internal organ in the body which is freely accessible to the surrounding air. Perpetually the outer air is passing in and out of the lung, and thus septic particles in the air can readily reach the pulmonary surface, which is most richly supplied with absorbent vessels. But if, owing to the anatomical disposition of the parts of the lung septic bodies can readily reach it from without, for the same reason antiseptic particles can also be readily brought into contact with it, either in the form of gas, or vapour, or fine spray and mist, or even fine solid particles.

It is needless to offer you any proof of this. You will, I take it, all accept this statement as proved; and you are no doubt familiar with various forms of apparatus devised for the purpose of carrying out such applications. But though we may sterilise or destroy in this way such germs or microbes as may commonly occur in the surrounding atmosphere, and so purify and render harmless the air that passes in and out of the lungs in respiration, it does not follow that the agents we now know to be germicides, such as carbolic acid, eucalyptol, thymol, &c., and which are used by surgeons on account of that property, are necessarily destructive of the tubercle bacillus. Analogy would lead us to conclude they might be, and the experience of their use in the hands of many competent observers,<sup>4</sup> tends to strengthen this view. But we must not rest satisfied with this; we must pursue our studies of the life-history of the tubercle bacillus until we have discovered what is the particular agent or agents which are especially inimical to its development and activity.

There is another difficulty which we must be prepared to encounter—the difficulty of inducing patients to submit to a continuous process of disinfection. It is by no means easy to induce phthisical patients to wear, almost continuously, even so light and simple an appliance as the one I have shown you, and it would be infinitely more difficult to get them to inhale a spray for many hours a day, supposing it should be discovered that the best antiseptic is soluble in water but not vapourisable at ordinary temperatures, as was the case with the benzoate of soda of which so much was expected by some. But I believe this difficulty would almost entirely disappear if our knowledge became absolutely precise, and our confidence in our remedy completely assured. If we could say to our patients "by this means you will be cured,

<sup>3</sup> Vide Oertel: Respirator'schen Therapie.

<sup>4</sup> Lectures on Consumption, Appendix to Lecture 2.

and by no other," this difficulty would, I am persuaded, almost cease to exist. Hence, however, we see the obvious advantage of being able to remove our patients to an antiseptic atmosphere where they cannot help inhaling the curative agent continuously.

And now I must bring these merely suggestive observations to a close. In the foregoing remarks I have chiefly endeavoured to show that the idea of an antiseptic treatment of lung diseases is based on scientific data, and that in principle it is established as a truth. What lies before us is to overcome the difficulties in its application. We should be encouraged in this work by the thought that whatever progress we are enabled to make we shall be furthering the labours of the great experimental pathologists of our times, the labours of men like Pasteur, Koch, and Lister. It is not given to everyone to be enabled to work with a genius and an energy like theirs. But let me remind you that one of them—Koch—was a country doctor, a general practitioner, like many who are here to-night; and we may all do something towards transferring the influence of their intelligence and their genius, and in applying the fruits of their labours to the practical daily duty of healing the sick; and in spite of much disingenuous misinterpretation and foolish abuse we may be able to prove to the world that experimental pathology is in the very highest degree beneficent and philanthropic. For the first time we seem to have grasped a principle in the treatment, both preventive and curative, of a class of diseases which we have hitherto regarded almost with despair. Let us steadily work on the foundation which this principle supplies, the successful application of which must be attended with immense service to humanity and lasting honour to medical science.

## Introductory Address

DELIVERED AT

UNIVERSITY COLLEGE, LONDON,

*On the Opening of the Winter Session of 1882.*

By MARCUS BECK, M.S., F.R.C.S.

*(Concluded from page 561.)*

THUS, then, we have a large number of our students started on their medical education badly, and the consequence is that they spend a great part of their first year of study in learning how to learn, and doing that imperfectly. From want of training in generalisation and classification, their knowledge consists merely of a mass of disconnected details, and the strain upon the memory becomes correspondingly great. A thorough and clear comprehension of a subject is essential for its easy acquirement; and without some knowledge of chemistry and physics it is impossible to understand a great part not only of physiology, but of medicine and surgery also. The evil habit of thought which is cultivated by this irregular training in the early part of study frequently persists throughout the whole course, and the difficulty experienced by the student in passing the primary examination is exaggerated in the final, as that includes no subject like anatomy, in which mere memory is of more value than logical thought.

In order to obtain a double qualification, however, the student has to present himself for this examination at the College of Physicians or the Apothecaries' Hall, and it is very common for this to be done after the College of Surgeons is finished. Consequently we often find him preparing for examination in chemistry and botany some two or three years after he attended the classes on these subjects, and at a time when it is too late for him to derive that mental training from them which should have assisted him in his course of study. Some effort to remedy this evil has of late been made by the College of Physicians by the institution of the new examination to be passed at any time after registration. This, no doubt, is a step in the right direction, in so far as it encourages the student to pass his chemistry and botany at as early a period as possible of his medical study. But, on the other hand, it seems to be specially designed to encourage him to spend some time in a sort of modified

apprenticeship before commencing his work at a medical school. Now if the object were to re-establish the old prescribing druggist, as he was before the apothecary developed into the general practitioner, nothing could be better; but if the future licentiates of the College of Physicians are to be educated as men of science, the introduction of a period of desultory work without any proper teaching between school and college can do nothing but harm. The botany also, which he is to learn, is defined as medical botany. Now the only justification for retaining botany in the early part of a medical curriculum is, that of all subjects it gives the best training in the accurate observation of simple facts and in classification, and unless it is taught as a science with this object, quite irrespective of its supposed utility in medicine, it might just as well be omitted altogether. Although, therefore, the examination is doubtless a relief to the student, by enabling him to get rid of some troublesome subjects during his first year, it is not likely to do much to improve his training from a scientific point of view, and I believe it is only by an improved training that we shall be able to diminish the lamentable proportion of rejections which forms almost a reproach to our medical teaching. Up to the present time, however, the attempt to meet the higher standard required at the examining boards has been chiefly by increased quantity of teaching, and at the same time the mode of teaching has become more practical and demonstrative. At the time I was a student here there were no demonstration classes in anatomy, the class of practical physiology had not been instituted, and there was no class of practical zoology. Voluntary classes in operative surgery and bandaging existed; but the practical surgery class, as we now have it, was not founded till ten years later. At the hospital the only practical instruction given in surgery was the bedside teaching, supplemented by a few clinical lectures, rather theoretical than practical. In the medical wards students wrote reports on cases which were corrected by the professor of clinical medicine, but no classes had been instituted for practical instruction in the rudiments of medical diagnosis. Now we have changed all this, and practical classes crowd upon each other till it becomes almost impossible to find time for them all in the nine hours of the day during which the college and hospital are open. The practical classes in medicine and surgery have no doubt become necessary to replace the teaching that the student formerly received during his apprenticeship; but in other subjects they have been instituted solely with the view of improving the quality of the teaching, and enabling the student to reach the higher standard of knowledge required of him. The result so far, however, has not been to diminish the number of rejections. These still continue in unabated numbers, and will continue, I believe, as long as the present irregular system of education is followed by so large a number of our students. While we expect students to understand the most complicated mechanism in creation without a knowledge of mechanics, to understand the eye and ear without optics or acoustics, or respiration without knowing the laws of atmospheric pressure; while we expect him to understand the chemistry of digestion almost before he knows the difference between an element and a compound, I do not think we can hope for any real improvement in the results of the examinations. It is, I believe, only by a better preparation in science, and by a rearrangement of medical examinations in accordance with the laws of scientific education, so as to train the student to think, and to think well, that we can hope to get any real improvement. To this course, however, many objections have been raised on the grounds that it would add more subjects to the medical curriculum, which, in the opinion of some, already includes more than are necessary; that it would lengthen the period of medical study, and would add another examination to those with which the student is already burdened. Finally, there are some still to be found who deny the utility of science and the value of mental training.

To take these objections in order. First, that it would add another subject to the medical curriculum. I have before said that zoology, although forming an extremely valuable training for those who have time to avail themselves of it, is not essential, and there would be nothing to justify adding it to the ordinary course of medical study. Physics would therefore be the only subject which would be added to those already in the curriculum. Now at the present time, students are expected to know at their examinations all those parts of natural philosophy which apply to physiology, and to the explanation of various morbid

processes both in medicine and surgery. We cannot say therefore that it would be added as a new subject. It would be merely taught methodically, and would prove an assistance to the student in his course of study, rather than an increased difficulty. It is sometimes assumed by those who complain of the number of subjects in the medical curriculum, that the student is expected to learn each thoroughly. To learn any subject thoroughly is the work of a lifetime. All that can be expected from a medical student is, that he shall learn the general principles of the various sciences auxiliary to medicine, and shall attain such an amount of knowledge of each that he shall not be altogether lost when he has to apply them to practical medicine or surgery, and that if necessary he shall know what book to refer to for further information, where to look for what he wants, and when he has found it that he shall be able to understand what he reads. The objection therefore to a scientific course of study, that it increases the number of subjects in the curriculum, seems of but little weight.

With regard to the lengthening of the period of medical study, the objection also is more apparent than real. If the period of study were lengthened from four to five years, it need involve no hardship. The preliminary examination in general education may be, and very frequently is, passed at the age of sixteen. The most difficult of all the entrance examinations, the matriculation at the London University, is passed best by well prepared boys between sixteen and seventeen. Now all those who pass at this age must wait five years before they can obtain a licence to practise. To these, therefore, it would be no hardship to spend a year in the study of the preliminary sciences. Moreover, if it were understood that a year had thus to be spent, it would become the custom to send the candidate up for the entrance examination at the earliest possible age. Of course it is much better that the general education should be continued till seventeen or eighteen, but I am only discussing the case of those to whom it is of importance to gain a legal qualification at the earliest possible time, and for them the luxury of a prolonged general education must be dispensed with. It must not be forgotten in discussing this point, that a very considerable number of students are obliged through misfortunes at their examinations, to lengthen their period of study, sometimes to seven or eight years. The number of these unfortunates will probably in the future be greatly increased by the new regulation of the College of Surgeons, which places a compulsory interval of two years between the primary and the final examinations. To many of these, I believe, a period of compulsory training in science would prove a real assistance in shortening their time of study, by enabling them more easily to acquire the necessary knowledge. And supposing the period of study were actually lengthened by a year, we should still be only returning to the old period of apprenticeship, which lasted five or even seven years. The student himself should, perhaps, be the last to complain of any prolongation of the time of study, for his time at college will probably be the pleasantest part of his life. An examination now and then no doubt forms a hateful incident during its course, but the real troubles of life begin when the last examination is passed. An examination is no great trouble to a student if he is properly prepared for it, and the addition of a simple preliminary examination in science would, I believe, for the reasons I have already given, tend to make it more easy to prepare for those that follow.

Lastly, we have to consider the objections still occasionally raised to the modern system of education, that the value of mental training is more an idea than a reality; that science is of no direct use to the ordinary practitioner; and that, on the contrary, a scientific education tends to make a man unpractical. To deny the value of mental training seems to me to be evidence of want of it on the part of the person who does so. The argument usually employed is that men are to be met with who go through a thorough course of scientific training, and come out at the end as illogical as they began; and, on the other hand, it is not uncommon to meet with those whose scientific education has been defective, and yet whose mental faculties are developed to a high degree. The fallacy of the argument lies first in the assumption that those whose scientific training has been defective would not have been better had their minds been more correctly cultivated; and, secondly, in drawing the general conclusion that training is of no use, from the exceptional cases in which it has failed to produce the desired effect. I feel myself no doubt whatever that those men learn their medicine and surgery more quickly and more thoroughly who have under-

gone a proper preliminary preparation in science. Those who manage to distinguish themselves at examinations, and yet remain illogical and unpractical, are, as far as my experience goes, those possessed of a memory of unusual retentiveness, a faculty which is not necessarily associated with a high order of intelligence. There is, I believe, at the present time a hopeless idiot in Earlswood Asylum who possesses a memory of such extraordinary power that he could, if properly coached, be easily made to take first place in almost any competitive examination.

Of the value of science in the practice of medicine and surgery there can be no doubt. In the first place, to the ordinary practitioner chemistry, and a certain amount of natural philosophy, are essential if he is to undertake intelligently the practice of hygiene—now as important a department as either medicine or surgery. The post of medical officer of health is one, at the present time, open to every medical practitioner, and often furnishes a welcome addition to the somewhat narrow income of the country doctor. In this post he will be expected to undertake the simpler tests for adulterations of food and the purity of water, and he will be required to give advice on questions of ventilation, heating, and warming, and on numberless other subjects in which some knowledge of science is involved. But the innumerable applications of science to modern medicine and surgery are of no less importance. With regard to medicine I would not venture to speak, but I have no hesitation in saying that the wonderful advance which has been made in surgery during the last twenty years has been entirely due to the application to it of science and the scientific methods of investigation. During that period surgery has made more real progress than at any previous time in its history; and this progress has been chiefly due to the discovery of the nature and causes of surgical fever, and of spreading and infective inflammations. It commenced as late as 1866, by the application of Pasteur's discoveries to practical surgery by Mr. Lister. For centuries before this time the necessity of cleanliness in wounds had been well known, and antiseptics had been employed by all surgeons in their treatment down to the early part of this century; but so little were their properties understood, and so doubtful had been the advantages derived from their use, that at the time I was first a dresser in another hospital, twenty years ago, they had been almost completely abandoned, and wounds were treated either by the application of a dry dressing, which was removed when the smell became intolerable, or by placing over them a piece of lint soaked in simple water and frequently changed. Water alone, without the addition of any antiseptic, was used to wash away the discharges. It was only when the discoveries of Pasteur showed us that so-called clean water is in fact one of the dirtiest things in nature, that this treatment was abandoned. Yet while this treatment was being adopted, and it was possible to tell by the smell alone whether you were in a medical or a surgical ward, surgeons were constantly insisting upon cleanliness as the most essential feature in the treatment of wounds, so little idea then existed of what true cleanliness is. Dirt at that time, in the form of putrefying discharges, was considered inevitable; cleanliness consisted in clearing away the decomposing matter: the higher scientific idea of cleanliness, as consisting in the absolute prevention of decomposition, was impossible till Pasteur's discovery had shown to what decomposition is due.

About the same time that Mr. Lister was introducing the antiseptic system of treating wounds, Bergmann and others were, by carefully devised experiments, proving the fact that the high fever which then almost invariably accompanied all large wounds and severe injuries was due to the absorption by the surface of the wound of the chemical products of putrefaction contained in the decomposing discharges. The investigations into inflammation and the allied processes were at the same time establishing as a pathological fact the absolute necessity of an abundant decomposable exudation from the raw surface of a wound during the first few hours after its infliction. To provide a sufficient exit for this discharge by a proper system of drainage became, therefore, an essential feature in the scientific treatment of wounds. Drainage, like the use of antiseptics, was nothing new. Tubes made of metal, and tents of various kinds, were used centuries ago, but, as with the antiseptics, their use was not founded upon scientific principles; and in the anxiety to avoid the introduction of foreign bodies they were completely abandoned, so that twenty years ago such a thing as a drainage-tube in a fresh wound was hardly thought of. Empirical surgery had tried both antiseptics and drainage, and had abandoned



them as useless. Scientific surgery showed their real value, and although the present methods will undoubtedly undergo modification, these two great principles must remain as essential features of every mode of treating wounds. It is to the scientific mode of treating wounds that we owe all the marvellous progress of surgery during the last sixteen years. This progress is not to be judged of by the number of new operations that have been introduced into practical surgery, nor by the heroic nature of some of those recently performed, but rather by the improved results of the common operations, and the greater success that attends the treatment of common injuries.

The study of the unhealthy processes in wounds is still advancing in the hands of Koch and others, but there still remains much to be done. Unfortunately in this country the means of carrying on such investigations are surrounded by so many legal difficulties that we are obliged to trust chiefly to foreigners for new matter, but we can take our share in applying the discoveries of foreign pathologists to the practical treatment of diseases, and to prepare us for this a proper scientific training is a necessity.

That a scientific education tends to make the student unpractical is another argument sometimes used. It is but a poor compliment to our profession to assert that those practise it best who know least about the nature of the diseases they undertake to cure. The complaint as to the want of practical knowledge in the students educated on the modern system comes chiefly from the general practitioner, who asserts that the present student fresh from his college and hospital is of but little use to him as an assistant. If called upon to dispense he is ignorant of how to make his mixtures pleasing to the eye and palate, his pills are too big, his plasters too thick, and the parcels he makes up are badly folded and inelegant, and his knowledge of book-keeping is even more limited than his acquaintance with pharmacy. When a patient has nothing the matter with him he tells him so in so blunt a manner that he immediately seeks out another medical man, who will be a little more sympathetic with regard to his supposed sufferings. He looks upon every patient too much as a case, and fails in all those legitimate arts which are necessary to win the confidence of that most selfish and unreasoning of beings. A still more serious failing often shown by the modern student is, an ignorance of the various infectious diseases which are not admitted into general hospitals. There is no doubt, therefore, that the general practitioner has just cause to complain when asked to give a hundred a year to a man who, however well trained in medical and scientific knowledge, is totally ignorant of the business element which necessarily forms a part of our profession. He finds that he has to pay a man for learning from him that which in the days of apprenticeship he was handsomely paid for teaching. The only remedy for this seems to me to be in the hands of the general practitioner himself. He should refuse to give more than board and lodging to any man who has not had six months' experience of actual practice. Six months of such experience would be quite sufficient, and at the end of that time, I have little doubt, the modern student would practise his profession none the worse for possessing a better knowledge of the principles which guide his treatment.

One advantage of a proper scientific training, to which I have not yet alluded, is that it tends to fit every medical man to take his part in advancing medical knowledge, should he feel the inspiration to do so. The general practitioner is placed in circumstances which enable him to observe certain points in clinical medicine and surgery much better than the consulting physician or surgeon. He sees most of his cases from beginning to end; he can observe those preliminary symptoms which indicate the approach of grave disease; and he has the opportunity of verifying his own conclusions and those of such consulting physicians or surgeons as the patient may have seen. He has unusual opportunities of studying the influence of heredity, of occupation, and of locality on disease, so that, should he feel inclined, he has no lack of opportunity of prosecuting original investigations. A proper scientific training will teach him the method of conducting such investigations, the precautions necessary to avoid error and the utter worthlessness of opinions formed merely as the result of experience, and unsupported by accurately recorded observations. Such original research would be of all the more value, as it would, in most cases, be spontaneous, and undertaken purely from the love of the work, and not, as is so much the case in the present day, merely with the

view to say or do something new in order to obtain promotion either in a hospital or medical school.

Supposing it then to be granted that the best training for every student should include a preliminary education in science, how could such a scheme be carried out? In the first place, it is absolutely necessary that the examinations should correspond to the course of study. Taking sixteen as the age at which a boy could pass his preliminary examination in general education, he could then immediately turn his attention to science. There is no reason why this should not be done before leaving school. At Epsom Royal Medical College students are now prepared for the preliminary scientific examination of the University of London, and there ought to be no difficulty in preparing for a similar examination of a lower standard at any good school. If there were a demand for such education the supply would soon be abundant, and after passing the entrance examination the boy could, if necessary, be moved to some school where the required instruction was given; or, if his parents preferred it, he might at once enter at a college, and enjoy the advantages such institutions naturally possess. The examination in science might take place at seventeen. The subjects of the examination would be chemistry and natural philosophy, and either botany or zoology, or both. After passing this the student could commence regular medical study with a much better chance of making good progress from the very beginning. At the end of the second year, and at the age of nineteen, would follow the examination in anatomy, physiology, and materia medica, and perhaps in applied chemistry, and the remaining subjects at the end of the fourth year of study, when the student had reached the age of twenty-one. Part of his last year of study might doubtless with advantage be spent in receiving instruction from a general practitioner.

There seems nothing impracticable in such a scheme as this, but in order to carry it out it is absolutely necessary that the present disjointed system of examination so often followed, in which some subjects are passed before one examining board, and others before another, should be in some way made impossible. The conjoint scheme does not seem, however, to be as yet within the range of practical politics. The report of the Royal Commission which has just been sitting seems, in the absence of compulsion, to leave us much where we were before. In fact, the idea of a harmonious conjunction between bodies so different in tradition and in character as the University of Oxford and the Society of Apothecaries is, perhaps, somewhat Utopian. It is not, however, necessary for the whole seven licensing bodies of England to conjoin to produce the desired result, so far as the student is concerned. The universities have already expressed a willingness, and are, in fact, empowered to cease giving their graduates a legal right to practise. That they should thus be ready to give up one of their most ancient privileges makes it more to be regretted that they were not equally willing to renounce any direct part in the appointment of examiners, and in the management of the proposed conjoint examination. If the universities retired we should have left, as far as England is concerned, only the three corporations; and it at first seems rather surprising that these three bodies find it so difficult to sink their differences, and unite for the purposes of examination. This surprise will, however, be somewhat lessened if we look back at their history; and it may not be uninteresting to you if, in conclusion, I try, as shortly as possible, to trace how these three bodies have arisen, where we only want one, as I think a review of their history may tend to suggest a remedy for the evil.

In the early part of the reign of Henry VIII. the medical profession consisted of physicians who had received licences to practise both medicine and surgery, either from the bishop of the diocese or from the Universities of Oxford and Cambridge, but who were not united into any corporate body, and of "two several and distinct companies of surgeons, one called the Barbers of London and the other the Surgeons of London," the former having been incorporated as far back as the year 1461. Outside the profession were the apothecaries who kept drug-shops. These were under the control of the Grocers' Company, and had no legal right to practise medicine. In 1518 Henry VIII. granted letters patent, constituting the College of Physicians. From its very foundation it was a body of great dignity and power. The physicians held a social position much higher than the surgeons. Most of them had received an academic education, and were possessed of some degree of culture. The surgeons were as often

as not rude uncultured men, their professional education consisting entirely of an apprenticeship to some freeman of the company of barbers or surgeons. About twelve years after the foundation of the College of Physicians, the two companies of the barbers and surgeons were joined into one; yet curiously enough, any single member of the company was forbidden to practise both the mysteries of barbery and surgery at the same time, unless he was the domestic servant of some great man. This was to prevent their spreading disease, by opening foul abscesses and shaving with the same instruments. The surgeons were kept closely confined to the mechanical part of their art, and if they ventured to order a dose of medicine, they were fined and imprisoned without mercy by the President of the College of Physicians.

For a short time they had, however, the satisfaction of tormenting the apothecaries in their turn, if they ventured to undertake the care of surgical cases. But this happy time for the surgeons was of short duration, for three years after the two companies were joined, an Act was passed, in the preamble of which they were accused of "vexing divers honest persons, as well men as women, whom God had endued with the knowledge of the nature of herbs, roots, and waters;" of "extorting money from the diseased," and of "having so small cunning, that by reason thereof, they did sometimes impair and hurt their patients rather than do them good." Wherefore, it was enacted, that practically anyone might practise surgery who thought he had a gift in that direction.

For a long time after this, the physicians had the pleasure of tyrannising over both the surgeons and the apothecaries. The apothecaries had the advantage of the assistance of the powerful Company of Grocers, of which they formed a part, until the reign of James I. Then for the first time they were incorporated, but it was not till a few years later, in 1616, that they were definitely separated from the grocers and established as an independent company, under the name of the Society of Apothecaries of London. They were not, however, free from the College of Physicians. Either the President, or some physician delegated by him took part in the examination which had to be passed before an apprentice could be made free of the company, and the duty of inspecting and destroying adulterated drugs, which was transferred to them from the grocers, was carried out in conjunction with, and at the command of, the physicians. The apothecaries were the pharmaceutical chemists of that time, and, like the chemists of the present day, seem to have taken every opportunity of prescribing as well as of dispensing medicines. At first the College of Physicians resented this, and summoned many apothecaries before them, and fined some and "excommunicated," or, as we should say in the present day, "boycotted" others. Still the practice grew, and at last the apothecaries claimed the right of prescribing as well as dispensing. The struggle between them and the physicians was long and bitter, and it was not finally settled till a judgment was given in their favour in the House of Lords in 1708. During this time the surgeons and barbers remained united, and it was not till 1745 that they finally parted company, the surgeons establishing themselves independently in Surgeons' Hall, as the Corporation of Surgeons of London.

In 1748 the apothecaries obtained an Act of Parliament which confirmed their power of prescribing medicines, gave them additional powers of examining, and made it illegal for any man to dispense medicine within seven miles of London without their licence. It now became common for medical men to hold both the licences of the apothecaries and surgeons, and thus arose the so-called surgeon-apothecary, and in his hands was the greater part of the practice of the country. After they were beaten by the apothecaries the power of the physicians rapidly declined, and they seem to have retired into a state of sulky and offended dignity, and not to have taken the part they might have done in controlling the education of the lower grades of the profession. At the end of the last century the Surgeons' Corporation seems to have died a natural death, and now was lost the great opportunity of uniting the physicians and surgeons, which will probably never return. The College of Physicians has always maintained that surgery is only a branch of medicine, and that their licence entitles its holder to practise both; and it is much to be regretted that they did not act upon this assumption. At the time when surgery was practised chiefly by illiterate men, who also undertook the trade of "barbery," any union between the ignorant barber-

surgeon and the cultivated physician was out of the question. But in 1800 things had changed, and the physicians need not have felt it beneath their dignity to welcome within their body a class of men amongst whom had but recently been Percival Pott, Cheselden, Sharp, and John Hunter. Yet although many surgeons also recognised the inseparability of medicine and surgery, the idea of uniting the physicians and surgeons seems never to have been entertained, and the College of Surgeons in its present form was founded. Possibly if this desirable union had taken place, the encroachments of the Society of Apothecaries might have been withstood. As it was the surgeons became rather the allies of the apothecaries, and upon the surgeon-apothecaries fell the task of raising the lower grades of the profession to a higher and more dignified position. Under their influence was passed the Act of 1815, which gave the apothecaries further powers of examining, and extended their jurisdiction to the whole of England and Wales. This Act was evidently intended to perpetuate a lower grade of the profession, who should combine the trade of the druggist with the practice of medicine. That this was so is shown by the fact that the apothecary was bound under heavy penalties to prepare prescriptions ordered by a physician. It was also intended that the chemist and druggist, who was now arising as an independent tradesman, should not be allowed to prescribe. The apothecaries were not, however, content with this inferior position, their ambition being to grant a licence on equal terms with the College of Physicians. They consequently limited their apprenticeship to five years, and made attendance at a medical school compulsory; and it cannot be denied that at this time they did more to raise the general standard of knowledge in the medical profession than any other body. While doing this, however, they neglected their proper business, and allowed their influence in the drug trade to slip from their hands till, in 1841, a separate society — the Pharmaceutical Society of Great Britain — was established, which relieved them from their last duties in connexion with that trade. Finally, the Act of 1858 practically made the licences of the two Colleges and the Apothecaries' Society equal. At the same time some of the evils that it was intended in 1815 to correct have reappeared in an aggravated form. By the destruction of the old apothecaries, who sold their drugs and gave their advice for nothing, the field has been left open to the chemists and druggists, who now probably do about as much practice as the legitimately qualified medical men. The apothecaries are thus as it were "hoist with their own petar." They have raised the general practitioner till the College of Physicians has at last condescended to take notice of him, and arrange a suitable examination for his benefit. They have lost every trace of influence in the drug trade, and their licence confers no special privilege on its holder; and it need not be said that few would not prefer the letters L.R.C.P. after their names to L.S.A. Consequently, all reason for their continued existence has disappeared. It is useless to plead as an extenuating circumstance, that they did good work in raising the general practitioner sixty years ago. They have forgotten that it is said "Be not weary in well-doing," for they seem soon to have wearied, and practically for the last quarter of a century they have done less to improve medical education than any other body in this division of the kingdom, the University of Oxford perhaps excepted. But it is not likely that they will retire from the false position into which they have thrust themselves; it could hardly be expected from human nature. To call in the aid of the State would be a great calamity for the medical profession, which has so far managed its own affairs. There is, however, another alternative and that is, the union of the two colleges for the purpose of examination. The College of Surgeons now holds a position of nearly equal, if not equal dignity, with the College of Physicians. To this it has arrived by the improvement of the science and art of surgery, which it represents. It has, perhaps, done its duty better than either of the other corporations. It has never allowed the control over surgical education, from the highest to the lowest grade, to slip from its grasp, nor has it until quite recently undertaken any duties properly belonging to another body. The union for the purpose of examination of such a body with the physicians ought to present no difficulties, and if it were effected the Apothecaries' Society would probably before long die a natural death. No further conjoint scheme would be wanted for England. At present something is urgently required; not so much to protect the public from ignorant practitioners, for that I

believe is sufficiently done by all the examining boards, but for the protection of the student from the present irregular, unscientific course of education which he is so often allowed to follow.

## Introductory Address

DELIVERED AT

### ST. THOMAS'S HOSPITAL,

*On the Opening of the Winter Session, October 2nd, 1882.*

By SEYMOUR J. SHARKEY, M.A., M.B. OXON.,

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(Concluded from page 564.)

Of course it remains a question of degree whether improvements in the treatment of diseases have kept pace with the increase in our knowledge of them. But that great improvements have been made admits of no doubt. One of the most important outcomes, however, of our advances in physiology and pathology and the natural history of disease is that we have recognised the following facts: that many affections are incurable, that they depend upon certain definite causes, and that these causes are often avoidable. Hence the importance of what is now termed "preventive medicine." In our treatment of chronic diseases we place our patients, as far as we can, in conditions which arrest the progress of the morbid changes which are going on in their organs. But why not prevent these changes altogether? This must evidently be our aim both now and in the future; though it is very questionable whether people will ever have the wisdom to submit to restrictions and rules of life in order to avoid miseries which they have never tasted.

There remains yet another department of therapeutics, to which the profession may point with feelings of legitimate satisfaction, and that is the application of surgical methods to cases upon which the administration of drugs or any other treatment whatsoever can necessarily have but little effect. The diseases referred to are abscesses in some of the large parenchymatous organs, collections of pus in serous cavities, the various forms of acute and chronic intestinal obstructions, the partial or complete removal of diseased organs, &c. The possibility of treating such affections depends of course upon our ability to diagnose, or at least suspect, their presence. And it is the increasing power which the progress of our science in various directions has given us of localising disease which has made these surgical procedures in any degree feasible. But the most important factor of all in these modern improvements has been the introduction of antiseptic surgery. Whatever may be the true *rationale* of Lister's method, whether the details he recommends need to be carried out in their entirety or not, or whatever may be the opinion of individuals regarding it, every unbiased man must confess that it has produced a revolution in that department of surgery which was formerly the field of the most unsatisfactory and fatal operations. The comparative impunity with which antiseptic surgery allows us to manipulate the peritoneum and other delicate and sensitive structures has not only resulted in the successful treatment of many patients, who would formerly have perished under the same ordeals, but it has likewise emboldened the surgeon to attempt operations which he would not have dared to do before, and even to make explorations in cases where life is threatened by obscure conditions.

To sum up, then, what can be said for the principles of modern treatment? We have thrown down the idol of universal specifics, which men had hewn out of false conceptions of disease. We have set up in its place rational scientific treatment, founded upon the knowledge of physiological processes in health and in disease; and we aim, as far as drugs are concerned, at the discovery by observation and experiment of the physiological action of substances which can then be used with greater precision in therapeutics. And although this rational pharmacology is still in its infancy, we already possess some drugs the action of

which we fairly well understand. We have a few remedies which appear to have just claims to the title of specifics, and we still harbour a probably legitimate hope of discovering others, which may be effectual in certain diseases before they have produced serious organic lesions. Great strides have been made in medical surgery, and we seem likely to advance still further in this direction. But our grandest aspirations lie in the path of preventive medicine, a department which should not only embrace attempts to exterminate some diseases, and to diminish the number of persons who fall victims to others; but must likewise include efforts to prevent the extension of morbid processes which have already begun in the organs of our patients, by regulating their lives in accordance with the teachings of physiology.

It will now be evident to you, gentlemen, that if the general view I have put before you of the principles of modern medicine be correct, there is an interdependence between all the subjects which are embraced in the medical curriculum, such as did not exist in former times. Clinical medicine has to be studied in the light of pathology, pathology in the light of normal anatomy and physiology, and the latter in the light of chemistry and physics. Nor must it be forgotten that what has really given medicine a claim to be placed among the sciences is the recognition of physiology as its basis, and what has given physiology itself precision is the experimental method of investigation. We do not for a moment assert that without vivisection there would be no physiology: but the irreconcilable opponents of the former cannot even be convinced of the great advantages which have resulted to physiology and to medicine alike from the practice of experimenting upon living animals. The fault, however, lies with the anti-vivisectionists, and not with us. For the foundation of medicine is physiology, and one of the essential factors in accurate scientific physiology is experiment. To appreciate these propositions one must first realise the facts and history of physiology and of medicine. But this cannot be done, though some insist that it can, by people who have little or no knowledge of these sciences. The answer to those who would suppress vivisection altogether lies not in quoting individual useful applications to medicine of facts which have been discovered entirely by vivisection, but in pointing to the comparative precision which pervades the whole of modern physiology, and which is gradually being introduced into practical medicine, a precision which we owe to experimental methods of research.

True scientific principles are as old as Hippocrates, but the field of observation has been widely extended. With all our increase in scientific knowledge, however, it is no easier, probably harder than ever, to become a good practitioner. A man might know everything and yet be a very bad doctor. Now, as of old, no amount of book-learning will make up for deficient dexterity in the examination of patients, or for the want of clinical experience. All methods of investigation must be carefully learnt and skilfully applied. Stores of knowledge must be at command, and the reasoning powers must be called into play to a degree probably not surpassed in any other profession. The best means of ascertaining what is really the scientific method of medical practice is to watch the work of a good physician by the bedside. A few years ago this school had to mourn the loss of one of its brightest luminaries, Charles Murchison, an eminent scientific physician and consummate teacher. His wide and varied knowledge of anatomy, physiology, and pathology, which he applied with such ability by the bedside, his splendid powers of observation, his keen logical acumen, his clear and easy exposition, and his contagious enthusiasm, formed a whole the charm of which has rarely been equalled, and can never be forgotten by his pupils. Nor can we mention Dr. Murchison without being reminded of another loss which we have this year sustained in Dr. Peacock, long a member of our staff, whose methodical and accurate observations have placed him among the highest authorities in more than one obscure region of pathology, and whose lively interest in medicine was shown by the eagerness with which he clung to the duties of his profession up to the last moments of his life.

But it may be asked, Have the modern methods been productive of good unalloyed? Are there no evil tendencies to be striven against? The increasing power of localising disease, with which we have just reason to be satisfied, frequently leads practitioners to look upon the body as a number of separate organs, each of which has its own peculiar affections and its own proper methods of treatment

The grand object often seems to be to diagnose the disease, and then to prescribe drugs said to be beneficial in it. But if physiology has taught us one thing more certainly than another, it is the intimate union of the individual parts of the body to form a concrete whole. One organ cannot be deranged without altering the conditions which surround the others, and interfering with the healthy composition of the blood and with the normal course of nutrition. Moreover, some organs are united by even closer bonds, in the form of nerve communications; or they have some similarity of function, which enables them to a certain extent to act vicariously for each other. Consider the innumerable derangements of health referable to almost every part of the body, which may result from the physiological cessation of the functions of the uterus and ovaries at the climacteric. In this instance energetic factors in the production of the vital equilibrium suddenly cease to exert their influence. The patient has lived long enough to have alterations of an abnormal kind produced in some of her tissues. These, if they are not fanned into a blaze by changes which then take place in their nutrition, are at least productive of functional disturbances within the area which they occupy. This is a typical instance of a condition which affects not one organ only, but the whole vital equilibrium, and the re-formation of the latter on an altered basis sometimes takes years to effect, sometimes is the source of never-ending ill-health. In any case a rational and effectual treatment must rest, not on a consideration of the state of one organ alone, but of all the physiological processes which take place within the body. Nor is this an isolated example. A very large proportion of local diseases produce widespread effects on the organism in general, and cannot be rationally treated by confining our attention to the part which is most conspicuously at fault.

Another offspring of modern medical thought is the tendency to scepticism—a tendency which we must not sweepingly condemn. It has arisen mainly with regard to the treatment of disease by drugs, and is the natural result of increasing knowledge. When a medical man studies disease from our present point of view, and is brought face to face with the wreck which it makes of the most vital structures, he must indeed be illogical if he does not rapidly cease to believe in the efficacy of any drugs whatsoever, either to repair the damage done, or to act as a substitute for the diseased organ in the economy. This scepticism regarding the possibility of finding specific cures for diseases in general is a most laudable trait, and shows an appreciation of the principles of modern therapeutics which is likely to lead to a far more effectual treatment of the patient than any blindly empirical administration of remedies.

But, gentlemen, you must not misunderstand me, and suppose that I have less confidence than I really have in our Pharmacopœia. I believe it to be composed of—first, a small number of very useful drugs, the physiological action of which is known, and the application of which to diseased conditions is of incalculable value; secondly, it contains a considerable number of remedies, the efficacy of which has been proved in many abnormal conditions, though the *rationale* of their action is still unknown; and, lastly, it contains a host of articles which some people assert to be useful for one thing, some for another, but about which very little of any value is known. Now the sceptic, who seems to me to be culpable and unscientific, is not he who has no belief in, and consequently discards, the motley collection of substances contained in the third category, but he who declines to use any drugs except those of the first, the physiological action of which is well understood, and for the administration of which he can see a *rationale*. Such a one will not use those medicines, the properties of which have been ascertained by a long series of observations, while their mode of action is obscure. This is an illegitimate and reprehensible scepticism. For although it must be the aim and glory of medical science to add constantly to those drugs the physiological action of which is known and the application of which to disease is so much the more certain; still the medical art must always remain one of observation and experience, and it is rational and scientific to act upon the results of these, though we may have long to wait for an explanation of what occurs.

It has often been remarked that the best physicians use few drugs, and, compared with the whole contents of the Pharmacopœia, the rational scientific sceptic will have only a small number of remedies which he cares to prescribe; but making himself by constant observation more familiar with

their action, and with the conditions to which they are applicable, he will use them rather as arms of precision, and his treatment will be to the point and effectual; while what may be called the "mitrailleuse" system of the less sceptical practitioners of former days relied rather upon the number of substances which were mixed together in the hope that some might hit the mark.

In the short account which I have presented to you of what appear to me to be some of the leading principles of thought in the medicine of to-day, I have implied that we are entitled to feel a certain degree of satisfaction in the progress which has been made. But let us remember that what we now know, and what we can accomplish by our art, is but a very small fraction of that which will one day be achieved by our successors. Let us make a modest estimate of the present state of science, and not give anyone in future times the opportunity of quoting boastful utterances of ours, as I am now about to quote a surgeon who flourished some three centuries ago. Ambrose Paré wrote thus—"God is my witness and all good men know that I have now laboured fifty years with all care and pains in the illustration and amplification of my art, and that I have so certainly touched the mark whereat I aimed, that antiquity may seem to have nothing wherein it may exceed us beside the glory of invention, nor posterity anything left but a certain small hope to add some things, as it is easy to add to former inventions." Let that be a warning to anyone of us who is inclined to exult in the present state of science, which may have made more progress at the end of the next three centuries than it has since the time of Ambrose Paré.

In days gone by many a sect, many a system of medicine has flourished and decayed, and whatever truth existed among their errors has been built into the scientific fabric of to-day. Homœopathy alone remains. But even homœopathy has discarded many of the absurdities of its founder, Hahnemann. It professes to accept and be guided by the data of modern science, and to differ from us only in the treatment of disease. It seems to me, too, that many professed homœopaths have practically retired even from this position, and have faith no longer in "dynamisation" and infinitesimal doses, but hold merely to the theory "*Similia similibus curantur*." This dictum is a distortion of a truth, and should express nothing more than this—that if we give drugs in large poisonous doses, we ascertain by the symptoms produced the organs on which they act, and we then administer them in smaller quantities when we wish to elicit their physiological action in cases of disease. The truth which is really involved in "*similia similibus curantur*" is nothing more than the elective affinity of certain drugs for certain organs, and the fact that if given in poisonous doses they derange the action of these organs. But this is not a method of experimental pharmacology which is characteristic of homœopathy, but one which has long been used in ordinary common sense medicine. Those homœopaths who differ from us in little more than this theoretical question, as to why certain drugs are indicated in certain diseases, have no right to place themselves under the banner of another sect, thereby deceiving the public, who are led to believe that their imposing name implies a *bonâ-fide* difference in practice. But the rest of the homœopaths, if there really be a remnant, who can plead that they honestly believe in infinitesimal doses, in the dynamisation of drugs by trituration and dilution, and in other palpable absurdities, may practise upon a deluded section of the public, but cannot possibly be received as the colleagues of reasonable men. No, gentlemen, the day has long gone by when systems of medicine were admissible. There is but one system—the scientific,—which rests upon observation and experiment, and upon the application of science in general as a guide to the knowledge and treatment of disease. Therefore avoid being led astray by the seductive theories of any sect whatever. Be neither homœopaths, nor allopaths, nor antipaths, nor any other "paths," but scientific medical men. And if you really are such, you will secure one of the greatest sources of happiness through life, one of the greatest consolations in its many uncertainties—an enthusiasm for your profession. And having that, you cannot fail to feel also a love and enthusiasm for the school where you first became imbued with the principles of scientific medicine.

THE salary of Mr. Butler, surgeon at the Brighton Sanatorium, has been increased from £100 to £150 per annum.

# ON THE RELATION OF PARTIAL RETENTION OF URINE TO ITS DECOMPOSITION WITHIN THE BLADDER.

By WILLIAM S. SAVORY, F.R.S.,  
SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

THE opinion is, I believe, current, it is certainly general in our books and elsewhere, that inability to empty the bladder completely is a common cause of chronic inflammation of the viscus, because a portion of stagnant urine is retained until it is decomposed, and so becomes an irritant. In this way, by confining some of the urine until it becomes decomposed, it is stated that all forms of obstruction to its exit produce chronic cystitis. Now, is not this opinion that residual urine thus remains to decompose based on a misconception of the actual facts, or at all events of the cause, in such a case? Is it not assumed that the urine which remains behind is a fixed quantity, and therefore stagnant? Is it not overlooked that, although the bladder may be never emptied, yet that, inasmuch as a large portion of the urine it contains is frequently leaving it to be replaced by another portion which is continually entering it, the same portion of urine does not necessarily remain long enough in the bladder to become, of itself, the source of the mischief that ensues? Of course urine may remain long enough in the bladder to decompose, for no one needs to be reminded of the fetid urine reeking of ammonia in chronic cystitis; and it admits of demonstration that urine which enters the bladder in a healthy state is very rapidly changed by the disordered secretion of that organ. But this need not depend simply on retention, either total or partial. Micturition may be frequent, and the bladder may be frequently quite emptied, and yet the urine that flows may be putrid; or urine may be retained for a very long period, and yet when it escapes there may be no evidence of decomposition. In many cases, for example, where a person is confined to the recumbent position, the bladder is never able to expel the whole of its contents, and yet this state of things may continue for weeks without the residual urine showing any sign of decomposition; and in other cases, where it may even become necessary to draw off the urine in this enforced position of the patient, the bladder, in all probability, never becomes completely emptied, and yet, at least for a long while, the urine passes without change. Therefore, even if all reasoning on the matter be excluded, it cannot, in the face of these facts, be accepted that as a rule residual urine is to be regarded as the source of the mischief that is so often associated with it. No doubt the longer any given quantity of urine is retained in the bladder, when the causes of its decomposition are ripe there, the farther will its decomposition proceed. But the duration of the retention of any given portion is by no means represented by the amount of residual urine after each act of micturition. The quantity of urine which enters and escapes from the bladder daily must rather be considered. Just as the water drawn off from a cistern gives no evidence of being stale or changed, although the reservoir is never emptied, because the whole of its contents are nevertheless rapidly renewed.

If healthy urine is passed into a bottle capable of holding, say, two pints, and the bottle as it becomes filled is from time to time only partially emptied, so that always about half a pint be left behind, the urine in the bottle, even after months, will still retain an acid reaction. It does not become ammoniacal or acquire the characters of the urine in chronic inflammation of the bladder. And in this experiment the circumstances, so far as ordinary decomposition of stale urine is concerned, are, on the whole, far more favourable to change; for although the temperature of the bottle may not be so high as that of the bladder, yet air is frequently and freely admitted, and of course it is always abundantly present. If the changes by which urine becomes ammoniacal are due only to long-continued partial retention, how is the negative result of this experiment to be explained?

Yet, although I venture to think that the prevailing opinion in this respect is not well founded, I am indeed very far from saying, or even intending to suggest, that

there is no evil in partial retention. On the contrary, it is clear enough that the presence of residual urine implies some delay in the escape of a portion of it, and therefore in a corresponding degree favours the advance of decomposition. But this, I need not remark, is a very different view from that which regards partial retention as a common starting-point of cystitis and the further evils which hence ensue. But then the fact remains that these two evils—residual urine, the result of partial retention, and chronic cystitis—are very commonly associated. Can this be explained? The direct and immediate cause of the decomposition of urine in the bladder, which enters it in a healthy state, is the presence and action of a morbid secretion of the mucous membrane. Practically the changes of urine in the bladder are dependent on the action of unhealthy mucus, and the degree of decomposition, although of course affected by the time the urine remains there, is yet chiefly determined by the character of the diseased secretion which mingles with it. Even under the conditions of health it is the mucus present in the urine which mainly determines the decomposition of urea, as the result of the simple experiment of filtering fresh urine shows, and when mucus is morbid it is far more destructive. Now, this disordered secretion must be the product of an unhealthy membrane; and while there is but little difficulty in understanding how, when the texture of its lining membrane is altered, the bladder is hampered in its action, and its full and complete contraction impeded, there is hardly less difficulty in believing that a full and complete contraction of it from time to time is an essential condition of a healthy mucous membrane, and of a due secretion and free escape of healthy mucus. Therefore, the conditions under which the bladder is only partially emptied are oftentimes the very conditions under which unhealthy, and therefore highly mischievous, mucus is brought in contact with the urine there.

## ON A NEW TEST FOR ALBUMEN IN URINE.

By WM. ROBERTS, M.D., F.R.S.,  
PHYSICIAN TO THE MANCHESTER ROYAL INFIRMARY.

WHEN an albuminous urine is treated with a saturated solution of common salt, not the slightest reaction takes place; but if the brine be slightly acidulated with hydrochloric acid, the albumen is thrown down as a dense white cloud. This reaction constitutes a most delicate test for albumen in the urine. The best degree of acidulation for this purpose is obtained with about 5 per cent. of the dilute hydrochloric acid of the Pharmacopœia. A little more or a little less acid makes no appreciable difference in the sensitiveness of the test. Common salt dissolves in about two and a half times its weight of water at 60° F., and increase of temperature does not sensibly increase its solubility. The salt of commerce is always more or less dirty, and the solution requires filtration to fit it for use as a test. The salt solution should be fully saturated, otherwise the observer is apt to be led into error. In preparing the test with our common English measures the readiest plan is to mix a fluid ounce of dilute hydrochloric acid with a pint of water, and to saturate this with common salt, and filter. Dilute hydrochloric acid may be replaced by dilute sulphuric, dilute nitric, or dilute phosphoric acid. All these acids are of the same saturating strength in the British Pharmacopœia, and all of them yield with saturated salt solution an equally sensitive reagent for albumen. Even acetic acid may be used, but the delicacy of the test in that case is not quite so great as when it is prepared with one of the mineral acids. The method of applying the brine test is similar to that followed with nitric acid. A portion of the suspected urine is placed in a test-tube, the test-tube is then held very much aslant, and the salt solution is allowed to trickle along the sides of the tube to the bottom, so that it may form a distinct layer below the urine. If albumen be present, a white cloudy zone appears at the junction of the two fluids. Or the proceeding may be reversed. The salt solution may be first introduced into the test-tube, and then the urine added with the same precautions as before, so as to obtain two distinct layers, one above the other, in the test-tube. It is important to be aware that the precipitation of albumen by acidulated brine is not due to a true coagulation. In this respect the



brine test differs from nitric acid and boiling. In the two latter cases the albumen is transformed into the insoluble modification, which is known as "coagulated albumen." But when albumen is thrown down from urine by acidulated brine, the precipitate is not insoluble; on the contrary, it is redissolved by free addition of water, or even by free addition of the albuminous urine itself. It is therefore essential to the efficient application of the test that the salt solution should be in excess at the point of expected reaction. This end is obviously secured in the above-described methods of testing. It may also be secured by adding to the suspected urine a volume of the salt solution at least equal to that of the urine in the test-tube. If this point be not attended to the test is unreliable. For instance, if acidulated brine be added drop by drop to an albuminous urine, and the mixture shaken up after each addition, the first few drops either occasion no turbidity whatsoever or the turbidity produced disappears on shaking. But when by successive additions the quantity of brine approaches to or surpasses the volume of urine operated on the turbidity remains permanent. In point of delicacy the salt test stands on a par with nitric acid. The minutest trace of albumen detectable in the urine by nitric acid is also detectable with equal ease by acidulated brine. In high-coloured urines the brine test is distinctly superior. In this class of urines nitric acid produces a deepening of the tint, with, often, a disengagement of gas, which interferes with the sensitiveness of the reaction, but the brine test neither alters the tint nor causes disengagement of gas. On the other hand, I think that nitric acid gives a better idea of the quantity of albumen present by the density of the white cloud produced than does the brine test. In addition to albumen, acidulated brine precipitates peptones, which are sometimes present in urine; so that occasionally a slight cloudiness is produced by the salt solution where nitric acid and boiling (which do not precipitate peptones) produce no reaction. This distinction in the action of the brine test may hereafter lead to interesting information. In dense urines, highly charged with urates (but not containing albumen), the addition of nitric acid sometimes throws down the amorphous urates in the form of thick white clouds, and it is necessary to apply heat to distinguish with certainty the cloudiness so produced from cloudiness due to albumen. The salt test does not throw down the urates in this way. It is well known that the urines of patients who are taking large doses of resinous substances (such as the resin of copaiba), although free from albumen, yield a cloudiness with nitric acid in the cold, but if the urine be previously made hot, nitric acid produces no such reaction. This difference serves to distinguish cloudiness due to resin from cloudiness due to albumen. The brine test also produces a cloudiness in resinous urines, and the reaction occurs whether the urine be hot or cold. To avoid the fallacy thereby arising, all that is necessary is to add an excess of the urine which is being tested. If the cloudiness be due to albumen it disappears on such addition, but if it be due to resin, the cloudiness does not disappear on the addition of more urine. One of the chief advantages of the salt test is its incorrosive character. It does not stain nor burn holes in garments and carpets, nor fleck the hands with yellow spots. The use of it makes it possible to arrange a pocket-case for urine testing that shall not be a terror to the wearer. From this point of view the substitution of the salt solution for nitric acid will be a real boon to practitioners.<sup>1</sup> The salt test has this additional convenience—that it enables us to test successively for albumen and sugar on one and the same sample of urine. The suspected urine is first tested for albumen with the salt solution, and then Fehling's solution, or, still better, a pellet of the solid Fehling's test sent out by Cooper is added, and heat applied. After boiling a few seconds the absence or presence of sugar is ascertained. The admixture of the brine in no way interferes with the copper reaction, in case sugar should exist in the urine.

Manchester.

<sup>1</sup> I have carried about with me for some months past a little pocket-case (which is only a stiff-backed cigar-case) which I have found a useful and safe clinical companion. It contains a book of litmus papers; a narrow corked phial filled with acidulated brine; a test-tube charged with Cooper's pellets of the solid Fehling's test, guarded with an India-rubber stopper; and, lastly, an empty test-tube, also provided with a cork. This compact arrangement furnishes the means of ascertaining the reaction of the urine, and of testing it in the most delicate manner for albumen and sugar. The empty test-tube also serves to carry home a specimen of the urine for further and more minute examination. The "pellets" (made after a suggestion of Dr. Pavy) are sent out by W. T. Cooper, chemist, 26, Oxford-street, London.

## THE VOLUMETRIC ESTIMATE OF ALBUMEN IN URINE.

By GUY NEVILLE STEPHEN, M.R.C.S.

IN the wards, and in private practice, the method most commonly employed for detecting the presence and estimating the amount of albumen in urine is the application of heat, the result being aided and verified by the addition of a few drops of nitric acid. As a simple test, this method, though not absolutely free from objection, either on the score of chemical accuracy or ease of application—a matter of considerable importance in private practice,—is yet, when applied with ordinary care, sufficiently reliable and searching to warrant its popularity, and prevent one receiving as anything more than scientifically interesting the various other albumen tests that have been and are from time to time proposed. As a volumetric test, however, applied by precipitating the albumen, allowing it to cool and subside, and then noting the proportion of the albumen which has collected to the rest of the fluid in the test-tube, and reading it off as a fraction, it is at best but a very rough method, with numerous sources of error, and, as commonly employed, gives most inaccurate and deceptive results, due partly to inherent causes, and partly to want of care in throwing down the whole of the albumen and allowing it to thoroughly cool and subside. Such as it is, nevertheless, this method is even more universally employed in the estimate of albumen than are the same reagents, heat and nitric acid, as a simple test of its presence; but probably less, because general approval is accorded to it, than because of the other methods generally known none has a claim to be substituted for it—Esbach's test being, if more accurate, much more tedious, while the actual weighing of the albumen is, from the readiness with which albumen absorbs moisture, a process that taxes the resources of even a skilled chemist. Since, therefore, we are at present in possession of no easy, rapid, and trustworthy method of estimating albumen, every fresh idea and suggestion on the subject should receive a thorough clinical trial before being relegated to the chemical laboratory; and this has not yet been accorded either in England or abroad to a method suggested by Turret of Troyes as far back as 1872. The basis of this method is the precipitation of albumen by the double iodide of mercury and potassium, and it is equally applicable both for testing for and estimating albumen. The manner of procedure is extremely simple, and in practice the testing and estimation may be done at the same time, but for the sake of descriptive clearness the testing will here be taken first.

*Testing.*—For this all that is required is a solution of the double iodide of mercury and potassium and some acetic acid. The urine to be tested first must be rendered distinctly acid by the help of some of the acetic acid, and then a few drops of the solution added to it. If albumen be present a white opaque flocculent precipitate immediately forms, which on the one hand requires no verification like that formed by the application of heat to only slightly albuminous urine, and on the other is not, like the precipitate of nitric acid, liable to be redissolved by adding too much of the reagent. In point of delicacy, moreover, the test is superior to either of these, as the precipitate will form in the presence of as small a quantity of albumen as five centigrammes to a litre of water, a result which is only equalled by the very uncertain phenic acid test, and by heating with sulphate of soda. To the practitioner, too, who wishes to test urine for albumen by the bedside of his patient, it is a very distinct advantage to be able to dispense with test-tube, spirit lamp, and strong nitric acid, and to carry with him nothing but two small phials, and perhaps some litmus papers. It is scarcely necessary to enter into possible causes of confusion, as the only case in which the reagent under discussion itself gives rise to any other than albuminous precipitate is in the urine of patients who are taking alkaloids, when a precipitate may be formed which, however, is soluble either by heat or by the addition of alcohol; while the errors that may be entailed by the employment of the acetic acid, together with the means of avoiding them, are already for the most part well known. In urine loaded with urates a precipitate of uric acid may

be thrown down when the acetic is added, but merely diluting the urine with water will cause it to disappear. Mucus, too, if present, may also be precipitated by the acid, but will give no trouble, as it is quite different in appearance to the precipitate of albumen, and will have dropped to the bottom before the solution is added; and, lastly, if the acetic acid be not used in sufficient quantity to make the urine decidedly acid, urea may be thrown down by the after addition of the potassio-mercuric iodide.

*Estimation.*—The process for this is extremely simple and rapid, and only differs from that described above in that the solution employed is of known strength, and that the quantity used both of it and of the acid and urine must be carefully noted, and the complete precipitation of the albumen proved by a second solution. Besides the solution and acid, a glass, graduated in cubic centimetres, a pipette giving drops of five centigrammes, and a few glass stirrers, are all that is required. For the precipitating solution the formula is—potassii iodidi, 3 grms. 22; hydrargyri bichloridi, 1 gm. 35; aquæ destillatæ, q.s. ad 100 cc. For the confirmatory solution—hydrargyri bichloridi, 1 gm.; aquæ destillatæ, q.s. ad 100 cc. One drop of the precipitating solution given by a pipette of the above size precipitates 0.005 of albumen; so that so many drops as it takes to precipitate all the albumen, so many times 0.005 of albumen must there have been in solution. To save trouble in calculation, the same quantity of urine should always be taken, and the best quantity to take is 10 cc., as then the number of drops of the solution that it takes to precipitate all the albumen in this quantity of urine represents so many half grammes of albumen to the litre. Take then 10 cc. of urine, and add two of acetic acid, and stir with a glass rod; then add the precipitating solution drop by drop, stirring carefully each time, until the precipitate is no longer resolved in the albumen in excess—i.e., as yet unaffected by the reagent; then after each drop of the solution put a drop of the urine on a porcelain dish and watch if a yellowish-red colour appears on adding a minute drop of the confirmatory solution. As soon as it does, all the albumen is precipitated and the process is finished, and the amount of albumen per litre will be at once arrived at by taking the number of drops employed of the precipitating solution, subtracting three as having been used in excess to make the yellow colour perfectly clear, and then considering the rest as so many half grammes.

The chemical reactions and data upon the above depends are  $2\text{KI} + \text{HgCl} = \text{HgKI} + \text{KCl}$ . When the double iodide of mercury and potassium thus formed is added to albuminous urine sufficiently acidified, all the albumen is precipitated in combination with the mercury and iodide of the reagent, in the proportion of the equivalent of  $\text{HgKI}$ , weighing 393 to 1 equivalent of albumen,  $\text{C}^{60}\text{H}^{70}\text{Az}^{11}\text{O}^{33}$ , weighing 1004, while the potassium is taken up by the acid of the urine. As long as any albumen remains in solution the double iodide of mercury and potassium will not form red iodide of mercury when bichloride of mercury is added to it, but it does so as soon as all the albumen is precipitated. The solution formulated above is such that every drop of 0 grm. 05 contains 0 grm. 00196 of  $\text{HgKI}$ , and therefore in accordance with the equivalents given will precipitate 0.005 of albumen.

The rapidity and simplicity with which the volumetric estimate of albumen may be performed by this method, as above described, are self-evident, and it has been thoroughly tested by the writer in the Hôtel Dieu of Marseilles, and its convenience and utility found to be very great, as it offers a ready means not only of watching, as is most important, the diurnal variations in the amount of albumen in a patient's urine, but of comparing, as is most interesting, the different quantities present in diverse cases and in various diseases.

St. Bartholomew's Hospital, London.

#### DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.

By Dr. Robertson's report, presented at a meeting of the Committee of Management on the 7th inst., it would appear that the definite cost of the extension of the hospital has not yet been ascertained. Meanwhile the benefit resulting from the enlarged accommodation is already apparent in the increased number of patients and the proportional alleviation of suffering through the instrumentality of the institution. The returns of cards stating the ultimate result of the treatment received have been satisfactory both in quantity and kind.

#### NOTES ON THE ANTISEPTIC METHODS EMPLOYED IN THE SURGICAL PRACTICE OF THE BASE AND FIELD HOSPITALS: EGYPTIAN CAMPAIGN.

BY EDGAR M. CROOKSHANK, M.R.C.S.,  
HOUSE SURGEON OF KING'S COLLEGE HOSPITAL, AND ATTACHED FOR  
DUTY TO THE BASE AND FIELD HOSPITALS, ARMY MEDICAL  
DEPARTMENT.

VARIOUS antiseptic methods having been employed by the surgeons of the Army Medical Department in the treatment of the wounded during the Egyptian campaign, it may be of interest to many to read the mode of application and the results which I had the good fortune to observe.

*Treatment of First Wounded at Base Hospital, Ismailia.*—The wounded sent down from the front after the first engagements had been, and were, treated at the base hospital, Ismailia, mostly with dressing of carbolic oil, some with the carbolic or the chlorinated soda lotion. In these cases it was found that if not dressed for forty-eight, or even twenty-four hours, the wounds were septic and the dressings odorous, and unless the latter had been covered with gutta-percha tissue, in this climate not only the lotion, but the oil, evaporated, and with the dried coagulated blood and discharge became glued to the wound, so as, even after sponging or soaking in water, to be in most cases with difficulty removed, and the cause of discomfort and of pain to the patient.

*Treatment of Wounded at and after the Battle of Tel-el-Kebir.*—The wounded brought from the field to the advanced field hospital after the battle of Tel-el-Kebir were dressed with the iodoform and boracic acid dressing, in the following manner. The wound and skin around were purified by washing with a strong watery solution of carbolic acid (1 in 20), and the surface of the wound sprinkled lightly with the powder of iodoform; a piece of protective dipped in carbolic, in the absence of boracic lotion, was next applied to the wound, just sufficient to cover it, and over this a couple of layers of boracic lint, fixed by means of a gauze bandage, the latter, from its lightness, being preferable in this climate to the ordinary linen bandages. Of these cases, some in which the discharge was profuse, were dressed again the next day at Kassassin, and others were not seen again until they arrived at the base hospital at Ismailia. Of the latter, the following day those in which the discharge had not appeared on the surface of the dressing, and the patient expressed himself as comfortable, remained untouched; so that there were cases not redressed until two or even three days after the reception of the wound. In these cases, just as in those dressed the day after the engagement, the dressing was perfectly sweet and the wound healthy; and last, but not least, the dressing was removed with facility, and the patient prevented thereby from suffering either discomfort or pain—the latter, of course, being due to the action of the protective, which, while enabling the discharge to run from beneath it and permeate the boracic lint, at the same time prevents the latter from adhering to the wound. Some of these cases, more particularly the severe ones—e.g., shell wounds—remained in the hospital for some days before being transferred to ships for England, and during this time their progress was carefully watched, and in all cases the same condition remained of a healthy inodorous wound, and consequently the iodoform and boracic-acid dressing met with such approval on the part of the surgeons that all the wounded who have passed through the base hospital, and those already in it since the action at Tel-el-Kebir, have, with few exceptions, been dressed at one time or other in the manner described. Of the cases already in the hospital, two may be cited as examples—one, a sailor with compound fracture of the femur, the other a private with an extensive shell wound perforating and lacerating the calf of the leg. In both these cases the wound had been dressed with the chlorinated soda lotion; nevertheless the discharge was offensive, and the wound, especially in the second case, presented a sloughing and generally unhealthy appearance. The application of iodoform and the boracic dressing acted with marvellous

rapidity, the fetor being corrected, the sloughs separating, and the wounds presenting healthy granulating surfaces. In the case of the compound fracture, the wound, after a second application, was not dressed again for five days, when the patient was ordered on board the *Lusitania*, and, before leaving, the splints and dressing were readjusted. The wound in this case had remained perfectly sweet, and, doubtless, would have continued so if left untouched for a week, the time recommended by Professor Lister when a similar dressing has been applied after the performance of skin-grafting on a large sore.

*Antiseptics after Operations.*—After the extraction of a bullet, swabbing the cavity of the wound with a solution of chloride of zinc (forty grains to one ounce of water), rendering the wound antiseptic, and the introduction of a drainage-tube giving free exit to discharge, and encouraging the wound to fill up by granulation, gave excellent results; and a similar treatment was equally serviceable in gunshot wounds with sloughing tract and a tendency to the pocketing of discharge. After amputations, also, the forty-grain solution of chloride of zinc proved invaluable for swabbing the flaps, not only as a powerful antiseptic, but as a styptic also, stopping all oozing and hæmorrhage from small vessels. Arteries requiring ligation were secured by means of the sulphurous or green catgut introduced by Professor Lister, and used in this campaign for the first time in military surgery. This form possesses all the advantages of the carbolic gut over silk, and over the former of greater strength, decreased rate of absorption, and from a point of view of transport in the small amount of space occupied in packing, compared with the cumbersome bottles of the carbolised gut.

In the wards a lotion, consisting of one part of the forty-grain solution of chloride of zinc with three parts of 1 in 20 carbolic, proved of great value in encouraging the separation of sloughs and rendering the wound antiseptic. This was especially brought to notice in the case of a Life-guardsman whose arm had been amputated at the shoulder-joint for a severe gunshot wound. Extensive sloughing occurred within the flaps and pocketing of pus. The removal of a couple of stitches, the introduction of a large-sized drainage-tube and syringing out the wound thoroughly with the lotion mentioned brought away the sloughs, gave free exit to the retained pus, and produced such a marked change in the appearance of the wound and general condition of the patient, that from that time the balance was turned in favour of recovery. For correcting the fetor of wounds, iodoform shaken up with 1 in 20 carbolic and syringed into the interior of the wound, also proved useful in the wards. Finally, a case of amputation of the arm by the circular method, performed at the Base Hospital, Ismailia, with Listerian precautions, tended to prove that Listerism could be carried out with equally good results in military as in civil hospital practice. It may be added as a point of interest that in spite of the iodoform having been used in some cases over large wounds more freely than was recommended, with the exception of one or two cases of headache and general malaise which may have been due to other causes, there were at any rate no marked symptoms of iodoform poisoning, which has been commented upon so much of late and considered a drawback to its use. These slight symptoms, if due at all to the iodoform, only serve to emphasise the necessity of following Professor Lister's instructions of lightly dusting and not thickly covering a wound with the powder.

## CASE OF LYMPH SCROTUM, ASSOCIATED WITH FILARLÆ AND OTHER PARASITES.

By PATRICK MANSON, M.D.

TEHHAI, male, aged thirty-four, of Tchih Kang, Tehhiah-thop, a cotton carder; both parents are deceased, his father having died of a cough, his mother of old age; young brother well; has no sisters; as far as he knows there is no elephantiasis in his village. The scrotal disease for which the patient applied began when he was twenty-six with inflammation and abscess; inflammation and elephantoid fever frequently recurred. Six years ago a lymphous discharge from the scrotum began; the scrotum was then larger and more tense than at present. Ten months ago the patient had a long series of genuine ague attacks they

began as quotidian, after a time became tertian, and finally quartan. The illness lasted for seven months; he became very weak, coughed, and lost appetite; for the last month the scrotal discharge, which hitherto had intermitted, had become constant, and in consequence he was reduced to a condition of extreme debility.

Sept. 2nd, 1881.—Scrotum is larger than a man's head, and the penis is buried in it; femoral glands are most affected, especially those on the left side, which are large and varicose; only one or two are similarly affected on the right side. The greater part of the scrotal tumour looks and feels like an ordinary elephantiasis, but on the thigh aspects of the mass, especially on the left side, there are patches of large tense vesicles, and on the upper and anterior surface of the tumour, about two inches from the preputial orifice, there is a long dilated lymphatic quite an eighth of an inch in diameter. Lymph constantly escapes, spurting in a fine stream from a vesicle on the right side and from any vesicle that is handled at all roughly. Several pounds of lymph must have escaped to-day. The discharge is white, like watery milk, coagulates rapidly, and contains filaræ. Several were found during a brief examination of lymph drawn in the forenoon (at 11 o'clock). Blood drawn from the finger at 6.30 P.M. contained filaræ. He had no elephantiasis of the legs, nor did he give a history of chyluria.—3rd: As it was evident that the continued lymphorrhagia would kill the man in a very few days, I removed the tumour in the forenoon. It weighed over three pounds, and had the usual section of lympho-elephantoid scrotum. A scrotal hernia on the right side, firmly adherent to the bottom of the scrotum, gave much trouble in dissecting up the sac. Large lymphatics in the upper and outer corners of the wound discharged much lymph, and were therefore ligatured.—21st: The patient died this morning of dysentery and exhaustion. For some time before the operation he suffered from vomiting of food, and ever since the operation there has been difficulty of swallowing. The symptoms were those of stricture of the œsophagus. Watery arrowroot was about the only food he could swallow. Dysentery set in soon after the operation. At the time of his death the wound, though indolent, was clean and sweet, and was in no way responsible for the fatal termination.

*Post-mortem examination, on the same afternoon.*—Thin and wasted; feet cedematous. On opening the abdomen the bladder was found to be rather distended. The whole of the mucous membrane of the great intestine, from the ilio-cæcal valve to the anus, was covered with ulcers. A number of parasites, twelve in all, were found lying in the sub-peritoneal fascia, about the iliac fossæ and behind the kidneys. A similar parasite was found lying free in the right pleural cavity. Some of these parasites were coiled up in loose knots, and others lay extended. On being drawn from under the peritoneum they exhibited languid movements like those of tapeworm. The œsophagus, where the left bronchus passes in front of it, was ulcerated and thickened, the ulceration and thickening extending completely round the tube, and being about an inch and a quarter in breadth. The œsophagus and bronchus opened into each other by a small ragged hole in the ulceration, admitting a penholder, and in the left bronchus were two full-grown female lumbrici, that had evidently passed into this unusual situation immediately before or after death through this hole. The œsophagus was firmly attached to bronchus, and at the site of ulceration was so narrowed that the little finger could not traverse the stricture. The ulcer was very irregular, and in different places its surface was pitted with rough holes running into the walls of the tube under the mucous membrane. Lymphatics of groins over saphenous opening much enlarged, especially on the left side; they were firm but not hard, and gave the idea that the outer part of the gland had been distended, but had now collapsed and lay loosely on a very hard nucleus. Lumbar glands large, but nothing remarkable. Examined blood from lungs and spleen, and from both obtained a few filaræ. The juices expressed from the left groin gland contained filaræ in considerable abundance.—24th: The parasites referred to as having been found in the subperitoneal areolar tissue were long tape-like animals, twelve to fourteen inches long, one-eighth of an inch broad, and about one sixty-fourth of an inch in thickness. They were dead white, and moved distinctly when taken out of the body. The extremities were rather thicker than the rest of the body, and were rounded off. A hurried glance with the microscope showed one extremity to be lipped. I placed them in a mixture of

serum and urine, intending to examine them more carefully in the evening of the post-mortem, but was disturbed. Next morning I poured spirits of wine over them. To-day I find them so friable that I cannot make out the structures. There are no joints or articulations. The entire animal seems stuffed with clear globular egg-like bodies, in many of which double and treble outline, with appearance of nucleus, can be traced. These bodies are apparently held together by a loose fibrous matrix, which on pressure splits up longitudinally or ruptures transversely. The integument is very thin. One extremity appears to be provided with a narrow longitudinal slit, the other is distinctly lipped.

Amoy.

[We are informed that the tapeworm-like parasites were submitted to Dr. Cobbold for identification, and he finds that not only are they new to science, but they belong to the genus *Ligula*, hitherto not known to infest the human body. Accordingly he proposes to call the worm *Ligula Mansoni*.—ED. L.]

## REMARKS ON PROSTATORRHOEA.

By D. CAMPBELL BLACK, M.D., L.R.C.S. EDIN., &c.,  
EXTRA-PHYSICIAN TO THE ROYAL INFIRMARY, GLASGOW; PHYSICIAN  
TO THE GLASGOW PUBLIC DISPENSARY.

THE normal function of all glands is maintained by a healthy coördination of the three divisions of the nervous system—viz., the motor, the sensory, and the sympathetic. The integrity of such coördination may be disturbed by peripheral or central influences, or by lesions of the intercommunicating apparatus. Bodily waste and repair—the persistence of healthy structure,—equally with the normal secretion of all glands, are thus dependent on a healthy nervous system, and it in turn on a healthy blood-supply. If at any of the points indicated the normal influence of the nervous system be perverted, the due circulation of blood is interfered with, and in glands one or other of the following changes take place, as certain conditions predominate.

On the Basement Structure  
of Glands.

On the Secretion of Glands.

Neoplasm.	Degeneration.	Augmented or diminished secretion.	Changes in the composi- tion of the glandular secretion.
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The functions of the sexual and urinary organs may be said to be compound in respect that they are partly voluntary and partly involuntary, and that some are participated in by purely cerebral influences, while others are exclusively reflex phenomena in association with given centres of the spinal cord, and thus totally independent of the higher nervous centres. To the former belong the functions of micturition, and to some extent the special sexual functions; while to the latter are to be assigned those of the testicle, the prostate, Cowper's and the other smaller subordinate glands. The nerve centre for the sexual organs is situated in the lumbar enlargement of the spinal cord, and presuming the integrity of the centre and reflex loop, the sexual secretory functions, while they may be influenced by psychical impressions, are carried on quite independently, as all vegetative functions are. In the light of the above propositions we have seen that these functions may be deranged by peripheral, central, or intermediate influences. Under the first category are recognisable the phenomena attendant on the presence of stone in the bladder, hæmorrhoids, preputial irritation, contracted meatus, prostatitis, and varicocele; under the second two categories the phenomena arising from disease or injury to the spinal cord, and the disturbed motor conditions thereby occasioned. These, it will be obvious, comprise retention and incontinence of urine, reflex pain, a peculiar form of spinal paralysis, excessive secretion of the testicle and consequent spermorrhægia, excessive secretion of the prostate (prostatorrhœa), &c.

When several glands discharge their peculiar secretion into a common emunctory it is often difficult to distinguish how far discharges from such emunctory are simple or compound, or to what extent they are the latter. This is notably the case with the urethra, as the term gonorrhœa sufficiently demonstrates. Empirics are never slow to find out the hidden or neglected arcana of medicine and surgery, and profit thereby at the expense of the credulity or un-

founded fears of their victims, backed up as they have been in the case of urethral discharges, other than gonorrhœa, by the sensational and ill-advised writings of such men as Lallemand and his followers. The frequency of urethral discharges, at stool especially, and at other times in rarer cases, did not fail to excite their notice, and they forthwith sought, and too often sought successfully, to associate such discharges with the "chamber of horrors" in which Lallemand and such as thought with him, delighted to revel, to the irreparable injury, bodily and mental, it may safely be asserted of countless thousands. As there is no system or form of quackery which does not depend for its maintenance on the kernel of truth within, the expediency of disentangling the true from the meretricious in the present instance is now sufficiently recognised, though there are still considerable differences of opinion among authorities on certain points, to one or two of which it is my present object to direct attention, record my experience, and invite discussion on the part of others whose opportunities of observation are of a more extensive nature than my own. The subject of involuntary emissions of semen is coexistent with the literature of medicine,<sup>1</sup> but comparatively little pathological significance was accorded to them until the ill-advised and hastily-generalised treatise of Lallemand appeared at Montpelier. Antecedent to this time happy ignorance prevailed upon the subject, and people consequently enjoyed physical and mental health. It was not until 1860, I believe, that a special discharge from the prostate gland was described by Professor Gross;<sup>2</sup> and in his admirable work on this and allied subjects Dr. Samuel W. Gross defines prostatorrhœa as an "excessive secretion of a clear viscous fluid, dependent upon chronic catarrhal inflammation of the tubular glands of the prostate. It is included by some authors in their description of chronic prostatitis; but it is an entirely independent disease, as it does not follow an attack of acute inflammation, nor is it attended with suppuration or other morbid changes of the parenchyma of the organ." Erichsen states that "the disease is characterised by the discharge of a few drops of ropy viscid mucus from the urethra after micturition and defecation. It is chiefly of importance from its liability to be confounded with spermatorrhœa, and from the depressing effect consequently produced on the patient's mind," and he further indicates that its diagnosis is to be effected by microscopic examination of the nature of the discharge, thereby indicating that if the discharge contain spermatozoa, the disease is spermatorrhœa; if they are absent, that it is prostatorrhœa. Professor Humphry, in treating of spermatorrhœa, remarks, "Accompanying this malady, or independent of it, there is sometimes a discharge from the urethra of a tenacious fluid, like white of egg, in small quantity, following the urine, or expelled during the evacuation of the feces, especially when straining is required for this purpose. This symptom causes great alarm to the patient, as he believes that he is suffering from a continual escape of the semen. Such is, however, not the case. I never found any sperm elements in it. It proceeds apparently from the prostate gland; and its presence in sufficient quantity to issue from the urethra is an indication of a relaxed condition of the ducts of the gland, permitting the secretion to be expressed during the voiding of the urine or feces." Dr. King Chambers seems to be of a similar opinion, regarding this discharge as one of pure mucus, which may go on for years without any physical or mental impairment unless the patient's mind is directed to the subject. Mr. Teevan, on the other hand, regards this as "true spermatorrhœa," and curiously enough ascribes it to indigestion. Mr. Benjamin Phillips remarks, "At one time I doubted whether this fluid were spermatic, it is usually so smooth, transparent, and homogeneous; but if it be examined under the microscope, spermatozoa can usually (italics writer's) be observed in it. Its thin character has induced people to think that it was a depraved secretion become watery by exhaustion of the secretory organ; and sometimes it may be so, for if a person who complains of the constant escape of the thinner fluid has an ejaculation, the fluid will be thick and grumous. It is therefore most probable that the more fluid portion of the secretion which fills the seminal vesicles is most easily pressed out; and this is a reasonable explanation of this feature of seminal discharges." Considerable diversity of

<sup>1</sup> I am not forgetful of the fact that Hippocrates describes spermatorrhœa and tabes dorsalis as arising from venereal excesses, *Ἡπὶ τῶν ἐν τῷ κατὰ φύσιν καὶ ἐπὶ τοῦ νοσήσαντος*.

<sup>2</sup> North American Med. Chir. Rev., July, 1860, p. 693.



opinion, it is therefore obvious, exists as to the nature of this discharge, the presence of seminal elements being denied on the one hand and affirmed on the other. Some years ago, in writing on this subject,<sup>3</sup> I expressed the conviction that while in the majority of instances the secretion was entirely from the prostate, yet that facts were wanting to prove that involuntary seminal emission did not so occur, and, indeed, that my experience proved the contrary. Further observation entirely confirms me in this opinion. It seems to me immaterial whether the discharge be called prostaticorrhœa or spermatorrhœa (and if the presence or absence of spermatozoa is to regulate the nomenclature, the microscope will at once determine this), the main question being, whether this is a normal condition, whether it is injurious to health, its causes, and how to remedy it. I do not think it will be maintained that this is a normal condition; neither will it, I suppose, be denied that a constant drain of seminal fluid from the urethra is likely prejudicially to affect the health. In the following cases of prostaticorrhœa two groups are recognisable; in the one spermatozoa existed in the discharge, in the other these elements were absent; while the apparent causes were various, and bore out the propositions enunciated at the outset of these remarks.

Case 1 came under my notice in October, 1880. I have but few notes of this case, being that of a third-year's student of medicine. Patient complained of a frequent discharge of tenacious matter from the urethra during defecation. He felt confident that his health suffered, and he desired my opinion as to the nature of the discharge. Examination of the urethra revealed a certain amount of prostatic tenderness, and the microscope the abundant presence of spermatozoa in the discharge as represented in the subjoined diagram.

FIG. 1.



I advised the passing of a full-sized metallic instrument twice a week, and tonic treatment, requesting that I should be informed if the result were not satisfactory. Not having seen the patient subsequently, nor having heard from him, I infer that his ailment disappeared.

(To be concluded.)

## THE TREATMENT OF GONORRHOEAL OPHTHALMIA.

BY CHARLES BADER,  
OPHTHALMIC SURGEON TO GUY'S HOSPITAL.

THE uniformly favourable success of this new treatment, and the serious nature of the disease, will, I hope, justify the publication of the following cases, which have occurred in the present year. See also THE LANCET for May, 1880.

CASE 1.—Miss S—, aged eight, when seen on Jan. 21st with Dr. Harter, of Artillery-place, Finsbury-square, suffered from gonorrhœal ophthalmia (fifth day) of the right eye, probably through a servant with gonorrhœa using a towel in the child's room. The anæsthetic was necessary for examination, the child being most troublesome; this Dr. Harter had to repeat each time when injecting the ointment.

<sup>3</sup> On the Functional Diseases of the Urinary and Reproductive Organs. Second edition. J. & A. Churchill, London.

The purulent discharge, redness, and swelling of the lids were very great, and even under the anæsthetic only a glimpse of the lower margin of the opaque cornea was obtained. Similar examination on Jan. 24th and Feb. 7th showed the lower third of the cornea opaque. The ointment was injected once daily, and the eyelids kept bound with lint smeared over with it, changing the lint several times during the day. The left eye, which remained unaffected, was only bound up with lint and ointment, taking care to attend to this eye before the other was touched. The injection of the ointment was discontinued on Feb. 7th, when the lids opened sufficiently to see the entire cornea. When the child was seen in March, the surface of the cornea was smooth, and the opacity reduced to a small nebula.

CASE 2.—Mrs. E. B—, aged thirty-four, was admitted into the eye ward of Guy's Hospital on March 3rd, with gonorrhœal ophthalmia of both eyes. The lids of the right eye were too much swollen to admit of a view of the cornea; that of the left eye, on raising the red drooping swollen lid, was found to be transparent. The sister of the ward injected the ointment at 9 A.M. and 4 P.M. daily; both eyes were kept bound up with lint thickly covered with ointment; fresh lint was applied after each injection.—March 14th: Injection of the ointment at 9 A.M. only; the lids open fairly; the lower margin of the right cornea is opaque.—21st: Discharged. Advised to smear some of the ointment among the eyelashes at bedtime.—April 4th: All discharge ceased; right corneal opacity barely noticeable.

CASE 3.—Mr. H—, aged twenty, when seen on April 26th, 1882, with Dr. Blades of Kennington-park-road, was suffering from gonorrhœa and from gonorrhœal ophthalmia of the left eye. No inspection of the cornea was possible, the swelling and tension of the eyelids being too great; there was much purulent discharge, pain, and intolerance of light. Right eye not affected. Dr. Blades injected the ointment daily (about 11 and 4 o'clock) beneath the upper eyelid of the left eye; both eyes were kept bound up with lint and ointment.—April 30th: Less pus and swelling; eyelids of a dark blue-red hue; the lower part of the cornea, as far as visible, opaque. On receiving a telegram the next day that the right eye was also inflamed and discharging, I replied, "Inject both eyes." Five days later the discharge from the last attacked eye had greatly subsided. As the lids opened and discharge and swelling became less, the injection was made once daily, but the bandage with lint and ointment was continued. On May 25th the ointment was discontinued and weak alum lotion used for bathing. In July I saw the patient: both corneæ were clear, and the eyes well in all respects.

Remarks.—The ointment consists of one grain of the red oxide of mercury (supposed to destroy the contagious matter), of one-fifth of a grain of daturin or atropin (to combat iris complications), and of one ounce of vaseline (as the best vehicle to touch and saturate the entire surface of the conjunctiva with the remedies). In no case, however great the



swelling of the eyelids and conjunctiva, has any difficulty been experienced in injecting the ointment. For injection a small glass syringe, figured above, is used (made by Messrs. Krohne and Sesemann) with a flat nozzle, to pass readily beneath the margin of the upper eyelid. The ointment, passing beneath the margin of the upper eyelid, escapes, generally with some pus, at the inner canthus. About two drachms of the ointment suffice for one injection. No pain whatever is felt when manipulating gently.

At a meeting of the Medico-Chirurgical Society of Glasgow, held on the 6th inst. in the Faculty Hall, St. Vincent-street, the following gentlemen were elected office-bearers for the session 1882-83:—President: Dr. W. T. Gairdner. Vice-Presidents: Drs. Robert Grieve and Alex. Robertson. Council: Drs. George Mather, H. C. Cameron, Robert Forrest, Lapraik, D. Maclean, J. C. Woodburn, Wm. Whitelaw (Kirkintilloch), W. A. Wilson (Greenock). Secretaries: Drs. W. L. Reid, and J. W. Anderson. Treasurer: Dr. Hugh Thomson.



## A Mirror

OF

HOSPITAL PRACTICE,  
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORAGANI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## GUYS HOSPITAL.

ACUTE ABSCESS IN LUMBAR REGION AFTER INJURY;  
SEVERE PAIN DOWN THE COURSE OF THE ANTERIOR  
CRURAL NERVES TO KNEE; FREE OPENING; NECROSIS  
OF LUMBAR VERTEBRA; RECOVERY.

(Under the care of Mr. BRYANT.)

FOR the notes of this case we are indebted to Mr. Kidd.

Frederick L.—, aged twenty-two, was admitted into the accident ward on Dec 2nd, 1881. Three days prior to admission he fell from a height of about eight feet upon his back. He got up and went on with his work, carrying timber, for an hour. He then left work for dinner, but felt sick. He then walked a mile and a half to the hospital, where his back and arm were strapped up. He walked home and went to bed, and stayed there until Dec. 2nd. His appetite remained good, and he took bread-and-butter and milk. During this time he felt pain across his back, down the front of his thighs, and in his knees (not down the legs). A fortnight before the accident he had pain and stiffness in the left elbow, though he could remember no injury.

On admission there was great pain in the lumbar region, with a slight swelling over the third and fourth lumbar spinous processes, and tenderness on pressure. There was pain likewise down the front of the thighs and knees. There was also a slight bruise over the left olecranon process. Milk diet was ordered.

On Dec. 3rd one grain of opium pill was ordered twice a day; milk two pints and a half. Spongio-piline, with tincture of opium, was applied to the back. He still complained of pain in the knees; movement of the knees was becoming impaired, and there was hyperæsthesia. On the 5th the tongue was red and dry. There was apparently deep-seated pus in the lumbar swelling; the swelling was three to three and a half inches long by about two inches wide. He complained of pains in his knees, but pressure did not perceptibly increase it. Next day there was retention of urine. A deep puncture was made through the muscles into the lumbar swelling, and about an ounce of pus and blood came away. There was an acute inflammation over the olecranon process of the left arm. Lead lotion was ordered. On the 7th fluctuation was detected in the olecranon bursa. The abscess in the lumbar region was further opened, and an ounce and a half of blood and pus came away. The abscess over the olecranon was opened and flaky lymph came away; an internal angular splint was applied to limb. On the 8th patient passed his urine easily. Bowels not opened since accident. A soap enema gave relief. Two days later there was a good deal of discharge from lumbar abscess, and on the 12th the pain in the knees had entirely disappeared. On the 24th the patient appeared to be nearly well. There was very little discharge from the sinus in lumbar region or over the olecranon.

On Jan. 6th the granulations at the elbow being large were lightly touched with nitrate of silver. On the 25th a piece of bone exactly three-quarters of an inch long was found sticking to the orifice of the wound. The exfoliated bone was the result of periostitis, following on inflammation of the ligaments of the lumbar vertebra, probably coming from the spine or lamina of one of the lower lumbar vertebra. The spicules of bone were not sharp.

On Feb. 10th another small piece of bone came away from the lumbar wound. A Sayre's jacket was put on, extending from the nipple to the crest of the ilium. A square hole was cut over the wound. On the 21st the patient was discharged feeling quite well, and still wearing the Sayre's

jacket. The wound in the back was quite healed. His left elbow was rather stiff, but its condition was much improved by gentle movement.

The temperature ranged between normal and 102.5° from Dec. 3rd to the 15th, it then fell to normal, and continued so.

## ROYAL BUCKS INFIRMARY.

DISLOCATION OF THE FIFTH CERVICAL VERTEBRA; REDUCTION; RECOVERY.

(Under the care of Mr. T. H. CEELY.)

FOR the following interesting notes we are indebted to Mr. E. Van Buren, house-surgeon.

Charles K.— was admitted to the infirmary on August 4th with the following symptoms. The history obtained was that he had been loading hay on to a rick, and at the time of the accident was standing on the top of the rick close to the side. The hay gave way, and he fell backwards on to the ground (a distance of between twenty and thirty feet), striking himself on the back of the neck. He was picked up insensible and conveyed in a cart to the hospital.

On admission he was found to be partially insensible. The pupils were both rather dilated, but equal. There was complete paralysis of the upper and lower extremities, and the breathing was slightly abdominal. The penis was in a state of erection, and there was a desire but no power to pass water. A No. 10 catheter was passed and about a pint of urine drawn off. It was clear and acid; sp. gr. 1020, and contained no albumen. The pulse was 64, full, and non-compressible. He gradually became more sensible, and complained of great pain at the back of the neck, and he also said his arms and feet felt cold and numb, and that he had great difficulty in getting his breath. The slightest movement of the head hurt him, and as he seemed to be improving it was deemed advisable to leave him alone, strict abstinence from all movement was enjoined, and sand-bags were placed on each side of the head. Some injury to the upper part of the cervical vertebra was suspected.

In about an hour and a half after admission the man became rapidly worse. The breathing was almost entirely abdominal and stertorous; he was with difficulty roused, and there was evidently paralysis of the glottis as fluids entered the lungs. He began to get much cyanosed, and it was but too palpable that unless something were done, and that something quickly, the lad would die. In Mr. Ceely's unavoidable absence Mr. Van Buren took upon himself the responsibility of acting.

On sitting the man up, and examining the back of the neck, much bruising was present over the cervical region, and evidently some abnormal condition of the anatomical arrangement of one of the cervical vertebra. The seventh was prominent, and could be readily recognised; but the second spinous process above this was even more prominent still, and there was marked displacement of the vertebra. No signs of fracture could be detected, and it is certain there was none of the spinous process.

It was concluded that it was a case of dislocation which should be reduced. The nurse being instructed to steady the head, Mr. Van Buren placed his two thumbs on each side of the projecting spinous process, and with the rest of his hands taking a firm grip of the neck just above the clavicles, and commenced to apply gradually increasing pressure, the nurse at the same time elevating the head slightly. The vertebra went in with a distinct snap, and all prominence and displacement disappeared. The lad at once became quite sensible, and in a very short time the breathing gradually became thoracic. When seen two hours after he could move his legs and arms, and said he felt quite well, only a little sore behind the neck. His temperature was 100° F.; pulse 84. He had no bad symptom afterwards, and eventually left the hospital in capital health.

*Remarks.*—That cases of this kind are rare no one can deny. In fact, Sir Astley Cooper went so far as to say they could not occur; but that the one narrated was a case of dislocation I honestly believe. I have wished to put this case on record, because there is a great tendency to give up all hope if the neck is seriously injured. I trust this case will show there is a *dernier ressort* which may do good, and at the least can do no harm.

## LIVERPOOL LOCK HOSPITAL.

(Under the care of Mr. A. BERNARD.)

THE following notes of cases of warty growths on the genitals may prove of interest.

CASE 1. *Phimosis*.—On compressing the forepart of the penis a hard mass was felt simulating induration of the glans. A few small warts at the free border of the prepuce led to the belief that the induration was due to the presence of warty growths, which was confirmed on freely dividing the foreskin, an extensive crop of warty excrescences becoming exposed attached to the under surface of the prepuce, furrow, and glans penis. A strong solution of liq. plumbi was applied for a few days with the hope of drying up the growths. As this was not satisfactory, it was decided to remove them by means of the thermo-cautery, under the administration of chloroform. By this means all the growths were carefully removed, and afterwards attended with but very slight pain for a short time. The cauterised surfaces healed in a fortnight. This patient came under notice six months afterwards, the penis showing no trace of the excrescences.

CASE 2. *Phimosis, complicated with ulceration and perforation of the prepuce, the glans protruding*.—Upon drawing the glans through the perforation a few warty excrescences became visible, fetid pus exuding. The prepuce felt very hard on pressure. The only indication was to remove the fore parts of the prepuce, chloroform being administered in this case also. On removing the prepuce a crop of warty excrescences, situated similarly to Case 1, became visible. These were all ligatured. The patient was discharged cured in fifteen days.

CASE 3.—Female patient affected with an extensive crop of warty excrescences situate on the labia majora, and extending backwards, occupying the greater part of the perineum. Removed by means of the thermo-cautery, under the administration of chloroform. Discharged cured in three weeks.

CASE 4.—Elongated left nymphæ extensively hypertrophied at the lower half, which was thickly studded over with hard warts. Expectant treatment with local applications having failed to restore the nymphæ to its normal appearance, the hypertrophied part was removed with the bistoury, the thermo-cautery being applied to the cut surface to allay hæmorrhage, which it did most effectually. This patient was discharged cured in twenty days with little to distinguish the affected nymphæ from the sound one.

CASE 5.—Thick warty growths on the glans, prepuce, and furrow, giving to the parts a most unsightly appearance, situated on broad bases, and of some months' duration. Removed with curved scissors, perchloride of iron being immediately applied to check hæmorrhage. This patient was discharged in three weeks with nothing to indicate his previous affection.

CASE 6.—This case was admitted to hospital on Sept. 12th, 1882, suffering from phimosis with ulceration and perforation of the prepuce, the result of irritation set up by the pus exuded from warty excrescences situated on the inner surface of the prepuce, furrow, and glans. The aperture of the prepuce was very small owing to congenital phimosis. A bunch of warty excrescences protruded through the perforation, and a small wart at the aperture. The prepuce was freely divided under the administration of chloroform, and the growths, which were numerous, were removed with curved scissors. Very slight bleeding. Perchloride of iron was applied similarly to the last case. This patient was discharged, at his own request, on Sept. 22nd, all but well.

Mr. F. W. Lowndes administered the chloroform in all these cases.

THE HOWARD MEDAL.—The Council of the Statistical Society announce their intention again to grant the sum of £20 to the writer who shall gain the above medal for 1883, essays for which must be sent in on or before June 30th next. The subject is "The best Exposition of the Experiences and Opinions of John Howard on the Preservation and Improvement of the Health of the Inmates of Schools, Prisons, Workhouses, Hospitals, and other Public Institutions, as far as Health is affected by Structural Arrangements relating to supplies of Air and Water, Drainage, &c."

## Reviews and Notices of Books.

*Clinical Lectures on Diseases of the Nervous System.* By THOMAS BUZZARD, M.D. Lond., F.R.C.P., Hon. Fellow of King's College, London; Physician to the National Hospital for the Paralysed and Epileptic. London: J. & A. Churchill. 1882.

## [SECOND NOTICE.]

If anyone wishes to be cured of a habit of taking too narrow a view of tabes dorsalis, we specially commend these lectures to him. He will find in them due attention given to tabetic symptoms so different as optic nerve atrophy, herpes with lightning pains, a certain joint disease, and gastric crises, as well as to the two especially important diagnostic symptoms—absent knee jerk and the Argyll-Robertson phenomenon. The question as to the influence of syphilis in the causation of tabes is considered at some length. As from a therapeutical point of view this is a most important matter, we quote Dr. Buzzard's brief summary of a lengthy consideration of the facts. He says (p. 214): "Whilst it appears to me incontestable that there is a remarkable frequency of association between syphilis and tabes dorsalis, I do not think, all things being considered, that the time has yet arrived for us to draw safe inference as to the precise nature of the relation."

The following quotation gives the author's view of the pathology of "gastric crises" in tabes, and embodies, too, some facts corroborating his well-known hypothesis as to its physiology and pathology. The importance of the subject justifies a long quotation:—

"In a communication brought before the Pathological Society of London in February, 1880,<sup>1</sup> I made the suggestion that gastric crises depend upon irritation of the nucleus of the vagus by sclerosis. At that time I had no anatomical evidence to offer in support of the hypothesis, which was based upon the paroxysmal character of the attacks, so completely in accord with that characterising the attacks of lightning pains. It appeared evident to me that if sclerosis, which when it attacked nerves of common sensation produced pain, came to invade the nucleus of the vagus, it might be expected to give rise to symptoms like those of the gastric crises. During the meeting of the International Medical Congress in London, 1881, Professor Pierret, of Lyons, showed me sections of the medulla oblongata which he had recently made from a case of tabes with gastric crises. I was greatly interested in his demonstration that the fasciculus gracilis in immediate relation with the nucleus of the vagus exhibited distinct sclerosis. It will be remembered that the funiculus cuneatus and gracilis, which closely adjoin the sensory portion of the pneumogastric nucleus, represent the continuation of the posterior columns of the spinal cord upwards to the cerebellum through the medulla oblongata." Dr. Buzzard adds in a footnote: "Whilst this work is going through the press I note a paper by Dr. Emile Demange (*Revue de Médecine*, No. 3, Paris, 1882) on the 'Chute Spontanée des Dents, et Crises Gastriques et Laryngées chez les Ataxiques.' In a case marked by spontaneous shedding of the teeth (without caries), and also by gastric and laryngeal crises, histological examination of the medulla oblongata showed the greater part of the nuclei of origin of the bulbar nerves plunged in the midst of sclerous tissue. The nucleus of the mixed nerves (glossopharyngeal, vagus and spinal accessory), as well as the ascending root of the fifth and other structures, were evidently involved in this sclerosis. The signs of sclerous neuritis were observed in the branches of the fifth nerve."

About fifty pages are devoted to one tabetic symptom, not more than its importance deserves, to what the author calls "Charcot's joint disease" in tabes. In this country Dr. Clifford Allbutt was the first to draw attention to this morbid affection in tabes; later Dr. H. Thompson published a case; then follow Dr. Buzzard's observations. We strongly commend the four lectures on this form of joint disease to

<sup>1</sup> Transactions of the Pathological Society, 1880.

the attention of surgeons. They embody as important a contribution to surgery as they do to medicine. The author shows that in spite of its rarity it has as much right to be included in the symptomatology of tabes as any other symptom, whether striking or not striking. He relates several cases, and in addition makes the following general remarks:—

"Experience of these cases shows that with a striking similarity in their onset, their progress varies. In some, at the end of a few weeks or months, the swelling disappears, and the joint apparently returns to its former condition. In others, on the contrary, grave disorder remains—erosions of the osseous surfaces, creaking movements, various luxations, or even total destruction of the joint. As regards the order of frequency, it is first the knee, then the shoulder, the elbow, hip, and wrist, which are apt to be affected. Several joints may be coincidentally involved."

Dr. Buzzard has pointed out that there is a remarkable frequency of association of tabetic arthropathy with gastric crises. "The cases of tabetic arthropathy that I can find recorded (including nine of my own) number forty-eight. In twenty-four there were gastric crises," (p. 266). This is certainly a very striking proportion. If further evidence confirms Dr. Buzzard's opinion he will have enriched medical science with a generalisation of great value. He believes that there is a nerve centre in the medulla oblongata concerned with the nutrition of bones and joints, and thinks the "lesion of a structure adjacent to the nuclei of the vagus may be found to explain the osseous affection in tabes."

There is another matter of great interest to surgeons as well as to physicians, Dr. Buzzard writes (pp. 273 and 274):

"It has occurred to me to see one patient in whom the presence of a stone in the bladder led me to examine the state of the patellar tendon-reflex. It was found to be absent, and inquiry elicited the fact that the patient suffered from most characteristic lightning pains. I would suggest that tabes may be an occasional source of origin of a calculus, of the kind which Sir Henry Thompson calls 'local,' in contradistinction to the calculus (as—e.g., uric acid) which is of 'constitutional' origin. In many cases of tabes, at an advanced stage, there is actual paralysis of the bladder. But a certain amount of difficulty in expelling urine may be a very early symptom, dependent probably upon vesical anaesthesia and absence of normal reflex. It will often be found, on inquiry, that the patient never has the natural feeling of wanting to pass urine, and does not know when it is being voided, or when he has finished. In such circumstances, unless he contracts the habit of passing it at regular intervals, there is always the possibility of cystitis occurring from urine getting retained, and in the mucous of the bladder; in these circumstances, a phosphatic calculus may easily be formed. It is worth while remembering that a bladder trouble of this kind may be as prominent and absorbing a symptom as either the gastric crises or the optic atrophy; and if ataxy of gait be absent, the real nature of the trouble may be easily overlooked. I have but little doubt that not a few cases of atony of the bladder for which the surgeon is consulted are examples of tabes with the bladder trouble predominating." He adds in a foot-note (p. 274): "At the International Medical Congress, held in London, 1881, Sir William Gull, President of the Section in which the substance of this lecture was read as a paper, expressed his opinion that the position here taken as regards stone in the bladder was sound, and remarked that the case of the late Emperor of the French was one which, according to his belief, went in support of my view."

In Lecture XVI. he tells us that, "There is a kind of stupor which is a noteworthy feature in many cases of intracranial syphilis." After his usual clinical method, he illustrates by a case, describing the particular symptomatic condition in his narration of it. He does not glibly pass over its pathology as being "caused by syphilis," leaving the process of causation out of focus. Most syphilitic nervous symptoms are indirectly owing to syphilis, as the author believes the one he is dealing with to be. His in-

ference as to its pathology is that the cortical substance of the brain is "starved of blood to a considerable extent" by syphilitic disease of the cerebral arteries. "We can easily conceive," he suggests, "that this starvation may stop short of death of the tissue—that is to say, there may not be absolute obstruction and consequent softening, but a state of partial atrophy." Thus it will be seen that he distinguishes, as indeed he does expressly further on, the condition he supposes to exist from that of local cerebral softening owing to actual thrombosis of syphilitic arteries. The happy fact of his patient's recovery leaves, the author admits, the pathology of the case he adduces hypothetical. The opinion of this physician on the treatment of any variety of cerebral syphilis deserves most respectful attention; we gladly give space for it. The matter is of grave clinical importance. Here is what Dr. Buzzard has concluded as to the relative values of the iodide of potassium and mercury in the treatment of cerebral syphilis. Referring to the case alluded to, he writes (p. 289):—

"B—, it will be remembered, had been taking thirty grains of iodide daily for two months, when he broke down in his brain. This drug, then, supposing the view taken of the man's pathological state to be correct, had failed to influence the new formation in the arterial walls, so as to prevent the grave consequences of narrowing and thrombosis. No doubt there is the probability that its administration was commenced too late; that changes had taken place in the growth such as rendered its absorption (which might have been practicable at an earlier stage) no longer likely to happen; and there is the possibility also that the dose was not large enough. But it is a fact, however it is to be explained, that we very often meet with this condition of thickened arteries in the post-mortem examinations of persons who have been taking iodide of potassium up to the time of their death. I have long had a rather strong impression that the iodide has comparatively little effect upon this arterial change, and that it is best to employ mercury without delay in most cases of this kind. At all events, under a really effective use of this drug (administered by inunction), the restoration to health which took place in these patients was most striking. It is not unfair to suppose, although it cannot be proved, that under its use a good deal of the new growth in the arterial walls, which had resisted the effects of the iodide, was absorbed, so that the channels of circulation became gradually liberated to a great extent."

Lecture XIX is on paralysis agitans; and since its diagnosis from disseminated sclerosis is therein carefully considered, we may say that it is partly on the latter morbid affection also. We must refrain from dwelling on more than one part of this excellent lecture. There is an entirely novel observation which is of great interest in several different ways. Speaking of the alteration of voice in one of his patients suffering from paralysis (agitans, Dr. Buzzard writes (pp. 334-335):—

"We all know that on the stage peculiarities of every kind are obliged to be accentuated for the sake of strong light and shade. When a very advanced period of old age has to be represented, the tone of voice adopted is exactly of the shrill piping character which we note in this woman, who, however, is only sixty-two years of age. Shakespeare thus refers to this character of voice in connexion with the sixth of his 'Seven Ages of Man':—

"His big manly voice,  
Turning again towards childish treble, pipes  
And whistles in his sound."

Since I first noted this piping note in cases of shaking palsy I have been interested in observing whether it was common in the exceptionally aged persons, not afflicted with paralysis agitans, whom from time to time I have met. I have not found it to be so. Now, paralysis agitans, although, as Charcot has pointed out, it especially assails persons who have passed their fortieth or fiftieth year, has a slow march and little or no tendency to curtail longevity. Hence there is always to be found a certain number of persons afflicted with paralysis agitans who have arrived at a ripe old age, and who present this peculiarity of voice. I cannot help thinking that the conventional voice of age on the stage has originally been derived from the study of some

old person affected with this disease, and thence handed down, as we know is the stage custom, to successive generations of performers."

Dr. Felix Semon examined this patient laryngoscopically, but discovered no abnormality.

The rest of the work deserves as much notice as has been given to the lectures we have already remarked on, but the demands of our space leave us no choice but to do little more than mention what remains. There is no separate lecture on diphtherial paralysis, but in many parts of the work the author deals with it in a very realistic manner. There is an admirable lecture on "Ophthalmoplegia Externa, with Tabes Dorsalis," with an elaborate and excellent examination of the parts diseased, by Bevan Lewis. If anyone wishes to realise that scientific research and what Carlyle calls "practicality" may be combined without confusion, he will, by reading this lecture, see that it can be thoroughly well done. From Lecture XXIV. the reader will find that fourteen years ago (*Practitioner*, October, 1868) Dr. Buzzard drew attention to the phenomena of "transfer" induced by encircling blisters placed on limbs above the point of departure of the so-called epileptic aura. This was some years before the well-known experiments on cases of hysterical hemianæsthesia by Charcot and others. Thus Dr. Buzzard was prepared to think, from what he had previously observed himself, that such transfer was very probable, and that there were no good grounds for doubting the *bona fides* of the hysterical patients.

## Abstracts

OF

## INTRODUCTORY ADDRESSES

DELIVERED AT THE

## PROVINCIAL SCHOOLS OF MEDICINE

AT THE

Opening of the Session 1882-83.

### COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.

ADDRESS BY DR. THOMAS OLIVER.

THE lecturer took for his subject "Medicine, its Progressiveness and Relation to Civilisation." After a few words of introduction Dr. Oliver said:—"The existence of the science and practice of medicine is a necessity. Its origin is shrouded in mystery. To understand the causes which led up to the origin of the art, you must go back with me to a time when this earth was peopled by masses of rude men and women; to a time when lawless hordes roamed about, owning no habitation but the face of nature, and bound to each other by no tie save that of the social instinct. Civilisation, or, in other words, the development of these masses, could only arise through differentiation of the individuals. . . . From the peculiar nomadic character of primitive tribes, the art of surgery must have preceded that of medicine. As, in the world of life, no development takes place, no organisation is accomplished without interdependence of parts, so, in the development of society, special men were set aside to do special work, different duties were allocated to different individuals; and each one, trying to do his own work aright, was unconsciously contributing to the improvement and elevation of his fellow-men. In the social as in the physical world, kosmos succeeded chaos, and, with the growth of society, the requirements of men became greater. From being pastoral in their habits, and predatory in their inclinations, men of the Indo-European race after a time became settlers. I am not in a position to tell you how disease originated. It is not necessary to believe with Plato that it was due to the degeneration of man, for these primitive people were living under the freest of conditions, under conditions which harden rather than

lead to degeneration. It may be that disease originated then, as it does now, in repeated violation of the laws of nature, or was part of that Almighty fiat which said, 'Let there be life,' or, as moralists tell us, was a visitation for some sin. Once originated, however, it formed one phase of social life which had to be dealt with, and requiring treatment at the hands of the tribal physician. The origin of the art of medicine, then, if this summary is correct, presupposes a higher state of the social mass for its reception than the origin of surgery. Observation of disease, and the results obtained by means of the treatment adopted, led to the recognition of antidotes, and to their classification. Out of observation and experience arose the practice of medicine. From the nature of things, men were contented with results for some time before they attempted finding out the reason why. It was when the faculty of reason was brought to bear upon the questions at issue that medicine developed from an art to a science. There could not have been in those early days, more than there is at the present time in Central Africa and some of the Oceanic Islands, anything like a well-arranged system of medicine. Empiricism, trading upon ignorance and superstition, was the condition of medicine until late in the development of the Continent, and in this condition it remained until Greece asserted her influence. It is true that the early Egyptians were not altogether unacquainted with the efficacy of medicines; but, so far as our inquiry is concerned, Egypt at this period, though far advanced in civilisation, is only interesting to us as being the source whence the Greeks got their information. Simple in their manners, severe in their laws, and careful in the education of youth, the Greeks soon rose to fame. They recognised the fact that to be great they must be learned; and yet, while the Greeks recognised the great influence of culture in almost every department of life, while the nation was being consolidated at home and extended abroad, and its language becoming almost universal, the science of medicine had made little or no progress in their hands. And how was this? The rise of the nation was very rapid; plenty had too easily replaced want, and in that way damped the enthusiasm and aspirations of a noble people. The Greeks, overcome by pride and satiety, failed to push forward the good works they had begun.

"As for medicine, how could it develop? Like the other sciences, it had been carried to the temples, where, for a time, it was practised by Æsculapius and his followers. Æsculapius, who has been called the god of medicine, was a man with a wonderful reputation. With his two sons he founded a system of medicine, the followers of which were called Asclepiadæ. But, with Æsculapius, as with all founders or originators of systems, his pupils, in their attempts to further the development of that system, simply distorted it to meet their own ends. They built temples to the god of medicine in healthy situations—buildings surrounded by everything that nature could give to refresh the sight of the sick; and, internally, as in our modern hydropathic institutions, these buildings contained everything to make a residence within them pleasant and agreeable to the invalid. The external application of oil and water were the hygienic remedies employed; but, in addition, the Asclepiadæ were bold enough to make use of harsher measures when the occasion required them. These men, however, saw that they had a monopoly in their hands. Somehow or other a kind of sacred feeling came to surround these temples, wherein prayers were offered up by the priest-doctors, and fasting advised; and, recognising the influence of the moral on the physical, they took every opportunity to impress their patients that a cure to their disease could only come from the god of medicine, whose messengers and interpreters they were. Forming, in this way, a separate class, and transmitting their medical knowledge from one to another, as a family heritage, the Asclepiadæ followed their practice in profound secrecy.

"In the temples of Æsculapius, medicine made little or no progress—none, at least, so far as we know, until the Asclepiadæ revealed the secrets of their practice to those who had undergone a process of training. Medical instruction may thus be said to have originated in the temples. It could not be without its advantages to the Asclepiadæ, for the fact that their actions and lectures were criticised by younger men must have forced them to exercise the faculty of reflection. The most we can say of the Asclepiadæ is that they attempted exactness in their practice; they took notes of cases, and classified symptoms; but they seldom discussed the

origin of symptoms. That duty, and with it we may trace the rise of the real art of medicine, was left to those who rescued it from the temples, and foremost amongst the Greeks stands out Pythagoras. Close upon Pythagoras comes Hippocrates, one of the greatest writers on medicine. To him is attributed the statement that health depends upon an exact proportion of the four cardinal elements of the body—blood, bile, phlegm, and black bile, a doctrine which constituted the ancient system of 'dogmatism,' and which was taught, with few exceptions, until the foundation of the schools at Alexandria. Hippocrates was a simple observer, and an accurate recorder of facts. Amongst his pupils, however, dissensions arose. Methods and theories were thus attributed to Hippocrates which were never his.

"The art of dissection, and the facts recorded by Galen, gave a great impulse to the study of medicine. At this time, however, Alexander the Great was at the height of his glory. Successful in his wars abroad, Alexander had enriched his native country by the treasures he brought home. But it was left to one of his generals named Ptolemy to complete his work. Ptolemy recognised the secret of Grecian development, and, wishing to be great like his master Alexander, he saw that this could only be accomplished by making mind the moving force. For this end he gathered around him the intellect of the day. Philosophers and mathematicians now made their way to Alexandria, where medical schools sprang into existence, which soon eclipsed those of Cos and Pergamos. In the details of the study of practical anatomy the Alexandrians were well versed, and, for a time, all went well. As Alexandria acquired intellectual renown, so, in like degree, prospered the science and practice of medicine; but an evil day came. As in the earlier days of Greece, the people were not content to live in obedience to law, so in Alexandria, when it reached the height of fame, its statesmen and its scholars no longer observed and studied facts for themselves. The art of dissection fell into disuse, research was no longer stimulated, and science ceased to advance. It is true that Galen, by his writings on anatomy, has shed a lustre on the Alexandrian epoch. Much of his teaching, and much of the teaching of the schools was carried back again to Greece. Meanwhile, Alexandria was rapidly falling into decay. Rome, now in the ascendant, was travelling eastward. Julius Cæsar burnt the great library, and, for a while, the ruin of a marvellous city was all but complete. . . . Soon after the Mahomedan conquest of Egypt the Alexandrian library, which had been restored, was again destroyed. To the extent, however, that the Saracenic empire was enriched by the capture of Alexandria, so was that empire and the other nations impoverished by the rash order of Amrou. Mussulman princes invited men of learning to settle amongst them, and of these not a few were zealous students of Greek philosophy. Into many Mahomedan families the Jews gained access in the character of physicians. This contact refined the Mussulmans, for soon their fanaticism abated, their manners became polished, and their thoughts elevated. They ranked first amongst the commercial nations of the world, and were far ahead of all in science and philosophy. Under a system of freedom in education and physical research the Saracenic empire kept extending in every direction. Great in territory, it was also great in education, for in nearly every part of this large empire colleges existed. In the schools of medicine good work was done by these Arabians, especially in the departments of materia medica and pathology. Alexandria no longer occupied the prominent position which had been hers for centuries; but ere she entered on her decadence she gave that stimulus to progress which has not yet spent its force in Western Europe.

"It is a long time from the epoch during which the Universities of Europe sprang into existence, such as Bologna, Paris, Salamanca, and Oxford; and while it is true that for generations their work was carried on in comparative quietude, and the results of their teaching unfelt, their influence is now seen in that general diffusion of education which is the crowning glory of our age.

"Soon after the art of printing was revived, the art of engraving came into use, and, by its means, the practical study of anatomy and physiology was facilitated. With the revival of letters, physicians turned their attention to the means of preventing, as well as curing, disease. Harvey, at this time, had discovered the circulation of the blood; and, though his views were only a modification of Galen's, they simply revolutionised physiology. Like every new discovery,

however, it was long in being adopted. The teachings of antiquity could not be overthrown at once. For twenty-five years Harvey maintained in the face of great opposition what is now the chief fact of physiology. Following in the train of medical discoverers, comes Malpighi, who demonstrated by means of the microscope the existence of corpuscles in the blood; then Asselli, who discovered the lymphatics—a discovery which the two Hunters showed to be more comprehensive than Asselli ever dreamt. Medicine was now a preventive as well as a curative science. The hospitals built in earlier days were no longer fit receptacles for the sick. Hygiene was not sufficiently understood to enable physicians to deal satisfactorily with the disposal of large masses of men and women. Epidemic disease had again and again played sad havoc with our soldiers and our prisoners. For the diminution of such evils as prevailed at this time we can point with true pride to the labours of one man, who made public health his special study, the welfare of his fellow-men a life's work—I refer to John Howard. Small-pox had decimated the masses on more than one occasion, and, for the diminution of its mortality, we are indebted to Lady Wortley Montague for inoculation, and to Jenner for vaccination.

"It is unnecessary to trace the progress of medicine further. With men like Cullen, Boerhaave, and Corvisart medicine made steady progress, and the close of the eighteenth century saw a system of clinical teaching revived, more brilliant and more glorious in its results than that which had fallen into disuse two thousand years previously. What medicine of the nineteenth century has done, and has still to accomplish, writers of succeeding generations may record. Much has been done; much still remains to be accomplished. Just at a time, however, when civilisation is at its highest, and scientific men had renounced everything for the investigation of the more hidden causes of disease and their means of treatment, their hands are tied by Parliamentary interference. Not to destroy life, but to save it, is our motto; and if to accomplish this the lower animals are made the basis of considerably conducted experiments, how great is the gain to man and to the animals themselves."

#### QUEEN'S COLLEGE, BIRMINGHAM.

ADDRESS BY DR. RICKARDS.

AFTER a few introductory remarks, Dr. Rickards gave an outline of the history of the Medical School, which was started in 1828 as the Birmingham Royal School of Medicine and Surgery. The local medical activity, instrumental in its first formation, led to the creation of a second school in 1851—Sydenham College. The two institutions, having served their purposes for many years, became in 1868 merged into one—Queen's College. In 1873, for the purposes of clinical teaching, the practices of the General and the Queen's Hospitals were amalgamated, and students were required to attend each hospital alternately for six months. This arrangement gave them the opportunity of seeing the practice of the staffs of both hospitals, and enabled them to cull their experience from the widest possible field. During the past year a change had been effected in the medical department of Queen's College. An arrangement had been made for its students to receive the strictly scientific part of their education at Mason's College. It had been urged against provincial medical schools that they were unable to offer their students advantages equal to those of the metropolitan schools, and therefore decoyed students from the best education; but Birmingham, he thought, need not shrink from comparing its school, as at present constituted, with any in the United Kingdom. There was one disadvantage under which its student who purposed taking the degree of Doctor of Medicine still laboured. He had to go elsewhere to pass his examinations, and was even obliged, in some cases at any rate, to complete a period of residence and a course of study at another medical school before he was allowed to present himself for examination. This was why the local medical profession was directly interested in the establishment of a university in the town. Already there were in Birmingham a number of institutions devoted to higher education, each with its staff of professors engaged in teaching literature, languages, mathematics, natural science, fine arts, theology, and engineering. Surely these institutions might in some way



be affiliated so as to make the possibility of a university in Birmingham no mere dream. He then proceeded to speak of education, especially in reference to the medical calling. He thought the time was coming when the teaching of natural science would take the place of that of the dead languages in the education of those who were not going to make literature their business in life. In the middle and upper class schools the boy's mind was already so taxed as to admit of no further strain. The direction of any change in his education must rather be towards altering the subjects taught than in adding to his school hours. He considered that, as regards the training of the mind to such habits as those of rapid thought, quick observation, fixed attention, sound reasoning, the teaching of natural science would surpass that of the dead languages, and that the other requisite mental training might be acquired by the study of modern literature, with the help of a knowledge of modern languages. He maintained that by the use of the dead languages as the chief means of training the minds of the young, an amount of time and brain power was expended which would be of the greatest possible value if applied to the study of subjects more directly connected with future careers. The early teaching of natural science would not only prepare the mind for a more complete study of its various branches, but would create a desire for advanced scientific knowledge and for the prosecution of scientific research. He thought that, on the grounds of political economy, natural science should not be restricted to the few, but should be widely taught in public schools. He quoted Professor Huxley: "I weigh my words when I say that if the nation could purchase a potential Watt, or Davy, or Faraday at the cost of £100,000 down, he would be dirt-cheap at the money," and remarked that the more labourers there were in the field of science, the greater would be the probability of getting a potential Watt, Davy, or Faraday. The lecturer went on to say that when a student entered a medical school he ought to have acquired a sufficient knowledge of such sciences as physics, chemistry, and biology (not including human anatomy and physiology); that the time usually spent in the medical curriculum was sufficient only for the more strictly medical studies; that under the present system sufficient time was not spent by the generality of students in the wards of the hospitals. In speaking of the modern method of clinical research, he pointed out the value of certain medical appliances. The introduction of the stethoscope, the microscope, the laryngoscope, the ophthalmoscope, the sphygmograph, the clinical thermometer, while facilitating correct diagnosis, had considerably augmented the labour of the student, and had made it imperative that he should devote more time to clinical work than formerly. But, he continued, the student had other objects in view in the wards than fitting on the medical armour for diagnosis—he had to learn the treatment of disease, and here he would find the greatest gap in the science of medicine which had to be bridged over by art. No amount of talent, no bookwork, no systematic lectures, could take the place of bedside study in learning the art of treatment. The student must watch the experienced artist at the bedside. Turning to the students, Dr. Rickards said they were on the threshold of a noble profession. Other callings ministered to the wants of man when in the enjoyment of that greatest of all blessings, health; there came, however, a time when all that he possessed, all that he enjoyed, his ambition, his hopes, his plans were all under a cloud. That was the hour of sickness. It was then that they would be called upon to perform the noblest actions which could fall to the lot of man: to combat disease in all its hideous forms, to ease the pain-racked frame, to succour the dying, to console the survivors, were only some of the sacred duties they would have to fulfil. It was a profession which necessitated much self-sacrifice and even risk to life; the battlefield, the hospitals, the crowded alleys of towns, all in their different ways echoed this truth. They would have to work day and night, paid and unpaid, with appreciation and without it. It was a benevolent profession; to it many of the "medical charities" owed their origin; nor was it unmindful of its own; the medical benevolent societies might prevent any medical man, his wife, or children from being destitute. The profession, though rarely leading to the accumulation of fortunes, assured a comfortable competency to all its members, the demand and supply of medical assistance was so evenly maintained that none need be idle. He advised the students to work regularly and methodically so that they might not have to resort to the "cramming"

system; they should be advised by their seniors. As to their working capacity, they ought not to overwork, squeezing two days' work into one; the midnight oil had put many a prizeman into a premature grave. He urged upon them the importance of practising putting their thoughts on paper and of cultivating the memory by learning by heart and reciting. He begged them not to let a mere diploma be the goal of their medical curriculum, but that their grand object should be to fit themselves for the grave responsibilities of practice.

### LEEDS SCHOOL OF MEDICINE.

ADDRESS BY MR. JAMES WALKER,  
LECTURER ON PRACTICAL PHYSIOLOGY.

ADDRESSING himself specially to the younger students, the lecturer impressed upon them the importance of recognising the fact that they had left school by beginning at once to think and act as men; nay more, as gentlemen and Englishmen. The profession they were about to join, he pointed out, adapted itself so to different tastes that a man could hardly fail to find some opening for his particular bent. After throwing out various other suggestions, Mr. Walker proceeded as follows:—"Your first two years ought to be nearly entirely devoted to anatomy and physiology, or the subjects which are required for the first professional or intermediate examination of the College of Surgeons. Anatomy, being the groundwork or mainstay of surgery, is perfectly indispensable to everyone entering the profession; and to most people, after the first natural aversion and dislike has been overcome, the subject becomes very interesting, or even fascinating, partly on account of its being so thoroughly and completely worked out and understood, for we may say that we now know nearly everything that can be known certainly in ordinary anatomy; and also it illustrates at every turn and in so many different ways, by its beauty and evidence of design, the omnipotence, and even the very existence of the Creator, if such could be necessary. It also has a personal interest to many, for I think most of us like to know as much about ourselves as possible, especially if the knowledge does not happen to be of a disagreeable kind. The only way to acquire the subject is by patient, regular, and persevering practical work in the dissecting-room. Physiology—under which head is now included, somewhat wrongly, the subjects of histology, which is nothing more than minute anatomy, and histochemistry, or chemistry of the tissues—is a subject not so definite and settled at the present time as anatomy, but still so extremely necessary and of such vital importance to the medical world that one hardly knows how or where to begin to advise you for the best, and give you a liking for this most generally necessary of the introductory subjects. It is certainly, as I think no one will deny, at the very root of all treatment of disease, and the groundwork of all rational medicine. It should strike everyone that before you can treat or correct what is wrong in any subject you must know as far as possible the original and healthy condition first, or you are liable and very likely to do more harm than good in your attempts. Whether it is worse, I should like to know, for that is what the question really resolves itself into, to experiment upon living human beings—perhaps your friends and relations—which would happen generally when they are more or less helpless with their feelings, morbidly exaggerated and excited by disease; or to try to find out the same thing through the lower animals, whose nervous system is not so highly developed, and in which case nearly always the animal is rendered insensitive to both mental or bodily pain? It behoves everyone, especially the student of medicine, to look around him and acquire the habit of studying human nature for himself from the reality, and not from books or other people. I remember the late Mr. Nunneley, when I was a student, telling us in a lecture that very early in his career he formed the habit of constantly trying, as he went along the street, to diagnose and make out what ailed people as they passed, and he said that it had been to him a great help in his after-life and training for active practice, often saving much time at very critical moments. He did not do it in any spirit of inquisitiveness, but to aid and cultivate his powers of observation. And I think no one who knew him well will deny that he became a keen reader of character, an acute diagnostician, and first-rate surgeon for his

time. Physiology, as I have said before, has made such rapid strides of late that it seems to have invented or opened up to the profession, and brought very prominently before the public, many new branches for special and more extended work and research. Formerly the only specialists were the pure consulting physician and surgeon (excluding, of course, the arrant quacks who are now being bowled out of existence), and even these were hardly recognised until very recent years in this district. They certainly did not take the same place and standing that they do now. But I think the day is not far distant when the truth will be recognised that for economy of labour and to gain better results in practice it is necessary to divide the profession, which is now too wide for any one mind to grasp, into several subordinate sections. You hear men, from interested motives, exclaiming against the tendency as damaging to the profession at large; but this false and mistaken conservatism—so called—if carried too far, is liable to set up and foster all manner of foul excrescences from the profession, which cannot be got rid of without entire separation and loss to the Faculty in dignity and everything else. It should be the object rather to encourage men at the top of the profession, who have gone through a previous general training, to take up special subjects for which they may have a liking or natural aptitude, than that the public should be imposed upon by men from the other end, or perhaps outside the profession altogether. Physiology is also the foundation of all sanitary science, and so much has lately been done in this direction, and that not always the best, from ignoring or want of knowledge by the acting authorities of often the most elementary rules, that I have only to draw your attention to it and ask you (if interested) to refer to the press, both medical and lay, which at the present time teems with what are thought by their authors to be practical and useful suggestions, and abounds with addresses to learned bodies. There are so many different examining bodies open as an entrance to the profession, that it is difficult for those who do not know much about the subject to choose and settle which diploma to go in for, and especially if they have no knowledge of their value and status, or have no fixed ideas as to their probable future line of practice. It is the general rule at our school for all men to take at least the College of Surgeons' membership for the surgical qualification, and for medicine either the licence of the London College of Physicians or Apothecaries' Hall. These are very good, entitling men to practise in any branch. But I should like the Leeds School men to look upon these rather as the minimum test, and aim at higher things. There is at present, I believe, a Royal Commission sitting, taking evidence as to the quality of the different boards, which promises to do great good. It has shown so far that two of the Scotch licensing bodies or colleges, which give grand sounding titles, are, to say the least, very inferior, and easy for anyone to get, and misleading to the general public. There is no excuse, in my opinion, for our men not taking an English degree who have the means. And I hope all of you would despise the man who, in order to deceive the public in his own interests, or from concerted motives, under the term by courtesy or sufferance, would style himself doctor, or even use M.D. on his door-plate, when he has no moral right; aping at the highest honours when really he has only taken the lowest degree possible. Another rock to avoid, which fortunately now is not so common, is for young men to start practice on a single qualification, which is generally the surgical one, and never take another, the excuse being, and often rightly, that they have no time to work for it. This fault lately has been to some extent cured by the College of Surgeons and Physicians introducing the subject of medicine in one case into their examination for those who have a degree, and so giving, as it were, a double qualification; and now, before a man can get his diploma to practise, or enter his name in the Register, he must have shown fitness in both branches. Besides, there are many appointments, both public and private, where two qualifications are a *sine qua non*; so let me urge upon you the importance of not stopping your school work, as I will call it, until you are fully equipped. Men at the Leeds School cannot blame the school for want of opportunities of acquiring a good, sound, and useful professional education. The school buildings and staff have been lately added to, and made as perfect as possible for teaching, especially in the practical courses; and it is hardly necessary for me to say that with a fine institution and building like the infirmary, with its many unrivalled advantages, the staff of

which is widely acknowledged to be so able, and deservedly looked up to, we should be able to keep up our former reputation, and compete favourably with any teaching institution in the kingdom."

## PROFESSOR PACINI ON THE CLAIMS OF HARVEY AS THE DISCOVERER OF THE CIRCULATION OF THE BLOOD.

To the Editor of THE LANCET.

SIR,—I have recently had the honour to receive from Professor Pacini, of Florence, a letter of which I enclose a copy, together with a literal translation which I have made, omitting only the complimentary Italian superlatives. I do not doubt that you, Sir, and your readers will feel an interest in the verdict of this eminent Italian professor with regard to the relative claims of Harvey and of Cesalpino to be considered the discoverer of the circulation of the blood.

I am, Sir, yours, &c.,

Savile-row, October 7th, 1882.

GEORGE JOHNSON.

[COPY.]

Illus. Sig. Prof. Johnson,—Ho letta con grandissimo piacere la sua bella Dissertazione (Harveian Oration) che ella si è compiaciuta mandarmi, circa la grande scoperta della circolazione del sangue; e dietro questa lettura ho dovuto riconoscere che la gloria di avere dimostrata questa scoperta con ogni sorte di argomenti e di fatti appartiene incontestabilmente ad Harvey. Ello però non deve meravigliare e che attualmente i più rumorosi sapienti Italiani preteudono attribuirlo a Cesalpino. Che se Cesalpino ed Harvey fossero tuttora viventi, è certo che i nostri sapienti si farebbero un dovere di attribuirlo ad Harvey. Ma essendo ambedue morti, è naturale che i sapienti Italiani pretendono rivendicarla per Cesalpino: ed ecco perchè l'Italia è detta ancora *la Terra de' Morti*. In prova di ciò potrei citare più di un esempio, in cui non sempre si è lasciata parlare la verità dei fatti; come si è visto ancora ultimamente nella R. Accademia Lincei, quando questa Accademia ebbe a giudicare il famoso concorso per Scienze Biologiche nella seduta solenne del 18 Dicembre, 1881. Pubblicherei pure questa lettera se vuole, purché sia pubblicata tutta intera; e intanto profitto di questa occasione per mandarle, con i miei ringraziamenti alcuni miei opuscoli; mentre mi confermo con tutto il rispetto.

Suo affet. collega,

FILIPPO PACINI.

Firenze, 28 Settembre, 1882.

Translation.

To Prof. Johnson,—I have read with the greatest pleasure your beautiful dissertation (Harveian Oration) respecting the great discovery of the circulation of the blood, which you have been pleased to send me; and having read it I am bound to acknowledge that the glory of having demonstrated that discovery by every kind of argument and of fact belongs unquestionably to Harvey. You ought not, however, to wonder that actually the most clamorous of the scientific Italians endeavour to attribute the discovery to Cesalpino. If Cesalpino and Harvey were now living it is certain that our scientists would consider it a duty to attribute it to Harvey; but both being dead, it is natural that Italian scientists should attempt to claim it for Cesalpino, and thus it is that Italy is still called *the Land of the Dead*. In proof of this I could cite more than one instance in which to speak the truth with regard to facts has not always been permitted, as was seen recently in the Royal Academy of the Lynxes, when this Academy had to decide the famous competition in *biological sciences* at the solemn sitting of December 18th, 1881. You may, if you please, publish this letter, provided that it be published quite entire. Meanwhile I avail myself of this opportunity to send you, with my thanks, some of my pamphlets, and I remain with all respect,

Your affectionate colleague,

Florence, Sept. 28th, 1882.

FILIPPO PACINI.

UNIVERSITY OF ABERDEEN.—The University Court on Oct. 6th appointed the following six extra-professional examiners in medicine—viz., Dr. James Anderson, London. Dr. John Barolay, Banff, Dr. George M. Edmond, Stonehaven, Dr. James Greig Smith, Clifton, Mr. Fred. Treves, London, and Dr. R. M. Wilson, Old Deer.

# THE LANCET.

LONDON: SATURDAY, OCTOBER 14, 1882.

BEFORE leaving the subject of the Inequality of Medical and Surgical Examinations and passing on to that of the Inefficiency of the General Medical Council, it is but right to look at the Scotch view of this branch of the evidence adduced before the Royal Commission on Medical Acts. This is to be gathered from the opinions expressed by the Scottish witnesses—notably by Professor SPENCE, Dr. SCOTT ORR, Dr. HALDANE, Professor GAIRDNER, and Professor STRUTHERS. We publish to-day another part of the evidence of Dr. HALDANE, which tends to show the weak parts of other examinations than those of the Scotch corporations. These investigations into our examining system must be complete and impartial. Nobody can pretend that in any division of the kingdom this system is perfect. If that of the Scotch corporations is most spoken against, it is only fair to admit that, until recently, that of the English College of Surgeons covered a very incomplete number of subjects, and that it is still very uncertain and one-sided. Our own determination is to be impartial, and to be satisfied with no reform that does not give every conceivable guarantee of equality in corresponding examinations in each division of the kingdom. Dr. HALDANE tells us that of 191 candidates for the single qualification of the Edinburgh College of Physicians, 100 were members of the English College of Surgeons, and that of these 22 had to be rejected in the final examination, including medicine, materia medica, midwifery, and medical jurisprudence. Dr. HALDANE takes this as a proof that the examination in the subject of medicine of the Edinburgh College of Physicians is a more severe one than that of the English College of Surgeons. This is not saying very much for it. The examination of the English College is one essentially in three subjects—anatomy, physiology, and surgery. Until lately, neither medicine nor midwifery was at all adequately recognised. It is no proof of the adequacy of an examination of a College of Physicians that it rejects candidates who have obtained a surgical diploma. We accept Dr. HALDANE'S statements gratefully, as a proof of the defects of the examination in Lincoln's-inn, although they do not acquit the Scotch corporations, or explain why members of the London College of Surgeons should seek the licence, not of a London but an Edinburgh College of Physicians. Be this as it may, is there anything in the evidence of the Scotch witnesses to refute the statements of such men as PAGET, GAMGEE, HEATH, STOKER, and JACOB, &c., that men failing to pass the examinations in England and Ireland go with confidence to Scotland and succeed? Let us notice the principal replies of the Scotch witnesses, whose character could not well be higher. Professor SPENCE asked for proof, and said that he did not know of anything of the kind taking place. What more proof can be expected? It is not likely that names of individuals will be published. We confess to feeling that

a gentleman who does not know of "anything of the kind taking place" must lay himself open to the charge of not having taken much trouble to make himself acquainted with facts. Surely all this conviction of English and Irish witnesses cannot be a matter of pure prejudice. We have too much respect for the memory of Mr. SPENCE to dwell further on an entirely inadequate refutation of contrary and positive evidence. We note with satisfaction his emphatic concurrence in the principle "that the curricula and the examinations should be *equal*." Dr. SCOTT ORR had two answers. When pressed with the case of a person alleged to have failed to pass the examination for the Membership of the English College of Surgeons, and then of the Edinburgh College, and who, having shortly thereafter succeeded in passing the examination for the licence of the Glasgow Faculty, was yet, a little while later, to be found an actual *Fellow* of the Edinburgh College, he admitted this might have been the case. His defence is that the same thing *might* have happened reversely. When Dr. SCOTT ORR produces such a case, beginning in rejection at the lowest examinations of Scotland, and ending in the *Fellowship* of the English College of Surgeons, he will have answered the charge; but he has not done so yet. Dr. ORR'S other point is, that if examinations are pitched too high, men cannot be got for country practice. Is it, then, the function of the Faculty and other Scottish corporations to provide men for the country as distinguished from the town? Surely this defence will not be accepted by the holders of the licence of the Faculty. We venture, in the name of country practitioners, to repudiate such an argument as—unintentionally, we are sure, on Dr. SCOTT ORR'S part—an unwarranted reflection on them. Professor GAIRDNER admits "the licensing bodies have been *weak*," but thinks there has been exaggeration. Dr. STRUTHERS, too, uses the doctrine of *asthenia*. There have been "weak points" in the corporations, and he adds: "I do not think my friends in the Edinburgh Corporations have latterly acted judiciously." These are important admissions by men with such associations with the Edinburgh Corporations as GAIRDNER and STRUTHERS. Dr. STRUTHERS thinks, however, that there are only two faults to be remedied: the first is, that one corporation accepts the examinations of another; the second, that Conjoint Boards do not exist except in Scotland. This is a strange way of refuting the charge that in Scotland, where the Conjoint Board does exist, the gate of entrance is wider than it should be, and than it is elsewhere. We cannot but regret that the representatives of Scottish universities, whose privileges and rights have been amply respected in the Report of the Commissioners, should take so inadequate a view of this question, and should feel themselves called on to defend a system which is unfair to the holders of Scotch diplomas, and seems likely to bring these diplomas into serious discredit. It would surely be more kind to the Scotch Corporations to advise them to accept, even to demand, legislation which would free them from the charge of passing the rejected of other boards—a charge of which we can find no disproof in the evidence of the Scotch witnesses.

PERHAPS there is no function of the body which plays a more important part in various morbid conditions of the abdominal viscera than the movements of the bowel; and

certainly there is none which, in its pathological relations, has received less experimental study. Uncertain inference from clinical symptoms is almost all that physicians have had to depend upon in their diagnosis, and in their endeavour to alter by treatment that which they assume to be present. As an instance, we may adduce the difference of opinion which has existed and still exists among distinguished authorities on the question whether there ever is, in morbid states of the bowels, what has been misnamed an antiperistaltic action—a question of great importance in many acute disorders.

Thanks to the well-directed energy of NOTHNAGEL, and so far as animals can furnish it, we have now some definite knowledge. He has made a series of experiments to ascertain by actual observation what modifications the intestinal movements undergo in morbid states. The experiments (described in the *Deutsche Zeitschrift f. Klin. Med.*) involved no suffering to the animals concerned. All were kept insensible by ether—dogs and cats by inhalation, rabbits by subcutaneous injection; and all were killed by division of the medulla oblongata as soon as the experiment was over, and before the return of consciousness. The method employed was that of SANDERS and VAN BRAAM HOUCKGEEST, of keeping the animal, with abdomen opened, immersed, with the exception of the head, in a one-half per cent. saline solution, at a uniform temperature of 100° 2' F. Under these circumstances, as the originators of the method pointed out, rest is the rule in most parts of the bowel, with the exception of the duodenum. Now and then, at rare intervals, there is a gentle peristaltic movement in the small intestine, and local irritation causes only a local effect, without producing any trace of general peristalsis. But the condition is changed at once by the presence of a quantity of gas and liquid distending part of the bowel. This is immediately moved forwards by a stormy peristalsis, a circular contraction behind it pushing the distended portion onwards to the cæcum. Sometimes, however, the movement suddenly stops, to go on again after a brief pause. It is distinctly analogous to the sudden temporary cessation of griping pain, which is familiar to most people. NOTHNAGEL can discover no cause for it, except a sudden inhibitory nervous influence, which its aspect indeed suggests.

As regards the first fundamental question—the occurrence of antiperistalsis—NOTHNAGEL entirely corroborates the statement of ENGELMANN, that the intestinal contractions may take place either upwards or downwards. But the last-named observer, experimenting with the intestine exposed to the air, was in error in assuming that peristaltic action, upwards or downwards, was set up by any local irritant. When the bowel is preserved from the air by the saline solution, local irritation causes a local constriction, if the bowel was previously at rest. Moreover, NOTHNAGEL concludes, from a series of sixty observations, that antiperistalsis never occurs in the normal uninjured intestine so long as no pathological influences are brought to bear upon it.

The effect of injections into the rectum was next investigated, the injections being of indifferent or irritating liquid, tinted with carmine so as to show how far it was sent up the intestine, and post-mortem examination subsequently showed whether it had been carried higher by any movement of the intestine itself. A small quantity of warm

water (from two to five cubic centimetres) had no effect; it remained in the rectum until ejected by a contraction, or until it was absorbed. A somewhat larger quantity distended the rectum, but seemed to excite little peristaltic action, some of it escaping in consequence apparently of the elasticity of the bowel. Iced water caused constriction, which passed a short distance upwards so as to move the injected fluid up from five to twenty centimetres. Olive oil gave a similar result. Of greater significance, however, was the effect of a strong solution of chloride of sodium. A small quantity, three to five cubic centimetres, passed up, by the force of the injection, about ten centimetres. In a few minutes, however, the coloured liquid was carried upwards by a distinct ascending contraction, and the antiperistalsis gradually carried it, together with a mass of fæces, as high as the cæcum. Sometimes the antiperistalsis took the form of a series of circular constrictions, especially marked at the highest part of the column of liquid. Besides this, descending contractions occurred in the lowest part of the rectum. Similar results were obtained with injections of concentrated solutions of nitrate of potash and bromide of potassium, and weak solutions of sulphate of copper.

NOTHNAGEL found that the needle of a hypodermic syringe could be passed through the wall of the small intestine without exciting local contraction, and the minute wound immediately closed without allowing the escape of the intestinal contents. Injections of chloride of sodium were found invariably to cause contractions which passed upwards as well as downwards. In a case of ileus in the human subject he found that chloride of sodium solution has evidently the same effect as in animals, since a small coloured injection into the rectum was found after death to have passed upwards some distance above the cæcum. The fact may possibly prove of great practical importance in the treatment of intestinal obstruction. The injection of indifferent fluids of the temperature of the body had as little effect on the small intestine as on the rectum. The conclusion from this series of experiments is that when the intestine is under normal conditions, or contains only un-irritating contents, the peristaltic contractions occur only in the direction from the stomach towards the anus. If, on the other hand, the contents of the bowel consist of an irritant substance, the stimulant causes contractions to pass also in the opposite direction. Nevertheless it was found that the latter only occurs when the irritant substance is introduced into the bowel in, so to speak, an unphysiological way. A solution of sulphate of copper was injected into the stomach, and quickly passed into the bowel, but, entering it thus, it caused only descending peristaltic contractions. Hence we must assume that, so to speak, preformed arrangements exist, of an anatomical or physiological nature, which determine the direction of the movement.

How does fecal vomiting occur in cases of obstruction of the bowels? It will be remembered that many authorities, from the time of VAN SWIETEN, have asserted that it does not necessarily occur by antiperistaltic contractions. VAN SWIETEN maintained that it was by the action of the diaphragm and abdominal muscles, and BRINTON urged with great ability that its mechanism must be a reflex current in the centre of the distended intestine, opposed in its direction to that of the peristaltic action. VAN BRAAM HOUCKGEEST,

and LICHTENSTERN have experimented on the subject, and were unable to discern any ascending contractions. NOTHNAGEL has made a large number of experiments on this subject. Ligature of the small intestine caused in some cases very little effect. The intestine above gradually became filled without any marked contractions, and the portion below gradually became emptied. In other cases, however, a series of vigorous contractions passed down from the stomach, and distended the part immediately above the ligature, ceasing in the distended portion, and as this extended upwards higher, the section in which the peristaltic contractions occurred became smaller and smaller, until it was reduced to a narrow segment near the pylorus. After the distension had existed for half an hour, local contractions could no longer be excited by mechanical stimulation; the intestine was evidently paralysed. In these cases there was no antiperistaltic action. In others, however, the descending contractions on reaching the ligature seemed to return up the bowel for a very short distance, and were even augmented in force just above the ligature, so that the intestine here was emptier than it was higher up. There was no regular antiperistaltic action, and after a short time these "rebounding contractions" ceased, and the distension and paralysis went on as just described. Sometimes, however, the peristaltic action quickly ceased, but the distended bowel seemed to undergo a slow imperceptible contraction, which caused its contents to pass upwards, because the ligature prevented them from passing downwards. In a series of experiments in which the intestine was ligatured through a small opening in the abdominal wall, and was returned into the cavity for some hours before the abdomen was opened, the events were found to be essentially the same. Various injections were also made into the intestine above the ligature. When indifferent liquids were injected, these were moved upwards, sometimes as much as thirty centimetres, although only by the descending peristalsis and the rebounding contractions already described as occurring just above the ligature. Injections of a concentrated saline solution, however, produced distinct ascending antiperistaltic waves, precisely similar to those produced in the unligatured bowel by the same injection, and by them the liquid was quickly moved upwards.

The paralyzing effect of the distension of the bowel above the ligature, which quickly annihilates its movements, throws an instructive light on the well-known injurious effect of purgatives in cases of intestinal obstruction. As they increase the peristaltic contractions, they carry the contents of the intestine more rapidly to the neighbourhood of the obstruction, and so more quickly bring about the paralysis which follows distension.

The results of these experiments are certainly opposed to the idea that fæcal vomiting is the effect of any regular antiperistaltic contractions. These were only observed as the effect of the presence of irritant substances in the bowel, and the only condition in man to which this observation can fairly be applied is that in which irritating aperients, such as croton oil or colocynth, have been given. The simple diffusion of liquid contents causes their slow extension upwards, and a still greater effect is produced by the rebounding contractions, but the influence of both these was too slight to allow them to be regarded as the cause of fæcal vomiting.

The conclusion of NOTHNAGEL therefore is that this symptom results indirectly by the mechanism which VAN SWIETEN rightly assumed. To some very instructive observations of NOTHNAGEL on the movements of the intestines in other morbid states, we must return on another occasion.

ALL error has truth for its starting-point, and underlying the wildest flight of fancy there is to be found a solid substratum of fact. The philosophy of BERKELEY, antithetical as it is to the prevailing belief in matter as the sole embodiment and source of force, has so much truth in it that only the narrow-minded or unreflecting can wholly reject or disregard it. To the intelligent student of the so-called "medical sciences," and to the practising physician, Berkeleyism supplies the only key that will unlock a world of mystery, and the only guiding principle in the interpretation of a multitude of obvious but unsafe inferences. Translated into the language and terminology of contemporary schoolmen, the essential principle of this system of philosophy may be said to consist in the recognition that the external—as it stands related to our consciousness, whether through the mental or the physical senses—is the reflection of our own conceptions. What we see, hear, smell, taste, and touch are not—so far as we are concerned—the things themselves, but our sensory notions or impressions of them.

Between us, the internal; and the objects that surround us, the external, the very existence of which BERKELEY first doubted, then denied, there intervenes a halo or cloud—the personal environment through which all impressions are transmitted and have to be received; and by which every impression is modified, so that when it reaches the mind, and becomes a conception, it only more or less faithfully represents the external, but is never its true counterpart. This is what happens to that which comes to us through our environment. On the other hand, what leaves us is, so to say, projected upon the mirror-like inner surface of the mental and sensory medium that surrounds us; and just as every pane of window-glass plays two parts in relation to light and its pictures, transmitting and reflecting, so that we see through it, and at the same instant see our own reflection on its surface, so in looking at the external through our environment, we see surrounding objects—albeit distorted by our medium—and at the same moment see our own ideas of fact superimposed upon the external and mingling with it in such fashion that it is difficult, sometimes impossible, to distinguish between the true external and the projected imagery of our own mind-chambers.

There is something more in this than merely "seeing things through our own spectacles," as the phrase goes, because what we see is, in part at least, not an object but a reflection of self contributed by our "environment." The existence of such a halo or enveloping cloud of consciousness as we have termed the "personal environment"—in a special sense,—cannot be doubted as a subjective experience, although some may be inclined to reject it as a scientific proposition. The personal environment—call it what we may—of the child is blank, and yet it strangely distorts his vision of the external. As time rolls on and his education by surroundings is advanced,



the horizon of his perception extends, and his strength of view becomes greater, but the projections of his own thought and fancy multiply, and these stand pictured on the medium through which he looks at the external, so that the life of relation is really a life of experience, and experience is always a thing of self, and determined by the way things affect us rather than what they are in themselves.

It follows that, in a very real and practical sense, for ourselves and others, both subjectively and objectively, we need to analyse every impression or description of an impression, with a view to distinguish between the actual and the imaginary. This is not an easy, and it will often prove a very onerous, duty to discharge, but it is one which must be performed at any pains or cost, if we would avoid being deceived and deceiving others. In the study, in the consulting-room, at the bedside, in the laboratory, or in the post-mortem room, in scientific investigation, and in practice, it is indispensable to be severely scrutinising and to keep the inevitable, and in a way natural, mingling of the real and the unreal always in mind, if we would be accurate. It follows also that what we have called the "personal environment" is the source and field of impressions and visions which are ideal although they seem actual. Failure to recognise this fact makes otherwise intelligent and truth-loving minds the victims of self-deception in the matter of many of the occult phenomena—for example, those of spiritism, mesmerism, hypnotism, metallo-therapy, and the host of half-truths distorted and transmuted to errors by the intervening influence of the environment with its mental reflections and sensori-motor reflexes.

It is absurd to suppose, and vexatiously wanton to assume, or try to prove, that all the believers in these "isms," which have done, and are still doing, much to retard the progress of rational science, intentionally deceive either themselves or others. They are simply persons who, from the habit of their intellectual and mental work—using the latter term in its broadest sense—do not recognise the existence, and therefore make no allowance for the influence, of the enshrouding medium which interposes between every consciousness and the external. Ghosts, spirits, waking dreams, dozing dreams, sleeping dreams, and any and all of the objecto-subjective phenomena of consciousness, whether in health or disease, may be real—as real as anything can be—to those by whom they are witnessed or experienced.

The student or practitioner who does not perceive and—which is more to the point—bear constantly in recollection these facts about mental reflection can never be quite safe as regards his own impressions and the use he makes of descriptions of impressions; nor can he be a perfectly trustworthy reporter of experiences and observations for the information and guidance of those with whom he is associated. It is always timely to raise a warning cry in presence of the peril of errors growing out of truths; but it is especially reasonable to call attention to the subject at the commencement of a new session of study and clinical work, in the course of which we are sure to be treated to the narration of divers marvels. It would be well if we could incorporate a spice of Berkeleyism with the crude materialism of what is now deemed rational medicine.

THE Royal Victoria Hospital, the great invaliding hospital of the British Army, was established shortly after the termination of the Crimean War with a view to supply a want which was greatly felt, of a hospital for the reception of the sick and wounded during war, and of men sent home as invalids at all times. The accommodation provided at Fort Pitt, the previous invaliding hospital, was found to be quite inadequate to the requirements of the army, and its situation in the midst of a large garrison like Chatham was attended with many serious drawbacks. After much consideration and a good deal of opposition, the situation where Netley Hospital now stands was selected, and the present building erected to accommodate about 1000 invalids, and also to provide a training school for army medical officers, where, on entering the service, they might be taught those special subjects bearing upon the health of troops serving abroad, and the duties—surgical and sanitary—devolving upon them when employed with an army in the field. The importance of such an institution can only be appreciated by those who have had an opportunity of watching its working. The careful treatment of sick and wounded by the experienced officers composing the staff, and the valuable instruction received by the junior officers and the surgeons just commencing their career in the army, fully justify the expectations which were formed by those to whom the establishment owed its origin. A few years ago the discharge depot for time expired men was removed from Chichester to Netley, and the anomaly was created of an establishment of unemployed idle soldiers within the walls of a hospital intended only for the care of the sick. Happily this has now been abolished, and the building is again employed solely for its original purpose. On the outbreak of the recent war every preparation was made for the reception of the wounded and sick who might be sent to England from Egypt. Quarters were fitted up in the hospital for the reception of twenty-five officers, and, by the removal of the time-expired depot, accommodation was provided for 978 men. When a vessel containing invalids or wounded arrives at Portsmouth a special train for Netley is provided, and an intimation sent by telegraph of the probable time at which it will arrive, and the number of men it will convey. An ambulance and stretcher party, proportioned to the numbers intimated as coming, is in attendance at the Netley station on the arrival of the train, and the patients are removed expeditiously and comfortably to the hospital, under the superintendence of the principal medical officer assisted by the medical staff and the officers of the Army Hospital Corps. On arriving at the hospital they are immediately told off to their respective wards, where beds are ready for those who require them, and where they at once receive such nourishment and attention as may be deemed necessary for them. There have already been thirteen officers and 839 men admitted from Egypt. Upwards of half the former and above one-third of the latter have been cases of wounds, and the remainder medical cases, consisting chiefly of dysentery, sunstroke, and debility from the hardships undergone in the field and from climate, and there have also been several cases of typhoid fever among them. Of the surgical cases many have been severe gunshot wounds, which, however, under the judicious and careful treatment of Professor LONGMORE, have as yet done well. We are informed that in the treatment of these cases Listerism

is carried out in its most minute details. We regret to learn that when the discharge depôt was removed from Netley, the military staff was not removed with it, but the Commandant and Assistant-Commandant were left, with apparently nothing to do. The system of dual government by a military commandant and a medical chief in a hospital cannot fail, like all dual governments, to prove injurious to the best interests of the sick, and subversive of the efficient and harmonious working of the establishment—a point of immense importance to the patients; but we understand it has been decided that the dual government is to cease.

## Annotations.

"Ne quid nimis."

### THE VACANT EXAMINERSHIP AT THE ROYAL COLLEGE OF SURGEONS.

ON Thursday next the Council of the Royal College of Surgeons will elect a member of the Court of Examiners to fill the vacancy caused by the resignation of Mr. Birkett. This gentleman, who has occupied a seat in the Court since the year 1872, will not seek re-election. Four actual or probable candidates are already spoken of—namely, in order of seniority as Fellows of the College: Mr. Thomas Bryant, of Guy's (1853); Mr. George Lawson, of Middlesex (1857); Mr. Christopher Heath, of University College (1860); and Sir William MacCormac, of St. Thomas's (1871). Mr. Bryant and Mr. Heath, like all the existing members of the Court of Examiners, are members of the Council. Whether this fact will in any degree lessen their otherwise strong claims will depend on the view which the majority of the Council may take as to the expediency of selecting, as far as practicable, examiners from among the Fellows who are not members of the Council. There is much to be said in favour, not only of keeping the Court of Examiners more or less independent of the Council, but also, on the other hand, of obviating a preponderance of examiners in the Council. It has happened more than once within the last twelve months that the examiners have, by dint of numbers, forced measures upon the Council that were opposed by a respectable minority of independent members. As there are ten members of the Court of Examiners and only twenty-four members of the Council, it is never difficult for the examiners, by combination, to gain a victory in the Council, even against a strong opposition. This is obviously undesirable, though not altogether avoidable. Those Fellows who are most likely to make good examiners are sure, sooner or later, to find their way into the Council; and it would be eminently unwise to push the principle of independence and separation so far as always to refuse to elect a candidate to the Court of Examiners because he was already in the Council. In the present instance, however, the principle may be carried out without any disparagement of the undeniable merits of either Mr. Bryant or Mr. Heath. Mr. George Lawson has for many years been successfully engaged as a teacher and lecturer on surgery at Middlesex Hospital, and has had considerable experience as an examiner in surgery at the Royal College of Physicians. Sir William MacCormac is so junior a Fellow that his candidature may be taken rather as a forecast of his future expectations than a declaration of his immediate intentions.

### A CHARGE OF MANSLAUGHTER AGAINST A MEDICAL MAN.

CONSIDERABLE interest has been excited by a charge of homicide by imprudence, preferred against Dr. J. D. M. Coghill of Colombo, in having caused the death of Mr. Stephen Rowan Aitken, by negligently and without due caution prescribing and causing to be administered certain medicines. From the evidence, it would appear that Mr. Aitken, who was thirty years of age, had been under Dr. Coghill's treatment for tapeworm for nearly three months. A number of remedies had been prescribed, and had failed to bring away the head of the worm, although they had given rise to considerable intestinal disturbance and irritation. For nearly two months no joints were passed, and it was hoped that the treatment had proved successful. Some eight or ten days before his death Mr. Aitken called on Dr. Coghill, told him he was again troubled by his old enemy, and begged that something more might be done towards effecting a cure. He said he would begin taking medicine on the following Sunday morning. He was given a prescription, of which the following is a copy:—"R Ext. æth. filic. mas., 1½ oz.; pulv. kamalæ, 3 drachms; pulv. granati rad., 3 drachms; mucil. acac., syrup simp., q.s.; aq. cinnam. ad 4 oz. Half to be taken at bedtime, and half at 2 A.M." The chemist having no powdered pomegranate root in stock, communicated with Dr. Coghill, and the prescription was made up without it. It appears that he noticed the large dose of male fern, but thought it might be dispensed with safety. About 11 o'clock on Sunday morning Mr. Aitken wrote to Dr. Coghill saying that he had taken the first half of the draught, and that it had caused him a good deal of distress, but he had passed nothing but a few joints. He wanted to know if he might take the other half, and an answer was returned that he might do so. A little later he sent again, saying that he wished to see Dr. Coghill at once. He was seen at two o'clock, when it was found that he had been purged and had vomited a good deal, but had not been able to eat anything. He had passed a large quantity of the worm, which he had placed in a finger-glass in spirit. He was ordered chicken-broth and beef-tea and brandy, to be taken frequently in small quantities, and directions were given that he should be kept warm. He was seen again between 7 and 8 o'clock the same evening, and was then not so well. He had been again purged and had vomited, and was complaining of cramps in the hands and toes. He had some champagne, and a large mustard poultice was applied to the pit of the stomach, with hot-water bottles to the feet. He seemed soothed, and said he should be better if he could get some sleep, but the pain in the stomach kept him awake. He was given a hypodermic injection of a quarter of a grain of morphia, which afforded him speedy relief. He fell asleep, and directions were given that he should be awakened in two hours for some more chicken-broth and brandy, and that this should be repeated at intervals during the night. From the statement of the friends it appears that at a quarter to twelve he was bathed in perspiration and was very drowsy, but with much difficulty he was made to swallow a cupful of chicken-broth. About half-past one Dr. Coghill was sent for hurriedly, and on his arrival found the patient dead. He gave a certificate that he died of "choleraic diarrhœa," and expressed an opinion that it was induced chiefly by the weather, although it was possible that the irritation resulting from the treatment had rendered him predisposed to such an attack. The pupils after death were widely dilated, and this was accepted as evidence that the morphia could not have exerted any injurious effect.

The post-mortem examination was made by Dr. Carbery, who found general venous congestion of all the organs, including brain, heart, and lungs. The right side of the heart

was filled with blood partially clotted, the left side being empty. The stomach was empty, and at the cardiac end there was a congested patch, about three inches in diameter, covered with small lines of extravasated blood. The outer surface of the small intestine was of a rose-red colour, and the mucous membrane was marked with patches of congestion, with slight extravasation, particularly in the first three feet. Other patches of minute extravasation were scattered through the intestine. The mucous membranes of the stomach and intestines were smeared with a dark-brown fluid having a smell of ether. Curiously enough, there was only one kidney, the right, which was about twice the normal size.

Several medical witnesses were examined, and they were unanimously of opinion that the dose of male fern administered was poisonous. Dr. Coghill, on the other hand, according to the report upon which we are dependent for the facts of the case, said that he had previously given six drachms without ill effect, and maintained that the dose was not excessive, giving as his authority for the treatment Dr. William Brinton, of London, as quoted in the last edition of "Napheys' Modern Medical Therapeutics." The explanation was considered satisfactory, and the accused was discharged, the verdict at the inquest being that "deceased died from exhaustion produced by irritants considered necessary for the treatment of his case."

The case, as we have said, presents many points of interest. The use of the rhizome of ferns as a vermifuge was well known to the ancients, and is referred to by Theophrastus, Dioscorides, and Pliny. It was also administered during the Middle Ages and had a place in German pharmaceutical tariffs of the sixteenth century, as well as in Schröder's Dispensatory. It is the active ingredient of most quack remedies for tapeworm. Peshier of Geneva was the first to employ the ethereal extract as a substitute for the bulky powder of the root, but it was not till about 1851 that it was generally employed in this country. The ordinary dose of the preparation is a drachm, and we find no record of its having been previously administered in the heroic doses recommended by Dr. Coghill. The prescription as given in Napheys' Therapeutics is clearly a mistake, the word *ounce* having been substituted for *drachm*. The original prescription was not by Dr. William Brinton at all, but occurs in a paper by Dr. John Brunton, published in the *Glasgow Medical Journal* in 1865, the dose being one and a half drachms, not ounces. Had his directions been followed no harm would have ensued. It is no easy matter to apportion the blame in this unfortunate case. A grave responsibility undoubtedly rests with the editor of the work in question, and immediate steps should be taken to notify the occurrence of this lamentable error. At the same time it is difficult to understand how a medical man could blindly copy a prescription from a book without first ascertaining the correctness of the dose.

#### THE INCREASING COST OF LUNATIC ASYLUMS.

It is unreasonable to complain of the increased cost of maintaining asylums for lunatics, and of feeding and clothing their inmates. The spirit of the times has tended, and is still tending, to the multiplication of comforts in asylum life. What were deemed luxuries ten years ago are now classed as necessities. If Mr. Hibbert had taken the trouble to recognise the rise in prices generally, and to estimate the additions made to the appliances of asylum life within recent years, he would not have expressed surprise on finding a large increase *pro rata* in the decade 1871-81. The only wonder is, that the increase is not greater, even making very little allowance for the increment of the population as a whole and, of course, of the insane in proportion.

#### NOTIFICATION OF DISEASE IN LIVERPOOL.

THE Health Committee of Liverpool have received a deputation of medical gentlemen on the subject of the notification of disease. The chief speaker was Mr. Carter, who made some statements which were most satisfactory, and others which do not seem to us so happy. Mr. Carter said that they were as anxious as the Committee for the public health, and that they had no sentimental objection to notification. Their objections were entirely based on experience. The experience he referred to was twofold, and to this effect: that in the places where notification was in force there was a concealment of disease on the part of the poor in the first place, and a friction between the profession and the sanitary authorities in the second. There is something in these arguments, but not so much as our friends in Liverpool think. There is sure to be at first some evasion of a law so new, and in its naked form so inconvenient; and until medical officers of health learn to consider their brethren in practice a little more, there will be occasional friction. But these will become less and disappear under the educating influence of a good system of notification by the householder, who will not be required to notify until the medical attendant is fully satisfied of the existence and nature of an infectious case. Mr. Carter was entirely right in calling for a Parliamentary discussion of this question, and demanding that it should be dealt with in a general law. It is intolerable and unworthy of Parliament that it should be dealt with furtively in local Bills, often ostensibly introduced for other purposes. We cannot compliment Mr. Carter on his last argument: that, in the event of compulsory notification, medical men will be induced, from humanitarian feelings, to give inexact certificates. This argument was illustrated by the statement that, though drinking kills from 40,000 to 50,000 persons annually, only 600 deaths are attributed to it by the Registrar-General. This is not much to the point, and is not very complimentary to the profession. Medical men return a drunkard as dying of disease of the liver or kidney, or what not. This is the cause of death. The cause of the disease is another question, on which the State has not asked medical men to be explicit in their certificates. The compulsory notification by parents of the nature of a disease that is dangerous to others is a very different thing from the publication of an opinion as to the cause of a disease that is only dangerous to the person affected. Besides, there is no shame in having an infectious disease, such as there is in having delirium tremens or alcoholic cirrhosis.

#### RAPID BLANCHING OF THE HAIR IN NEURALGIA.

IN the *Revue de Médecine* (September) Dr. Raymond records a case which must be added to the list of others more or less well authenticated, where the curious phenomenon of the sudden blanching of the hair has taken place under the influence of profound nervous disturbance. He prefixes to his record the *ex cathedra* statement of Kaposi in Hebra's treatise, who relegated all such reported instances to the region of fable, owing to the impossibility of accounting for such decolouration on physiological grounds. However inexplicable, such facts as Dr. Raymond's cannot be gainsaid. The case in question was that of a lady whose hair was abundant, and of a black colour. Although emotional and nervous, she had never been attacked with hysteria, and enjoyed good health until July, 1881, when she began to suffer from insomnia, only relieved after sea-bathing at Arcachon. In January she was again much affected by a considerable monetary loss, became restless and sleepless, and lost her appetite, and about the same time began to suffer from neuralgia. The catamenial flow was arrested at the time of the mental shock, and had not recurred. She was seen by Dr. Raymond on the 27th January, when she complained

of great weakness and of pains in the head, abdomen, shoulders, and legs. Nothing abnormal was observed in these regions. The pain was not only continuous, but was marked by frequent and violent exacerbations. Spots of tenderness were detected in many parts of the face and head, as well as over the shoulders, the first and second dorsal spines, and on the arms and legs. There was also tenderness in the ovarian region and in the abdomen. Quinine, then aconitine, and on the 31st bromide of potassium were prescribed in succession without relief. At half-past nine in the evening of the 31st the pains in the head were extremely severe, and morphia had no effect. At 2 A.M. the pains were at their maximum. At this time the hair had its normal colour. At 7 A.M. she was found with her hair nearly completely decolourised. The black colour was preserved only on the sides and back of the head, elsewhere the hairs were of nearly a bright red, a certain number (especially of the smaller hairs) being perfectly white. In some parts there was a considerable admixture of white and red hair. In other parts of the body no change in the colour of the hair had taken place. The pains persisted throughout the day, but ultimately some sleep was obtained by large doses of bromide. In two days' time most of the red hairs had become blanched, and a large quantity fell off. The neuralgia had now abated, and her general health improved, but with almost total loss of hair, a few white, red, and black hairs remaining on March 30th in the temporal and occipital regions. Dr. Raymond remarks that the phenomenon is evidently to be explained by the profound disturbance of innervation produced in the first instance by a severe mental shock, characterised by neuralgia, especially of the scalp, and culminating in the decolourisation of the hair when the neuralgia was at its height.

#### THE BELFAST MEDICAL SCHOOL.

THE Royal Hospital, which undertakes the entire clinical instruction of the students of the Belfast Medical School, has up to the present been without efficient special departments for the treatment of diseases of women and children, and diseases of the eye, ear, and throat. The committee has accordingly proposed to open special departments in these subjects, at which their students can receive proper instruction in these more special forms of disease. But a serious difficulty has presented itself in the form of a want of proper space and funds. This has occasioned a counter proposal, to the effect that the six special hospitals at present existing should be amalgamated with the Royal Hospital for clinical purposes, and thrown open to students. To judge from comments in the lay press this proposition promises to meet with considerable support. There can be no doubt that special departments at general hospitals are far more worthy of support than are separate hospitals for the various special classes of disease. There is a great saving of money in having all under one management; there are great advantages to the patients in attending where they can be thoroughly treated, rather than at a special institution where a single local ailment, often but a part of the real disease, is treated; there is also a saving of time and labour to the students in receiving all their clinical instruction under one roof. The best form of amalgamation of the Belfast hospitals would no doubt be a complete one, in which all should be placed under one common governing body and all the funds entrusted to one treasurer. Failing this, however, an arrangement by which the Belfast medical students can receive instruction at all the hospitals is undoubtedly a wise one, but care should be taken not only to give the privilege, but to insist on the students availing themselves of it; and also to ensure that the instruction at the special hospitals shall be regularly and systematically

given; and for these ends the medical school authorities ought to have representatives on the committees of these special hospitals. We trust that some steps will be taken at once to supply the serious want there appears to exist at present in the Belfast Medical School, and that, at any rate during the present session, the students will receive proper clinical teaching in the important subjects of the diseases of women and children, and of the eye, ear, and throat.

#### LIME-JUICE.

THE question as to the respective merits of lime-juice and lemon-juice as antiscorbutics is frequently brought forward for discussion. Lime-juice is used exclusively in the Royal Navy; lemon-juice almost generally in the service of the mercantile marine. Practically, we should say the antiscorbutic value of the two juices would be the same if both were used freshly expressed from the fruit; but there is no question of the vast superiority of the lime-juice served out to the ships of the Royal Navy over the average specimens of the rival juice found on board the majority of our merchant ships. Why this should be so it is difficult to determine, for we see no reason why lemon-juice should not preserve as well as lime-juice, if equal care were taken with its preparation. Two objections formerly urged against the introduction of lime-juice into the mercantile marine were its expensiveness compared with lemon-juice, and the difficulty of obtaining a regular supply. Both these objections have ceased to exist. The growing favour with which lime-juice has been received by the general public, as an ordinary beverage, has encouraged the cultivation of the fruit to a large extent, so that ample supplies now reach us from Montserrat and the West Indian Islands to meet the increased demands. Whilst considering the rival claims of lime-juice and lemon-juice as antiscorbutics, we must not forget that their employment is to a certain extent a reproach on our carelessness with regard to the dietetic conditions under which our sailors subsist at sea on long voyages, since the use of lime-juice or lemon-juice indicates that the dietary employed on board ship is an artificial one. In spite of the vast improvements that have taken place in naval architecture, and in the comforts and luxuries afforded to passengers in the magnificent ocean hotels that our steamships have become, little change for the better has been experienced by the common sailor; indeed, in many cases, we believe his lot to be far harder than in the days of the roomy sailingship, and before the introduction of lime-juice, when owners relied more on the quality of the provisions to prevent an outbreak of scurvy than at present; now they have this sure agent to hide their shortcomings in respect of the food supplied. There ought, however, to be no difficulty in providing sailors with a daily supply of fresh provisions even on the longest voyages. Fresh meat preserved in tins should not be more difficult of carriage than salted; indeed, if properly managed, it is less so, since the weight and bulk of the added salt are avoided. The question of a constant supply of vegetables is a more difficult one, since their efficiency when dried and preserved is somewhat limited, but this might, we think, be overcome by using vegetables cooked on shore and preserved in tins. At present the supply of vegetable food served out in any form is certainly inadequate considering the ease with which both in the dried or tinned form they can be procured. It is to be hoped that ere long the Legislature will devote some attention to this important point. We are now able to bring to our shores fresh produce in the shape of meat, fish, and fruit from distant regions. It is not unreasonable to insist that our sailors should participate in the benefit thus conferred on our land population, and that the same agencies employed in the preservation of fresh articles

of food during their transit on long sea voyages for use on shore should be available for the sailor as well. It took nearly two hundred years to enforce the fact that lemon- or lime-juice was a preventive of scurvy; we hope a shorter period will elapse before the lesson is learnt that it is possible by an improved dietary to do away with the necessity for the employment of that agent at all.

### A WORD FOR TOBACCO.

IN a pleasantly chatty article, which takes us to Paris, Jules Noriac, Henri Mürger, and *la vie Bohémienne*, the *Daily Telegraph* of Monday last incidentally refers to the views upon tobacco expressed by the late Dr. Anstie. "The effect of tobacco-smoking in moderation," Dr. Anstie writes, "on the majority of persons who are skilled in the use of the pipe is a marked increase of stimulation, the pulse being slightly increased in frequency and notably in force, and the sense of fatigue in body or mind being greatly relieved. This stimulation most assuredly is not followed by depression. On the contrary, the smoker seems lighter and more cheerful, and the pulse maintains its firmness, in many cases for an hour or two, and even then yields to no morbid depression. Where depression is produced, it is produced early, and is a sure sign that even the small dose is too much for the smoker's constitution, and that he had better not smoke at all." It is refreshing to come upon this sensible language in these days. We live in times in which the custom is to denounce as deleterious everything which happens to be pleasant. Man could probably live without tobacco, as he certainly used to live without clothes; but the fact that both these luxuries are in the nature of comforts should not necessarily spur us into antagonism against either of them. And so it is with the question of alcohol. If Anstie's little book, "On the Uses of Wines in Health and Disease," published by Macmillan, were generally read, a great deal of the prejudice existing upon this subject would give place to views which would not be the less sensible because they represented unprejudiced examination of the question from a physiological standpoint, freed from the bias which moral considerations dependent on the weakness of human nature must necessarily introduce.

### FEVER IN THE COUNTRY.

WE have frequently occasion to refer to the dangers undergone by families who spend a month or more during summer in country quarters. A lurking but fatal foe, and one about which, perhaps, they had scarcely cared to inquire, finds a fertile field, and, through one fever or another, the holiday time is changed into a time of mourning, or of grave anxiety. Certain remedies are proposed for this state of matters, and severe measures may be necessary with those who, in letting houses or rooms, purposely conceal the recent existence therein of infectious disease. Yet it is likely that a large part of the evil is due to ignorance and supineness rather than cupidity. In many cases where infectious diseases have become endemic the knowledge of, or even interest in, the laws of health, is simply non-existent in the minds of the lower classes of the population; whereas their only educated advisers on general subjects are either equally ignorant on this matter, or are so anxious to point another moral, that physical causes are completely overlooked, and the epidemic or "visitation" only ends when suitable material for its spread is wanting. What seems needed in rural districts especially is some educational machinery by which the now well-known principles guiding the spread of infectious diseases may be made more quickly to penetrate the mass, that they may no longer stand aside with folded hands while the poisons find their way,

not only by atmospheric pollution, but by a complete soaking of the soil around and consequent contamination of their water supply and sewerage system, into their whole environment. The amount of literature dealing with sanitary matters now falling into the hands of working-class country readers is quite insignificant, while they continue to be so deluged with religious tracts that their distributors are often looked upon as little short of nuisances, and their influence for good diminished to a corresponding extent. Were short and plain statements regarding ordinary hygienic laws as often found in the reticule of the philanthropic lady on her rounds of mercy as is now the ubiquitous tract, we could promise the fair distributors that amount of success which they now fancy so difficult of attainment. That cleanliness is next to godliness is a text which may yet afford material for many quiet remarks, and that cleanliness in the presence of infectious disease can only be attained by the complete destruction of the causative germ, is a lesson which needs wholesome enforcement. In many country districts the surroundings of the people are so deplorable as to render the presence of fever a quite normal state of matters; Providence is looked upon as sole agent in the outbreak, and interference is looked upon as impiety. Health officers and local authorities have done much; but were the evil sufficiently understood we do not doubt that philanthropists would be found ready to do a work similar to that so abundantly undertaken in the cause of temperance, and by missions of various kinds to the poor. We want "Sanitary Societies" of far less pretence than those which meet autumnally, and treat us to such eloquent but frequently futile harangues; societies embracing in their membership large numbers of the people, from among whom would be chosen men and women sufficiently advanced to act as leaders, yet with humility enough to enter the houses of the poor, and to demonstrate there the value of those simple laws which are so often forgotten by the transcendentalists.

### INTERNATIONAL DEBATE ON ALCOHOLISM.

IN the Second Section of the Geneva Sanitary Congress, Dr. A. L. Roulet, Councillor of State of Neuchâtel, urged the necessity of international organisation to obtain more precise data on the effects, direct and indirect, of alcoholism. Similar statistics are required from each country as to the amount and quality of alcohol consumed, the nature of the drinks most popular, and the criminal and medical returns in connexion with drunkenness. Dr. Roulet proposes to collect all the laws of every country affecting the sale of spirits and the repression of drunkenness, and suggests the extension of those measures of propaganda which the Temperance Societies have rendered so familiar in England; but he concludes by asserting that no measure against alcoholism will produce any serious result till some chemical test has been discovered which will enable us to estimate rapidly the quality of alcohol—the proportion of non-ethelic alcohol that a given volume of alcohol may contain. Dr. Roulet would forbid the sale of all but alcohols made from the grape. During the course of the discussion that followed these proposals, it was estimated that in Switzerland 4 per cent. of the deaths, or 1 death per 1000 of the population per annum, could be attributed to alcoholism, and that excess was more general than in France. In the canton of Neuchâtel the proportion is 11 per 1000. The consumption of alcohol per head of the population was estimated at 23 litres in Denmark, 16 litres in Russia, 10 litres in Sweden and Germany, 9 litres in Belgium, about 7½ litres in Switzerland and the United States of America, 6 litres in England, 4 litres in Austria, and 3 litres in France. In the southern countries, such as Spain and Italy, the proportion was much less. M. E. Agave proposed as a remedy that the



State should control the manufacture and sale of alcohol, as it had done the sale &c. of tobacco in France; while Dr. de Thérésiopolis, of Brazil, insisted that coffee was the natural antidote to alcohol, and its consumption as a nutritive stimulant should be widely encouraged. The bad, indeed the dangerous, character of the water-supply in many European towns also helped to stimulate inebriety. In Brazil, he maintained, the people had better water, drunk more coffee, and were more sober. The idea of a State monopoly met with considerable opposition. Dr. Landowsky insisted that drunkenness was the scourge of Russia, and this was due precisely to the fact that the trade in alcohol was a Government monopoly. In Russia the drunkard was venerated as much as the Arab venerates the madman. Peasants who had not money enough to drink copiously, pretended to be drunk for fear of being qualified as freethinkers, atheists, or nihilists, who are renowned in Russia for their comparative sobriety. Dr. Roulet, in reply, remarked that the State distillery at Berne was very unpopular, and declared he preferred an army of inspectors to an army of Government *employés*. Finally, Dr. Lubesski thought the occasion a good opportunity of challenging the French idiom, "Drunk as a Pole." In defence of his national honour he pointed to the statistics proving that drunkenness was more prevalent in several European countries and various districts of France than in Poland. Altogether the discussion seemed to show that the chemist, by facilitating analysis, would do more to prevent the evil effects of alcoholism than either private temperance societies or public legislation.

#### ANOTHER CHARGE AGAINST GUY'S HOSPITAL.

IN reference to the most recent charge brought against officials of Guy's Hospital, we felt it our duty to make some inquiries at the hospital, where we obtained from the house-surgeon the real facts of the case. It appears that on Friday morning, the 6th instant, half an hour after midnight, a cabman was brought to the hospital by his wife and a friend, who stated that he had fallen in getting out of his cab. The man smelt strongly of spirits, and appeared very drunk indeed, so much so that the house-surgeon gave him an emetic, and, that failing to produce effect, used the stomach-pump, with the result of removing from the stomach a very large quantity of strongly alcoholic fluid. After this operation the patient so far recovered as to be able to give his name and address and to walk out of the hospital to the cab, supported by his friends. He had been carefully examined by the house-surgeon, the house-physician and others being present, and no injury could be discovered beyond a bruise just above the left eye and a graze on the nose. From *The Times* report of the inquest which was subsequently necessary, it appears that the man was so helplessly drunk before the accident occurred, that he had to be driven in his own cab to his master's yard by a friend; on arriving, he tried to leave the cab, and in so doing fell. The diagnosis of the house-surgeon that the man was drunk was therefore abundantly confirmed; this being so, it seemed extraordinary that the coroner omitted to order a post-mortem examination to be made, so that the cause of death might be accurately determined, but was satisfied with the evidence of a medical man who had never seen the patient alive; still more strange that he did not call for the evidence of the hospital officer, especially as charges of gross inhumanity had been made against him and the nurse in the course of the inquiry; these, we are informed, can readily be refuted. It is something more than strange that the coroner, after such evidence, the truth of which remained unsubstantiated, should have felt justified in making "strong remarks," and thus should have led the way to record a formal reprimand against the hospital

officials. We are glad to hear that the matter is not likely to end here; it has of late unfortunately become the fashion to bring sensational and false charges against this hospital, and the authorities are determined that these shall no longer pass unchecked; they have therefore resolved that an effort shall be made to have the present charge fully investigated, and with this intention an application has already been forwarded to the Home Secretary calling his attention to the matter.

#### A CASE OF GASTROSTOMY.

ON Wednesday, the 4th inst., Mr. Francis Mason performed the first step of this operation at St. Thomas's Hospital on a man aged about sixty for rapidly increasing carcinoma of the left tonsil and neighbouring parts. An incision about two inches and a half in length was made parallel with the costal cartilages of the left side and about a finger's breadth from their margin, the lower end of which was about opposite the ninth rib. The structures of the abdominal wall were divided until the peritoneum was reached, which was carefully opened. The forefinger and thumb of the left hand were then introduced, and, guided by the left lobe of the liver, the stomach was readily grasped and brought out slightly at the wound. Great care was taken, both before and after the peritoneal cavity was opened, to arrest all hæmorrhage with catgut ligatures. The parietal layer of the peritoneum was accurately adjusted in contact with the visceral layer of the stomach, and the two surfaces were kept in contact by passing a carbolised silk thread through the whole thickness of the abdominal parietes, and also through the serous and muscular walls of the stomach; four such stitches were employed. Two other deep sutures were made to transfix each end of the wound only, care being taken to include the peritoneum. Lastly, a stitch was passed through the serous and muscular walls of the stomach itself, and was left hanging from the wound to be used as a guide for the future opening of the stomach. Superficial stitches were used to unite the edges of the skin wound. The operation was performed throughout under the carbolic spray, and dressed with the usual antiseptic precautions. The patient was very comfortable during the remainder of the day and passed a good night, but on the following day he complained of hiccup, which distressed him a good deal, giving rise to a painful dragging in the region of the wound. This was allayed by the administration of small doses of medicine containing dilute hydrocyanic acid; beyond this nothing but ice in small quantities, and afterwards, at the patient's special request, a small quantity of tea was allowed by the mouth, he being fed by nutrient enemata. On the second day there was some difficulty of breathing, and he spoke of a sensation of not being able to cough up phlegm and other accumulations from the air-passages. Still his temperature kept fairly normal. On the third day, however, the temperature rose to 101°, and in the afternoon his dyspnoea became so urgent that it was thought necessary to perform tracheotomy as a *dernier ressort*. This operation was performed by Mr. Duncan, the house-surgeon, with some relief, but, in two or three hours after, the patient died, apparently from exhaustion, exactly seventy-two hours after the gastrostomy was performed. At the post-mortem examination, it was found that adhesion of moderate firmness had taken place between the visceral and parietal layers of the peritoneum at the site of the operation, but not sufficiently firm to heal. The mucous surface of the stomach had not been perforated, and there was no general peritonitis. It may be added that the patient inhaled ether during the operation, which may possibly account partly for the dyspnoea, and also that he had some symptoms of carbolic poisoning, as indicated by the condition of the urine during life.

## THE MEDICAL SOCIETY OF LONDON.

THIS Society will, under the presidency of Mr. Francis Mason, open its 110th winter session on Monday evening, the 16th inst., when, after the conclusion of the ordinary routine business and the delivery of a few introductory remarks by the President, Mr. Dolan of Halifax will read the *résumé* of his essay on Whooping-cough, which obtained the Fothergillian Prize of the Society in March last. Much important work is already arranged for the weekly meetings. On the 23rd inst. Mr. Bryant will read a paper on Inflammation and Ulceration of the Tongue, and early in November Mr. Sampson Gamgee will communicate a paper on Wounds and Fractures. The evening of Nov. 20th will be set apart for the discussion of points in thoracic surgery. Later on Mr. Edmund Owen will open a discussion on the Treatment of Cervical Caries, with the special view of ascertaining to what extent Sayre's "jury mast" is being employed at the present day. Dr. Heneage Gibbes has promised a demonstration of Bacteria. The builders are already at work upon the property which the Society has recently acquired next door to its home in Chandos-street, and when all is finished the Society will be well and permanently housed. The Medical Society of London, though an old one, is by no means infirm; indeed if the practical value of its communications and the vigour of its discussions count for anything, it appears to be growing younger with each returning session.

## THE HUNTERIAN MUSEUM.

THE Museum of the Royal College of Surgeons has been in the hands of painters and cleaners since the beginning of August, and may remain in their possession for two months longer; the work is, however, sufficiently advanced to afford some idea of the final effect. The rooms are being painted not only with a pleasing regard to taste, but also with a view of displaying the treasures of the museum to advantage. The repairs are being conducted under the jealous eye of Professor Flower, the indefatigable curator of the museum.

## BROMINE AS A DISINFECTANT.

IN a paper on the above subject, read at the Berlin Apothecaries' Congress, Dr. Franke of Charlottenburg called attention to the fact that the difference between disinfection and deodorisation has only recently been appreciated by the general public. It is, however, now known that many inodorous substances are highly dangerous communicators of disease. The researches of Dr. Koch have brought to light the fact that a number of so-called disinfectants which have been employed for many years are quite insufficient preservatives against many kinds of disease-germs. Thus of late the search after new and reliable disinfectants has been actively carried on. Bromine has materially decreased in price since its production on a large scale at Stassfurt has made it an article of commerce, and Dr. Franke claims to have succeeded in obviating the difficulties which its strong corrosive qualities and other circumstances placed in the way of its general adoption. By the employment of organic acid combinations of alkalis he has succeeded in obtaining in a fluid form eight-tenths of the volume of bromine. The evaporation of the bromine is, he states, thereby considerably retarded and a permanent disinfection facilitated. For mere deodorisation a comparatively small quantity of bromine suffices, while for real disinfection a greater bulk is required. Experiments made by the Berlin sanitary officials have resulted in the fact being established that three and a half ounces of bromine could disinfect a space of 918 cubic feet against the most inveterate forms of infection, for removing which sulphurous acid had proved unsuccessful. Other experiments showed that for simple deodorisation one-third

of an ounce of bromine, hung up high, is sufficient for a space of 7000 cubic feet. With reference to the use of bromine in the practice of medicine, he remarked that in a gaseous form bromine could be introduced into parts of the body not accessible to any other corrosive agent. In connexion with the corrosive properties of bromine, he stated that petroleum had been accidentally discovered to be a cure for burns caused by bromine in a fluid state.

## PROPOSED SANITARY MUSEUM IN SUNDERLAND.

A PRAISEWORTHY attempt is about to be made in Sunderland to extend the knowledge of sanitary matters amongst the residents in the North of England. The effort is initiated by Dr. Mordey Douglas, senior physician to the Sunderland Hospital for Sick Children, who proposes that the new municipal buildings be made to include accommodation for a permanent exhibition or Sanitary Museum, in connexion with which lectures on health subjects may be delivered from time to time, the discourses to be illustrated by the various exhibits. The proposal is a good one, and worthy of successful realisation.

## PERTHSHIRE MEDICAL ASSOCIATION.

THE fourth annual meeting of this Society was held last week at the Infirmary, Perth. The Council's report showed the Society to be in a flourishing condition, that last year's meetings had been well attended, and the scientific work considerable. Special mention was made of the publication of the first volume of Transactions, and Dr. Urquhart, the editor, was cordially thanked. The Society had petitioned Parliament for further liberty to physiologists and others in experimenting upon animals; and the local members had been addressed on subjects of interest in medical politics. Mr. Fleming delivered the president's retiring address, dwelling chiefly upon the origin and progress of the Society. After some formal business was transacted, the following office-bearers were elected for the ensuing year: Mr. Thom, F.R.C.S.Ed., Crieff, President; Dr. Bramwell, Perth, Vice-President; Dr. Baird, Secretary; Dr. Graham, Treasurer; and Drs. H. W. Laing and Urquhart, and Messrs. Gillespie, Trotter, and Paterson, members of Council.

## FULHAM HOSPITAL.

IN consequence of the prevalence of scarlet fever in the metropolis, this hospital was reopened on the 6th inst. for the reception of cases of that disease. Mr. R. D. R. Sweeting has been reappointed medical superintendent. Meanwhile it may be noted that the committee which moved successfully, a few months ago, for an injunction to stop the reception of small-pox cases at the hospital met on Thursday last, and passed the following resolutions:—1. "That the solicitor be instructed to write to the Asylums Board asking if they will confine the admission of the patients to the mile radius, as in the case of the existing injunction." 2. "That the solicitor, Mr. Tomlin, be instructed to take the necessary steps to obtain an injunction against the Asylums Board using the hospital for scarlet fever, typhus, or other contagious or infectious diseases."

## NEW ENTRIES.

As the roll-books of the various metropolitan medical schools are open for fresh entries until the 14th of the present month, statements regarding the number of such entries must necessarily be imperfect prior to that date. We hope, however, by next week to be in a position to publish complete returns of the number of new students in the several schools of London and the provinces.

### EPIDEMIOLOGICAL SOCIETY.

WE understand that at the conversazione of this Society, to be held at University College on the 18th instant, an interesting collection of microscopical preparations illustrative of the pathology of zymotic and parasitic diseases will be exhibited (on the invitation of the President, Dr. Buchanan) by Drs. Klein, Cobbold, Stephen Mackenzie, Professor Axe, Mr. Malcolm Morris, and others.

### PATHOLOGY IN EDINBURGH.

OUR Edinburgh correspondent informs us that Dr. Bryan Waller, Lecturer on Pathology in the Extra-Academical School, is also a candidate for the office of Pathologist to the Edinburgh Royal Infirmary. His name was accidentally omitted from the list of candidates which we published last week.

TYPHOID FEVER is stated to have broken out among the men of the metropolitan police located in Portsmouth Dockyard. The police are quartered in a new pile of buildings, which has been erected in the Extension Works. The outbreak having been attributed to impure drinking-water, Major Grove, the superintending engineer, has written to exonerate the Water Company. He remarks that a report received from the Admiralty chemist upon several samples of the water supplied to the police quarters in question states that, after testing, he finds no difference between them, and that the water is of excellent quality as regards freedom from organic impurity.

ON Monday last H.S.H. Prince Edward of Saxe-Weimar, the General commanding the Southern District, accompanied by the Countess Domberg, visited the Royal Victoria Hospital at Netley. They appeared to take a deep interest in the wounded and invalids from Egypt now under treatment in that national establishment, and expressed themselves much pleased with the general arrangements and the care taken to promote the comfort and welfare of the inmates.

IN reference to a paragraph which appeared in the *City Press* of Oct. 7th, criticising the conduct of visitors at the soirée held at Guy's Hospital on the 2nd inst., the following, we are informed, are the facts:—During the evening some one strayed upstairs into the wards, and was followed by others. As soon as it was known by Dr. Steele, the superintendent, that this had occurred, it was immediately stopped, and the ward doors ordered to be locked.

OUR spirited contemporary, the *Sanitary Engineer* (New York) is publishing a series of articles descriptive of the elaborate sanitary arrangements in the residence of Mr. Cornelius Vanderbilt. The papers when completed will be interesting as showing what may be effected by scientific contrivances, designed to promote health and comfort, when the cost of them is not a consideration.

AT the last weekly meeting of the Metropolitan Board of Works in Spring-gardens, the tender of Messrs. Pearson and Son for £33,990 was accepted for the execution of an additional relief line of sewer on the south side of the Thames, with an outlet into the river at Deptford-green.

AN official despatch from Manilla, dated Oct. 7th, gives the average number of fatal cases of cholera as from 30 to 40 a day in the town and 12 in the suburbs. The epidemic, though declining in some of the provinces of the island, is increasing in others.

THE accounts of the spread of yellow fever in Texas are not reassuring. Though the epidemic is declining at Brownsville, Pensacola is suffering terribly from the scourge. The latest advices give 1300 as the present number of cases, whilst 113 deaths have occurred since the disease first broke out.

T. P. ANDERSON STUART, M.D., assistant to the Professor of Physiology in the University of Sydney, N.S.W., has been elected to the Chair of Anatomy and Physiology in that University.

DR. VANS CLARKE, medical officer of H.M. Convict Prison, Millbank, has been appointed Governor and Medical Superintendent of H.M. Convict Prison for Females at Woking.

THE Secretary of State for India has appointed Deputy Surgeon-General Francis Day, late Inspector-General of Fisheries in India, to the charge of the Indian department of the forthcoming Fisheries Exhibition.

WE understand that Mr. Redgrave, Her Majesty's Chief Inspector of Factories, is at the present time directing his attention to the arrangements connected with the white lead manufacture in Newcastle and its vicinity.

DR. CAMERON PIGGOT has been elected Lecturer on Chemistry and Pharmacy, and Dr. Amanda E. Taylor has been appointed adjunct to the Chair of Materia Medica and Therapeutics at the Women's Medical College of Baltimore.

BY the will of the late Mr. F. M. Balfour, £1000 is bequeathed to Dr. Michael Foster, to be applied by him to the promotion and encouragement of the study of physiology.

THE epidemic of typhoid fever at Bangor is reported to be showing signs of abatement, both as to extent and intensity.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Mid-Cheshire.*—Mr. J. Makinson Fox has issued his annual report for the Mid-Cheshire combination, which consists of six urban and four rural sanitary districts. According to the last census return the population of the district was 135,749, it having increased from 120,659 in 1871. The birth-rate for the entire district amounts to 33.1 per 1000 inhabitants; and Mr. Fox finds it necessary, in two separate portions of his report, to warn the people against giving heed to the Malthusian theory that the multiplication and preservation of infantile life should not be regarded as an unmixed benefit. He maintains, on the contrary, that the tendency of such a theory is purely mischievous, and that it can only be destructive of all healthy enterprise, besides proving injurious to the morals of the community. He very properly congratulates several of his authorities on the circumstance that the infantile death-rate has decreased, and he regards this as a sure indication of that sanitary progress which goes hand in hand with the well-being of the inhabitants. The death-rate for the entire district has undergone a diminution, amounting only to 15.5 per 1000, and that from the seven principal zymotic diseases is as low as 0.92 per 1000. In the Northwich rural sanitary district the need for the provision of an infectious hospital is pointed out. Mr. Fox, however, presses for the erection of a wooden hut, and he considers that the publication by the Local Govern-

ment Board of a report which, amongst other matters, quoted an opinion as to the good results following the provision of such a hospital in a certain district, may be regarded as implying that the board approve such buildings, if they do not, indeed, hold them up for imitation. The experience quoted as to wooden hospitals and their use in the report on the Use and Influence of Hospitals for Infectious Diseases, which has just been issued, makes it, however, clear that the Local Government Board hold no such view, and it seems evident that wooden huts, as ordinarily constructed, are not adapted to the more severe of our winters. In the Lymm urban district an arrangement to use the Warrington infectious hospital has not turned out satisfactorily, and it is clear that the distance between the two places will prevent such use of the building as can alone be regarded as meeting the wants of the district. On the whole the sanitary circumstances of this combined area are favourable, and the record given of the works, such as the provision of a wholesome water-supply, which have been completed or are in progress, afford, together with the diminishing mortality, a crucial indication of the progressive sanitary improvement which is steadily being effected.

**Birmingham.**—Dr. Alfred Hill in his last quarterly report refers to a renewed prevalence of small-pox in the borough, some forty-three cases having been admitted into the borough hospital. He further explains to the Corporation that the first case treated in the borough this year came from the neighbouring sanitary district of King's Norton; and he considers that the importation of cases, even into hospital, from the surrounding districts is fraught with danger, and that the authorities of those districts ought to provide themselves with separate hospital accommodation. As regards these particular districts, and apart from the general question of combination in the provision of hospitals, we fully concur in Dr. Hill's view; and it is to be hoped that the decision now arrived at to refuse admission to such cases may have the desired effect of securing isolation-provision in the sanitary districts around the borough. But so long as this provision remains in abeyance, Birmingham will probably be subjected to even a greater risk from the uncontrolled centres of infection about its boundaries than it has been from the reception of infectious cases into its hospital, where further extension was prevented. It is certain that the Corporation ought not to be placed in this awkward dilemma by the failure of its neighbours to take the needed steps for the prevention of epidemic disease.

**Islington.**—According to Dr. Meymott Tidy's annual report for Islington, that parish had in 1881 a population of 282,865, as opposed to 10,212 in the year 1801. The number of inhabitants per house is 8.3; the births have been exceptionally low—namely, at the rate of 35.0 per 1000; marriages have been at the rate of 16.1, and deaths at the rate of 18.0 per 1000. Having regard to the steady increase in the population, this death-rate, the lowest experienced for some years past, must be regarded as very satisfactory. In common with the remainder of London, Islington experienced last year an epidemic of small-pox. The total number of cases which came under notice was 797, with a death-rate of 16.2 per cent. That rate varied, however, materially according to the amount of protection afforded by vaccination. Amongst the unvaccinated the rate was 50 per cent; amongst those alleged to have been vaccinated, however imperfectly, it was only 12.5 per cent. In dealing with the question of the isolation of the infectious sick, Dr. Tidy refers to the unfortunate distinction between paupers and non-paupers in connexion with the use of the hospitals belonging to the Metropolitan Asylums Board. It has often been pointed out that these hospitals, though professedly used for paupers only, do, as a matter of fact, receive non-paupers to the extent of 90 per cent. of their total admissions, and Dr. Tidy says that the percentage of non-paupers from Islington is even greater than that from the metropolis as a whole. Having regard to these facts it becomes obvious, as pointed out in the report, that the poor for whom hospital accommodation is so essential should be provided with it free of cost, and the question of pauperism should not be raised when the point at issue relates to the protection of the public from infection. We have already adverted to the inspection of metropolitan bakehouses since that duty was transferred from the vestries to the inspectors of factories, but we may here add that the details given by Dr. Tidy fully confirm his view that the average three visits a year by the local sanitary officers had led to better results than the much more occasional vi- of

the Government inspector have as yet brought about. In this matter, it is urged, local registration was wanted, and not that centralisation which tends so effectually to remove local responsibility and hence to lower the general efficiency of local self-government. Separate reports are appended which show how effectually the tent hospitals tided over the emergency which the small-pox epidemic of last spring and summer had brought about.

**Rochdale.**—In a special report, Mr. Henry, the medical officer of health, gives certain statistical information concerning the late small-pox epidemic on which we recently commented. Out of a total of 906 cases the death-rate was 11.59 per cent. Amongst 742 vaccinated cases it was 4.31, amongst 54 doubtful cases 24.1, and amongst 107 unvaccinated cases it was 56.1 per cent.; whereas not a single fatal case occurred in a revaccinated person. The number of revaccinated patients was 3; the operation had in each case been performed at the age of puberty, and the slight attacks of small-pox, from which they suffered, occurred at the ages of twenty-five, thirty, and forty-six respectively. Mr. Henry estimates that 5 per cent. of the population of the borough are unvaccinated, and, according to his estimate, it would appear that small-pox attacked 11.3 per 1000 of those who had been vaccinated, however imperfectly; whereas it attacked 31.1 of the unvaccinated.

**Paddington.**—The report of Dr. Stevenson for the year 1881 is one of considerable interest. He is able to give a very creditable account of the sanitary condition of the parish; the annual death-rate being 15.7, as against 21.2 per 1000 for all London and 19.5 for the West districts. In the matter of small-pox, which was the special discredit of the metropolis, he has to record only seven deaths in Paddington. There was in the fourth quarter an unexplained prevalence of typhoid. The report abounds in very instructive tables of all kinds regarding the purity of the different water-supplies, population of areas, deaths from the principal zymotic diseases and from all diseases, &c.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5513 births and 3228 deaths were registered during the week ending the 7th inst. The annual death-rate in these towns, which had been equal to 20.8 and 20.6 per 1000 in the two preceding weeks, further declined last week to 19.9. During last quarter the death-rate in these towns averaged 20.6 per 1000, against 23.2 and 20.5 in the corresponding periods of 1880 and 1881. The lowest death-rates in these towns last week were 12.6 in Halifax, 14.2 in Bristol, 14.4 in Huddersfield, and 14.7 in Norwich. The rates in the other towns ranged upwards to 26.8 in Manchester, 27.0 in Blackburn, 27.7 in Birkenhead, and 32.0 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 488, showing a further decline from the numbers in recent weeks; 132 resulted from diarrhoea, 119 from scarlet fever, 78 from "fever" (principally enteric), 70 from whooping-cough, 52 from measles, 30 from diphtheria, and 7 from small-pox. No death from any of these diseases was recorded in Huddersfield, whereas they caused the highest death-rates in Preston, Blackburn, and Sunderland. Diarrhoea was proportionately most fatal in Blackburn and Preston; scarlet fever in Sunderland and Sheffield; measles in Sunderland and Birkenhead; whooping-cough in Blackburn; and "fever" in Sunderland and Portsmouth. Of the 30 deaths from diphtheria in the twenty-eight towns, 22 occurred in London and 3 in Leeds. Small-pox caused 4 deaths in London and its outer ring of suburban districts and one each in Birmingham, Liverpool, Hull, and Newcastle-on-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which had been 79 and 80 on the two preceding Saturdays, was again 79 at the end of last week; 14 new cases of small-pox were admitted to these hospitals during last week, against 10, 13, and 17 in the three previous weeks. The deaths referred to diseases of the respiratory organs in London, which had in the four preceding weeks increased from 178 to 300, declined again last week to 253, and were 8 below the corrected weekly average. The causes of 81, or 2.5 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Brighton, and in four other smaller towns;

while the proportions of uncertified deaths were largest in Oldham, Preston, Hull, and Sunderland.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 18.1 and 21.0 per 1000 in the two preceding weeks, further rose to 22.3 in the week ending the 7th inst., and exceeded by 2.4 the mean rate during the week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 83 and 117 in the two previous weeks, declined again to 107 last week; they included 36 from diarrhoea, 23 from whooping-cough, 17 from scarlet fever, 17 from diphtheria, 9 from "fever," 5 from measles, and not one from small-pox. The death-rate from these principal zymotic diseases averaged 4.6 per 1000 in the eight towns, and exceeded by 1.6, or more than a half, the rate from the same diseases in the large English towns. The highest zymotic death-rates in the Scotch towns last week occurred in Perth and Greenock. The 36 deaths attributed to diarrhoea showed a further increase of 2 upon those in the two previous weeks, and exceeded by 50 per cent. the fatal cases in the corresponding week of last year. The fatal cases of whooping-cough, which had been 13 and 17 in the two previous weeks, further rose to 23, of which 16 occurred in Glasgow, and 3 in Greenock. The 17 deaths from scarlet fever showed a decline of 5 from those in the previous week, and included 8 in Glasgow, 4 in Edinburgh, and 2 both in Dundee and Paisley. The 17 fatal cases of diphtheria also showed a decline; 7 were returned in Glasgow, 4 in Greenock, and 3 (Dr. Littlejohn reported but 2) in Edinburgh. Six of the 9 deaths referred to "fever" occurred in Glasgow, and 2 in Perth. Two more fatal cases of measles were returned in Dundee. The deaths referred to acute diseases of the lungs in the eight towns, which had steadily increased from 61 to 102 in the four preceding weeks, were again 102 last week, which exceeded by 6 the number attributed to the same diseases in the corresponding week of last year.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 26.1 and 23.7 per 1000 in the two preceding weeks, further declined to 19.9 in the week ending the 7th inst. During the thirteen weeks of last quarter the death-rate in the city averaged, however, 23.1 per 1000, against 18.6 in London and 17.8 in Edinburgh. The 133 deaths in Dublin last week showed a further decline of 25 from recent weekly numbers; they included 7 which were referred to diarrhoea, 4 to whooping-cough, 2 to "fever," one to measles, and not one either to small-pox, scarlet fever, or diphtheria. Thus 14 deaths resulted from these principal zymotic diseases, against 28, 20, and 15 in the three preceding weeks; they were equal to an annual rate of 2.1 per 1000, while the rate from the same diseases was equal to 2.8 in London and 3.4 in Edinburgh. The fatal cases of diarrhoea, which had steadily declined from 19 to 8 in the five previous weeks, further fell to 7 last week; they were equal to a rate exceeding that which prevailed in London, although considerably lower than the rate from the same cause in Edinburgh. The 4 fatal cases of whooping-cough and the 2 of "fever" showed an increase upon the numbers in the previous week. The deaths both of infants and of elderly persons were considerably fewer than in any recent week. The causes of 11, or rather more than 8 per cent., of the deaths registered during the week were not certified.

#### THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major Edward Litton Low, M.B., is granted retired pay, with the honorary rank of Brigade Surgeon.

BENGAL MEDICAL SERVICE.—To be Surgeons: Richard Havelock Charles, M.D., George Duncan, William Ainley Sykes.

MADRAS MEDICAL SERVICE.—To be Surgeons: Edwin William Reilly and James Scott.

BOMBAY MEDICAL SERVICE.—To be Surgeons: Robert William Steele Lyons, M.D., John Patrick Barry, Alexander Vase Anderson.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon John Mulvaney has been placed on the Retired List of his rank from October 6th; Staff Surgeon Ernest Arthur Hudson has been placed on the Retired List of his rank from Oct. 3rd.

Staff Surgeon William Labdon Powell has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority of September 24th, 1882.

The following appointments have been made:—Fleet Surgeon Belgrave Ninnis, to the *Duke of Wellington*, additional, for transport service; Surgeon William G. K. Barnes, to the *Impregnable*, vice Surgeon M'Carthy; Staff Surgeon Alfred G. Delmege, to the *Constance*.

#### PROFESSOR LISTER ON THE APPLICATION OF A KNOWLEDGE OF HYDROSTATICS AND HYDRAULICS TO PRACTICAL MEDICINE.

PROFESSOR LISTER, F.R.S., delivered an address to the Medical Society of University College on Wednesday, the 11th inst., in the Botany Theatre of the College. There was a large attendance of students, who evidently highly appreciated the address, and gave a very warm welcome to Mr. Lister on this visit to his *alma mater*. Referring to Mr. Beck's remark, in his excellent introductory lecture, that physiology is the application of chemistry and physics to the study of life, Mr. Lister said that it would naturally be expected that physics would be one of the subjects in which medical students would be compelled to show a certain amount of proficiency. By the latest regulations of the Medical Council students could be registered without giving evidence of any knowledge of physics, and as this subject was not required by the Royal College of Surgeons, these students could, and no doubt would, become registered practitioners without such training. In view of this he proposed to show some of the practical uses in medicine of a knowledge of the simple facts of hydraulics and hydrostatics.

Mr. Lister then first referred to the fact that fluid always maintains the same level in communicating tubes of different calibre, and from that passed on to describe the "hydrostatic paradox" and the Bramah press. As a practical application of this principle he adduced the treatment of a wound of one of the palmar arches. In such a case it was necessary to enlarge the wound sufficiently to see the exact bleeding point, and to place the apex of a graduated compress exactly on this point; for if the compress were inaccurately applied, the blood finding its way out of the wounded artery would convert the wound into a kind of Bramah press, and either force up the compass or distend the interstices of the softer tissues. From this Mr. Lister passed on to consider some of the simpler facts about fluids in motion. For this purpose he had a vessel of coloured water raised above the table, from which depended a rubber tube connected at its end with a fine glass nozzle. Allowing the fluid to flow through this apparatus, he noted the height of the jet of water, and then replaced the middle of the tube by an equal length of tube of double the diameter and four times the capacity, and pointed out that, the force remaining the same, the height of the fountain of fluid was practically the same. He used this experiment to show that large varicose veins do not increase the labour of the heart or impede the return of blood to the heart, and that those writers who made such statements were evidently ignorant of simple physical laws. He next held the tube at various elevations, and showed that the position of the tube did not influence the height of the fountain or the flow of blood through the tube, and therefore the effect on the blood circulation of raising or depressing a limb could not be explained on simple hydraulic principles, except in so far as the increased or diminished blood-pressure might cause distension or shrinking of the blood vessels. And how were the facts to be explained, that raising the head of a debilitated patient may cause syncope and anemia of the brain, and depressing the head of a fainting person will infallibly cure the faintness and restore the circulation in the brain? What was



wanted was relaxation of the arteries; the mere action of gravity would tend rather to the dilatation of the veins, and as the brain is contained in a closed rigid cavity, it was impossible to explain the facts on mere hydraulic principles. Mr. Lister stated that many years ago he had a horse slung and laid bare one of the metatarsal arteries; if, now, he were held with the foot dependent the wound bled freely, and the artery was dilated and pulsated freely, while when the horse was inverted and the hoof raised in the air the wound ceased to bleed, and the artery contracted and ceased to pulsate visibly; in the horizontal position the condition was intermediate. Stephen Hales, who was a vivisector, though a divine, had shown that the blood-pressure in the carotid of a horse raised a column of blood seven feet high, and it was clear, therefore, that the effect in Mr. Lister's experiment was not due simply to the action of gravity. Further, when a large artery, such as the femoral, is exposed for the purpose of applying a ligature around it, the vessel is seen to be of a constant size; the pulse does not affect its calibre even when that is measured accurately by calipers; the vessel becomes slightly elongated, but the circular muscular fibres do not permit of lateral yielding of the vessel to any degree, and yet the blood is altered enormously during the cardiac systole. In reference to this, Mr. Lister warned his hearers against being misled by certain pulse-tracings in physiological works, in which the effects of respiration on the pulse were shown by large curves, and that of the cardiac systole by only short notches in the line, as if the effect of respiration on the arterial pressure was much greater than that of the heart. The explanation was that the effect of the heart's contraction took some time to show itself, and before it was fully recorded by the apparatus it was interrupted by the diastole. He had himself, many years ago, performed the following experiment:—Tying into the external carotid artery of a dog a glass tube with an aperture less than one-hundredth of an inch in diameter (so that the loss of blood should be insignificant), he directed the fine fountain of blood on to a sheet of white paper, which was regularly moved along; in this way a tracing was made by the blood itself, which showed that the arterial pressure during systole was double that during diastole.

From these facts it is evident that we must look to the vaso-motor system to explain the cause and cure of a fainting fit by position of the head, and the effects of position upon the blood-flow. When a limb is raised, blood flows down by gravity and the veins are relaxed, and we can imagine that an afferent stimulus is thus excited which reflected along the vaso-motor nerves contracts the arteries. If, however, the tissues are kept for a long time ill supplied with blood, there is such a demand set up for this fluid that the vessels dilate even in spite of the elevated position of the limb, which originally caused anemia. This was illustrated by the well-known experiment of keeping one arm raised above the head and the other pendent, the former becoming pale and the latter turgid. An elastic band was then rapidly wound round the upper part of the elevated arm, and when, after a few minutes, this was removed, the whole limb became suffused and redder than its dependent fellow. Illustrations of the working of this principle were to be seen in the sequence to the ligature of a large artery, the limb at first becoming cold and pale from mechanical cutting off of the blood supply, and then hot and suffused from dilatation of the vessels as a result of tissue-starvation. For the same reason, in piles and affections of the pelvic viscera raising the lower limbs gave great relief, for the contraction of the arteries was not limited to the limbs, but spread to the vessels of the pelvis. As a further instance, he mentioned the case of a man who suffered extreme pain in his testicles when in an upright position, but was immediately relieved by sitting down and putting up his feet. Raising the arms above the head, too, was a well-known means of stopping epistaxis, and succeeded, because the contraction of the arteries of the arms spread by sympathy to those of the Schneiderian mucous membrane. Mr. Lister concluded by stating that he hoped that the few illustrations he had been able to give would show the value of a knowledge of hydrostatics and hydraulics, especially as indicating where physiological effects were produced by other than physical causes.

The new isolation hospital for small-pox patients, erected at Barr-lane, Newcastle-on-Tyne, is stated by Dr. Armstrong to be full.

## THE MINUTES OF EVIDENCE BEFORE THE ROYAL COMMISSION ON MEDICAL ACTS.

### THE INEQUALITY OF THE MEDICAL AND SURGICAL EXAMINATIONS.

THE following evidence of Dr. HALDANE on the rejections of ill-prepared students by the Royal College of Physicians, Edinburgh, in addition to that published in THE LANCET of September 23rd, deserves publication and attention.

2684. (*Professor Turner.*) I think you have had large experience for many years as an examiner in the Royal College of Physicians, Edinburgh?—I have.

2685. A statement has been made to the Commission that a considerable number of students who have obtained their education in England come to the Edinburgh College of Physicians for the purpose of obtaining a licence in medicine; is that so?—That is the case.

2686. The statement has also been made that the students who come from England to the College of Physicians of Edinburgh are ill-prepared students, or students who have failed in London; have you any knowledge on that matter?—That many of them are ill-prepared I can answer for from the number of rejections that take place.

2687. Have you got any facts to lay before us as to the rejections which take place?—I have. I analysed the candidates who came up for the single qualification during the course of last year, 1880.

2688. (*Chairman.*) Is that for the first examination?—No, the final examination. I find that 191 candidates came forward, and they were classified as follows:—100 members of the Royal College of Surgeons of England appeared for examination, and every one of those had passed an examination in medicine before he came to us; but of this number 22 were rejected—22 per cent. of those men were rejected.

2689. (*Mr. Simon.*) In medicine, do you mean?—This was our final examination. I can give afterwards the subjects on which every man was rejected, but in the first place I am speaking of merely the general result of the final examination—22 per cent. of the members of the Royal College of Surgeons of England were rejected. Then we also take up men who have passed everything before the College of Surgeons of England with the exception of medicine; the registrar, Mr. Trimmer, sends a certificate stating they have passed upon everything but medicine. Of those candidates we had 24; seven of those 24 were rejected, or 29 per cent. That is a somewhat higher percentage of rejections than in the case of the members. Then 25 licentiates of the Royal College of Surgeons in Ireland came up; of these nine were rejected, or 36 per cent.; six licentiates of the Royal College of Surgeons of Edinburgh, and all of these passed; 15 of the licentiates of the Faculty of Physicians and Surgeons of Glasgow came up, and seven were rejected, or 46·6 per cent.; eight licentiates of the Apothecaries' Society of London came up, and they all passed; four men who were holders of Canadian degrees came up, and of those only one passed; nine students came up, and of those five were rejected.

2690. (*Professor Turner.*) When you say that the members of the Royal College of Surgeons of England who appeared before you had passed an examination in medicine, am I to understand that they had a licence in medicine?—No.

2691. But that they had passed an examination in medicine before the Royal College of Surgeons in England?—Exactly; the Royal College of Surgeons in England will not give its diploma to anyone who has not passed an examination in medicine. But as I have said before, they will put a man down as having passed in all his subjects and give him his diploma when he has passed in medicine somewhere else; and these are the men who come to us with the certificates of Mr. Trimmer. There were twenty-four of them, and they had not been examined in medicine at all.

2692. I think you referred to a hundred?—191 altogether; that is the total number. There were 100 members of the College of Surgeons of England who came up.

2693. The point I want to get at is this: Can you give us any information as to where these gentlemen had passed their examination in medicine. I mean these gentlemen that you found unqualified in medicine?—Before the College of Surgeons of England. They have, I think, two special ex-

aminers in medicine. I think two is the number; I am not quite sure.

2694. Have you formed any conclusion in your own mind as to the quality of the examination of your own body, looking at it in comparison with the examinations in medicine which these various candidates that you have referred to had passed at other examining boards? Have you formed any comparative idea of the value of your own examination?—Certainly. The conclusion to be drawn is that our examination in medicine must be very considerably higher than the examination by the College of Surgeons of England. Of course a man is not so thoroughly examined, I presume, before the College of Surgeons of England in medicine, where it is only one subject out of many, as with us, where it is our principal subject; 22 per cent. of those men were rejected.

2695. Then of these gentlemen, members of the College of Surgeons of England, who appeared before you for examination for a licence in medicine, can you state to us the subjects in which they were deficient when they appeared for your examination?—I can. I have taken a note of every one of the 53 rejections; I have no names, of course, but I have the qualifications in one column.

2696. Your table is evidently a table of considerable length, an elaborate analysis of the results of examination of your college. I will not ask you to give in your evidence the whole of the table, but perhaps you could select from it two or three prominent examples, so as to give the Commission an idea of the nature of the table?—Fifty-three candidates were rejected at our final examination, which includes an examination in medicine, materia medica, midwifery, and medical jurisprudence; 19 of the 53 were rejected in every one of the subjects; 13 were rejected in three of the subjects.

2697. Would you name the three subjects?—It is in the table, everything is there. Sixteen were rejected on two subjects, and 5 were rejected upon only one subject; 46 out of the 53 were rejected in medicine.

2698. Displaying ignorance in medicine?—Yes, to such an extent that we could not give them our diploma; 36 failed in materia medica, 39 failed in midwifery, and 31 failed in medical jurisprudence.

### MEDICINE IN JAPAN.

WE are glad to welcome, as a sign of the material progress of scientific medicine in the far East, our Japanese contemporary, the *I-ji-Shimbun*, or "Medical News," a weekly periodical, which has already, under the editorship of Mr. Midzu-moto, of Tokio, reached its second year of issue. The number now before us, dated April the 5th, 1882, may be taken as a good example of the work that the staff and publishers have courageously undertaken in the face of the untimely end that has befallen the previous literary bantlings of Japanese medicine. In form it is a useful compromise between the native and European styles; but although English paper has been substituted for the less convenient Japanese material (which allows the impression to be taken upon only one side of the sheet), and the solid wood blocks of the oriental printer have perforce given place to movable metallic type, the publication presents a rather strange aspect to European eyes, beginning, as it does, at the page that for us would be the last, and printed in complicated characters that run vertically down the page, and are separated into double columns by horizontal lines. The matter, however, in nature and arrangement, bears evidence of a close study of Western models.

The articles, which appear to be carefully written, and well adapted to the requirements of the subscribers, are grouped in sections devoted severally to original contributions, general medical news, official reports, hospital reports, meetings of societies, extracts from foreign periodicals, pharmacological notes, and notices of books.

In the first section is a carefully written account of a dissection of a double monster, accompanied by two good woodcut illustrations, one of which gives a well-drawn scheme of the circulatory apparatus in the fused thoracic-abdominal cavity. In the second section are several items that have an interest as indications of the national progress of the new system, such as the statistical report of the inmates of the Kyoto Lunatic Asylum (an entirely novel institution in Japan); a notification of the official permission accorded to

a provincial medical college, conducted upon the European plan, to give medical qualifications to its pupils; and the announcement of the despatch of Mr. Mayeda, a well-known surgeon attached to the Naval Medical School, to Korea, where it is proposed to initiate the study of Western medicine. These items, small as they may appear, speak volumes for the medical future of a country that only a few years ago was wholly given over to the barbarities of the pretentious empiricism of the Middle Kingdom.

The next section gives a statement in detail of the prevalence of typhoid fever in the past year. From this we learn that 23,552 cases were notified, and of these 5679 were fatal.

This is fitly succeeded by an account of the first meeting of a Sanitary Association, the members of which will indeed find no lack of material for their reforming energies to work upon, and may expect gigantic results in a country where cholera has within the last four years slain its two hundred thousand, and is now engaged in its third biennial campaign; and where typhoid fever, beriberi, and a dozen other filth engendered diseases have for centuries robbed the nation of its strength.

Passing on a stage further, we find hospital practice well represented by a report of a successful operation for strangulated inguinal hernia, by Mr. Sasaki, at Matsuye Hospital of Shimane Ken.

Lastly, the section of extracts includes a few translations from American and English medical journals, amongst which may be noted "The Use of Borax as a Deodoriser" (Dr. Thin), and "The treatment of Nebulæ of the Cornea by the Sulphate of Cadmium." This division of the paper, however, might be extended with advantage.

The originators of this modest publication may be congratulated upon the evidence of strong vitality which it displays. Medical journalism in Japan has had but poor prospects of success hitherto, for although there is no deficiency of practitioners of the art (the number of registrable "doctors" attaining the respectable figure of 65,000), the most charitable calculation has not extracted from the total more than about 800 enlightened spirits who have ventured to sacrifice the classical Chinese laws in favour of that which they designate the "Western system"; and it is to be feared that even this modest ratio of orthodoxy to empiricism would be terribly reduced were the claims of our nominal adherents subjected to serious test. The cause of medical literature must hence necessarily suffer from a poor subscription list; but beyond this it has in the past lacked a sufficiency of willing and competent native contributors, who alone could make the experiment with any hope of success. Happily, the *I-ji-Shimbun* proves that a new era is dawning, and leads us to hope that we shall soon see the results of the work done by the Government in the foundation of the Tokio Medical College, the Naval Medical School, and other institutions conducted by foreign instructors, and in the expenses they have incurred in educating chosen men in the Colleges of Germany and England. The country now has in Drs. Satow, Hashimoto, and Ikeda, who have graduated in Berlin, Mr. Takaki, a Fellow of the English College of Surgeons, Drs. Miyake, Toksuka, Matsumoto, and some others, a strong intellectual force, and it is upon these that the future place of Japan in the medical world will depend. The present journal has laid a good foundation, and is not attempting to run up the edifice too quickly. There is little in the numbers now before us that calls for quotation in our columns; but this is in no degree adverse to its claims as a valuable organ of instruction and intelligence. There are men in Japan who are fully capable of good original work; but, for the present, it is essential that the educational functions of the medical press should be confined within narrow limits, as the practitioners for whose benefit a native journal is especially desirable understand little of any language but their own, and almost nothing of the science of modern investigation. These will look for easily comprehended reports of cases of common occurrence, and well-chosen and carefully simplified illustrations of important facts of diagnostic and therapeutic interest, rather than for pathological theories and details of rare operations. On the other hand, the more accomplished members of the profession can read and digest the European journals in the original, and when this little band has become increased by the reinforcements now in busy preparation it will be time to take a new departure in literature. In the meantime ambition is best served by humility, and we hope to measure in the future years of the life of the *I-ji-Shimbun* the development of those newly awakened faculties of observa-

tion which are already so well manifested in the modest and useful articles which have set a stamp of value upon its earliest volumes.

## Correspondence.

"Audi alteram partem."

### WOOLSORTERS' DISEASE.

To the Editor of THE LANCET.

SIR,—For nearly twelve months have we been clear in this neighbourhood of any cases of the above justly-dreaded disease. It appears, however, we have not arrived at the stage of complete immunity, notwithstanding all the precautions which have been adopted—the steeping of unopened bales, washing the wool in a sud of water at from 100° to 120°, passing through rollers, sorting the wool when damp, &c. The whole of these processes had been gone through prior to the wool reaching the workman who has now succumbed to this malady. Whether the washing process had been imperfectly carried out, or what is just as likely, that the workman became infected from having access to other departments where the washing of the wool was conducted, it is difficult to say.

John G—, aged sixty-one, a "filler" (in the combing department) of boxes with brown Van mohair which had been washed and sorted, had been at work for seven years, and had enjoyed previous good health; said to have been always temperate, and looked so. On Thursday the 7th ult. he observed a papule on the outer border of the right radius, two inches above the wrist; he paid no attention to it as he was free from pain. The top of the papule was knocked off on the 9th while cleaning some boxes. On the 10th the papule began to enlarge and became slightly inflamed. Continued to work till late in the evening of the 12th. Got up on the morning of the 13th to go to work, but said he would not go, although he did not apprehend anything serious. In the evening of this day I was called in, and found him lying on his back, looking anxious, pale, and sweating moderately; answered intelligently any questions, no delirium, complained of a little pain in the epigastric region. Above the right wrist I found an eruption about the size of a shilling, having a black sloughing centre with a vesicular rim, about one-eighth of an inch broad, loaded with a sero-sanguinolent fluid, which was trickling down on to the bed. The hand and half way up the arm was oedematous. Tongue moist, coated with white fur. Respiration 33 and shallow; physical examination did not reveal anything abnormal. Pulse 84, regular. Heart sounds very indistinct, could scarcely be heard at all. Bowels loose, from taking some sulphate of magnesia. Urine had just been voided when the bowels were moved, and could not be observed. Temperature in axilla was subnormal. Treatment: Stimulants, beef-tea, and milk ordered; sulphite of soda in drachm-doses every three hours, and a lotion of the same kept constantly applied to the pustule. The patient died seven hours after I saw him.

*Autopsy, twelve hours after death.*—Rigor mortis marked; livid discoloration on back, flanks, and back of left upper arm, whole of left side of neck; left external jugular vein distended; lividity of ears, fingers, and finger nails. Lungs emphysematous, not shrinking back after chest was opened; hypostatic congestion over posterior aspect of both lungs; very small quantity of prune-juice looking fluid, in right pleural cavity, none in left, no pleuritic adhesions; lungs crepitant all over. Heart: Cavity of pericardium contained half an ounce of bloody fluid; right ventricle collapsed and empty, both auricles empty; left ventricular wall thickened, cavities small; all the valves were normal; inner coat of aorta slightly stained, healthy otherwise. Abdominal cavity contained a large quantity of amber-coloured serum; between the layers of the large omentum there was a thick gelatinous deposit, extending over the right half of the omentum, including and covering the transverse colon, and half way down the ascending colon; patches of livid congestion existed in small intestines. Spleen twice as thick as natural, convex surface of capsule was dense, white, and opaque. Kidneys healthy;

the capsules stripped off easily. Liver: surface rough, nodulated, tough, and hard, resisting breaking up by the fingers; right lobe diminished, left lobe not so much altered in size. Bowels healthy, no hæmorrhages; the valvula conniventes were swollen from contained gelatinous material. The glands at the root of the lungs were not enlarged or softened. In removing the pustule on the arm, a quantity of serum which had become gelatinised, was observed beneath.

Microscopic examination of the fluids of the body, notably from the spleen, revealed the bacillus believed to be, by many, the *materies morbi*. Subcutaneous injection with these fluids, containing these bacilli, was fatal to animals, the fluids from these animals again showing the same micro-organism. I am, Sir, your obedient servant,

Bradford, Oct. 1882.

L. S. MACKENZIE, L.R.C.P., &c.

### MONOPOLY OF HOSPITAL APPOINTMENTS BY THE FELLOWS OF CORPORATIONS.

To the Editor of THE LANCET.

SIR,—The following passage on page 447 of your issue of September 16th induces me to address you as to what I feel to be a grievance: "Since the late Mr. Wakley founded THE LANCET to protect the rights of the public and to assert the rights of the profession against encroaching corporations." Also on page 449: "The Act of 1858 broke down the territorial privileges of the licensing bodies, and made a licence valid anywhere in the United Kingdom." The latter is only half the truth. It is quite true that the possessor of any registrable degree or diploma may now practise anywhere in the country without let or hindrance; but it is equally true that he cannot, unless he be a Fellow or Member of the Royal College of Physicians, hold any appointment in London which is worth having, and very few, indeed, in the provinces. The same obtains if not in Scotland at least in Edinburgh, where very recently a candidate was disqualified from competing because he was not a Fellow of the Edinburgh College of Physicians. I consider that this system is a grievous abuse; for it cannot be pretended that those who hold the degrees of Edinburgh, London, Dublin, Glasgow, Oxford, and Cambridge are, in point of scientific acquirements, inferior to members of the Colleges of Physicians; and that the exclusion of graduates of the universities from hospital appointments is a breach or evasion of the letter and spirit of the Medical Act before mentioned. It may be urged that private bodies have a right to nominate their own officials. I concede this, but must point out that, with the exception of Guy's, St. Bartholomew's, and St. Thomas's, all the other hospitals in London participate in public charity, and receive a share of Hospital Sunday collections, and that the same obtains in the provinces where, I imagine, there are no endowed institutions. But the fact remains that not only does this monopoly exist, but it goes on steadily increasing, and to this grievous abuse I hope you will turn your attention. There can be no possible objection to imposing certain conditions on hospital physicians—i.e., that they shall not be in partnership with anyone, and that they shall not practise midwifery. But beyond this, and a prohibition against dispensing, I do not see at present any reason for going. I apprehend that the statistics of cottage hospitals, which as a rule are not under the control of Fellows and Members of the Colleges, will show that, making allowance for country air, the patients in them do just as well as in those institutions where only Fellows and Members of the Royal College of Physicians are allowed to practise. In writing to you I do so in confidence, as I am fully aware of the boycotting propensities and practices of the Royal College of Physicians. I have been repeatedly urged to join them by Members and Fellows, and had it more than hinted that they were very clannish as a body and would have nothing to say to outsiders; and this I believe, from my personal observation, to be the case. Setting up for purists in practice and ethics, I know of one Fellow who has his name on a huge placard (of the style of "no trespassers allowed") at a considerable distance from his house, and another who does not disdain to put up a fracture when there are surgeons in plenty at hand.

I am, Sir, yours, &c.,

M.D. Edin. and Paris.

Oct. 1882.

## THE TEMPERATURE AND PULSE IN REMITTENT FEVER.

*To the Editor of THE LANCET.*

SIR,—During my three years' tenure of office as surgeon of the Royal Naval Hospital, Malta, ending in June last, numerous cases of Mediterranean remittent fever were received for treatment from the crews of H.M. ships on the station, and during the early months of this year the ships in the harbour sent to hospital an unusually large number of very severe cases with a marked tendency to develop complications.

The following fact presented itself to my mind very forcibly; and as it seems of considerable importance in the early diagnosis of complications in these fevers, I deem it worthy of record, not having noticed it in any of the works on the subject I have read—viz., that although the temperature often rose to 104° or 105° the pulse remained almost normal in uncomplicated cases. If, however, a complication set in, such as pneumonia, hepatic, or cerebral congestion, the pulse at once rose far above the normal. Of course when the temperature was 104° or 105° the patient was as it were on the brink of a precipice, and complications were then very liable to occur; but while the pulse did not exceed 80, even though the temperature was 104°, no complication was found to exist, and a favourable prognosis could be made.

I am, Sir, yours truly,

J. WILSON, M.D., Surgeon R.N.

H.M.S. *Hecla*, Oct. 4th, 1882.

## THE WAR IN EGYPT.

*(From our Special Correspondent.)*

THE brilliant campaign in Egypt, conducted by Sir Garnet Wolseley, having terminated dramatically with the general action of Tel-el-Kebir, the flight and surrender of Arabi, the forced cavalry march to Cairo, and the capitulation of all the places in the country that held out against us, has been followed by a pause sorely needed by the troops and all concerned. Events have hitherto succeeded one another with the rapidity of telegraphy. This war, as far as the military operations are concerned, began and culminated with a rush.

Probably no campaign undertaken by England has been characterised by a greater amount of preparation: field and base hospital material and *personnel*, medical and surgical appliances, and what are known as medical comforts, were shipped in abundance, accompanied by a body of well-trained nurses, most expensively fitted-up hospital ships, ice-making machines, and what not. That all these aids and appliances to our latest field service system were not utilised to the extent they might have been has been mainly attributable to two facts—viz., the necessarily precipitate and impetuous nature of the military operations and the want of adequate transport.

The field medical service of modern warfare is based upon a few simple principles capable of being understood by anyone. In civil life, in our civil hospitals for example, there is ample room for the exercise of individual skill and the leisurely application of surgical science. But in war it is far otherwise; there is room, indeed, for the exercise of these qualities, but organisation and system dominate everything else. If the administration be not based upon sound and simple principles no amount of individual skill, nor of supplies and appliances, will be of the least avail. The principles are then to evacuate the sick and wounded men from front to base, always—that is, in the direction they must take—in a continuous stream; and to provide for the requirements of the fighting force in front such an amount of hospital accommodation and medical aid as shall be adequate, while it is at the same time as mobile as practicable. The machinery by which all this is accomplished is a system of field or movable, and base or general hospitals, including in the latter any posting hospital accommodation that may be available and utilised. The very pivot of this system, without which its distinctive character of field and

base hospitals is lost and its effectiveness for work has no existence, is that, in military parlance, no part of the force should ever lose touch of a field hospital or some section thereof; for carrying this out in its integrity transport is obviously essential. People are very apt to forget this fact, but it is the very pivot of the whole thing; the usefulness, the adaptability of a field hospital system to meet every requirement, is in direct ratio to its facility of movement. Let that be assured, and all is easy; the splitting up of a field hospital, be its size what it may, is entirely a question of pre-arrangement and packing; medical and surgical stores, *personnel* and material, in brief, should be capable of meeting the wants of ten or ten hundred patients. And the converse of all this is true: in proportion as you diminish the mobility do you impair the utility of a field hospital, until you deprive it of its essential character, and relegate it to the category of a stationary or base hospital, temporary or permanent, as the case may be. Another principle is that in proportion to the completeness of the organisation and the adequacy, an adequacy to superfluity, of the supplies at the base, will be the adequacy of the supplies distributed in front, and the completeness and facility of the working arrangements in rear. So self-evident are these statements that when reduced to writing they partake of the nature of platitudes. But let the reader remember that promptitude of action was a military necessity in this campaign; that before anything like all the troops had disembarked a portion of the force had marched to the front and fought; another portion had to be hurriedly disembarked and marched to their aid, in order to secure the water-supply and seize the railway; and that from first to last transport was a great difficulty, never entirely overcome, it is true, but diminishing day by day as more and more of canal and railway carriage became available and was in working order. If these facts be borne in mind as essentially necessary to the right understanding of what follows, much needless repetition will be avoided in a narrative not easily compressed at the best, when there is not, paradoxical as it may sound, time to make it shorter. The troops arrived at Ismailia on August 22nd and 23rd, and were actively disembarked on these and the following days. A palace—the Khedive's palace—was hastily turned into a hospital; it was a beautiful building, but a palace, and never intended for a hospital, and without the sanitary essentials or conveniences of one. A portion of a field-hospital, No. 3 field-hospital, under Surgeon-Major Beattie, was disembarked on the 23rd and took possession of this building, which had scarcely been done when the sick and wounded began to arrive. The work was very hard,—night and day and every day. Everything had to be extemporised from the materials at hand and as they came to hand. A very considerable amount of originality, ingenuity, and energy was brought to bear on the arrangements of this hospital, which in the course of a comparatively short time, after the arrival of the hospital ship *Carthage* on the 28th with the base hospital stores and establishment, became, at the time I saw it under Dr. Oliver Barnett, an admirable hospital—clean, beautifully ventilated, well supplied and well arranged, with a ward atmosphere as sweet and wholesome to the senses as the outside air. This hospital received all those coming from the front, and fed all the transports at Ismailia with their freights of sick and wounded for Cyprus, Malta, or England, the immense majority being sent straight to the latter destination. The amount of work performed at this hospital may be gauged by the fact that, as we were informed, 2667 patients passed through it in the course of a month, 500 or 600 of whom were wounded men. At this hospital a system of antiseptic surgery, as far as its principles admitted of prompt and practical application, was either adopted from the first, or, as in the case of those wounded at the battle of Tel-el-Kebir, continued where it had been already applied elsewhere. The large size of the central hall and staircase, the skylights of the corridors, made by the medical staff to communicate directly with the open air, and the nature of the climate admitting of the windows being kept open night and day, and the freest use of disinfecting agents in the dressing of wounds, kept the hospital air remarkably pure; and we can say, from personal knowledge, that the dry earth system with metal buckets, periodically removed, rendered that part of the building set apart for this purpose perfectly wholesome—in fact, the doors and windows of this part, allowing of free communication with the rest of the hospital, were fully open without any trace of bad odour being discernible. At this hospital arrangements had been pro-

vided for the segregation of cases of infectious disease; and a local sanitary service for Ismailia existed.

Passing over the military events of the 24th, 25th, and 28th of August, we come to those of, and immediately preceding, the battle of Tel-el-Kebir. Had there been ample transport—that is, an ample supply of horses, mules, and carriage—it is believed that the provision in England presupposed as many as five field hospitals, each capable of accommodating 200 patients; but it was clear that it was impossible to make this number available. The sandy character of the soil would not admit of wheeled vehicles for the removal of wounded. The General (Sir Garnet) had matured his plans and settled his strategy, the boldest, and best because the boldest, that could be adopted. On the night march, the attack at dawn of day, and subsequent events there is no need to dwell; but it is essential to bear in mind that the attacking force had the line of railway available in its rear, and a water-carriage system along the canal on its left flank. The medical arrangements were somewhat as follows:—Two field hospitals had been established at Kassassin lock, some eight miles by canal from Tel-el-Kebir. Half a bearer company was attached to each division during the action, and a special cacolet corps to the cavalry division. About eighty dhoolies and dandies with bearers accompanied the force. The Indian contingent advancing on the other side of the canal had its own arrangements. On the night of the 12th the stores and equipment for an advanced dépôt field hospital were sent up the fresh water canal in a flotilla of cutters and flat-bottomed boats, ready to disembark at any point to be fixed upon, and daily supplies of ice were forwarded from Ismailia to Kassassin hospital, where medicines and medical comforts had been provided for the use of the wounded on their arrival from the front. The Surgeon-General was very early in the field directing the medical arrangements, and he subsequently rode over to Kassassin, to satisfy himself that the hospital there was prepared for the reception of wounded. The arrangements at the Tel-el-Kebir dam hospital seem to have answered well. The boats discharged their stores, a hospital of twenty-five tents was formed on a ridge contiguous to the fresh water canal, and the Geneva flag was hoisted on the top of an earth entrenchment evacuated by the enemy. The cutters and boats were thickly littered with hay and drawn up alongside the banks of the canal. From about 9 A.M. to 8.30 P.M. about 200 European patients were received and treated in the hospital, and forwarded in two batches to the Kassassin Lock Hospital. The system of water-carriage is admirably adapted for the transport of wounded men, and everybody was loud in praise of the navy for the careful forethought they brought to bear on the matter. Among the 200 wounded there were seven officers, five of whom were seriously injured, and about 200 cases of wounded Egyptians were also received and attended to, their wounds dressed and the patients prepared for transport by train to Cairo. A very successful attempt was made to administer systematically opium, either by mouth or hypodermically, to every wounded case. Supplies of fluid nourishment, water, and stimulants were also periodically furnished, and the wounds were all treated antiseptically. The wounded were conveyed on stretchers, dhoolies, or dandies, or litters and cacolets, from which they were not, as a rule, removed until their disembarkment at Kassassin Lock Hospital. At this hospital there was a staff of five medical officers with a civil surgeon, who undertook the preparation of all antiseptic solutions and dressings, in addition to three medical officers who came in with the wounded and temporarily aided the staff, the whole, including the transport arrangements, under the supervision of a deputy surgeon-general. Some of the wounded men struck the canal at a point lower down, owing to the field hospital having been passed on as far as practicable to the front, but these were picked up by the boats; and a number of men were transported by train direct to Ismailia, after having been dressed in the field. A large number of wounded Egyptians, in addition to the above, were collected on the field, and conveyed to a field hospital at Tel-el-Kebir railway station, where numerous operations were performed. Two hundred and two were sent to their homes, and the remainder, after being well supplied with necessities, were sent by special train to Cairo under their own doctors.

As I began so I conclude. This campaign has been a rush from its beginning to its close; there has been no finality about anything; it has been here to-day, there to-morrow. No sooner had arrangements been made than a

place, a camp, barrack, or hospital has been evacuated; the strain, physical and mental, is allowed on all hands by those who have had much experience of war to have been extreme; and now that the actual fighting and marching are over, the doctor's work has begun in real earnest. There is a normal life to everything, calculated upon its strength of material and its work, whether it be a railway carriage, a steam-engine, a beast of burden, or a man. We do not know how many campaigns a Special Correspondent is capable of going through, but a very few such campaigns as this would soon close the earthly career of an army doctor occupying a responsible position.

## GLASGOW.

(From our own Correspondent.)

ARRANGEMENTS in connexion with our new Children's Hospital are so far advanced that the committee of management have advertised for a medical staff, an event which of course has caused no small excitement among those who think they have a chance of being elected. The hospital is one of eighty beds, and for this are required two visiting physicians, two visiting surgeons, an extra physician, an extra surgeon, and a resident medical officer. The candidates for these posts will be legion and the contest keen, though it is pretty generally understood that canvassing and similar annoyances are rather objected to by the committee who have the appointments in hand. Various guesses are in circulation as to the prospects of certain known candidates; in the meantime it is much easier to say who will not than who will be elected.

There was a death from hydrophobia in the Royal Infirmary last week, the case having run the usual rapid and fatal course. The patient had been bitten by a rabid dog as far back as the middle of March last.

An action for £500 damages has been commenced against Mr. M. G. Cluckie, Surgeon-oculist to the Ferguson Eye Infirmary, Greenock, and Mr. Dobie, house-surgeon to the infirmary. The child, a girl of seven years, died under chloroform before any operation had been performed. Proof in the case is fixed for November 2nd.

The condition and regulation of our tramway cars was very heartily and justly condemned at the last meeting of the Town Council, the discussion being raised by the medical officer's report in connection with whooping cough. Complaints had been lodged at the sanitary office that children suffering from that disease were admitted into the tramway cars, a proceeding which is certainly culpable in the highest degree. Many of the older cars, also, are extremely dirty and absolutely deficient in ventilation. Our cars, being public conveyances, should be better seen to.

## SCOTTISH NOTES.

(From our own Correspondent.)

THE Aberdeen University Court last week adopted the following minute:—"The Court feels that it cannot quit the consideration of Dr. Pirrie's retirement without recording to his honour the character that he has borne throughout a very long career. Being identified with the very commencement of the Aberdeen Medical School, he has been largely instrumental in impressing upon it the stamp it now bears in the medical world. First, as a lecturer on Anatomy in Marischal College; and next, for the period of forty-three years as Professor of Surgery, he has necessarily had a leading part in the education of nearly two generations of medical graduates. His teaching has been characterised by a remarkable power of lucid and impressive exposition; while he spared no pains to make it demonstrative. His zeal and enthusiasm, combined with such teaching ability, effectually secured the attention of his students, by whom he will be respectfully remembered as one of their most valued instructors." Former students of Dr. Pirrie will



heartily endorse this admirable tribute; and it may not be amiss to state that many of them feel the present to be a suitable opportunity for permanently fixing the name of their beloved teacher in connexion with the university, by some substantial memorial.

Dr. Whitelaw's interesting experiment in keeping the public schools open during the epidemic of scarlet fever at Cupar, and in having the school authorities notified as to the families where the fever exists, has not proved successful, on account of "astounding carelessness, deceit, and concealment" on the part of the public. This being so, Dr. Whitelaw recommended the closing of the schools for a temporary period; but the sanitary committee has not seen fit to adopt this course. We have evidently here an example of what is to be expected when compulsory notification is made to bear upon parties other than the parents of the children affected.

The enormous success which Miss Clugston has met with in the West of Scotland in establishing convalescent homes was instanced in two directions last week. The report of the Dunoon Homes shows that during the past year 2599 convalescents have been admitted, 137 were at present in the institution, only two had died, and the remainder had been perfectly restored to health. The financial statement was favourable. Imitation is the sincerest flattery, and it would appear that the Hon. Mrs. Vernon has inaugurated a movement for the purpose of providing a children's convalescent home, to be situated on high ground near Troon. Very influential support is already promised.

The directors of the Fife and Kinross Asylum have agreed to record in their minutes an expression of the gratification felt by the Board at the satisfactory state of affairs shown in Dr. Turnbull's report for the year regarding the boarding-out of chronic cases and the enormous saving to the rate-payers thus occasioned. The twenty-five patients so dealt with represented relief to the assessment of a capital sum of £5000, while at the same time the expense to the parochial rate was lightened. Facts of this class are likely to be quickly appreciated by other directors, who may have hesitated long when the advantage to the patients of the boarding-out system was alone insisted on. The forcible suggestions of the Commissioners regarding this and other matters have been favourably referred to by the lay press in Scotland.

It appears that the quality of at least part of the Dundee water supply is rather suspicious. An exciting argument, lasting several hours, occurred a few days ago over a question as to whether samples from the three sources of the town's supply should be analysed, or whether but one should be so treated. Though a proposal with the latter view was carried, the result of the discussion will be that uneasiness will be felt regarding the quality of the waters, an analysis of which was so obstinately refused by the majority. The filtration of the Monikie water is estimated to cost £15,000.

## IRELAND.

(From our own Correspondent.)

ON the 18th inst. (St. Luke's Day), the annual elections for President, Vice-President, and other office-bearers of the College of Physicians will take place. Dr. Johnston, having served two years as President, retires, and will be succeeded most probably by Dr. William Moore, late Professor of the Practice of Medicine in the School of Physic of the University of Dublin. Dr. Moore is a very distinguished physician, and there is no doubt his election will be favourably regarded by the profession. Dr. J. Magee Finny, the present Registrar, has, I understand, resigned, and Dr. J. W. Moore has been nominated for the post, the emoluments of which are about £100 per annum.

During last year 11,169 persons were inmates of district lunatic asylums in Ireland, of whom 8667 remained at the close of 1880, while 2502 were admitted during the year. The recoveries were 1019, and, if judged by the admissions, would stand at about 40 per cent., but if by the daily average of patients—namely, 8794—at not quite 11½ per cent. The mortality was 7 per cent., less by 0·25 per cent. as compared with last year. As regards the period of life when mental disorders become most manifest, the inspectors, from

the various statistics at their command, place it between twenty-five and thirty-five, in which decade there exists, happily, greater power of recuperation than in any other. As, heretofore, the great characteristic, from a national point of view, between England and Ireland is to be found in the extraordinary difference between the number of married and widowed on the one hand, and the single on the other—viz., 2614 and 6000 respectively, while in 364 the special condition was not ascertainable. No adequate explanation has ever been given of this disparity in the social condition of Irish lunatics.

It is expected that a memorial will shortly be erected to the late Dr. William Thompson, of Lisburn, whose sudden death I referred to recently in these columns. That something of the kind will surely take place there is little doubt, but what the form may be has not yet received any definite shape. It has been suggested that the most useful and appropriate memorial would be a new surgical hospital for Belfast, to be called, for example, the "Thompson Memorial Surgical Hospital," to perpetuate the name of a very distinguished member of the profession. The population of Belfast is about 208,000, and yet there is only one general hospital in the town, which is rapidly increasing in wealth and population. The beds for medical and surgical relief available only amount to 160, which, compared with 350 beds in Cork with a population of 100,578, and other places, show that instead of one general hospital, Belfast requires at least treble its present accommodation.

The memorial window to the late Dr. Edward Peele, whose untimely death from typhus fever was so much regretted, has been erected in St. Patrick's Cathedral, Dublin.

In consequence of the enforced resignation of Dr. O'Reilly, medical officer of Lismore Workhouse, an election for his successor took place last week. There were four candidates, and ultimately Dr. Denneby was elected.

Dr. E. H. Byrne, one of the medical officers of the South Dublin Union, who is about leaving Dublin and intends practising in Australia, was this week presented by his friends with a farewell address. Among those present were several members of Masonic Lodge 245, with which Dr. Byrne was connected, and who presented him with a past-master's jewel and a royal arch jewel.

During the quarter ended June 30th, there were registered in Ireland 32,679 births, equal to a rate of 25·7; and 22,874 deaths. In the same period 45,105 persons emigrated; so that a decrease of 35,300 would appear to have taken place in the population. The registrars report the death of five persons from hydrophobia during the quarter, and refer to the prevalence of rabies in dogs and other animals in twenty-six districts. The information concerning this disease was obtained in reply to a special query addressed to the registrars to furnish any information within their knowledge regarding the prevalence of the disease, and they supplied accurate and recent information to the Government regarding this fatal affection.

Dr. Beamish, who for nearly fifty years held the post of Physician to the Cork Fever Hospital, has been presented with a handsomely illuminated address on the occasion of his retirement.

Mr. John S. McArdle has been appointed Surgeon to St. Vincent's Hospital, Dublin, in the vacancy caused by the resignation of Mr. Kehoe.

## PARIS.

(From our Paris Correspondent.)

As you are an uncompromising enemy to homœopathy, or anything savouring of quackery, I send you the following extract from the writings of Orfila, which you may consider worth reproducing in THE LANCET:—"The mandates I frequently received from courts of justice to analyse medicines compounded and delivered by homœopaths have enabled me to affirm that there existed no appreciable substance whatever in the pretended homœopathic remedies; or if, by chance, the analysis revealed any substance in a certain number of them, the quantity was so small that it may be considered nil; but I know also, and I affirm it on my honour, that, having little confidence in a system which cannot produce good results in a great many

acute affections, many homœopaths administer medicines in allopathic doses, so that the system of Hahnemann is adopted and practised by two sets of individuals. The one who have an unlimited faith in it, practice it without any restriction, and abandon their patients to themselves without taking into consideration the innocuousness, often murderous, of medications which they prescribe; these are pure and fanatical homœopaths. The other, less dangerous when it concerns the treatment of acute maladies, may be qualified clever homœopaths, as they act on the imagination of their patients by the administration of a few globules of extreme dilution, and consequently insignificant at the same time; they bleed, apply leeches, blister, prescribe corrosive sublimate, opium, copaiba, in rational doses, the good effects of which soon become apparent." What was written by the celebrated medical jurist more than a quarter of a century ago holds as good now as it did then.

In a very interesting paper by Dr. Magnan, one of the physicians to the Sainte-Anne Asylum, on the treatment of epileptic patients, he gives the following useful advice:—One should not be in a hurry to set at liberty an epileptic patient who, in previous attacks, had committed acts of violence, as it should not be forgotten that he is liable to commit others in analogous circumstances. If at the commencement they have not been followed by any serious consequences, it is rare that they do not end by being attended with some terrible effects. This, however, is very different from the case of patients affected with melancholy, for they hesitate for a long time before they attempt to commit suicide. Many of these latter are even obliged to drink some intoxicating liquor to excite themselves in order to have the courage to accomplish the act to which they have so much repugnance, and of which they were perfectly conscious, whereas the confirmed epileptic acts otherwise.

Dr. Bourneville, physician to the Bicêtre Asylum, after several experiments to ascertain the effects of the bromide of ethyle in cases of hysteria and epilepsy, has come to the following conclusions: 1. The dilation of the pupil at the commencement of the inhalations of the bromide of ethyle is not constant. 2. The complete muscular resolution is exceptional. 3. Anæsthesia is produced in different degrees, according to the subjects experimented on. 4. The temperature, the secretions, and the general state of the patient do not appear to undergo any modification. 5. The pulse and the respiration are slightly accelerated. 6. Trembling of the limbs in a more or less marked degree during the inhalation may be produced, but it does not persist after the cessation of the inhalation. 7. Hysterical attacks are in general easily arrested by the bromide of ethyle. 8. Epileptic fits may sometimes be arrested by administering the medicine at the commencement of the tonic stage; more frequently, however, the inhalations produce no effect. 9. In epilepsy the regular employment of the bromide of ethyle, administered by inhalations daily during one or two months, greatly diminishes the frequency of the attacks.

All medical men know that it is impossible to touch or titillate the mucous membrane of the larynx without producing very marked reflex effects. The glottis contracts spasmodically, and the whole of the larynx is drawn up with violence. When this organ is irritated by a current of carbonic acid, or by the vapours of chloroform, besides the local reactions, a general state of agitation is noticed. These two anæsthetic agents act nearly in an equal degree in this respect, and irritate very violently at the commencement. When, however, they are applied to the larynx for a few minutes the irritating effects of one or the other become *nil*, or considerably reduced. This is particularly the case with carbonic acid. The above have been the results constantly obtained by Prof. Brown-Séquard by experiments performed by him on animals; and in a paper read by the learned professor at the Academy of Sciences last week he expressed the hope that this discovery would enable medical men to introduce a tube into the larynx, or even the trachea, with impunity. Prof. Brown-Séquard did not notice any bad effects, either local or general, to have been produced by the carbonic acid; neither was there any manifestation of mechanical irritation of the larynx or the trachea in his experiments. He, however, enjoins further researches on the subject before applying carbonic acid in the manner above described, and the institution of further experiments, with the view of ascertaining positively the innocuousness of introducing into the human subject, by the

mouth or nostrils, a large quantity of carbonic acid. It is known, he added, that this gas determines cephalalgia, giddiness, &c., and that a very rapid current of this agent may be applied to the back of the mouth or fauces without producing any dangerous effects. Nevertheless, it is essential to reproduce the experiments, with the view of ascertaining the anæsthetic effects of carbonic acid on the mucous membrane of the larynx.

Paris, October 10th, 1882.

## Medical News.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Oct. 6th:—

Appleton, Harry, Lizard, Cornwall.  
Bartlett, Benjamin Pope, Hastings.  
Plesse, Charles Henry, New Bond-street.  
Rouse, Rolla Edward, Woodbridge Rectory.  
Winter, Thomas Bussell, Werter-road, Putney.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Evan David, London Hospital; George Frederick Hentch and Alfred Joseph Reeve Tyler, Charing-cross Hospital; Arthur Edw. Lyster, St. Bartholomew's Hospital.

**THE BRITISH MEDICAL BENEVOLENT FUND.**—A donation of £100 has been received by the Treasurer of this Fund from Dr. Beane of Melbourne.

**ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.**—The Entrance Scholarships in Natural Science have been awarded as follows—viz., Scholarship of £100 to Mr. Horace Duncan; Scholarship of £60 to Mr. E. D. Shirtliff.

**QUADRUPLE BIRTH.**—The wife of a navvy at Pontypridd has been delivered of four fully developed living children at a birth. None of them, however, survived more than a few hours.

A STRONG opposition is being manifested against the erection of châteaux in the centre of the road at Ludgate-circus. A deputation has waited upon the Commissioners of Sewers, who lease the site to the company at the nominal rent of £10 for five years.

**SCURVY ON BOARD A PASSENGER SHIP.**—Lloyd's agent at Natal reports, under date Sept. 11th, that the *Bylgia* (Captain Anderson), from Hong Kong for Algoa Bay, with 127 Chinese passengers, put into Natal on Sept. 9th with scurvy on board. There had been twenty-four deaths.

At the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, held on the 10th inst., Sir W. R. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of £75 was distributed among the several applicants.

**LONDON HOSPITAL MEDICAL COLLEGE.**—Mr. Hugh Smith has obtained the Entrance Science Scholarship of £60; Mr. E. Barclay Smith the Entrance Science Scholarship of £40; Mr. L. Raly the Buxton Scholarship of £30; and Mr. F. R. Ozzard the Buxton Scholarship of £20.

SEVERAL milk-sellers in Manchester have been amerced in heavy penalties for the adulteration and dilution of milk. One sample was described as consisting of forty parts of skim milk and sixty parts of water containing colouring matter!

**SOCIETY OF MEDICAL OFFICERS OF HEALTH.**—The first meeting of the session will be held at 1, Adam-street, Adelphi, on Friday, Oct. 20th, at 8 P.M., when the President, Dr. Tripe, will deliver an Inaugural Address on "Some of the relations between Meteorological Phenomena and Man."

**WEST KENT MEDICO-CHIRURGICAL SOCIETY.**—The following gentlemen have been elected office-bearers for the session 1882-83:—President: Mr. G. H. Cable. Vice-Presidents: Dr. A. Forsyth, Mr. J. Marshall. Council: Mr. A. L. Bowen, Mr. J. E. Burroughs, Dr. F. C. Fisher, Mr. J. Hammersley, Mr. C. H. Hartt, Mr. F. Moon, and Mr. J. P. Purvis. Treasurer: Dr. P. Purvis. Secretary: Mr. H. W. Roberts. Librarian: Dr. Saundry.

**PRESENTATIONS.**—Mr. David Richards having recently resigned his post as medical officer to the work-house and industrial schools, Brighton, the officers of the former establishment have presented him with two cases containing respectively a dozen silver bladed ivory-handled dessert knives and forks and half-a-dozen fish knives and forks to match. The presentation was accompanied by a letter expressive of the high respect and esteem in which Mr. Richards was held by the donors of the gift.—On Friday the 29th ult., Dr. Charles Brown, of Eastbourne, was presented by Mr. F. W. H. Cavendish on behalf of a number of patients with a handsome gold chronometer, chain, and locket, value seventy guineas. The watch bore the inscription "Presented to Dr. C. R. Brown by his patients, in token of their esteem. Eastbourne, 1882."

**SOIRÉE AT GUY'S HOSPITAL.**—At Guy's Hospital there was, on the 2nd inst., a brilliant conversazione, at which there was a larger attendance than on any previous occasion. The decorations supplied by Messrs. Gillow were extremely handsome, especially the central drawing-room, which was upholstered in various oriental materials, giving to the whole a most luxurious aspect. Owing to the kindness of Messrs. Siemens the electric light was employed in all those parts of the buildings and grounds used for conversazione purposes; it was peculiarly clear and steady, and worked the whole evening without any misadventure. The object of most of the scientific exhibits was to popularise Mr. Francis Galton's ideal anthropometric laboratory. Thus, at one table, visitors could have their acuteness of vision for form or colour tested, at another their hearing and tactile powers were examined, at another their blood was analysed, and lastly their personal equation was determined. One of the attractions of the evening was the telephone-room, fitted up by the United Telephone Company, in which it was possible to hear the music of "Patience" at the Savoy Theatre, and also to talk with people at the London Hospital. In one of the rooms a very good band played a capital selection of music. During the evening the Right Hon. Lord Justice Bowen, one of the governors of the hospital, distributed the prizes.

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

**BENSON, ARTHUR H.,** M.B. Univ. Dub., L.R.C.S.I., has been appointed Medical Officer to the Dublin Throat and Ear Hospital, vice Bertram C. A. Windle, resigned.

**BROOK, WILLIAM FRED.,** M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Fareham District and Workhouse of the Fareham Union, vice Barnard, resigned.

**BYRNE, W. S.,** M.B., M.Ch. T.C.D., has been appointed Surgeon-Superintendent to Prince Alfred Hospital, Sydney, New South Wales.

**CONNON, CHARLES JAMES, M.B.,** M.S. Aber., has been appointed Medical Officer for the Tenth District of the Hexham Union.

**CONRY, J. T. CROSBIE, L.F.P.S. Glas.,** L.K.Q.C.P.I., has been appointed Medical Superintendent to the new Infirmary at Hope, Salford.

**DUNNE, ALEXANDER, L.R.C.P. Ed.,** L.R.C.S.I., has been appointed Medical Officer to the Portaferry Dispensary District, vice Filson, deceased.

**EAGLES, WOODFIELD, M.R.C.S.,** L.S.A.Lond., has been appointed Surgeon-in-Ordinary to the Bucks General Infirmary, vice Ceely, resigned.

**FLINN, DAVID EDGAR, L.K.Q.C.P.I.,** L.R.C.S.I., & L.M., has been appointed Surgeon to St. Michael's Hospital, Kingstown, Dublin.

**FOSTER, PHILIP, M.D. St. And.,** M.R.C.S., has been appointed Honorary Physician to the Yorkshire Preparatory School for Deaf and Dumb Children, Leeds.

**GORDON, JOHN J.,** L.R.C.P. Ed., L.R.C.S. Ed., has been appointed Assistant Medical Officer to the Infirmary and Workhouse, Hackney Union.

**HEWETSON, H. BENDELACK, M.R.C.S.,** has been appointed Honorary Ophthalmic and Aural Surgeon to the Yorkshire Preparatory School for Deaf and Dumb Children, Leeds.

**JONES, ROBERT, M.B. Lond. &c.,** has been appointed Assistant Medical Officer at Colney Hatch Asylum (Female Department), vice Dr. Cobbold, appointed Medical Superintendent of Earlswood Asylum.

**LOYD, RICKARD W.,** M.R.C.S., has been appointed House-Surgeon to St. Peter's Hospital for Stone &c., Berners-street, W.

**MACDONNELL, MARK ANTHONY, M.D.,** M.Ch. Q.U.I., has been appointed Honorary Medical Officer to the South Dispensary, Liverpool, vice McGrath, resigned.

**MORGAN, E. RICE, M.R.C.S. &c.,** of Morriston, has been appointed Medical Officer to the Swansea Truants' Industrial School.

**O'CONNOR, FREDERICK, L.K.Q.C.P.I.,** L.R.C.S.I., has been reappointed Medical Officer of Health for the March Urban Sanitary District.

**REYNOLDS, ROBERT, M.R.C.S.,** L.S.A.Lond., has been reappointed Medical Officer for the Fourth District of the Halstead Union.

**ROUÉ, W. BARRETT, M.B.,** M.S. Dur., has been appointed an Examining Physician to the Scottish Imperial Life Assurance Company.

**St. GEORGE, GEORGE LOMBE, L.K.Q.C.P.I.,** L.R.C.S. Ed., has been appointed Surgeon to the County Antrim Infirmary, vice Thompson, deceased.

**STODDART, Mr. F. W.,** has been reappointed Public Analyst for the Borough of Bridgwater.

**STREET, ALFRED FRANCIS, M.A.,** M.B. Cantab., M.R.C.S., has been appointed Senior Resident Medical Officer to the Radcliffe Infirmary, Oxford, vice T. E. Hine, M.B., resigned.

## Births, Marriages, and Deaths.

### BIRTHS.

**COLTART.**—On the 6th inst., at Ashbourne House, Epsom, the wife of William Wilson Coltart, L.R.C.P. Lond., M.R.C.S., of a daughter.

**CROSS.**—On the 5th inst., at Stanhope-terrace, N.W., the wife of John Cross, B.A., M.D. Cantab., of a son.

**DEAKIN.**—On the 6th ult., at Allahabad, N.W.P., India, the wife of Surgeon C. W. Shirley Deakin, F.R.C.S. Eng., Junior Civil Surgeon, of a son.

**GOULD.**—On the 7th inst., at Queen Anne-street, Cavendish-square, the wife of A. Pearce Gould, F.R.C.S. Eng., of a daughter.

**LEONARD.**—On the 7th inst., at Camden-road, the wife of H. Leonard, M.B., of a son.

**SPENCE.**—On the 6th inst., at St. Ninians, Burntisland, Fife, the wife of Robert Spence, M.B., of a son.

**THATCHER.**—At Albany-street, Edinburgh, the wife of Charles H. Thatcher, F.R.C.S.E., of a daughter.

**WATHEN.**—On the 7th inst., at Coburg Villa, Richmond-hill, Clifton, the wife of John Hancock Wathen, L.R.C.P.E., of a daughter.

### MARRIAGES.

**HARRIS—CHALLINOR.**—On the 3rd inst., at St. Edward's Church, Leek, Staffordshire, James Penn Harris, F.R.C.S., of Liverpool, to Sarah Rosamond, daughter of the late Charles Challinor, Esq., of Liverpool.

**HAWARD—WALKER.**—On the 30th August, at the Parish Church, Knightwick, Edwin Haward, M.D. Ed., M.R.C.P. Lond., F.R.C.S.E., of Harley-street, Cavendish-square, W., to Mary, eldest daughter of the late John Smith Walker, Esq., of Knightwick Manor, Worcester-shire.

**HOCKIN—CLOW.**—On the 3rd inst., at St. Mark's, Hamilton-terrace, G. Treverno Hockin, M.R.C.S., L.R.C.P., fourth son of John Hockin, of Amersham House, Beckenham, to Cordelia Fanny, fifth daughter of the late Leonard Clow and Mrs. Clow, of Upper Hamilton-terrace.

**JOHNSTON—MEDCALF.**—On the 5th inst., at Leven, Augustus Johnston, M.B. T.C.D., M.R.C.S., of Gale House, Ambleside, to Judith Anne, younger daughter of the late W. Medcalf, of Broughton House, Newton-in-Cartmel.

**LOYD—HERMAN.**—On the 4th inst., at St. Peter's Church, Tiverton, Devon, James Hellings Lloyd, M.R.C.S.E., L.R.C.P. Ed., of Col-lumpton, Devon, youngest son of the late Rev. J. D. Lloyd, Rector of Clare Portion, Tiverton, to Marian (Alinnie) Armytage, only child of the late M. Herman, Esq., of Bath.

**NIND—HARVEY.**—On the 3rd inst., at St. Mary's Church, Vernon Pitt, second son of the late Philip Pitt Nind, M.R.C.S., of Torquay, to Jane (Jeanie), eldest daughter of John F. Harvey, Esq., of Earham, St. Mary's Church.

**REID—TURNBULL.**—On the 4th inst., at Friar's Bank, Dunbar, by the Rev. Robt. Buchanan, James Reid, M.B., of St. Helen's, Lancashire, to Susan, younger daughter of the late John Turnbull, M.D., of Dunbar.

**SAUNDERS—BARNES.**—On the 11th inst., at St. Mary's Cathedral, Edinburgh, by the Rev. Fitzroy Kelly Lloyd, Incumbent of St. John's, Pittenweem, Frederick Anastasius Saunders, L.R.C.P.E., L.R.C.S.E., to Mary Emily Louisa, only daughter of the late Captain Edmund Charles Barnes, H.M. late St. Helena Regiment.

**SCATLIFE—FRIEND.**—On the 4th inst., at Clermont Congregational Church, Preston-park, Brighton, Arthur W. Scatliffe, M.D., of Margate, to Lille, third daughter of Daniel Friend, Esq., of Stoneleigh, Preston-park, Brighton.

**WOODS—PITTAR.**—On the 4th inst., at St. Peter's, Brighton, Thomas Arthur Woods, B.A., M.B., L.R.C.S.I., L.M., of Douglas, Isle of Man, to Elizabeth (Bessie) Marmion, daughter of Thomas John Pittar, Esq., of St. George's-terrace, Brighton.

### DEATHS.

**RISDON.**—On the 6th inst., at the house of his sisters, Blideford, North Devon, Robert Risdon, M.R.C.S., late of James-street, Buckingham-gate, aged 58.

**SCOTCHBURN.**—On the 6th inst., at Great Driffield, Alfred Scotchburn, M.R.C.S., aged 55.

**SETH.**—On the 5th inst., at Tisbury-road, West Brighton, Owen Sath, F.F.P.S. Glas., Assistant-Surgeon to the 1st Surrey Artillery Volunteers, son of the late C. G. Sath, Esq., of Calcutta.

**TURRELL.**—On the 4th inst., at Windsor, Samuel Turrell, M.D. Edin., aged 60.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Oct. 12th, 1882.

Date	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Oct. 6	30.19	E.	57.4	54	78	61	50	.05	Overcast
" 7	30.09	S.E.	55	53	80	61	50	.05	Overcast
" 8	30.06	S.E.	55	51	82	63	46	..	Hazy
" 9	30.18	E.	57	55	102	68	50	..	Foggy
" 10	30.11	S.	55	53	..	63	49	..	Foggy
" 11	29.71	S.	58	57	..	61	51	..	Overcast
" 12	29.49	W.	53	51	..	56	47	.33	Overcast

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

## THE ABUSE OF "OLD" DIRECTORIES, &amp;c.

In common with the members of other professions, medical men are insulted, and not unfrequently to some extent defamed, by the insolence of advertising tradesmen who, not content with misdirecting their multitudinous circulars by the use or abuse of "old" Directories, have the effrontery to address their missives to "Mrs. —," assuming that the practitioner must needs have a wife! If the commercial community could be convinced of its reckless folly in this matter of circularising, much money which is now wasted would be saved. The use of the old Directories is a great nuisance. We have quite recently heard of instances in which urgent letters requesting consultations have been directed to old addresses which have been wrong for three or four years at least. Better have no Directory than an old one, and better not send out circulars at all than address them to wives who have no existence.

*Tyro.*—Such an arrangement is not very satisfactory. It is not an open one, and involves something like a partnership with a druggist.

## DEATH CERTIFICATES.

To the Editor of THE LANCET.

SIR,—The following is a reply to my inquiry as to what constitutes attendance, and also what course a doctor must adopt in those numerous cases in which one visit only is made before death. You will notice that the registrar's ruling and that of a magistrate do not coincide, and a doctor is in an awkward predicament between the two.

I am, Sir, yours faithfully,

E. H. ROE.

The Poplars, Patricroft, Oct. 10th, 1882.

"General Register Office, Somerset House,  
London, W.C., Oct. 9th, 1882.

"Sir,—I am directed by the Registrar-General to acknowledge the receipt of your letter of the 8th inst., and to state that the Registration Act of 1874 (section 20) provides that, 'In case of the death of any person who has been attended during his last illness by a registered medical practitioner, that practitioner shall sign and give to some person required by this Act to give information concerning the death a certificate stating to the best of his knowledge and belief the cause of death.'

"It is impossible, under the varying circumstances attending medical treatment, for the Registrar-General to express any opinion as to whether one visit before death is or is not sufficient to warrant a medical man granting a certificate of the cause of death. The medical attendant is the best judge in such a matter; the Act only insists that he shall have been in attendance during the last illness.

"I have the honour to be, Sir, your obedient servant,

"WILLIAM CLODE, Secretary.

"To Edwin H. Roe, Esq., The Poplars, Patricroft."

## AN ALARMING POLICE ECONOMY.

It has transpired, and should be generally known to the public, that, with a view to reduce the police-rates, instructions have been issued to refrain from calling in a medical man to the aid of the "drunk or dying" at police stations unless the inspector on duty declares such a step necessary. The effect of this restriction has been, during the last year, to place the discrimination between the effects of drink and disease in the hands of policemen, who are supposed to have acquired some special knowledge and new power of diagnosis in the course of a brief instruction by the St. John Ambulance Society.

## "FEEDING LUNATICS."

To the Editor of THE LANCET.

SIR,—I am pleased to observe from your annotation of the 7th inst. that we do not, after all, differ very widely on this subject; you admit two points for which I argued—viz., that forcible feeding is necessary, and that "there are cases in which it is necessary to use the tube." You hold "that it is because the task of inducing lunatics to feed naturally is left to attendants the need for forcible feeding arises." I practically stated in my last letter that this task should be carried out under medical supervision, and not unfrequently actually undertaken by the doctor himself.

I think with you that "no medical man could possibly stand by and see a patient die of starvation rather than use the tube;" but I believe that the result of the unwillingness of some medical men to use the tube, if it can possibly be avoided, is that the operation is sometimes deferred too long, and that thus the opportunity of saving life is occasionally lost, just as it may be in certain cases by deferring a tracheotomy or a herniotomy. The patient is sometimes only fed with the tube when his vital powers have sunk so low that they cannot recover themselves. The death in such a case is rightly certified as being due to "exhaustion from mania" or "exhaustion from melancholia," as the case may be; but the patient might possibly have withstood the exhausting effects of his disease if he had been earlier supplied, by means of the tube, with the large amount of nutriment which the system requires under such conditions. It is probable that the patient has been diligently plied with food administered with the spoon, or by some other method of feeding; but in very bad cases it may happen that the result of an hour's continued effort is that the patient has only swallowed an ounce or two of liquid, whereas with the tube a pint or more of fluid food may always be administered in a few minutes. The latter method is far less exhausting to the patient, and there is no doubt about the food reaching the stomach.

It is often a most difficult point to decide when the tube should be used; no two cases are precisely alike, and there is frequently room for a difference of opinion on the subject. It is possible that in some asylums the tube is, as you believe, too freely used; but I feel very strongly that there is, on the other hand, a great and real danger of deferring its use until the patient is too exhausted to benefit by it. If, however, medical men do err in this matter, I quite agree with you that they do so "with the most earnest desire to benefit their patients."

The full discussion of this subject is probably more suited to a journal whose pages are devoted specially to subjects connected with the care and treatment of the insane; but since you raised the question in your columns, it seemed to me only right that your readers should have the opportunity of hearing both sides of the question.

I am, Sir, your obedient servant,

Earlswood Asylum, Oct. 9th, 1882.

CHAS. S. W. COBOLD.

*Mr. J. Thomas.*—There is some unaccountable delay in the issue of this report to the public, but it can be obtained from Messrs. King, Parliamentary Booksellers, King-street, Westminster, S.W.

*Dr. J. H. Bell.*—Thanks.*Dr. Pocock's* paper will appear in an early number.*Wm. Powell, M.B.,* has forgotten to enclose his address.

## "INTRA-VENOUS INJECTION OF FLUID IN SEVERE HÆMORRHAGE."

To the Editor of THE LANCET.

SIR,—In reply to your correspondent, Dr. Philip Foster, of Leeds, permit me to point out that for intra-venous medication, absolute alcohol is preferable to brandy, as being purer, the latter agent containing anæsthetic ether and volatile oil, together with colouring and other matters derived from the cask, in which it has been kept, besides the frequent addition of burnt sugar. The employment of salt instead of a saline powder of the formula advocated by me (THE LANCET, Sept. 16th, 1882, p. 437) might answer the purpose, but I submit it is preferable to use a powder which imitates approximately the salts of the blood.

The advantages of my syphon over the common obstetric syringe are—first, the almost impossibility of admitting air; and, secondly, the greater uniformity with which the medicated fluid can be introduced into the venous system by it. Moreover, the idea of using for the operation of intra-venous injection an instrument which a few hours previously may have been employed for the administration of a nutrient or purgative enema for the purpose of cleansing the uterine cavity in a case of pyæmia by means of a carbolic douche, or as a method of arresting post-partum hæmorrhage by the injection of perchloride of iron, is not to me a pleasant one.—I am, Sir, yours faithfully,

CHARLES EGBERTON JENNINGS.

London Hospital, E., Oct. 6th, 1882.

## THE TREATMENT OF THE WOUNDED ON THE "MALABAR."

THE following important letter, testifying to the humane treatment received by the sick and wounded on board the *Malabar*, appears in the *Pall Mall Gazette* of Tuesday last:—

To the Editor of the *Pall Mall Gazette*.

SIR,—A paragraph in a local paper has just come under my notice, quoting a correspondent of the *Pall Mall Gazette*, who "calls attention to the shameful manner in which the wounded were neglected on board the *Malabar* during their passage home." He is further said to have stated "that some of the men did not have their wounds dressed from the time they left Alexandria till their arrival at Portsmouth." What opportunities your correspondent may have had of verifying the terrible accusations he brings against the surgeons entrusted with the care of the wounded on board the *Malabar* I know not; I can only say that as a passenger in that ship I spent on an average an hour daily with the sick and wounded on board, and can unhesitatingly assert that within my experience I have rarely seen more assiduous care bestowed by the doctors on those under their charge than was the case on board the *Malabar*. Going about as I did as far as possible as the men's friend, and being in no way connected with the army, I naturally heard complaints from time to time from the men's lips. Many men regretted leaving the superior comforts of the hospital ship *Carthage*, mentioning especially the loving care with which they were nursed there by the lady nurses who have so nobly volunteered their services in a burning Egyptian climate; some, too, complained that they should have liked more to eat—low diet, is, I believe, necessary where there is any risk of inflammation; and many were anxiously looking forward to the change from the necessarily somewhat crowded quarters on board to the airy wards of Netley Hospital. But I never heard one word of complaint against the doctors; while, on the other hand, I particularly remember one day, when telling the men that the doctor was rather sea-sick, their warm expressions of sympathy with him, saying, "He is so kind to us," &c. I hope, Sir, that by inserting this letter you will do your best to repair the cruel wrong that has been done to those in charge of the wounded. I shall be glad to give your correspondent any information I can on the subject. I enclose my card, but must sign myself,

A PASSENGER ON BOARD THE "MALABAR."

South Petherwyn, October 10th, 1892.

## "DRAIN-PIPES: A QUERY."

To the Editor of THE LANCET.

SIR,—In answer to the query of "M.D.," in your journal of Sept. 30th, as to the above, I should imagine the increased luxuriance of the grass was simply the result of thorough drainage and deep cultivation. When the drain is cut and the pipe laid in, the opening is filled up with the earth previously dug out. This is deep cultivation, and the pipe carrying off the superfluous water, the soil between the pipe and the surface being freed from water, would be of a slightly warmer temperature, and thus increase the growing powers of the soil; hence the luxuriant appearance. Let "M.D.," when the ground is covered with snow, watch the three drains, and he will possibly find, on a thaw setting in, that the snow will disappear along the line of drains sooner than on the adjoining ground, no doubt the result of a drier and somewhat warmer soil. I may mention that about forty years ago I superintended the cutting of over one hundred miles of drains.

I am, Sir, your obedient servant,

Oct. 2nd, 1892.

G. J.

To the Editor of THE LANCET.

SIR,—I have observed a similar appearance as your correspondent, "M.D.," and concluded that the increased luxuriance in the growth and deeper tint of the grass depended on the subsoil having been changed during the process of laying the drain-pipes; that portions which were previously deeply buried had been brought near to the surface, and had supplied a new pabulum to the roots of the grass.

I am, Sir, yours, &c.,

WM. KELLY, M.D.

Taunton, Oct. 5th, 1892.

Mr. Thos. Richardson.—The name of the Institution mentioned is not included in the "Medical Register and Directory of the United States."

V. J. is referred to a general announcement in another column.

## EXTRA FEES FOR INSTRUMENTAL LABOURS.

To the Editor of THE LANCET.

SIR,—With regard to the above, I should be glad to know whether it is the practice of Boards of Guardians to allow them to workhouse medical officers, for such I take Dr. Barnes to be.

A short time ago I was refused an extra fee in a case of that sort, and I wrote to the Local Government Board on the subject. The answer I received was that the regulation about extra fees only applied to district medical officers; and the same rule, I take it, applies to the surgical fees for accidents and operations—at least the regulation seems to exclude the union medical officer altogether. Are medical officers of workhouses aware of this ruling, which certainly gives them no encouragement to undertake any operation requiring assistance and involving time and trouble? I could get no reason from the Local Government Board for any difference being made between district and union medical officers, and should be glad to know if in your opinion any sufficient one exists.—I am, Sir, faithfully yours,

Salop, Sept. 27th, 1892.

WORKHOUSE MEDICAL OFFICER.

## THE BANGOR EPIDEMIC.

WE have received a communication from the Clerk to the Bangor Local Board of Health denying the accuracy of certain statements which we felt it our duty to make with regard to such matters as the tardiness of the Board in taking the measures necessary to stay the spread of the enteric fever outbreak. Owing to the tone and character of the communication we defer inserting it until our next issue, when we hope the official report on the outbreak will have been issued, and when, we feel convinced, every statement we have made will be fully confirmed.

A Friend of the I.W.D.—Our correspondent's strongly worded letter is based upon a mere rumour, the correctness of which is, to say the least, doubtful.

W. Easby, M.D., is thanked, but we must decline to notice the man or his effusions.

## THE USE OF TOBACCO.

To the Editor of THE LANCET.

SIR,—In reply to your query of last week, allow me to give my experience. It is only the observation of myself, and so not of much import; but if each or many members of our profession will send their experiences, we may be able to draw certain conclusions.

I started smoking about the age of eighteen, and did so that I might be like my fellow-students. My first cigar made me very ill. I was sick, purged, and very dizzy, had gripping pains in the abdomen, violent palpitation, and came out in hot and cold sweats. The smell of tobacco after that was distasteful for a time, but being determined to become a smoker, I tried again and again, until I could smoke without great discomfort. I had many minor attacks of vertigo during my time of learning. I smoked first after tea only, then whilst tea was making, then after dinner, and so on until I could smoke any time of the day. I also found as the time for smoking came round I wanted to smoke; I had a craving which nothing but tobacco would satisfy. I continued smoking for about four years, during which time I had many minor complaints which I have lost since leaving it off. It often brought on palpitation, which I never have now. I am myopic from early study, but a pipe of tobacco would sometimes make me more so. In other words, a smoke would entirely destroy the effect of my glasses, and when I had them on after a smoke I could only see as far as when I had them off on an ordinary occasion. Again, at night time I had cramp in the muscles of the calf and of the sole of the foot. If I left off smoking for a few days I noticed this became less, and when I left it off entirely the cramp went also, and I have never had it since. If I smoked more than usual the cramp extended to the muscles of the thigh and back of the hand. On one occasion, after a heavy smoke, it seized the muscles of the jaw whilst I was yawning, and kept my mouth open; I had to shut it forcibly. I was also troubled with subeultus tendinum, or a sudden twitching of the muscles of the lower extremities. This even would spread to the whole body, and when asleep or falling asleep I was often awakened by a sudden twitch of the whole body, as if an electric shock had been given me suddenly. This I have never had since I left off smoking. The cramp is often seen after severe purging or vomiting, and the subeultus in children when they are feverish. I expect both are due to some irritation of the solar plexus; some physiologist will no doubt set me right. After a smoke my handwriting became very strange; the letters were not firmly made, but wavy, like the handwriting of an aged or infirm person.

Others I find are sometimes subject to the same sensations as I was. To many it is the cause of sore throat and indigestion. One case attracted my notice, which I think is almost unique. A youth in a saw-mill got many small cuts about his hands, and they would not heal. He consulted me about them. I tried protective measures and tonics with no result. These cuts continued for some months, and would not heal. One time he was very busy and ran out of tobacco; he did not smoke for three days, and to his surprise he found his wounds healing. He stopped smoking, and in nine days they were perfectly healed. He then started smoking again, got some more cuts, and they would not heal; so he left off smoking, and they rapidly healed. He then came to the conclusion that it was not good for him to smoke, and he has left it off. Now his cuts heal the same as those of others. Smoking, again, is often a mannerism, the same as scratching the head or biting the nails, of a more harmful kind though.—I remain, Sir, yours truly,

T. R. ALLINSON, L.R.C.P. Ed., &c.

Kingsland-road, E., Oct. 3rd, 1892.

J. V. R. C.—We regret that we cannot afford the space for our correspondent's letter. We entertain doubts of the advantage which in his opinion would be gained by the adoption of his suggestions.

A Student will doubtless gather from the Students' Number the information he desires.

## A QUERY.

To the Editor of THE LANCET.

SIR,—Can any of your readers throw light upon a case where there is a discharge of printer's ink from the great toe near the nail, the lesser toes being inflamed at the top on the palmar aspect. The lesser toes of the other foot are also affected—red, and with a severe pricking pain. It is thought to be an exceptional case. Is it so? How is this discharge produced? There is no fetor.—I am, Sir, yours truly,

Appledore, North Devon, Oct. 8th, 1892.

F. PRATT, M.D.



## MEDICAL PORTRAITS.

WE cordially agree with our correspondent, *Chiaroscuro*, that it is highly improper that any member of the medical profession should suffer his portrait and biography to appear in what is practically a trade circular, more especially if "before going to press a proof of the biographical sketch be submitted" to the subject of the notice "for revision."

*M. D. Kelly*.—It is impossible to answer the question put by our correspondent, as the amount of knowledge acquired depends more upon the recipient than the channel through which it is conveyed. The following are the books officially recommended for study:—*Animal Kingdom*, by W. S. Dallas; *Outlines of the Structure and Functions of the Animal Kingdom*, by Rymer Jones, or *Cours Élémentaire d'Histoire Naturelle*, par Milne-Edwards; *Lindley's School Botany*; *Lindley's Medical and Economic Botany*; *Henfrey's Elementary Course of Botany*; *Elements of Natural Philosophy*, by Golding-Bird and C. Brooks; *Physical Geography*, by Mrs. Somerville.

*Dr. James Wilson*.—We are not aware of any such appointments.

*Mr. C. J. E. Walkey*.—We are compelled to decline the offer.

## "A DISAGREEABLE DUTY."

To the Editor of THE LANCET.

SIR,—My complaint of a want of courtesy on the part of a house-surgeon at the London Hospital has evoked a reply from that official, which to me appears to have been written more as an insult than to refute the charge.

In his efforts at retaliation, Mr. Hingston displays a looseness of assertion which may one day lead him into some difficulty. Without the slightest foundation except his own ignorance or carelessness in reading the Register and Directory, he has thought fit to publicly assert that I am not what I represent myself to be.

Amongst other inaccuracies, he says, "Mr. Wise is not registered, and his name does not appear in the Medical Directory; and though he signs himself 'M.D.,' he can scarcely expect to be considered a brother professional."

The wickedness of publishing such a libel on a professional man in the leading medical journal is inexcusable, and not to be countenanced for one instant. I must call upon Mr. Hingston for an immediate and unequivocal apology for the unwarrantable statement he has thought fit to make. Should this not be forthcoming in your next issue, I shall be under the necessity of taking further steps in this matter.

I am, Sir, your obedient servant,

Shoreditch, Oct. 10th, 1882.

ALFRED WISE, M.D.

*Mr. Laffan (Cashel)*.—We think the complaint should be referred to the conductors of the paper in which the offending article appeared. It would be against our rule to interfere in the matter under the circumstances described.

*Mr. Hargreaves (Armley)*.—We have no recollection of the communication.

*Justice* should read THE LANCET before he complains of omissions. He will find the opinion given on page 647.

## "USE OF APOMORPHIA."

To the Editor of THE LANCET.

SIR,—In answer to your correspondent, "M.B.," I beg to quote as follows from a "Commentary on the B.P.," by Dr. Walter Smith, of Dublin University:—"Its most conspicuous effect is as an emetic of extraordinary power and rapidity; one-thirtieth to one-tenth of a grain of the hydrochlorate subcutaneously, or one-tenth to one-fourth by the mouth, will induce vomiting in a few minutes, painlessly and without subsequent nausea or prostration. Apomorphia offers special advantage in dealing with refractory children, insane people, or with adults in some cases of poisoning when coma, delirium, or spasm prevents the oral administration of emetics."

I am, Sir, yours, &c.,

Oct. 2nd, 1882.

T. C. D.

*M.A., M.B.*—We agree with our correspondent that clinical details should be omitted from accounts of illness that appear in the lay press.

*A Youngster and F.R.C.S.*—Nothing could be gained by continuing the discussion. The hint given may have some effect.

*C. Rubens*.—We are unable to discern any particular merit in the appliance.

*Aries* has not enclosed his card.

## "TREATMENT OF EPILEPSY."

To the Editor of THE LANCET.

SIR,—I am much indebted to Dr. Oscar Jennings and Mr. Wrixon for their letters in THE LANCET of Saturday last. Might I ask Dr. Jennings to kindly say into how many doses per diem the four tablespoonfuls of the bromide solution should be divided, and if one of the pills should be taken twice a day, or two of them once only.

I am, Sir, yours obediently,

Oct. 9th, 1882.

ALPHA.

*S. J. C.*—Our correspondent's former letter must have been mislaid. The case is a painful one to both parents and practitioner. We think it is a case in which a certificate of the facts should have satisfied the registrar or the coroner without the formality of an inquest. There is no blame attaching to a practitioner who does not feel able to certify the cause of a death. But in such cases as the present the best course is to write a statement of the facts as far as they are known, and leave the responsibility of an investigation to the registrar. We do not doubt that the gratitude of the parents for attentive and successful treatment will survive other feelings.

*Dr. P. O'Connell (Sioux City, Iowa, U.S.A.)*.—The Prix Saint-Paul, consisting of a sum of 25,000*fr.*, will be given to anyone who first finds a cure for diphtheria which shall be recognised by the Academy as certain (*efficace et souverain*). The interest of this sum may be awarded to any whose researches on this subject may appear worthy of encouragement. Written memoirs must be either in French or Latin, but any printed works may be sent in competition. For the year 1883 essays are to be deposited at the Academy of Medicine before the 1st of July.

## THE CONTAGIOUS DISEASES ACTS.

To the Editor of THE LANCET.

SIR,—Having seen the working of the Contagious Diseases Acts in different ports, I must differ from the opinion expressed in your article of Sept. 30th and your correspondent last week. The only Contagious Diseases Act that could be worked in a city or civil town would be that of 1864, improved and carried out by a health board, independent of municipal police, in a similar manner to the mode adopted for scarlet fever and small-pox. Opposition is always shown to police, when none is given to health officers. As a commencement, medical treatment and hospital support might be made from public funds for those suffering and voluntarily presenting themselves, who are more anxious for cure than is generally stated, in larger numbers, if not annoyed by the addresses of a certain class of visitors.

I am, Sir, yours obediently, H. HARKAN,  
Craven-street, Strand, Oct. 9th, 1882. Deputy Inspector-Gen., R.N.

*G. P.* should inscribe his qualifications on his plate. The object of putting the initials or the name on a prescription is not to procure practice, but to supply a means of reference and a guarantee of good faith in the prescription.

*Dr. J. Ashburton Thompson*.—The official list has not yet reached us, but our rule is to print each pass-list as we receive it from the examining body.

*Justice*.—Undoubtedly C had a right to apply for the vacated appointment; but unless B's retirement was a matter of notoriety, he was not justified in canvassing before the resignation.

## "THE USE OF THE FORCEPS IN MIDWIFERY."

To the Editor of THE LANCET.

SIR,—I am not at all addicted to the use of instruments where they can possibly be avoided; yet I find, on referring to my obstetric list, that of the last 400 cases attended by me, the forceps were used 12 times—i.e., 8 times in primiparæ and 4 times in multiparæ, or an average of about 1 in 33. I think it likely that half these cases might have been terminated without the use of forceps had I felt myself justified in exposing the poor women to several hours' further unnecessary agony; but I may say that I make it a rule of practice not to wait more than three hours when there is no advance in the second stage of labour.

I disapprove as much as anyone of meddling midwifery, and can scarcely believe that in a run of several hundred consecutive cases it can ever be necessary or desirable to employ the forceps in so many cases as 1 in 8—the proportion in which they are said to have been employed by the late Master of the Rotunda.

I am, Sir, yours faithfully,

Wood Green, Oct. 9th, 1882.

B. A. RUGG.

SEVERAL letters on the subject of the Degrees of the Queen's University in Ireland, as well as other communications, are unavoidably left over. We shall try to find room for them next week.

*Mr. Norris (Weston-super-Mare)*.—The announcement appeared in our issue of the 23rd ult.

*Mr. C. P. Heap*.—We cannot offer an opinion on the merits of the machine without having an opportunity of inspecting it.

## THE LATE MR. CLOVER.

To the Editor of THE LANCET.

SIR,—In your very just obituary notice of my old friend Mr. Clover, of October 7th, p. 597, will you allow me to add that he certainly was present at the operation you refer to, and to say that Mr. (now Dr.) W. Squire administered ether.—I am, Sir, your obedient servant,

WILLIAM SQUIRE, M.D., &c.

Orchard-street, Portman-square, W.,  
Oct. 9th, 1882.



## Clinical Lecture

ON A CASE OF

MEDULLARY SARCOMA OF THE LIVER,  
RIGHT LUNG, AND HEART.

By DAVID DRUMMOND, M.A., M.D., T.C.D.,

PHYSICIAN TO, AND JOINT LECTURER ON CLINICAL MEDICINE  
AT, THE NEWCASTLE-ON-TYNE INFIRMARY.

GENTLEMEN,—I take for my subject to-day the case of a patient whom you saw in the Bishop ward of the infirmary, and on whom you witnessed a necropsy a few days ago. He was a coal-miner, aged thirty-two, and of very intemperate habits. Ten weeks before admission, when in his usual health, he lay out all night in a drunken condition, exposed to rain and cold. The result of this exposure was an attack of shivering, followed by a "stitch" in his right side, and cough. He then sought advice, and was told he had "caught cold in his chest," for which he received medical treatment. Though ill, he continued to follow his employment, which he did for a fortnight subsequent to the initial attack, though evidently "against great odds," as the medical man, under whose care he afterwards came, wrote when he kindly supplied me with the early particulars of the case. He then was confined to bed; the pain in the right side became more severe; he complained also of pain in the abdomen (hypogastrium) and back; his cough increased; profuse perspirations occurred; and the expectoration, which previously was muco-purulent, became sanguinolent in character. About this time he suffered much from "what seemed most like diaphragmatic cramp." (I quote from his doctor's notes.) The bowels were irregular, generally costive, and his appetite was very bad. Three weeks before admission the result of physical examination was as follows: "The right chest was dull on percussion to the spine of the scapula; the respiratory sounds were feeble, and without vocal resonance; dulness in front extended up to the nipple, this continued over the liver two fingers' breadth below the ribs." All this time he was emaciating rapidly. The case was regarded as "fluid in the chest, probably pus, which depressed a congested liver," which undoubtedly was the most obvious construction to put upon the data at that stage of the case.

When brought to the infirmary the patient looked exceedingly ill; he was markedly wasted, and his face wore a most anxious expression. He was unable to lie on the left side or on the back on account of the pain across the abdomen and back, which was always much increased in severity when he assumed either of those positions; it was especially painful for him to lie on his left side. He also complained of "shoulder-tip" pain, right and left. His favourite posture was on his hands and knees, with his head buried in the pillow; but it was also a relief to lie on the right side. When he assumed the dorsal decubitus, with the abdomen exposed, a tumour at once became apparent, which was evidently the liver. The right lobe, the sharp edge of which could be distinctly felt, reached down to the crest of the ilium; the left extended down to one centimetre below the umbilicus, and completely across the abdomen. On the surface, the organ (on admission) felt comparatively smooth, and, although firm, not what is generally termed hard. At the extreme border of the right lobe an indistinct nodule or two could be felt; but handling the liver caused so much pain that this method of examination was not pushed beyond what was considered necessary to elicit the few points already referred to. There was no ascites, nor was he in the slightest degree jaundiced. A short "hacking" cough attracted our attention to his chest. The right thorax was one centimetre larger than the left; the ribs were slightly separated, and the interspaces somewhat flattened. The side expanded very imperfectly, being almost still on the deepest inspiration. On percussion, the side (right) was found to be absolutely dull posteriorly, conveying to the finger the sensation of marked resistance. Auscultation revealed the vocal and breath sounds to be notably diminished, such distant respiratory sounds as were present being evidently conducted from the opposite side. In front, also, the right chest was dull on percussion, the dulness extending across to the left parasternal line.

No. 3086

Here the stethoscope revealed nothing beyond abnormal silence, the feeble sounds which were audible being conducted from the heart and bronchial tubes. The left lung appeared to be normal, for beyond puerile breathing accompanied by a few rales, physical examination elicited nothing. The heart sounds were feeble, especially the first; there was no murmur. The apex beat was with great difficulty localised, but seemed to be in the left nipple line between the fifth and sixth ribs. The cardiac area of dulness was not accurately mapped out, merging as it did into the right lung dulness. The patient suffered considerably from dyspnoea. There were no signs of pressure upon the large thoracic vessels, neither oedema nor superficial veins. The expectoration was distinctly of two kinds—viz., muco-purulent, and like red currant jelly (bloody). The urine was scanty, but beyond being loaded with "vermillion" urates, it was normal, containing no albumen. Our patient's appetite was excessively bad, indeed, he had a great dread of swallowing food, either liquid or solid, as the slightest distension of the stomach enhanced the pain beyond endurance; consequently, the only sustenance he received had to be administered per rectum. The perspirations were very profuse, especially about the face, neck, chest, and hands, the skin of the abdomen being generally dry and harsh. The temperature was, as a rule, sub-normal, ranging between 96° and 98° F. The diagnosis, those of you who saw the case will remember, was made of malignant disease of the liver and right lung—most probably encephaloid cancer. The grounds on which such a conclusion was founded were, as far as the lung was concerned, dulness, markedly increased resistance (solidity), absence of vocal and breath sounds, the knowledge that the pleural cavity did not contain fluid—for the patient had been tapped in a special hospital before admission into the infirmary, a little blood alone being drawn off, according to his wife's account,—with the presence of disease in other organs (liver). And, as regards the liver, the last-named fact—i.e., extension of the disease,—rapid progress of the case, and the existence of a painful, somewhat nodular, enlargement. The medullary form of cancer was chosen because of the rapidity of the increase, scirrhus being generally much slower in its advancement.

A few days after his admission it was observed that the nodules on the surface of the liver were much better marked than when the patient was first seen, especially was this the case on the edge of the right lobe, where the tubera, as the nodules of new growth are sometimes called, were distinguishable. It could be made out with ease that the whole organ had increased in size within a few days, the left lobe extending down to two centimetres below the umbilicus; on its surface also, at that date, nodules could be felt which distinctly changed the character of the hitherto almost smooth left lobe. It was thought desirable to try, if possible, to make the diagnosis more certain by ascertaining the description of cells of which the apparently new growth was made up; consequently, to this end, the hypodermic syringe was used, following the practice which you know is constantly adopted in the wards of the Newcastle Infirmary. And here I would take the opportunity of impressing upon your attention the utility of employing the hypodermic needle as a routine act in medical diagnosis; by its use you will often be saved from grave errors. One well-known physician remarked to me, in conversation upon this subject, that he had used the hypodermic syringe constantly for the past two years, ever since he had made a serious error, which probably could only have been avoided by the possession of such evidence as the needle could have furnished. As the patient—the subject of the present case—was getting hypodermic injections of morphia to relieve pain, I endeavoured, as you will remember, to add as little as possible to his sufferings in pursuing the method of investigation of which I have just spoken; consequently, on one or two occasions, I administered the morphia immediately over the part of the liver I wished to puncture, and then, after a second or two had elapsed, I thrust the "needle" into the liver. By this means, without causing any pain, I was enabled to draw off a few drops of fluid resembling pus, or cancer juice. My object in injecting morphia before puncturing was to guard against the risk of causing pain by groping about with the point of the needle, should the site at first selected be not a suitable one. The cells drawn off in this way were of two descriptions—the most numerous resembled pus cells very closely, there being also a few somewhat larger, irregular-shaped, cells, some oval and others almost caudate with a single nucleus. It was

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thought then that in the juice from the liver we had discovered pus and cells usually found in the alveoli of medullary carcinoma; though this view was somewhat shaken, especially as regards the pus, when a subsequent puncture into a part of the liver not nodular furnished dark blood which contained a number of the same small round cells. Microscopical examination of the sputum, which as before stated, contained blood, yielded no information of importance. The liver rapidly became more distinctly nodular. The harassing cough, almost constant retching and hicough, severe pain, profuse perspirations, and inability to take food soon brought the patient exceedingly low, and he died ten days after admission, and eleven weeks from the commencement of the attack.

The post-mortem examination showed the body to be very markedly emaciated; there was no jaundice or anasarca. The cavities were free from fluid. The liver, which occupied nearly the whole of the abdominal cavity, weighed 9 lb.; it was adherent to the diaphragm, especially by the right lobe. The surface was studded with pale yellowish nodules, varying in size from a pin's head to a small orange, the larger of



Left auricle.



Lung.

which were umbilicated, a condition which you can see well yet. Though the specimens before you have been in spirit for some days these nodules are still quite soft, and when cut into, as, for example, when a section is made through the liver, a considerable quantity of "juice," evidently rich in cells, flows from the surface. The liver substance itself was exceedingly pale, but apparently comparatively little of it is free from the new growth. The right lung, which was adherent, is, as you see, completely solid, the greater portion of the consolidation being due to so-called "grey hepatisation;" but a large mass of new growth, similar to that found in the liver, the size of a small coconut, embraces the root of the lung, and extends into its substance and down to the base, apparently infiltrating the pleura and diaphragm. The left auricle is also affected by the same growth, the extension having probably occurred along the pulmonary veins, which are surrounded and slightly compressed, the capacity of the auricle being reduced considerably. The left lung was congested, but otherwise normal. The kidneys, spleen, and pancreas were unchanged, though the latter was surrounded by a mass of



Liver.



Isolated cells from liver.

diseased glands. The stomach presented no unusual appearances; in short, there was no other disease but that already described. Those of you who were present at the necropsy will recollect that the opinion was advanced, from the naked-eye appearances, that the disease was encephaloid cancer. From the three sections (microscopical) which I have prepared from the heart, lung, and liver, you will see that that opinion was only correct in a limited sense, for the true structure of the growth is evidently sarcomatous, being composed of cells which resemble the small round-celled sarcoma, but with extremely little basement substance; only here and there is it possible to discover any intercellular substance. The cells are not uniform, like the small round-celled sarcoma, but vary considerably in shape and size; at the same time they are all of one type, being from round to irregularly oval. They are also larger than the cells of the ordinary lympho-sarcoma; for example, when compared accurately with sections of glio-sarcoma and lympho-sarcoma (so called) the cells appeared nearly twice as large, though apparently not at all so large as the cells of the large round sarcoma.<sup>1</sup> In the section from the liver it will be noted that

the growth has in certain parts taken on the appearance of encephaloid carcinoma, the cells being isolated by alveoli made up of delicate connective tissue, at the same time the greater part of the growth in the liver resembles the lung growth, but in the lung or heart no such arrangement can be found. In Wagner's "General Pathology" (translation) you will find the statement made that "transitions to medullary cancer (from round-celled sarcoma) arise." Other authorities allude to the coexistence of these two forms of disease. To the minute structure of the growth before us, differing slightly as it does from the "round-celled" sarcoma, I have been unable to attach any other more accurately descriptive name than that of "medullary sarcoma." In its clinical history and microscopical appearances it approaches so closely to that of encephaloid cancer that it is impossible to distinguish the two. Had I made out the true character of the cells drawn off by the puncture from the liver it is possible the disease might have been more accurately diagnosed, but, using as I did a strange microscope with a low power, I mistook the round, and somewhat oval, cells for pus. I have said that the clinical features of this form of sarcoma resemble medullary cancer very closely; certain it is that the former at times is quite as malignant in its nature as the latter. Virchow remarks in his "Cellular Pathology" (Trans., second ed., p. 487) when speaking of sarcomata, "in many cases they occur throughout the whole body metastatically, to such an extent that scarcely any organ is spared by them." In the rapidity of the growth also is there a near resemblance; medullary cancer of the liver being generally of very short duration, a fatal termination occurring within a few months, or even weeks. Comparing my observations upon the case with those of the medical man who saw the case first, it would seem that in a period of about twenty days the liver extended from occupying a position "two fingers' breadth" below the ribs down to the crest of the ilium. Indeed, from what I have been able to gather both from the patient himself and from information kindly furnished by another medical man who saw him, and also taking into account his wife's version, the period during which the rapid growth took place must have been a very few days. I am inclined to view the growth in the liver as secondary to the lung, which in turn was secondary to the mediastinal glands and connective tissue. Primary growths of the malignant type being rare in either of these organs, especially before thirty-five or forty years of age. I am unable to advance any view as to the means by which this form of sarcoma might clinically be distinguished from encephaloid cancer unless it be by the recognition of the true nature of the cells drawn off by the hypodermic syringe. It is worthy of attention that, in spite of the manner in which the liver tissue was encroached upon and compressed by the new growth, there was no ascites. Effusion into the peritoneal cavity in cases of cancer of the liver does not occur, as a rule, as the result of venous obstruction in the liver, as in cirrhosis of the organ, but it generally depends upon a chronic peritonitis originating in the neighbourhood of the diseased liver. At the autopsy we found the peritoneum remarkably free from disease. Ascites has been found to occur in about half of the cases, and jaundice, perhaps about as frequently; this latter symptom may be said only to be present when a cancerous nodule compresses the bile-duct in the liver, or when the duct is encroached upon by enlarged glands in the portal fissure; it is generally supposed to be characteristic of the jaundice of hepatic cancer that it continues to the end, having once occurred. The diagnosis of cancer in the lung is generally a matter of difficulty, especially where there are scattered nodules, in which case there may only be very slight alteration in the percussion and respiratory sounds. However, as primary cancer of the lung is extremely rare, it will often be found to be accompanied by mediastinal growth, from which the pulmonary affection has sprung, when there will be dulness extending across the sternum, which will either be due to aneurism, fluid, or tumour-consolidation of the lung almost never causing dulness, which extends across to the opposite side. Such was the case in our patient, and as neither aneurism nor fluid could be entertained, it was consequently supposed that a mediastinal tumour existed, which with the physical signs, dulness and diminished vocal and breath sounds, viewed in the light thrown upon the case by the discovery of the liver disease, led to the diagnosis of cancer of the lung. The diminution in the vocal and breath sounds depended of course upon occlusion of the bronchial tubes.

<sup>1</sup> Grosszellige Rundzellensarcom, Rindfleisch, fourth edition, p. 106.

Had the air passed to the lung—consolidated (grey hepatization) as it was—the difficulty must have been much increased. It is not at all unusual to find the lung infiltrated with caseous matter, where the root is affected by cancer. I recently made a post-mortem upon a case of cancer (scirrhus) of the penis, where this condition was well-marked in the left lung, secondary scirrhus deposit having attacked the root of the lung, and also the kidneys. I know of no means of recognising cancer of the heart during life, though it often occurs when the new growth occupies the anterior mediastinum.

## PERFORATING ULCER OF THE FOOT AND PROGRESSIVE LOCOMOTOR ATAXIA.

By FREDERICK TREVES, F.R.C.S.,

ASSISTANT-SURGEON TO, AND SENIOR DEMONSTRATOR OF ANATOMY AT, THE LONDON HOSPITAL.

PROF. BALL and M. THIBIERGE, in a paper read before the recent International Medical Congress,<sup>1</sup> have endeavoured to show that there is a "direct connexion" between perforating ulcer of the foot and locomotor ataxia, and bring forward twelve cases to demonstrate that circumstance. They assert that the foot sore has a twofold association with the spinal ailment. It may be one of the earlier or premonitory symptoms of the cord disease, or, on the other hand, it may prove one of the late or terminal manifestations. Before remarking upon these important conclusions I may detail a case now under my care in the London Hospital that would appear to bear out the assertions just made.

The patient is a single woman, a cook, aged thirty-nine. There is nothing important to note in either her family or personal history. Five years ago she developed a suppurating bunion over the left great toe. In about eighteen months this healed, and gave no further trouble. Shortly after it healed—i.e., about three and a half years ago—a perforating ulcer appeared over the head of the metatarsal bone of the second toe. This was preceded by a painful corn, under which an abscess formed. The ulcer is said to have led down to bare bone. Under treatment at the Infirmary at Eastbourne the sore healed, but soon broke out again. It healed and reopened several times, and became at last so troublesome that the left foot was amputated (Chopart) at the Eastbourne Infirmary some eight months ago. After the healing of the stump, which is firm and substantial, she returned to her work, and her feet remained sound until six weeks ago. At this time she developed a perforating ulcer over the head of the metatarsal bone of the second toe of the right foot. It was preceded by a corn and an abscess, as was the sore on the left foot. Shortly after this a like ulcer appeared on the most prominent part of the stump of the left limb, appearing in like manner after a dense corn, beneath which suppurations had taken place.

She has now a circular callous ulcer surrounded by horny epidermis on both the right foot and the stump of the left foot in the situations indicated. The former leads to bare bone, the latter to a sinus three-quarters of an inch in depth. Seven weeks ago she began to stagger in her gait, and has since then fallen down several times when walking. She is now remarkably ataxic in her lower limbs, the upper extremities being sound in that respect. She cannot walk without assistance, nor can she stand when the eyes are shut. There is anaesthesia of both lower extremities, which is somewhat unequally distributed as to degree. There is absolute absence of tendon reflex in both limbs. The feet do not sweat in excess, nor has that feature at any time been observed. The pupils act during accommodation, but are absolutely inactive to light. Her vision is normal. She has no strabismus, and there is nothing especial to note in her fundus. She has had "lightning pains," but no gastric disturbances, no neuralgia, and no trouble with her sphincters. It will thus be seen that the original ulcer of the left foot made its appearance before any evidences of ataxia had developed, and if one could accept without reservation MM. Ball and Thibierge's assertions as to the relation of this ulcer to locomotor ataxia, it will

be obvious that the sore assumes a very remarkable importance in general medicine. Unfortunately MM. Ball and Thibierge's statements are not made without reservations. They are forced to recognise more than one form of perforating ulcer of the foot, and of the possible varieties they only assert that one form has part with the spinal malady. Their general conclusion as to the nature of the sore is that it is "a tropical disease of nervous origin," a conclusion closely in accord with that expressed by Messrs. Savory and Butlin in their admirable monograph,<sup>2</sup> wherein they assert that "the so-called ulcer is the result of pressure or violence to structures whose nutrition is impaired or whose vitality is defective from disease or degeneration of the supplying nerves." Now the many contributions that have of late years been made to the pathology of this foot affection would tend to claim for it the dignity of a special disease, and give to it a very pronounced clinical individuality. Thus the French authors above mentioned would place one form of the foot sore among the specific manifestations of locomotor ataxia, and from their paper one would gather that they consider its relation to the cord disease as close and as pronounced as are the relations of the affection known as Charcot's joint disease. Messrs. Savory and Butlin moreover, in the monograph referred to, are disposed to give the following clinical picture of perforating ulcer:—It is an affection more common in men; it attacks certain parts of the sole; it is commonly symmetrical; it is particularly associated with a certain amount of anaesthesia of the part, with sweatings of the foot and with certain peripheral nerve-changes. That foot sores are met with with these characteristics no one would dispute, but the grouping of these various characters so as to form one special disease may, I think, be a matter open to question. I have had under my care during the last few years three men with ulcers situate on the soles of the feet, that were symmetrical, that were preceded by suppurations beneath a corn, that led down to bare bone, and that long resisted treatment. In no one of these cases was there any anaesthesia of the part, nor any undue sweatings of the foot, nor any evidence of nerve affection of any kind. One man has been under observation at various times for two years, and is still free from any obvious trace of nerve disease, either central or peripheral. In these three individuals I imagine that the disease is solely and purely local—as purely local as a bed sore under the heel of a man confined to bed with a fractured femur. A corn forms; it presses like a foreign body upon the soft parts beneath; that pressure leads to suppurations; the pus moves deeply on towards the parts offering the least resistance, and by the time that it has found its way through the dense corn-tissue, it has probably in the other direction reached the bone. That any lesion of the nerves of the extremity would favour the development of such a local sore is obvious; just as a bed sore would be more likely to occur in a subject of paraplegia than in a patient bedridden with some other than a disease involving gross nerve change. In one of Messrs. Savory and Butlin's cases the patient appears to have suffered from some infantile affection of the nerves of the limb, and yet from a perusal of the paper one gathers that the symptoms of that nerve affection are included among the individual features of the sore that in time he developed upon his sole. I imagine that it would be more correct to ascribe the anaesthesia, the sweatings, and the microscopic changes in the nerve-trunks, to a central or peripheral nerve disease in relation to which the foot sore is a mere coincidence. To make use of these characters to complete the clinical individuality of the ulcer appears to be on a par with a description of a bed sore in paraplegia, as a sloughing ulcer associated with loss of power in the lower extremity, with anaesthesia, with certain visceral troubles, and with certain gross changes in the cord; all these features being maintained to be essential to the clinical individuality of the sore.

I would urge, therefore, that this "perforating ulcer" is a purely local affection, produced by purely local causes, which causes would act with increased vigour upon a part whose vitality is in any way impaired, but that that impairment is not of necessity dependent upon disease or degeneration of the supplying nerves. The relation of the malady, therefore, to locomotor ataxia would appear to be quite casual and unimportant, and of no more clinical value than would be a burn on the sole of an ataxic subject who

<sup>1</sup> Transactions, vol. II., p. 52. London, 1881.

<sup>2</sup> Transactions of the Medical and Chirurgical Society, vol. XLII., 1879, p. 373.



had unconsciously brought his foot in too close contact with fire.

In conclusion, exception may fairly be taken to the somewhat misleading name applied to this sore, since it does not appear to really perforate the foot in any ordinary case. Indeed the selection of its especial title appears to have been founded upon the same grounds that influenced Bottom in selecting a title for his vision, and of which he is reported to have said, "It shall be called Bottom's Dream, because it hath no bottom."

Gordon-square, W.C.

## REMARKS ON PROSTATORRHEA.

By D. CAMPBELL BLACK, M.D., L.R.C.S. EDIN., &c.,  
EXTRA-PHYSICIAN TO THE ROYAL INFIRMARY, GLASGOW; PHYSICIAN  
TO THE GLASGOW PUBLIC DISPENSARY.

(Concluded from p. 618.)

IN Case 2, given in the patient's own words, those of a highly intelligent gentleman, there were no spermatozoa in the discharge. The cause in this case seemed an aggravated varicocele, a condition which appeared to operate in a twofold manner, the one mechanical, the other physiological. In the former, the veins being large and valveless, a remosa is induced in the sexual apparatus—a condition of chronic passive congestion and irritation; in the latter pressure on the spermatic nerves causes peripheral reflex excitability by operating through the centre in the lumbar portion of the spinal cord, and the hypogastric and spermatic plexus of the sympathetic.

W—, aged thirty-four years, consulted me on March 6th, 1882. "Served in India for eleven and a half years continuously; returned on furlough in August of last year; have enjoyed exceedingly good health while there, though serving in most malarious tracts; have hardly felt the effects of malaria, but had a severe attack of cholera in November, 1877, from which, however, I recovered very rapidly. Habits have always been active; can stand more hard work and exposure than most men; have always been in the habit of taking a tolerable amount of liquor, but never to excess. Early in October, 1881, varicocele began to become troublesome, coming on about an hour after rising, and going off about noon. It was accompanied by the discharge of a few drops of gummy fluid after stools and micturition, generally in the latter case, on the first occasion after rising in the morning. This state of things continued until October 15th, when an emission took place. The varicocele then rapidly diminished, and the discharge from the urethra steadily improved. By the middle of November it had almost disappeared. Early in December it reappeared to a considerable extent without the slightest cause. I placed myself under medical treatment, and was told that my liver was out of order! After a little treatment to set this right a preparation of iron was given. The discharge improved, but erections began to give a good deal of trouble at night, and the varicocele reappeared. An emission took place on Dec. 20th, removing the annoyance from the varicocele, and followed, after a few hours, by the almost total disappearance of the discharge. About Dec. 27th the discharge reappeared gradually; also a little varicocele. The latter was entirely removed by an emission on Jan. 2nd. The discharge now began to show itself, usually a considerable time after micturition—three to five minutes. The discharge continued with slight variation up to about Jan. 17th, when it began to disappear. Varicocele became troublesome again about this time, and continued so regularly until Jan. 29th, when it was removed by an emission. Between Jan. 20th and 22nd the discharge was nothing more than a very irregular trace. On Jan. 28th and 29th it increased a little, but decreased again after an emission on the latter night to some extent. Another emission took place on Feb. 5th, followed by a slight increase. I was rather bilious at this time. I stopped the iron mixture, and by medical advice used medicine containing buchu, which appeared to have an excellent effect on the discharge, but disagreed with me otherwise. On Feb. 20th and the two following days there was a slight increase in the discharge, but it passed off again. From Feb. 23rd to 26th it was still wanting, but the penis was irritable, with a prickly sensation and a great tendency to erection. The irritation continued next day and the following one, on which the discharge reap-

peared at stool. On March 2nd the discharge assumed a yellowish appearance throughout the day and clear after stools. On March 3rd the yellow discharge before mentioned had given place to the usual one afterwards. The excessive tendency to erections at night has continued since about Dec. 15th. I think that the penis is in a state of erection more or less during the whole of my sleep. I have repeatedly to get up and thoroughly wake myself to get rid of it."

Such is the patient's own succinct and intelligent account of his condition. I saw him on March 6th of the present year. I found the left testicle greatly reduced, and the attendant veins large and tortuous. A good deal of genital irritation was complained of, and the urethral discharge was considerable. I had no hesitation in recognising, as cause and effect, the genital irritation, the discharge at stool (prostatorrhœa), and, doubtless, the involuntary emissions during sleep to some extent. It is particularly noteworthy that seminal emission was followed invariably by a diminution of the varicocele and of the urethral discharge; and, under all the circumstances, I felt justified in recommending an operation for the radical cure of the varicocele, administering at the same time the bromides of camphor and iron, which quickly diminished the troublesome genital irritation complained of. As operative interference had been discountenanced by the patient's London attendant, I requested that he should take further advice, and Dr. Alexander Patterson agreeing with me as to the expediency of the contemplated operation, I had recourse to it on March 17th, adopting the method of occluding the veins by subcutaneous wire loop, which I had previously found to answer well in similar cases. After eighteen days the wires were removed, and the veins operated on seemed permanently obliterated. On April 27th the patient wrote: "I begin to notice a considerable general improvement in its (the testicle's) size and consistence. The discharge has entirely ceased." Subsequent communications were correspondingly encouraging, and I had independent testimony to the efficacy of the operation through the courtesy of Mr. Bryant. On September 13th, 1882, the patient writes: "The varicocele gives no trouble even after prolonged exertion, walking or rowing; and my general health has improved greatly. . . . The left testicle has not increased much in size since I last wrote to you, but has grown much firmer. I should say its cubical capacity must be three or four times greater than before the operation. The whole mass, veins and testicle, is about the size of the other testicle now."

CASE 3 differs entirely from the foregoing, the cause being, I believe, injury to the spinal cord at a comparatively remote period. Besides, the discharge from the urethra contained spermatozoa and prostatic tube casts.<sup>1</sup> (Fig. 3.)

J. M—, aged thirty-two, consulted me on Nov. 2nd, 1881. There was no history of masturbation; he very moderately indulged in sexual intercourse. Twelve years ago he had gonorrhœa, which lasted a few months. About this time the patient fell into a ship's hold, alighting on his back on a prominent object, and also upon the occiput. He remained unconscious for about half an hour, and his spine was considerably affected. Subsequent to this period, particularly after lying on his back, on awakening, the patient noticed that his linen bore the marks of seminal emission. Emissions occurred unconsciously to the extent of twice or thrice a week. Simultaneously, and down to the present time, since receipt of the injury, more or less slimy, tenacious matter escaped from the urethra at stool. Six years before this the left testicle was injured by the falling of a box upon it. Inflammation and much swelling ensued, which, however, ultimately entirely disappeared. The slightest excitement, such as travelling on an omnibus, &c., causes irritation of the injured testicle. The parts are quite normal. No spermatozoa were found in the specimen of slimy matter passed from the urethra on first examination; but on Feb. 2nd abundant spermatozoa were found, as represented in Figs. 2 and 3 subjoined. On passing an instrument marked tenderness was found to exist in the prostatic region. To have bromide of potassium, combined with tincture of belladonna and buchu. This medicine very much moderated the seminal emissions. A large instrument was passed twice weekly.

April 17th, 1882: Still some discharge from the urethra at stool, but containing few spermatozoa. More or less swell-

<sup>1</sup> Compare with Mr. Solly's case of Spermatorrhœa from Spinal Injury, page 101, "On the Functional Diseases of the Urinary and Reproductive Organs." (Black.)

ing of the prostate only affording passage to a small instrument. On a subsequent visit I found that the spermatozoa had entirely disappeared, and that the amount of discharge was greatly diminished. As I have not seen the patient quite recently, I am unable to say whether he is completely cured, while, in my opinion, his progress towards recovery was such as to warrant the belief that he is. It should have been mentioned that this patient had been under medical treatment for this affection prior to his consulting me, and that he felt positive, as his appearance seemed to indicate, that his bodily vigour was undermined by the persistence of the discharge.

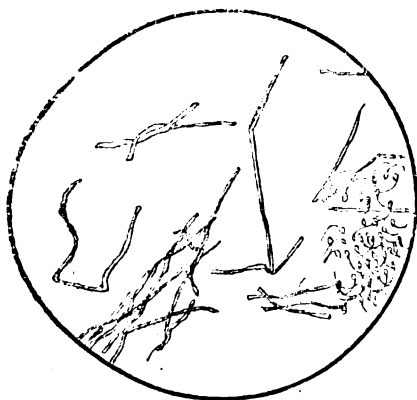
In Case 4 the history is somewhat different.<sup>2</sup> W. H.—,

FIG. 2.



aged twenty-nine, consulted me on the 7th October, 1881. Since the age of sixteen until within a few months he had been addicted to the habit of masturbation. Between the years of sixteen and nineteen he severely taxed his sexual system in this manner. His present complaint is that no matter how prolonged sexual intercourse may be there is no seminal emission. There is a slight orgasm and a mere oozing of slimy matter from the urethra. Slimy matter escapes from the urethra at stool, and patient has nocturnal emissions twice or thrice weekly. With the exception of a varicose condition of the right testicle, the sexual organs present externally no peculiarity. An examination of the urethra reveals prostatic hyperæsthesia. As an operation

FIG. 3.



for the varicocele could not be conveniently submitted to, the patient was advised to have a No. 10 metallic catheter passed twice weekly, and to have iron and strychnine, with bromide of iron, and watery extract of ergot internally. The subjoined diagram represents the nature of the urethral discharge.

On February 1st, 1882, the patient writes: "I have followed your advice by using the No. 10 catheter twice weekly, and with the result that the nocturnal emissions have ceased to trouble me; but the emissions at stool are

<sup>2</sup> Dr. S. W. Gross describes a case very similar to this at p. 125 of his book.

persistent and copious. No matter what the condition of the bowels may be, the emission takes place every time without exception." I have not heard from this patient since, and am thus unable to say what his present condition may be.

Case 5 is typical of a large number of cases of prostatic and sexual debility. August 18th, 1880, a medical student, aged nineteen, consulted me regarding the discharge of glairy matter from the urethra simulating semen, and staining his linen. Three years before he had gonorrhœa, and from that time until within the last year prior to my having seen him he indulged in great sexual excess. Patient used various remedies for his condition, amongst others tincture

FIG. 4.



of steel, with tincture of cantharides, and strong injections of nitrate of silver. The sexual organs presented no abnormality. On passing an instrument the entire urethra was found in a state of intense tenderness, being aggravated in the prostatic region. Thick glairy matter escaped from the urethra at stool, in which, however, the microscope revealed no spermatozoa. Nocturnal emissions happened often, and frequently unconsciously, being discovered in the morning simply by the effect on the linen; and pain was referred to the region of the prostate. Irritation having been subdued by the use of sedatives and bougies, a course of steel completed the recovery.

In the light of my experience of these cases, by no means infrequent, I am disposed to regard prostatic hyperæsthesia as consisting of two forms, the discharge in the one being characterised by the presence of spermatozoa, while in the other this element is wanting. It is preferable so to regard it, seeing that in other cases diurnal seminal losses, quite independent of straining at stool and micturition, are no doubt attributable to excesses, while others are to be ascribed to an idiopathic excitability of the sexual system. Of the latter, an example came under my observation in May, 1879.

H. E.—, aged twenty-six years and a half, never masturbated. The patient describes himself as in capital health, independently of his sexual system. When a lad of from thirteen to fourteen he says, in common with so many boys, he gave way to reading obscene books, and at fifteen had sexual intercourse, from which date seminal emissions began. At the age of eighteen he had emissions on an average once a week. At twenty-six years and a half (present age), emissions take place more than once a week. They occur at night both with and without erections. "If I lie on my left side, I may feel tolerably certain of having an emission, and then without erection." I find from my notes that strychnine and iron, with bromide of camphor, nux vomica, and watery extract of ergot, were prescribed; but there is no note as to the result. The etiology, pathology, and treatment of prostatic hyperæsthesia, as I regard them, are embodied in the foregoing observations. A few words of special amplification may not be out of place. Speaking generally, prostatic hyperæsthesia may be excited by any condition determining vascular plethora of the pelvic viscera. I do not think that it is invariably preceded by acute inflammation of the prostatic urethra as maintained by Dr. S. W. Gross, for I am persuaded that it may be due to passive congestion of the prostate and adjacent organs. I do not think that sufficient prominence is given to a contracted meatus, congenital or traumatic, as a cause of pro-

static and orchitic congestion. I have divided the meatus, in such cases, with the best results.

Therapeutics is the most vulnerable department of medical science. It may truly be regarded as the sanctuary of superficial reputations. As few thinking men attach much importance to by far the greater portion of what is recorded as to the alleged efficacy and influence of drugs—most of it begotten of incompetent observation—I record with diffidence my opinions as to the influence of remedial agents in the conditions under consideration. In chronic urethral and prostatic hyperæsthesia few means operate more beneficially than the passing of a full-sized metallic instrument into the bladder; the frequency with which this is to be performed should be inversely to the amount of irritation. As the ultimate facts of therapeutics are so few, I am of those who think that such as have been handed down to us ought to be cherished, and that the chimerical pursuit of new ones in connexion with new remedies is not unadvisedly to be encouraged. That bromide of potassium exercises a sedative influence over the motor sexual and urinary centre in the spinal cord is admitted to be one of the ultimate facts of therapeutics; nay in some cases so marked is this influence that when the drug is taken in large doses a temporary retention of urine is thereby occasioned. It is a modification of this toxic influence that we desiderate in bromide of potassium as a therapeutic agent. It is extremely probable that this impression extends along the whole anterior portion of the spinal cord. Reflex action is thus inhibited, and muscular excitability diminished. It seems to me that the sympathetic and the motor systems may be regarded as two opposite poles on whose properly balanced tone normal function, especially circulation, depends. Hence impressions on the sympathetic (fibres of Remak) which diminish its inhibitory power, exalt motor influence, and thus accelerate the circulation and determine congestions. If on the other hand motor influence is diminished, sympathetic dominance is correspondingly established. Bromide of potassium undoubtedly possesses the latter property. Thus it induces sleep by causing cerebral anæmia; and, by a similar influence on the pelvic viscera, operates beneficially in all cases of uro-genital hyperæsthesia and congestions. The bromides of camphor and iron seem to possess similar properties. Belladonna, and its active principle atropia, act apparently as therapeutic agents by stimulating the fibres of Remak, and are thus of acknowledged efficacy in the treatment of enuresis and spermatorrhœa; and atropia, according to Rosenthal,<sup>3</sup> and Dr. S. W. Gross, in prostatic discharges. When there is reason to suppose that there is an atonic condition of the prostatic ducts, such motor stimulants as strychnine and ergot of rye are specially indicated.

### ON ABSORBENT DRESSINGS.

CHIEFLY IN REFERENCE TO THE TREATMENT OF WOUNDS AFTER OPERATION.

By WM. BERRY, M.R.C.S. & L.R.C.P. & S.ED.,  
HON. SURGEON TO THE ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

FOR some time I have used dry and infrequent dressings for my surgical cases in our infirmary here, and am so well satisfied with the results that I wish to relate a few cases thus treated. In treating the cases mentioned I have not been particular as to the material employed; sometimes fine oakum, other times absorbent wool, and salicylic silk also, have been used, neither did I mind having the wool made antiseptic, though no doubt this is an advantage where the discharges are fetid or unpleasant. In treating operation wounds I have striven to observe the three cardinal points—namely, (1) rest, (2) drainage, (3) pressure, based on physiological laws, and so much insisted on by Mr. Sampson Gamgee of Birmingham in his admirable little work on the Treatment of Wounds, and to whose kindness I am deeply indebted both for a supply of materials and many valuable suggestions. The convenience of this dressing can only be appreciated by the surgeon who constantly uses it, and, so far as my experience goes, the results will bear favourable comparison with other modes of treatment. In wound treatment we should particularly observe the three heads above-mentioned, for by employing a dry and absorbent material

next the wound, with firm and equal pressure and drainage, so as to allow the escape of all fluids from the wound, we render the necessity for dressing infrequent, and have everything favourable for healing. The importance, also, of observing the temperature chart closely each day, will enable us to discover the progress of the case; and so long as we have a temperature under 100° F., and the dressings externally dry and comfortable, we may leave the parts untouched without fear or risk to our patient.

The following cases have been satisfactorily treated by this method.

CASE 1. *Compound Comminuted Fracture of Thigh in a boy aged five years; Amputation of the Upper Third; Recovery.*—J. Mc—, aged five years, was admitted on February 4th, 1882, with a compound comminuted fracture of the right thigh, which he had sustained half an hour previously by getting entangled in the wheels of a cab. The femur was fractured in two or three places, the muscles torn and broken, and the knee-joint opened. Amputation at the junction of upper with middle third of thigh was performed by transfixion. All the bruised muscles were removed and the flaps brought together, the edges being secured by wire sutures. The stump was padded with absorbent cotton, a splint and bandage applied. He rallied very well from the shock and his temperature did not exceed 100° till the fourth day after operation, when it was 101.8°; after changing the dressing it went down in the evening to 98.8°. The dressings required changing about every fourth day; the temperature, however, again rose to 101.8° on the seventeenth day, but this could only be accounted for by one or two small abscesses on the other leg from bruises. The stump was almost healed by February 28th. A little red lotion and boracic lint was applied to hasten cicatrization. He was discharged to his home but readmitted a week after owing to a small superficial ulcer in the face of stump, and a few days after he was changed to another ward and took erysipelas of stump and other leg, but this subsided after appropriate treatment, and he was discharged on May 25th.

CASE 2. *Scirrhus of Breast and Axillary Glands; Excision; Wound of Vein; Recovery.*—(For notes of this case I am indebted to Mr. A. W. Stone, junior house-surgeon.) J. F—, aged thirty-four years, single, factory hand. Admitted March 25th, 1882, with the following history:—Has had good health all her life until three or four years ago, when she felt a lump the size of an egg on the outer side of right breast; this was not painful, but tender to the touch, it gradually increased in size till now, when it is about the size of a closed fist. No retraction of nipple, but a nodule of hard tissue two inches above breast, and the axillary glands appeared enlarged. Could find no family history of cancer. On March 30th the breast was removed by an incision, which was carried into the axilla, and the glands here were found much larger and more matted together than at first sight appeared. The vessels were completely surrounded by hard masses; these were removed, and in doing so the axillary vein at its junction, with the cephalic, was wounded; two ligatures were applied. After the glands were removed and the bleeding stopped, a drainage-tube was inserted, the edges of wound carefully brought together by wire sutures; pads of salicylic silk and a bandage were applied. The temperature was 100° the morning after operation, and there was some pain all along the arm, which was enveloped in flannel. The temperature was never more than 100° F., and after dressing on the third day the temperature was normal and remained so. After the first few days carbolised tow was used owing to the abundance of discharge, but the wound granulated well, and she was discharged cured on May 14th, 1882.

CASE 3. *Myeloid Tumour of Femur; Amputation through Hip-joint; Recovery.* (I am indebted to Mr. Stone for notes of this case.)—H. D—, aged nineteen, single, clogger, was admitted on April 19th, 1882, under the care of my colleague, Mr. Monks, and for whom I took charge of the case. His family history revealed no hereditary disease, and he himself enjoyed good health until he was thirteen years of age, when he was in the infirmary for five weeks, suffering from "rheumatics in both knees." He was discharged cured, but says he has had the same complaint about once a year ever since. On March 17th he slipped and fell, and hurt his knee. This had been treated with rest and cold applications. On his admission he complained of great pain and inability to move the joint; there was a globular swelling in front, extending a little upwards on the femur, and also on each side of the joint. The tumour was elastic and semi-

<sup>3</sup> Wiener Klinik, May, 1880.

fluctuant, and appeared to extend into the joint. Circumference at upper edge of patella sixteen inches and a half, and considerable pain on pressure. The patient was ordered to bed, and a back-splint applied to fix the knee, lead lotion constantly applied, and five grains of iodide of potassium three times a day given internally.—May 10th: Measurement over knee at edge of patella, seventeen inches and a half; pain much increased; compound soap pill every four hours. I now took charge of the case for Mr. Monks.—May 18th: Pain very great. Leg one inch and a half shorter than the other, measures seventeen inches and a half over patella. Patient decidedly cachectic looking. A consultation of the staff being held, an exploratory incision went through the bone into a soft, reddish, and pulpy mass. The majority of the staff thought amputation through the hip-joint should be performed, and Mr. Woodcock, one of my colleagues, undertaking to control the hæmorrhage, an Esmarch elastic tourniquet with a roller was applied round the abdomen. I proceeded to make the anterior flap by transfixion, Mr. Woodcock following the knife with his fingers. The femoral was secured, and the posterior flap made. The limb was disarticulated without much trouble, and the arteries secured with catgut, the bleeding having stopped (little blood being lost), a drainage-tube was placed between the flaps, and the edges brought together by wire sutures. Absorbent cotton was evenly placed around the flaps, and a bandage applied. The man was in a state of collapse, but with the administration of warm drinks gradually rallied. His temperature chart from the time of his admission till now shows a temperature varying from 100° to 103° F. The morning after the operation there was a feeling of sickness and exhaustion, although he had had a tolerably good night. Temperature 103°; this declined, but on the 22nd, four days after the operation, it rose to 103·8°. The dressings were removed, the edges of the wound found looking well. After cleansing the parts, absorbent wool was applied. The temperature had fallen next morning to 98·2°.—May 24th: Morning temperature 98·2°; evening 102. He feels better, and takes liquids better; no solid food allowed as yet. Dressings changed. The case now progressed favourably without interruption, the sutures being removed when found to be useless, and support from strips of plaster took their place. He was discharged on June 20th, with the wound quite healed and much improved in general health.

**CASE 4. Compound Comminuted Fracture of both Bones of the Leg; Secondary Amputation below the Knee; Re-amputation (Carden's); Recovery.**—M. C—, aged twenty-six years, single, a brakesman, was admitted on March 29th, 1882, with a compound comminuted fracture of both bones of the leg. This was put up antiseptically. Cellulitis, however, supervened, and eight days after he had an evening temperature of 103°. On April 5th amputation was performed just below the knee-joint, and dressed antiseptically. The temperature fell to 99° in the morning, and 101° in the evening. On April 13th, eight days after amputation, the evening temperature rose to 103°. Quinine and antipyretics were now given freely, but on May 8th his evening temperature rose to 105°. This declined to 102° after relieving the stump of some pent-up pus. On May 15th the evening temperature registered 104·8°, and on the 17th 104·6°, and pus was found in the knee-joint. On May 18th I took charge of the case, and amputated through the condyles of the femur (Carden's operation). An abscess-cavity was found running between the muscles, half way up the thigh; this was sponged out with carbolic lotion. The flaps were united with wire sutures, and a drainage-tube inserted. Absorbent cotton was applied, and a back splint evenly bound on with a bandage. The temperature the same evening was 102·6°, and the next morning 99°.—21st: Evening temperature 103·8°; patient feels much better; losing his hectic appearance; dressings changed; stump looking well; healed in several places.—May 25th: Seven days after amputation the temperature was 98·4° in the morning, and 99·6° in the evening. Four more dressings served to complete the healing, the sutures being removed as occasion required. Three weeks after the operation the stump was quite healed, the man much improved in health and strength, and he was discharged cured on July 4th, 1882.

Through the kindness of Mr. Gamgee I have just received from Southall Brothers, Birmingham, some iodiform pads for surgical cases. They are exceedingly nice and light. It is much better to have the absorbent wool enveloped in this absorbent material, so as to prevent its adhering to a wound.

## THE MICROSCOPE IN DIARRHOEA.

By KENNETH W. MILLICAN, B.A. CANTAB.

THE use of the microscope as a common aid to diagnosis and treatment must inevitably take a prominent place in the future; and the demonstration of the bacillus tuberculosis by Koch, and the subsequent and progressive simplification of the process by Ehrlich, Baumgarten, and Heneage Gibbes, show how indispensable this instrument will become in the not far distant future to the practitioner of medicine. A series of cases of diarrhoea have recently occurred in this district in which certain features of interest were observed. The patients were all attacked when a few days of very hot weather had been followed by considerable rain. A sort of period of incubation occurred, during which the patients were depressed and out of sorts, and this was followed by a prostrating attack of diarrhoea. The stools were fluid, not unlike those of typhoid fever, and contained in every instance, small gelatinous or albuminous lumps like half-cooked white of egg. The odour was extremely offensive. Beyond the prostration, however, and general gastric disturbance, with excessive flatulent distension and pain, there were no constitutional symptoms. In no case was there any marked rise of temperature, nor was the pulse greatly affected.

Having several cases at the same time under unsuccessful treatment by astringents, powdered aromatic chalk with opium, &c., I submitted the evacuations to microscopical examination. This showed them to be swarming with bacteria, and the indication for treatment drawn from the examination was carried out by the exhibition of one grain and a half of carbolic acid in compound tincture of cardamoms and peppermint water every four hours. The later cases were treated by the exhibition of five minims of terebene in mucilage every three hours. This treatment proved in the highest degree satisfactory, for the unpleasant symptoms were speedily and effectually checked.

The method of examination for bacteria which I have found successful is very simple. The stain used is a solution in distilled water of "navy blue," one of Tomlinson's aniline dyes. I have generally used it of a deep-blue colour, but not of any particular strength. A lump of the gelatinous matter before referred to is well smeared over the surface of the cover glass and allowed to dry. The cover glass is then floated on the dye for five or ten minutes, at the end of which time it will be found well stained. It is then washed in dilute nitric acid (1 to 3) and finally in distilled water. The cover slip is then allowed to dry, which may be aided by gentle warmth from a spirit lamp, and mounted in Canada balsam. Evaporation is a better method of extracting the water previous to mounting than immersion in alcohol, for I have found the alcohol to obscure the lustre of the aniline dyes. If preferred after the washing, the cover slip may be floated on a solution of aniline brown, made from another of Tomlinson's dyes in a similar manner. These dyes are excellent in microscopic staining, and are moreover cheap, and easily made as required. The most useful appear to be magenta, navy blue, and Bismarck brown. The violet has not proved so successful in my hands. The bacteria so observed consisted of small refractive granules (micrococci!); short, fine rods (bacilli); long, fine-pointed rods; and curled, twisted ones. There were also mycelium-rods, frequently stretching right across the slide. All these were well seen with  $\frac{1}{2}$  in. object-glass, and even with  $\frac{1}{4}$  in. It is of course to be noted that the evacuations should be obtained as fresh as possible for examination. I directed terebene to be at once placed in those that were put aside for me, and they were then well covered up.

Aitken speaks<sup>1</sup> of "the presence of a bacteria development in the stomach and intestines, under the name of *mycosis intestinalis*." The class of cases, however, to which he refers, appear to be of a much more serious character than my own, and are said to occur "suddenly during apparently robust health, quickly followed by lividity of hands and face, collapse and death in from two to six days."

Kineton, Warwick.

<sup>1</sup> Science and Practice of Medicine, seventh edition, vol. ii., p. 882.

## A CASE OF RECOVERY AFTER A BROKEN NECK.

By C. JORDISON, M.R.C.S.

ON Oct. 26th, 1881, Mr. C. S. P.—, aged thirty-eight, when out cub-hunting, was riding at a canter over a fence under the arm of an oak tree, when his horse jumped much higher than he expected, and the back of his neck came in violent contact with the concave surface of the branch. Mr. P— was leaning very forward over his horse's neck, and as the horse jumped almost perpendicularly upwards, the force of the blow was forwards and downwards. He was knocked off his horse, and lost consciousness for about two minutes. As soon as he could speak, he complained of intense pain up and down the neck and in his arms and legs. In less than ten minutes I was with him, when his first words were, "I am done for; my arms are paralysed, and the paralysis is extending over my body and into my legs." I noticed the respiration was normal. We carried him on a gate to the nearest farmhouse, where, after examination, I came to the conclusion that there were fractures of the laminae of the fifth and sixth cervical vertebrae. At this time there was complete paralysis both of motion and sensation of the left upper extremity, and almost so, though to a less extent, of the right; impaired mobility of the left leg, the right being unaffected, and a sense of tingling and numbness over the whole body; there was perfect consciousness, and great pain in the neck and shoulders. He was laid upon a hard and perfectly flat mattress, with the head on a level with the shoulders, and this was kept immovable by sandbags. On the following day Mr. Bicketsteth, of Liverpool, saw the patient with me. He concurred with my diagnosis, and we agreed that the paralysis was from injury to the roots of the fifth and sixth spinal nerves, and that the numbness of the body and partial paralysis of the left leg were due to extravasated blood outside the sheath of the cord. There was of course paralysis of the bladder, and for a few days slight difficulty in swallowing. The temperature never rose above 101.4°. There was for a few days slight delirium and occasionally very great flushes, the whole head, neck, and face becoming of a deep-red colour, and this was always succeeded by great restlessness and irritability. By the third day he had entirely recovered motion in the left leg, and there was only slight tingling as far as the knee.

The treatment was absolute rest, but on the ninth day it was essentially necessary to change the bed linen, &c.; and whilst this was being done crepitus was distinctly felt by the trained nurse, and heard by my assistant and myself. After this time the head was not moved again for many weeks. By the fourteenth day he had much greater power in the right arm, and he could just raise the left, but could hold nothing between the fingers; there were still numbness and tingling over nearly the whole body, also paralysis of bladder and sphincter ani. Perfect power of motion in both legs. Temperature 98.2°, pulse 99, respiration natural. There was a large amount of extravasated blood under the skin as far as could be seen down the neck, and extending from the spine to the left shoulder-point. After this time the paralysis of the arms became gradually worse, until at the end of the fourth week there was then complete loss of power of motion over the left arm and hand, accompanied with intense hyperæsthesia; almost complete paralysis of the right arm and hand, but less hyperæsthesia. On the left side there was complete atrophy of the hand, arm, and shoulder, the two pectorals being the first to waste away; on the right side there was also some atrophy, but to a less extent.

This condition of utter helplessness continued without material change for about a week, when the power of emptying the bladder and of making an effort at defecation began very gradually to return, and slowly the power of moving the right arm was recovered so that by the eighth week he could hold an envelope or toothpick, but could not support a light book or even a newspaper. By the end of the eleventh week he could do as much with the left arm, the hyperæsthesia was gradually subsiding, but all the joints of the left arm and hand were very stiff and gave us much trouble. At this time he could slightly raise the head from the mattress and could rotate it freely. At the end of the

thirteenth week I had my patient carried a distance of four miles on a stretcher to his own house, after which he began to make rapid strides towards recovery, and as the callus from around the fractured ends of the bones was absorbed, and the muscles again received their nerve supply, so he gradually recovered normal sensation in both arms and over the trunk and less rapidly the power of motion. At the end of the sixteenth week he was up and walking about; there was decided prominence over the seat of the injury, and the head was unnaturally tilted forward, but only to a slight extent, so slight that it would not be noticed by anyone who had not known Mr. P— before the accident. The sensation and motion in the right arm were perfect, the sensation in the left nearly so, but there still existed great weakness, although there was no perceptible or measurable difference in the size of the two arms, the muscles having become developed more rapidly than they atrophied. At the end of the twenty-fifth week my patient was riding, driving, rowing, and swimming, having gone to Margate (by the advice of Mr. T. Bryant, who saw him about this time), and with the exception of a slight weakness in the left arm was perfectly well and strong.

*Remarks.*—I think undoubtedly we had here an injury to the spinal nerves by the broken fragments of the injured vertebrae, as the paralysis, numbness, &c., were instantaneous. The paralysis of the left leg came on after a few minutes, and was probably due to blood extravasated outside the sheath of the cord. I think the extreme paralysis about the fourth and fifth weeks was due to callus thrown out around the end of the broken fragments pressing upon the nerves as they emerge through their canals, and as this callus became absorbed so the power of motion, the sensation and the growth of the muscles were gradually recovered, and the now continuing weakness I attribute to there having been some slight laceration of the sheath of the nerve as it emerges from its canal, and the resulting thickening pressing upon and destroying some of the nerve fibres. I attribute the unusual and happy result primarily to there having been no interference with the respiratory tract, the injury having occurred just below the point of origin of the phrenic nerve, which possibly, in this case, did not receive a communicating branch from the fifth cervical; and, secondarily, to the great muscular development of my patient enabling him to withstand the ill effects of long-continued pressure without the usual consequences, and to the fact that although the spine was broken the spinal cord was not injured.

Malpas.

## NOTES ON A CASE OF PRURIGO FEROX; TREATMENT AND RECOVERY.

By SURGEON SHIRLEY DEAKIN, F.R.C.S. ENG.,  
OFFICIATING JUNIOR CIVIL SURGEON, ALLAHABAD.

AS cases of Hebra's prurigo, fortunately for the unhappy patients, are rare in England, the following notes of a case successfully treated may be of interest. Dr. Tilbury Fox states in the last edition of his valuable work on "Skin Diseases," p. 156, that he had only met with one case. The case under observation presented little in common with cases of Scabies ferox, or Malabar itch, which are fully described in Drs. Fox and Farquhar's "Skin and other Diseases of India and Hot Climates," pp. 65 and 267.

Constable N—, aged fifty-two, a Punjab Mussulman, was admitted to the Police Hospital on Oct. 26th, 1878, suffering from severe itching of the skin of the whole surface of the body, excepting the palms of the hands and the soles of the feet; the back of the hands and the front of the feet, however, being especially troublesome.

*Previous history.*—Has suffered much from periodic (so-called "malarial") fever in past years. States that twenty-two years ago, at Peshawar, the eating of *bharra*, a kind of sheep, used to give him fever constantly. He denies a syphilitic history.

*Present history.*—Six months since he first noticed a severe itching between the shoulders, and presented himself at the hospital a month later on. Then he had much heat in the skin, and perspired freely during the night. When I saw him first the skin was but slightly thickened. Both lenses exhibited an advanced cataractous appearance, a condition very common at his age among natives of India.



Bowels regular; tongue clean and firm; passes his urine slowly, but his febrile condition prohibited any attempt at exploring the urethra. He has a reducible right inguinal hernia, and there is a small swelling over the site of the left internal ring.

*Present state.*—The whole of the skin, excepting that over the scalp, chin, armpits, groins, and hernial sac, is much infiltrated and thickened. When uncovered the patient shivers greatly. He is terribly tormented with a constant itching, and scratches at his skin in a most distressing manner. His beard has fallen out, and the hair on his chest, which was abundant, has also disappeared, likewise the hair from the scalp; the moustache is firm. There were numerous slight abrasions all over the skin, caused by his nails; these rendered it difficult to decide whether the patient suffered from phthiriasis or not; repeated examination, however, did not reveal any parasite.

*Treatment* was first commenced with three hot air baths with sulphur, quinine and iron being given internally, and weak carbolie oil, one in forty, freely applied over the skin. Subsequently he took five minims of solution of arsenic three times a day, and applied sulphur ointment, and then linseed oil only. Potassium iodide in fifteen-grain doses twice a day, first alone, and afterwards with the addition of one-sixteenth of a grain of chloride of mercury, produced no effect; and on December 15th, after six weeks' treatment, he was sent to his home in the Punjab on two months' sick leave no better. He was readmitted to hospital on February 20th, 1879, on return from sick leave, no better for the change. His state is thus noted: skin much thickened, as before described, and though he is fairly nourished he is much troubled by the itching. Ordered fifteen grains of powdered ergot twice a day. To have an alkaline bath: three ounces of bicarbonate of potash, two ounces of bicarbonate of soda, one ounce of borax, and one pound of bran, in thirty gallons of water. To use as a lotion: one drachm of hydrocyanic acid, two drachms of borax, one fluid ounce of solution of acetate of ammonia, in eight ounces of water. During his stay in hospital he had four baths as above, and took ergot for more than one month. He applied the lotion, using a bottle in eight days. Subsequently he took five minims of solution of arsenic three times a day. Small lumps appeared on the skin somewhat resembling mosquito bites, only often they were much larger, measuring an inch across. They were hard, raised, and redder in colour than the surrounding skin. Each remained for half an hour or so, and then died away. When at his worst, some fifty or sixty such tubercles appeared daily.

Under treatment his condition greatly improved, the thickening of the skin disappeared to a large extent, the inner surfaces of the thighs remaining the worst. On the 24th of June he was convalescent and discharged to duty, doing his duty well until, on the 5th of October, 1879, he came up for examination previous to his discharge on pension. His state was then as follows:—Infiltration has disappeared from the skin of the face, and the face, consequently, looks much smaller; he has lost the peculiar smile, which recalled the risus sardonius to one's mind, and which was due to excessive thickening in the region of the zygomatic and risorius muscles, and about the eyebrows. His beard has grown again thick and long; it is four inches in length, and the hair is quite black, as is also the hair on his chest, which has grown again luxuriantly. Before his illness the hair was nearly white. The hair on his head and in his moustache is now abundant, and of a dark-grey colour. He has not taken any medicine since he left hospital. Shortly after his discharge from hospital he came to the native doctor, Hospital Assistant Ram Lal Das, and asked him whether he had been given arsenic in hospital. His reason for doing so was that his friends had attributed the change in the colour of his hair to the administration of arsenic. It appears that the effect of arsenic in causing hair to become black is well known to natives. I have consulted Neale's Digest, Ringer, Fox, and Bartholow, but cannot find any reference to this therapeutical effect of arsenic. There is still some slight itchininess of skin on the inner sides of the thighs, and slight thickening on the inner sides of the forearms. He is now free from the troublesome perspiration. The gums are slightly spongy; a scorbutic tendency, however, is generally prevalent among the poorer natives, owing to the scarcity of vegetables and high price of food stuffs now current in this district. The man is well satisfied with his changed condition. When first treated, Dover's powder, belladonna, and

ether were given to check the perspiration, but without effect. Ether, for suggesting the use of which in checking perspiration I am indebted to Dr. Balthazar Foster, has generally been in my hands most successful in doses of from ten to twenty minims of spirits of ether. It, however, is very volatile, and any mixture containing it should be dispensed daily and kept in a glass-stoppered bottle.

Allahabad.

## NOTES ON A CASE OF HÆMATO-CHYLURIA.

By JOHN D. HILLIS, F.R.C.S., F.R.M.S.

ON March 26th last a sample of urine was forwarded to me for examination, together with the following history.

W. E. B—, aged forty-two years, a coloured Creole of Demerara, stout and florid, has been for the past two years suffering from intermittent hæmato-chyluria, previously to which he had always been a healthy man. The patient is not losing flesh, but complains of an aching pain in his loins. Normal quantity of urine is secreted daily; skin acting well; pulse and temperature normal. On cooling, the urine is said to become like blancmange. The specimen of urine was of the colour of port-wine; reaction neutral; specific gravity 1025, and contained a quantity of albumen. Examined microscopically, the fluid was covered with well-defined red blood-corpuscles, the urine also contained vesical mucus and some crystals of triple phosphate. It was late in the evening and only a cursory examination could be made. On March 30th I examined another specimen which contained a quantity of fatty granules, crystals of triple phosphate, a few chyle- but no blood-corpuscles; and there were a few cells of bladder epithelium, but no filaria could be discovered after a very careful examination. On April 5th another specimen of W. E. B—'s urine was examined with  $\frac{1}{2}$  and  $\frac{1}{4}$  objectives. There were fewer red corpuscles, but an adult filaria sanguinis hominis was discovered on the second slide examined. I advised the patient being placed on decoction of rhizophora racemosa, which I have found most useful in cases of chylous urine. Under this treatment the patient considerably improved, the blood has entirely disappeared, and the urine does not coagulate on cooling. He states that "occasionally his back aches, and then his water becomes a little cloudy." I have had no further opportunity of examining either blood or urine, as he lives in a neighbouring county; but I can strongly recommend the mangrove bark in these cases.

British Guiana.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## GREAT NORTHERN HOSPITAL.

### TWO CASES OF GUNSHOT WOUND; REMARKS.

(Under the care of Mr. SPENCER WATSON.)

FOR the following notes we are indebted to Mr. Wharry, house-surgeon.

A man having shot his wife, attempted his own life. On June 6th Robert C—, aged fifty-one, was admitted in the afternoon with four wounds on the right side of his scalp, all down to the bone. These had been caused by his discharging a revolver at himself. There was a good deal of hæmorrhage on admission, which was controlled by pressure. The wounds were enlarged, and search was made, but no bullets were discovered. Water-dressing was applied. The patient passed a restless night, and appeared next morning in a very depressed condition, continually lamenting over his condition, past and present. Pulse quiet; tem-

perature not raised; he took his breakfast; wounds looking well. On the 9th he appeared more restless; the scalp was rather puffy around the wounds, and discharging a little; poultices were applied; temperature 101°; pulse quiet. Next day he was in much the same condition, the temperature falling to 99·8°; wound discharging; complained of a good deal of pain in the head. On the 12th the temperature was 99°; wounds discharging freely; very restless. On the 13th in the evening the temperature was 104°; scalp more puffy; a bullet, very much flattened, was extracted from the wound over the forehead. On the 14th and next day there was slight improvement, the general condition being good; temperature 100°. On the 17th the temperature was in the night 104°. On the 19th the wounds were discharging freely; other conditions good; temperature 102°. On the 20th the temperature in the night was 103°; much pain in head; wounds discharging; slept well. On the 22nd the wound over the parietal bone was enlarged, and another bullet was discovered considerably flattened, and removed. On the 25th the patient was much better, and the wounds showed a disposition to heal.

The patient was discharged on July 15th, with the wounds quite healed. The man had apparently recovered from the effects of his injuries. During the whole of his stay in hospital he was given chloral and bromide of potassium every night.

Mrs. C— was admitted on the same day with a small circular wound, about an inch and a half behind the right ear, just over the apex of the mastoid bone, which was stained with gunpowder. The wound apparently extended in a downward direction into the soft parts of the neck. A search was made for, but no bullet discovered. The wound healed up under water-dressing in ten days, without any discomfort to the patient, beyond some slight stiffness of neck.

*Remarks by Mr. SPENCER WATSON.*—The slight amount of damage that can be inflicted by a saloon pistol, even discharged at close quarters and into a vital part, is well illustrated by these cases. The man who is said to have made the attempt on his wife's and his own life had been injured in a railway accident about six months before, and had ever since been much changed, his right arm and leg having been partially paralysed. In spite of the solatium of substantial damages awarded him by the court before whom the case was tried, he did not recover either mentally or physically, and when he attempted the acts alluded to he was no doubt under the influence of delusions. The wounds inflicted were very insignificant. All seven chambers of the revolver had been discharged, and two of the pellets were found on the spot. These were conical, and of the size of large peas. To test the penetrating power of the revolver, the police loaded and discharged it at a distance of five feet from a half-inch deal board. The bullet easily passed through. This weapon must have been discharged by C— at his wife when her back was towards him at about the distance of five feet, and the shot passed into her neck immediately behind the mastoid process. She had literally no symptoms referable to this injury, and three months after it was as well as ever, the pellet still remaining embedded somewhere in the muscles of the neck. In the case of C— there were very slight symptoms of surgical fever, which, however, soon passed off when the pellets were extracted.

#### NORTH STAFFORDSHIRE INFIRMARY.

CASE OF PREGNANCY WITH RETROVERSION OF UTERUS,  
CAUSING RETENTION OF URINE (160 OZ.);  
FATAL RESULT; REMARKS.

(Under the care of Mr. SPANTON.)

MARY ANN H—, aged thirty, married, was admitted into the infirmary on July 2nd, 1881, for supposed abdominal tumour. She stated that she had usually good health, and believed herself to be about four months pregnant, as menstruation had ceased for that length of time, and the areolæ of the breasts indicated it. For a fortnight before admission no urine had been passed. She complained of great pain in the hypogastrium, and the abdomen was much enlarged, with dull percussion from the pubis to above the umbilicus, and extending to the iliac regions. The lips were dry, the tongue brown, and strength much exhausted. Frequent sickness both before and after admission. The legs and

vulvæ were cedematous; bowels constipated. She had been under the care of a medical man previously. A catheter was at once passed and 160 ounces of urine drawn off, giving great relief. The following day 70 ounces were obtained, quite dark from admixture of blood and blood-clots. Considerable faintness followed this, and stimulants and astringents were freely administered.

On examination the body of the uterus was felt to occupy the whole of the posterior portion of the pelvis, pressing upon the rectum and neck of the bladder. The os uteri could not be felt; the uterus was enlarged to the size of about the fourth month of pregnancy. Mr. Spanton desired to attempt the reduction of the retroversion, but to this the patient would not then consent. A consultation of the staff was held, and the next day, chloroform being administered and about seventy ounces of bloody urine withdrawn from the bladder, Mr. Spanton passed his hand up to the uterus, the fundus of which felt like an enormous child's head, so that there was barely room for the hand to pass. The os uteri was high up behind the symphysis pubis, and the uterus appeared to be literally "upside-down." By continued steady pressure with the palm of the hand the uterus was felt gradually to rise into its normal position above the brim of the pelvis, and the cervix was then felt in the centre of the vagina. Once replaced, there seemed no tendency for the uterus to fall back, and on recovery from the anæsthetic the patient felt greatly relieved. In the evening fourteen ounces of urine mixed with blood were drawn by catheter, after some had been passed naturally. Signs of exhaustion with sickness continued, and the patient gradually sank and died at 11 A.M. on July 6th. No post-mortem examination was allowed.

*Remarks.*—The case is of interest as illustrating one of the grave dangers of neglected retroversion during pregnancy, and as showing to what an enormous extent the bladder may be dilated without actual rupture. The case was sent in as one of ovarian disease, and casually had the appearance of one; but the catheter quickly solved that doubt; and it was indeed unfortunate for the patient that such a simple measure was not employed earlier, as it is quite possible that the extreme distension of the bladder helped to exaggerate the retroverted condition of the uterus, which was, in its turn, originally the cause of the retention.

#### KASHMIR HOSPITAL.

CASE OF COMPLETE CONGENITAL OCCLUSION OF THE OS  
UTERI; OPERATION; RECOVERY.

(Under the care of Mr. E. DOWNES.)

In the month of August, 1877, a young woman, aged about twenty-two, married, applied at the hospital. Her abdomen was very prominent, as if from pregnancy. It appeared, however, that she had never menstruated. Her abdomen was tense, and the tumour ascended nearly to the ensiform cartilage; it was oval and smooth, but not very movable. A vaginal examination was suggested and finally agreed to. The tumour was felt distinctly, and with one finger in the vagina and the other hand externally the tumour, which was quite hard, could be moved. There was no tenderness. What was believed to be the os uteri was also felt so open that the finger could easily have been pushed into it, but it was not thought wise to make any further examination until arrangements for operation were completed. There was no cervix uteri to be felt, and very little vagina, but the cervix had apparently been obliterated by the tumour. The canal which was taken to be the os uteri was close to the symphysis pubis.

A diagnosis was made of a fibrous tumour of the os uteri. The patient was told that she was suffering from a very serious disease which required an operation, but that the risk was great. Her suffering was so great that both she and her husband begged that something should be done.

She was admitted into hospital. Her treatment for about a week consisted merely in giving her perfect rest and small doses of opium to relieve the distress, paying attention to the bowels at the same time. Every day she begged for the operation. Another medical man saw the woman with Mr. Downes and examined her carefully externally and by the vagina, but did not use the sound.

After about ten days Dr. Ross, the civil surgeon, arrived in Srinagar; he and Dr. Williams of the Indian Medical

Service were both present. The patient was put under chloroform, and then a thorough examination of the parts was made. She was placed in the lithotomy position and the parts exposed to view. It was found that what had before been taken for the os uteri was the meatus urinarius, which was enormously dilated, apparently by having been used instead of the vagina in sexual intercourse; this became still more certain by passing a finger into the bladder. On looking carefully into the small space which represented the vagina a little white spot could be seen in the mucous membrane, surrounded by a less distinct whitish ring; this white spot apparently marked the position of the os uteri, but it was so completely closed that it could not be felt by the finger.

It was now evident that this was a case of complete congenital occlusion of the os uteri, and the enormous tumour, reaching nearly to the ensiform cartilage, was an accumulation of menstrual fluid. The point of a small conical canter iron, heated nearly to redness, was pressed firmly in the position of the os uteri; the iron at once cut through the mucous membrane and the small amount of tissues beyond, which extended at the most only about a quarter of an inch, and sank into the uterine cavity, from which issued a thick fluid of a blackish-red colour, perfectly opaque, and almost devoid of smell. Dr. Ross pressed on the fundus of the uterus, and after much of the contents had been discharged, a very distinct hour-glass contractions of the womb was noticed; gradually this gave way, and by gentle pressure on the fundus the whole contents of the uterus, about six pints, were discharged. The last part consisted chiefly of clots and shreds, and were expelled by dilating the os with the finger. The uterus was well washed out with tepid water containing about 2 per cent. of carbolic acid. There was no hæmorrhage from the incision, and it was dressed with lint and carbolic oil. A firm bandage was applied round the abdomen, and a good pad placed over the uterus, which had contracted well.

The woman was placed in a room by herself, removed altogether from the other patients, and her husband undertook to nurse her. One of the dressers was ordered to change the dressings twice a day, and to introduce a large bougie into the new os uteri every morning; and ergot was ordered to be given internally. When she recovered from chloroform she had no pain, and expressed herself immensely relieved by the operation. For some days there was a considerable bloody discharge from the womb.

After the operation all went on well for three days; the temperature during that time was normal. On the fourth day she complained of a bad cough, and such great difficulty in breathing that she had to be propped up in bed. Her temperature was 105° F. Twenty grains of salicylic acid were given every hour. A dose was given at once, and the temperature fell a degree; after the second dose it fell to 101°, and after the third dose to 100°. After the second dose she expressed herself to be very much relieved, and said that she felt so hungry that she asked for food; after the third dose she felt rather nauseated, and the salicylic acid was ordered to be given only every four hours. Next day the temperature was normal, and the salicylic acid was stopped; the cough and dyspnoea remained troublesome. Nothing amiss could be detected with the stethoscope. A simple cough mixture was given. After exactly a week the temperature again rose to 105° in precisely the same way, and was as speedily reduced to normal by salicylic acid. It did not again rise while she remained in hospital, and the cough and dyspnoea gradually disappeared.

The rest of the story is soon told. A month after the operation she insisted on going home. She has not been heard of since. When she left the hospital she was much improved in every way; the discharge from the uterus had ceased; the os uteri was nearly natural in size and shape; the vagina was longer than before, though still much shorter than it should have been; a cervix uteri could be distinctly felt in the vagina. Her general health was very much improved; she was fairly strong and in excellent spirits.

**ST. MARY'S HOSPITAL, MANCHESTER.**—At the quarterly meeting of the trustees and subscribers to this hospital, the chairman had to express regret that the appeal put forth in March for means to wipe out the debt encumbering the institution had been but feebly responded to. He had the gratification of announcing, however, that Mr. James Jardine had generously given them a cheque for £500 in aid of the funds.

## Medical Societies.

### PATHOLOGICAL SOCIETY OF LONDON.

*Ulcer of Duodenum.*—*Diaphragm deformed through Rickets.*—*Aneurism in Children.*—*Aneurism of Aorta and Abnormality of Heart.*—*Obturator Hernia.*—*Tricuspid Stenosis.*—*Parovarian and Broad Ligament Cysts.*—*Gangrene of Fingers.*—*Mediastinal Tumour.*—*Perforating Ulcer of Colon.*—*Cirrhosis of Liver.*

THE first meeting of the present session of the Pathological Society was held on Tuesday last, Oct. 17th, S. Wilks, M.D., President, in the chair. There was a very full attendance of members. It was noteworthy that there were no "card-specimens" exhibited. The President prefaced the business of the evening by an appreciative reference to the late Dr. Peacock, one of the earliest members and a former President of the Society. Dr. Wilks said that during the recess the Society had lost one member to whom he felt compelled to make a passing reference. Dr. Peacock formed one of the small band that met many years ago to found the Society. He was one of its earliest and most valuable contributors, and at the last meeting but one he showed a specimen of malformation of the heart, a subject on which he had won a world-wide reputation. His career was a most enviable one; he was not ambitious as regards practice with its emoluments, and was thus able to devote himself with undivided attention to his hospital work, and in the autumn could travel and devote himself to science and literature. He had been a model member of the Society, and he could not allow that occasion to pass without a brief reference to one who for many years had been so closely connected with it.

Dr. NORMAN MOORE showed several specimens. 1. A circular ulcer, as large as a fourpenny piece, situate in the duodenum, just outside the pylorus. Its base was adherent to the pancreas, and at one point the ulcer had penetrated a considerable branch of the pancreaticoduodenal artery. This perforation was the cause of death. Post mortem the whole intestine was distended with blood, but there was none in the stomach. The patient was a man aged thirty-four years. His first symptom was a hæmatemesis of about a pint at 10 P.M. on May 9th. He came to St. Bartholomew's Hospital at 11 P.M., looking much blanched. After admission he vomited blood again at 2.30 A.M., and a second time, more copiously, at 6.30 A.M.; he became collapsed and died at 8 A.M., ten hours after his first sensation of illness. 2. A deep ulcer, in parts healed, also situated in the duodenum close to the pylorus. Its floor was partly formed by the adherent pancreas, and partly by peritoneum. The patient, a bricklayer, aged forty-nine years, had complained of a slight degree of pain after eating, for three months, but not to a sufficient degree to make him apply for treatment. He died of a severe pulmonary catarrh. 3. Enlarged Ribs of Rickets pressing upon the Liver through the Diaphragm. A cast of the under side of the diaphragm showed three large beads on the seventh, eighth, and ninth ribs. These pressed upon the diaphragm and through it upon the liver, causing well-marked depressions on each lobe. From a rickety child aged one year and eight months. 4. A drawing showing Depressions in the Liver due to Enlarged Ribs in another rickety child aged one year and seven months. These depressions perhaps appeared larger post mortem than they would during life, but certainly indicated a permanent pressure of the enlarged ribs upon the liver, a pressure increased by the fact that both children had constricted chests. He suggested that the slight thickenings sometimes observed in the capsule of the upper part of the liver in children and in adults might be due to the pressure of beaded ribs through the diaphragm. 5. An Aneurism of the External Iliac Artery, from a girl aged seven years. The aneurism was at the origin of the external iliac on the right side, and it was a dilatation of the vessel extending more to the inner than to the outer side. Its cavity was filled with firm laminated fibrin. A microscopic section showed that the aneurism was

a simple dilatation of the vessel, all parts of which were represented in the wall. There was a marked increase of nuclei in the middle and deepest layer of the inner coat. No other aneurism was found. On the mitral valve there were some small growths, and on one aortic cusp there was a very large calcified growth. The aorta itself was free from any obvious morbid change, and a microscopic section showed it to be perfectly healthy. The girl had died suddenly. The aneurism would appear to have been due to an embolus from the aortic valves, followed by a deposit of fibrin, in the method of formation first suggested by Dr. John Ogle in the Path. Soc. Trans., vol. viii., p. 163 (1837), and afterwards more fully treated of by him in a paper in the *Medical Times and Gazette* for Feb. 24th 1866, and by Mr. Callender in the Path. Soc. Trans., vol. ix., p. 93. 6. The Heart and Aorta of a girl aged five years, showing an aneurismal bulging a quarter of an inch above the Aortic Valves. The aneurism was due to an ulcer on the posterior wall of the aorta, which was associated with an ulcerative endocarditis of the aortic valves. There were also minute growths on the mitral and tricuspid valves. The child had acute general tuberculosis, and died with tubercular meningitis. 7. The heart and aorta from a man aged eighteen years, who died in St. Bartholomew's Hospital with Bright's disease and pericarditis. The right side of the heart and the mitral valve were normal. Just below the aortic valves was a thickened ring of fibrous tissue, attached on one side to the septum ventriculorum, and on the other to the outer wall of the heart. Above this ring the aortic valves were competent, and of normal form. It was suggested that this ring, which had a diameter of one-third of an inch, might be due to an imperfectly developed second tier of aortic valves, formed from the original endocardium, like the numerous rows of aortic valves in the ganoid fishes. At the root of the innominate artery there was a circular opening, one inch in diameter, which led into an aneurismal cavity partly filled with laminated fibrin. The contents of the sac had dissected between the layers of the pericardium, and formed a mass, two inches by two inches and a half, resting on the base of the heart, pressing upon the pericardial veins, and causing an enormous serous effusion which stretched the pericardium across the whole front of the chest. The patient had had an illness, which might have been acute rheumatism, nine years before his death. Most cases of malformation of the heart and aorta are due to either endocarditis or congenital variation. This example was interesting as illustrating a result of variation in its double row of structures around the aorta, and a result of acute endarteritis in its aneurism.—Dr. PAYNE said that Dr. N. Moore's last case reminded him of a case of his own. Some years ago he brought a heart to the Society which he then thought presented a rudimentary additional series of aortic valves. But a committee appointed to examine the specimen reported that they were not valves at all, but only thickenings of the endocardium; and he (Dr. Payne) was sure they were right; and he had since seen transitional forms of endocardial thickening.—Dr. PYE SMITH asked if the fibrous ring was not rather to be ascribed to a persistence of the foetal constriction between the bulbus aortae and the ventricle. This had been described, and he thought it more probable that Dr. Norman Moore's specimen was an example of it than of a reappearance of a structure for which they had to go so far back as to ganoid fishes.—Dr. S. WILKS said that aneurisms in children were very interesting; they had been clearly shown to be due to embolism. The aneurism was no doubt formed at the exact spot of the embolus and not above it, and it had been suggested that in cases of ulcerative endocarditis emboli containing micrococci might cause an inflammatory softening of the artery. Older physicians, such as Addison, had recognised a connection between rheumatism and aneurism. He further asked whether Dr. Norman Moore knew of the cause of the duodenal ulcers.—Dr. NORMAN MOORE said he did not know of any special cause. All the valves of the heart referred to by Dr. Payne were quite free from disease, and he thought it would be rash to ascribe the thickening to an endocarditis so severe as to cause this, but which did not implicate the aortic valves.

A committee consisting of Drs. Payne, Pye Smith, and Coupland was requested to examine the heart.

Mr. BOWLBY showed two specimens of Obturator Hernia taken from a woman aged sixty-nine, married, mother of three children, very thin, with no history of abdominal obstruction. On June 4th she was suddenly taken with great pain

in the abdomen, collapse, vomiting, and constipation; four days later she was admitted to St. Bartholomew's Hospital with distinct signs of intestinal obstruction. No distinct local tenderness could be made out; vaginal and rectal examinations gave no assistance. Two days later there was pain in the inner and back part of the thigh, which she said she had been subject to from chronic rheumatoid arthritis. She died on the eleventh day of her illness. At the autopsy there was found a strangulated hernia on the right side, and an empty hernial sac on the left side. The hernia on each side passed over the external obturator muscle; on the right side the nerve and artery were stretched over the upper part of the sac. The right sac contained a coil of intestine adherent to the sac; there was no fluid in the sac. On the left side the sac was not so large as a walnut; on this side the obturator artery passed under the sac and divided into two beneath it, one division passing on each side of the sac. The patient was of the sex, age, and emaciated appearance common in cases of obturator hernia. The distribution of the arteries was important, but appeared to be various. In the last case at St. Bartholomew's Hospital, occurring thirty years ago, recorded by Mr. Stanley, the artery lay in front of the sac; in another specimen in St. Bartholomew's Museum the artery was on the inner side; the position of the nerve in front was constant. The intestine had been said to be drawn out into diverticula in cases of obturator hernia, but that was not so in this case. Double obturator hernia had been not rarely described, and the co-existence of other herniae was not infrequent. In most of the cases the strangulation had not been very acute; in this case the gut was, even after eleven days, not gangrenous, nor very intensely congested. In one case the constriction lasted twenty-one days before death occurred. In Stanley's case, as in this, the gut was adherent to the sac. He thought the indication was, after diagnosing the case, to cut down and expose the hernial sac, and then to open the sac, divide its neck, and return the congested contents.

Dr. BEDFORD FENWICK showed a specimen of Tricuspid Stenosis from a woman aged thirty, who had rheumatic fever at fifteen, and afterwards suffered from winter cough and dyspnoea; she went on from bad to worse till admitted into the London Hospital under Dr. S. Fenwick; there was marked distension of jugular veins but no cyanosis, cardiac dulness very wide to the right, a well-marked pre-systolic apex thrill and pre-systolic and systolic apex murmurs; proceeding to the right another pre-systolic and systolic murmur was detected. At the post-mortem both auricles, but especially the right, were very much dilated, the ventricles small. The tricuspid and mitral valves were greatly thickened, shortened, and agglutinated together, causing marked stenosis. All the organs were congested. The spleen was during life tender to pressure and pulsated. Cases of this kind were now known not to be very rare. Since his table of forty-six cases he had been able to collect twenty-three more cases, twenty of whom were females averaging in age 31.7 years. In every case the mitral valve had been more changed than the tricuspid, and in all cases the general health had been good; the great dilatation of the right auricle caused increase of cardiac dulness to the right, and afforded a means of diagnosis.

Dr. NORMAN MOORE showed the heart of a man, aged twenty-two, with Tricuspid Stenosis and Disease of Mitral and Aortic Valves; the right auricle was enormously dilated. He remarked that tricuspid stenosis was very often associated with pericarditis, and this prevents the diagnosis of distension of the right auricle. In this case the veins of the neck were not abnormal in any way. The loud systolic and pre-systolic murmur were loudest at the apex with a pre-systolic thrill at the same place. There was pericardial effusion. In seven out of fifteen cases at St. Bartholomew's tricuspid disease had been associated with pericarditis as if the valve were only affected by very severe endocarditis associated with pericarditis. Dr. WILKS asked if Dr. Fenwick thought that the tricuspid and mitral valves were affected simultaneously or successively. Dr. FENWICK said that in two or three cases it appeared clear that the mitral disease was primary, and the tricuspid disease succeeded. In more than half the cases there was a well-marked history of rheumatism.

Mr. ALBAN DOLAN exhibited some preparations showing the relations of Cystis in the Broad Ligaments, whilst still young and minute, to neighbouring structures. A parovarium, with the posterior layer of broad ligament dissected

away so as to expose its tubes, was demonstrated; Gaertner's duct appeared like a small nerve running a straight course towards the uterus. Cysts springing from the vertical tubes of the parovarium are multilocular, and bear papillary contents lined with epithelium, which may be ciliated, but is often made up of cubical cells not bearing cilia. The normal epithelial lining of the parovarian tubes is not invariably ciliated, and if so, often tends to degenerate into its original cubical form. The outer end of the horizontal tube of the parovarium generally bears a small cyst, the lining of which resembles endothelium. Between the parovarium and the Fallopian tube, small cysts, lined with endothelium, are very common. It is these, or the terminal cyst of the parovarium, that form the starting point of the so-called "parovarian cyst," which is thin-walled, unilocular, and filled with clear fluid, but no papillary growths. There is no evidence that any of these cysts spring from the Fallopian tube, the terminal "hydatid" of which never attains large proportions. The multilocular papillary cysts of the hilum of the ovary, and of the neighbourhood of Gaertner's duct, are identical with those arising from the vertical tubes of the parovarium, all these structures containing relics of the Wolffian body, the source of cysts of this kind.

Mr. HUTCHINSON showed, as a living specimen, a man who had lost the ends of nearly all the digits of his hands. The gangrene was brought on from exposure to cold. He was at work on a snowy night, and afterwards the ends of his fingers inflamed and became gangrenous; they have never recovered, for on any change of temperature they swell and become oedematous. The toes were not affected. There was a threatening of gangrene of the ears. Before this occurred, on any exposure to cold his fingers would "die" very readily. It was a case of peculiar constitutional weakness of circulation with liability to gangrene, and differing from common cases of frostbite in the slight intensity of the cold causing the death of the parts.—Dr. WILKS said he had a boy in the hospital last year with gangrene of fingers, ears, and toes, and hæmaturia. All had healed up. The hæmaturia pointed to some blood condition.

Dr. S. WEST showed a specimen of Mediastinal Tumour from a boy aged fifteen, who had been ill for only two months. For three weeks he had a swelling in front of the chest, with brassy cough and dyspnoea, and pain down the side of the chest, and inner side of the left arm. After a few days in hospital the swelling increased and appeared above the sternum. A needle was inserted, but nothing was obtained. A day before his death the left pulse was found unequal. He died in an attack of dyspnoea. At the autopsy the tumour was found to be very large and growing from the mediastinal glands, pressing upon and over the heart, flattening it down against the diaphragm. The vessels and nerves on the left side were quite embedded in the tumour, but were all free on the right side. The only secondary growths were in the kidneys, but the primary growths had extended down to both front and back of the heart, under the pericardium, without implicating the muscular tissue. The growth was a small round-celled sarcoma. The nerves in the tumour were found to be greatly thickened, owing to infiltration with tumour tissue. The case was interesting on account of the age of the patient; out of fifty-five similar cases only five occurred between ten and twenty years of age. Dr. Douglas Powell had given the average age as twenty-four. The whole mass had also grown with extreme rapidity; the shortest time given by Walsh was three months and a half. He had never seen the nerves thus thickened; but Dr. Quain had recorded a case in which thickening was due, however, to inflammation, and not to infiltration of the tumour. Dr. S. WEST also showed two specimens of Perforating Ulcers of the Large Intestine from Typhoid Fever. In both cases the disease was of long duration, and in both there were cicatrices of typhoid ulcers in the ileum. In one the patient died suddenly, with signs of peritonitis, and after death a collection of puriform fluid was found in the pelvis, and a perforation of the lower end of the sigmoid flexure. In the other the liver and intestines were found matted together in the right hypochondrium, where a collection of pus was found, and a perforation of the colon at the junction of its ascending and transverse portions. In this case the fever ran a mild course throughout; but there was all along one symptom which he had always observed to be attended with a fatal termination to the case—a scarcely audible first sound of the heart.

Dr. HENEAGE GIBBES showed microscopical sections of a specimen of Cirrhosis of the Liver in a child of seven months, following congenital absence of the common bile duct. The case was under the care of Dr. Steel of Abergavenny. A male infant, eighth child of healthy parents, born December 3rd, 1881, first began to show symptoms of jaundice a few days after birth; was treated with castor oil in mild doses, afterwards with iridin in doses of two to three grains thrice daily. This seemed to have a slight effect on the stools and skin; other remedies had also been tried without any result. Nutrition was maintained tolerably well till the sixth month, when wasting and ascites set in, and the child died on the 10th of July. The liver was found to be hard and smooth, and weighed four ounces after hardening in spirit. No common duct could be found in connexion with the duodenum. Under the microscope dense bunches of fibrous tissue were found between the lobules, in the interstices of which were the dilated bile ducts filled with bile. The cells in the lobules seemed broken down, and did not stain. This seemed to be a case of cirrhosis following on congenital absence of the common duct. The jaundice not appearing for the first few days might be explained by the small amount secreted at that early stage having filled the diverticula of the bile ducts. After these were fully distended jaundice would be set up.

The Society then adjourned.

## CLINICAL SOCIETY OF LONDON.

### *Treatment of Phthisis by Residence at High Altitudes.— Excision of Cancer of the Tonsil.*

THE first meeting of the present session of this Society was held on Friday, Oct. 13th, J. Lister, Esq., F.R.S., in the chair. The new volume of the Transactions was stated to be ready for distribution, which is a fact very creditable to the hon. secretaries. The President read the new rules in reference to the exhibition of living specimens. He also showed the form of diploma of hon. membership, and stated that most of the hon. members recently elected had expressed in warm language their sense of the honour thus conferred upon them.

Dr. THEODORE WILLIAMS communicated a case of Phthisis treated by Residence at High Altitudes, the patient having been exhibited at a former meeting of the Society. A medical man aged thirty had cough and expectoration of three years' standing, followed by hæmoptysis, wasting, elevation of temperature, and great prostration; and when seen by Dr. Williams in consultation with Dr. Verker Benden, on Aug. 30th, 1881, he presented the physical signs of consolidation of the upper lobe of the left lung. After five months' residence at Davos, including a walking tour of seventeen days in the Engadine, during the whole of which period he took exercise largely, he gained a stone in weight, and found his strength and power of climbing greatly improved. On first arriving at Davos he had dyspnoea from the rarefaction of the air, but this passed off, and his respiratory powers became greater than previously. On his return, Dr. Williams found an increase in the cyrtometric and other chest measurements, especially in the upper regions of the thorax; and the physical signs denoted the development of emphysema around the old consolidation and hypertrophy of the healthy lung. Dr. Williams stated that while he ascribed the general improvement of the patient to the dry form of antiseptic atmosphere and the sun's powerful influence, he assigned the arrest of the tubercular changes to the local effects on the lungs of breathing rarefied air, which by inducing emphysema caused an expansion of the thorax, at the same time opposing a barrier to the encroachment of further infective processes in these organs. With regard to the durability of the good results of mountain climates, Dr. Williams's experience was that in well-selected cases one or two winters sufficed to produce permanent arrest of consumptive disease, though in many instances a prolonged stay of at least two years was desirable. Dr. Williams exhibited cyrtometric tracings of similar cases that had resided at Davos and Colorado for several months to illustrate the



widening of the chest through breathing mountain air.—Dr. ALTHAUS was much interested in this subject, as he had recently sent a case of advanced phthisis to Colorado, and the improvement that had followed was most marked. The patient referred to was a young lady with a cavity in one lung, hectic, and great wasting. All European climates had proved ineffectual; but after being at Colorado (8000 feet above the sea) a week, there was a marked change in her state, and she was able to be out in the open air all day long. Patients were able to stay in Colorado all the year round; the weather was so fine that there was no need to send them into the lower levels at any time; the air was extremely dry. A residence of two years was considered desirable by Drs. Solly and Norman, who resided there, and with whom he had been in correspondence on the subject.—Dr. BROADBENT could not quite see the point of the paper. Such a case as that related was not an infrequent experience, and the change noted was such as was often observed after residence in any of the usual winter resorts. He wanted to know whether in a large number of cases the results were better from residence at high altitudes than from residence in the south of France or Egypt.—Dr. MACLAGAN asked how far the arrest of the disease was due to residence in a germless atmosphere, such as was known to exist in such high altitudes, and how far to the general healthiness of the life at Davos. How far also was the enlargement of the chest peculiar to cure of a case of phthisis, or common to anyone moving to such a latitude.—Mr. LISTER said that Dr. Williams's case was an example of improvement under many favourable conditions. If high altitudes were useful, it was important to know how the good effects were brought about. If the air was germless or aseptic, he failed to see how that circumstance could interfere with the organisations already present in the lung. Possibly the absence of dust in the air might be one cause of the beneficial result. He had recently himself experienced in high altitudes an unsatisfied desire for taking deep inspirations, and this must after a time cause enlargement of the chest. But he asked whether there was any benefit in this; the deeper breaths were merely efforts to take in the same amount of oxygen as in lower altitudes. But how far was this desirable? If it remained permanent, on returning to the lower levels of course it would be useful. Residence in these high altitudes certainly did exercise a beneficial influence.—Dr. WILBERFORCE SMITH remarked that a very small gain of flesh makes a great difference in the measurement of the chest. He suggested that an aseptic atmosphere might prevent the intercurrent inflammatory attacks which increase the phthisical state.—Dr. WILLIAMS, in reply, referred to his paper in the International Congress Transactions. In reply to Dr. Broadbent, he said that as a specialty of mountain climate he found he got expansion of the chest and change in the percussion note from dulness to resonance to hyper-resonance. In this respect this treatment differed in its effects from sea voyages, or residence in Egypt or the Cape. He was not himself sure that the air at Davos was germless; the air had never been analysed. He thought the expansion of the chest was a distinct advantage; he also suggested that in these patients the lungs were often not fully developed, and residence at these high altitudes caused an enormous development of the lung. Almost all the natives of high regions have large lungs. He did not think Davos and such places were very successful in staving off intercurrent inflammations.

Mr. GOLDING BIRD detailed a case in which he had removed an Epitheliomatous Tonsil in the manner adopted by Cheever (1871), and referred to three other cases of the same disease in which he had determined not to operate. The operation consisted in an external incision from the ear to the hyoid bone, through which the wall of the pharynx was reached with the greatest ease, and the tonsil with the adjacent pharyngeal tissue removed with the galvanic cautery. The later stages of the operation were aided by an additional incision through the cheek from the angle of the mouth. The disease having also affected the tongue, part of that organ was removed as well as an enlarged gland at the angle of the jaw. Until the wound closed an œsophagus tube was used for feeding, and though great relief was given to the patient, yet he soon succumbed to recurrence, not in the site of the excised organ, but in the tongue and in the lymphatics of the neck. The conclusions arrived at by the author were that where only a limited infection of the

lymphatic glands existed, and where the faucial growth was circumscribed, or nearly so, operation was called for; but that in other cases feeding with tubes with subsequently gastrostomy was the treatment. The operation was itself far easier than many of daily occurrence, and seemed to offer no special risk to the patient. Of the four cases mentioned it was considered by Mr. Golding Bird that the disease was primary in the tonsil in three, in all four it was the left side that suffered.

Mr. CLEMENT LUCAS related a case of Excision of the Base of the Tongue, Right Tonsil, and part of the Left Palate for Epithelioma. The patient, aged sixty-four, a coalporter on the riverside, who had drunk freely, first came under Mr. Lucas's care in Guy's Hospital on Feb. 13th, 1890. He was at that time suffering from a large aneurism of the right popliteal artery, causing pain and œdema of the leg and foot, and from a smaller aneurism of the left popliteal. Digital compression of the right femoral artery was commenced on Feb. 17th, and continued for sixteen hours, when the aneurism appeared to have consolidated, and pulsation could no longer be detected. On the following day some pulsation was re-established, and on the 20th digital compression was again commenced, and continued for eleven and a half hours, when pulsation ceased and did not recur, the tumour afterwards gradually shrinking. An attempt was made about a fortnight later to cure the small aneurism in the left popliteal space by digital compression, but this failed, and as the tumour caused him little inconvenience, no further treatment was suggested, and he left the hospital. He was readmitted on August 2nd, 1891, suffering from epithelioma of the base of the tongue and right tonsil. On the right side of the tongue, opposite the last molar teeth, was a small ulcer, grey in colour, and irregular on the surface. The ulceration extended along the anterior pillar of the fauces, and involved the right tonsil as well as the tissue between the tongue and the jaw. The surface of the tongue near the base was raised and indurated for about half an inch from the margin of the ulcer. The movements of his tongue were interfered with, so that mastication and deglutition were painful, and there was an increase of salivary secretion. No enlarged glands were felt beneath or behind the jaw. The operation was performed on August 9th. The patient being placed under the influence of chloroform, the cheek was first divided by an incision from the angle of the mouth to the masseter muscle, and the facial artery was twisted. A gag was then inserted on the left side of the mouth whilst the tongue was drawn forward with forceps, and the flaps of the cheek were held back by retractors. The back of the tongue and tonsil were in this way easily reached. The soft palate was next divided near the middle line by means of Paquelin's cautery, and dissected down with the anterior pillar and the tonsil. Attention was now paid to the tongue, which was divided in the median line with a scalpel, and carefully dissected outwards till the lingual artery was reached. This was seized with two pairs of torsion forceps, divided between, and the ends twisted without loss of blood. The tissue between the tongue and jaw was next dissected up, the cautery being used to stop any bleeding points, and finally the growth, with the base of the tongue, right tonsil, and half the soft palate, was removed in one mass. The cheek was brought together with three harelip pins, and it united primarily. The patient recovered rapidly after the operation, and sixteen days later was again subjected to digital compression for the cure of the left popliteal aneurism, which was about the size of a pigeon's egg. Pressure was kept up with the aid of opium for forty-eight hours, but soon after this, though much consolidated, the tumour still pulsated. He left the hospital, with the tongue quite healed, on September 16th. He was readmitted into the hospital on February 13th, 1892. There was no return of the disease in the tongue or palate, which were united by a firm and sound cicatrix. There was a large mass on the right side of his neck below and behind the jaw, which commenced six weeks before, and grew rapidly, extending outwards beneath the sterno-mastoid. An operation for the removal of this growth was undertaken on the following day. A vertical incision about four inches in length was made, commencing behind the jaw, and the growth dissected round. It was found necessary afterwards to enlarge the wound transversely. In the course of the operation the lower part of the parotid gland, a portion of the sterno-mastoid, the posterior belly of the digastric and stylo-hyoid, and a portion of the submaxillary gland were removed, all of which were infiltrated. The facial artery was twisted,

and the facial and lingual veins ligatured with catgut. At the bottom of the wound the internal jugular vein and the two carotids, with the hypoglossal nerve, were exposed. Two enlarged glands were also removed from beneath the sterno-mastoid. The patient recovered without a bad symptom, and left the hospital on March 24th. He was again seen in July last with a recurrence of the growth on both sides of the neck, but there was still no sign of disease in the original site. It was not then thought advisable to interfere further. Mr. Lucas said that, by the operation described, it was evident a cancerous tonsil, with the adjacent structures, can be completely removed from within the mouth, and when this was practicable, it had the advantage over the external operation of avoiding the fistulous track, through which saliva was apt to ooze. For the rest, the treatment of cancer here did not differ from the treatment of it elsewhere. The treatment—and the only treatment—was to operate early, and to operate late; to operate, indeed, so long as it was possible to remove a loathsome outgrowth without great immediate danger; to operate to keep it local; to operate on the earliest return; and though we might often be disappointed in our attempts to eradicate the disease, we might still prolong life, or, as in the case before us, succeed in driving the disease from its original site to one where it was less offensive, and more easy for the patient to bear.

Mr. C. HEATH congratulated Mr. Golding Bird and Mr. Lucas on their bold procedure. Dr. Cheever's operation must of necessity be of great difficulty, but was successful in his and Mr. Golding Bird's hands. But the question arose as to whether good was done by such an operation. His own view was that, whenever the surgeon can get beyond the cancerous disease, an operation was justifiable, even when the growth was in the lymphatic gland; but the opinion was often given by eminent surgeons that cancerous disease of lymphatic glands was a bar to operation. He should therefore be glad to know what the general opinion was.—Mr. MORRANT BAKER thought that Mr. Lucas was very successful in the long period that elapsed without local recurrence. He asked if the part was removed with the écraseur, or with the scissors, after Mr. Whitehead's method. He had himself used in many cases the écraseur, to prevent hæmorrhage and lessen pain. He quite concurred with Mr. Heath in advocating the removal of cancerous lymphatic glands where they could be completely removed.—Mr. BUTLIN thought removal of the tonsil through a deep wound on the neck was hardly worth doing, although possibly justifiable. Cheever had had two cases, and Czermak had had one, but in all there was rapid recurrence. As a result of his researches, he found that the only case of malignant disease of the tonsil really improved by operation was one of lympho-sarcoma, removed through the mouth, in which there was freedom from recurrence for two years at least; and he rather doubted whether there was not some error in the diagnosis in this case, as it was extremely difficult to distinguish a lympho-sarcoma from an ordinary enlargement of the tonsil.—Mr. LISTER said there was no doubt of the boldness and skill of the operators in the cases related. But he feared that, on the average, operative interference was more likely to be harmful than beneficial. Mr. Lucas's case was very successful and favourable. He asked for a more detailed account of the last step of this operation. He was glad to know that surgeons now generally removed cancerous lymphatic glands when accessible; this was quite a change since he was a student. He believed he was the first person to clear out an axilla in cases of scirrhus of the mamma, and he had had reason to be very well pleased with his results. In a case of epithelioma of the lip and a single enlarged gland under the chin Mr. Syme used to operate, and with good results, although at the time he deprecated such operations where glands were affected in other situations.—Mr. GOLDING BIRD'S opinion was distinctly in favour of not operating in cases of cancer of the tonsil.—Mr. CLEMENT LUCAS said that in his case the tongue was divided entirely with the knife. The soft palate and tonsil were first dissected down, then the tongue was dissected up, and the mass to be removed was carefully divided, and any bleeding point was touched with a Paquelin's cautery. He thought his case showed that such operations were not hopeless, for he had freed the man from the loathsome disease in the mouth, and he was now suffering from a far more tolerable affection in the neck.

The Society then adjourned

## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

*Chronic Membranous Inflammation of Conjunctiva.—Chronic Tubercle of the Choroid and Brain.—Miliary Tubercle of the Choroid and Lung without Meningitis.—Large Tubercle growing near the Optic Disc.—Destructive Ophthalmitis in Children.*

THIS Society met for the first time this session on October 12th, Mr. W. Bowman, F.R.S., President, in the chair. The President laid on the table a copy of the Society's Transactions, vol. ii.

Mr. ANDERSON CRITCHETT and Mr. JULER showed a case of Rare Affection of the Conjunctiva, which they considered to be one of chronic membranous or so-called "diphtheritic" conjunctivitis. The patient was a young woman aged seventeen. Ten months ago she had local suppurating (soft) sores on the vulva and anus, for which she was treated at the Lock Hospital. There were no symptoms of constitutional syphilis. No mercury was given, and she was discharged cured in two months. Five months ago she had an attack of what appeared to be inflammation of the ocular conjunctiva in both eyes. This was treated first with alum and then with zinc lotions, and was almost cured when a white patch appeared in the left eye near the lower cul-de-sac. It was a white, opaque, non-vascular, diphtheritic-looking growth, unattended by pain and without suppuration. Since that time it has gradually extended and now appears as a dirty-white shreddy mass, seated on a semi-indurated vascular base of the conjunctiva. The lower part of the ocular conjunctiva, the lower cul-de-sac, and the inner surface of the lower lid are the parts now attacked. Ten days ago the right eye became similarly affected, a white patch appearing in the lower part of the ocular conjunctiva surrounded by vascular injection. It is now (10th day) about 1.5 centimetres in length and 0.5 centimetres in width, situated horizontally between the cornea and the lower cul-de-sac. The cornea is clear and the vision normal. There is no suppuration and only slight pain and photophobia; iodoform lotion, quinine lotion, &c., have been applied, and mercury given internally without any improvement.—Mr. POWER remembered a similar case in a man thirty years old who had a growth at the lower part of the outer conjunctiva. The growth increased, and eventually projected as a horny mass from the surface of the cornea. The eye was excised.—Mr. NETTLESHIP saw about two years ago a girl with a patch of adherent membrane on an infiltrated base on the ocular conjunctiva, which had lasted about six or seven weeks when she was first seen. There was no surrounding inflammation, and he regarded it as a localised chronic diphtheritic patch. He touched it with lapis divinus several times, and it disappeared, leaving a scar. Other cases of chronic diphtheritic conjunctivitis had been published, one by Dr. Businelli of Rome, where masses of membrane kept reforming and protruding between the lids. Another case is recorded by Mr. Mason of Bath, and others by Mr. Hulme and Mr. Hutchinson. It, therefore, seemed as if in certain cases diphtheritic conjunctivitis tended to become chronic.—Mr. POWER added that in his case there was a distinct specific history.

Dr. S. WEST showed a case of Leucocythæmia with Retinal Changes (dilated veins, &c.)

Dr. S. MACKENZIE read notes of a case of Chronic Tubercle of the Choroid and Brain. The disease occurred in a girl aged fourteen. There was no tubercular history. She had never been well since she had whooping-cough, eighteen months before her death, suffering from frontal headache, feverish attacks, diarrhoea, and occasional vomiting, and loss of appetite and flesh. Following this was white swelling of the right knee. She then rapidly lost sight, whilst the other symptoms continued. When first observed she was flushed and feverish; there were no abnormal signs in chest or abdomen. She was quite blind. Ophthalmoscopic examination showed double papillitis. In the left eye there was a patch of choroidal disease, larger than the disc, to the outer side of it. It was opaque and yellow in the centre, with a zone of black pigment, and an outer margin of pigment. A smaller circular patch was below the disc, over which coursed retinal vessels. One small patch existed in the right eye. The diagnosis was chronic tubercle of choroid and brain.

Later acute cerebral symptoms made their appearance, with high temperature, and terminating in death; these were thought to indicate acute tubercular meningitis. The head only was allowed to be examined at the necropsy, when acute tubercular meningitis, with several caseous tumours in various parts of the brain, were found. Microscopic examination of them showed aggregated tubercle with giant cells. The choroid was thickened owing to the presence of tubercles with giant cells. The retina was swollen, and the optic nerve and its sheath showed marked signs of inflammation. The brain tumours and tubercular choroid were examined for bacilli by the processes of Ehrlich and Heneage Gibbes with negative results. It was remarked that the detection of the tubercular disease in the choroid was of some value in aiding the diagnosis as to the nature of a coexisting encephalic lesion; but, unfortunately, owing to the kind of disease, this knowledge was of little service in treatment. That some intracranial disease was present was indicated by the double papillitis, headache, occasional vomiting, drowsiness, &c., and that it was tubercular by the age of the patient, the feverish attacks, the diarrhoea, wasting, and white swelling. Allusion was made to Deutschmann's inoculation experiments in rabbits, in which it was shown that the tuberculous induced in the membranes and brain was followed by double papillitis and tubercle of the vitreous and choroid, and that the process was traced in post-mortem examinations to metastatic infection along the optic nerve sheaths. Deutschmann has also recorded a case of tubercular meningitis in a child in which an appearance of tubercle in the optic nerve sheath was present. The present case lent no support to this connexion between the tuberculosis of brain and eye. Attention was drawn to the similarity of the changes in the eye and brain in showing us pathological processes as well as aiding in diagnosis.

Dr. WARNER read notes of a case of General Miliary Tuberculosis; tubercle in choroid; no meningitis. The patient was a girl nine years of age. She presented continued fever and emaciation; respiration was increased in frequency out of proportion to the pulse and temperature; this averaged  $102^{\circ}$  to  $103^{\circ}$ . There were crepitations over the lungs, but no signs of pneumonia. The optic discs appeared healthy, but in either eye there were three or four light-coloured raised cloudy spots, at some points turning aside a retinal vessel. The child died eight days after these tubercles were first seen. At the post-mortem the lungs were found crowded with tubercles, others were found in the liver, spleen, and kidneys. There was no meningitis. The back of either eyeball being removed, tubercles were found in the choroids. The case was put forward as an illustration of the association of tubercles in the choroids as a part of the general miliary tuberculosis without meningitis.

Dr. BRAILEY communicated a case where a Tuberculous Mass, apparently primary, springing from the optic disc and immediately surrounding the choroid, simulated in some of its clinical features a glioma. The globe was enlarged and its tension increased; the cornea was increased in size, and the anterior chamber was deepened; the retina was detached except from the ora serrata; and it was this membrane that was visible during life, with its vessels, through the clear lens. There were many point-like posterior synechiæ. Though the mass, which presented all the histological evidences of tubercle, replaced the tissue of the papilla, it did not extend backward beyond the lamina cribrosa, nor laterally for any distance in the choroid. As there was no precise microscopical evidence that it had originated in the retina or tissue of the papilla, the author presumed that a choroidal origin was the most likely in view of the number of cases of tubercular choroidal disease that had been described. The patient, a boy aged two, the second child, was stout and well, but had been within a few months very thin and weak. The eldest was four years of age. Before this there had been a miscarriage at four months. The mother died of consumption six months before the excision. The father was said to be healthy. The after history of the patient could not be traced.—Dr. BAXTER said that during the last twelve years he had examined the eyes in a very large number of cases of tubercular meningitis, and in no instance did he find tubercle of the choroid, although optic papillitis was often found. In the only two cases which he had seen it was associated with very abundant tuberculosis in other organs.—Dr. COUPLAND said that although meningitis was present in every case in which he had found choroidal tubercle (about six in all), yet in these cases the tuberculosis was more or less general. The eyes, however,

were seldom examined post mortem, except in cases of cerebral disease, and Cohnheim's statement as to the frequency with which choroidal tubercle occurred in subjects of tubercular phthisis apart from meningeal tubercle had never been contested.—Dr. SHARKEY during a period of three years and a half had examined every case of tubercular meningitis at St. Thomas's Hospital, and had only once found choroidal tubercle, which was confirmed on post-mortem examination. No case of tuberculosis was examined that did not present cerebral symptoms.—Dr. BARLOW thought it was premature to make any general assertion as to the infrequency with which choroidal tubercle and tubercular meningitis coexist; and that the absence of choroidal tubercle in any given case of tubercular meningitis ought not to be assumed on ophthalmoscopic evidence alone without an examination of the back of the eye post mortem. He had seen about twenty cases of choroidal tubercle post mortem, and of these a large number were associated with miliary tubercle in the pia mater. He had notes of thirteen in which there was this coexistence, and believed there were more. A very fine dappled appearance of parts of the fundus is sometimes seen with the ophthalmoscope in cases of tubercular meningitis, and in two such cases he had found post-mortem that it corresponded with some very minute tubercular spots associated with ordinary nodules of miliary choroidal tubercle. He thought that to such a lesion might perhaps be applied the term "tubercular dust," which was used by Barthé and Rilliet in regard to a form of tubercle seen sometimes in the liver. In regard to Dr. Mackenzie's case, Dr. Barlow thought it was of importance as bringing before us the possible chronicity of choroidal tubercle. Dr. Barlow had had under his own care, about four years ago, a boy with a diffuse general massive infiltration of one choroid, which proved, on microscopic examination by Mr. Nettleship, to be indistinguishable from caseous tubercle. The eyeball was removed, and thirteen months afterwards, when the boy died, several tumours of caseous tubercle were found in the brain. Thus it would appear that in the choroid, as in other organs, several forms of tubercular deposit might be found, and possibly the one to which he had referred might be compared with a mass of caseous pneumonia in the lungs.—Dr. SANSOM raised the question of the prognostic value of the detection of choroidal tubercle, which he had met with not only in cases of meningitis, but also in cases of ordinary phthisis. But on one occasion he was led to give a most unfavourable prognosis in a case of meningitis from finding in the fundus what seemed to him an unmistakable tubercle of the choroid. He subsequently learnt that the patient recovered, and this fact had shaken his confidence in the importance of choroidal tubercle in prognosis.—Mr. HULKE had for some years past examined the eyes in cases of meningitis, and could confirm Dr. Baxter's statement that optic papillitis was often met with, but choroidal tubercle (except as part of general tuberculosis) very seldom.—Mr. B. CARTER remarked that several years ago he had opportunities of examining ophthalmoscopically a large number of cases of meningitis. Like Mr. Hulke, he met with in some cases a swelling or inflammation of the disc, and in cases too when the diagnosis was otherwise doubtful, but he never met with anything that he took to be choroidal tubercle. From his subsequent hospital experience he had met with choroidal tubercle in cases of general tuberculosis, but not in meningitis; he had also seen appearances simulating tubercle, and he thought its ophthalmoscopic diagnosis rested on an insecure basis.

Mr. NETTLESHIP read a paper on Certain Cases of Destructive Ophthalmitis in Children. The chief object of the paper was to draw attention to the cases of deep-seated disease which more or less simulate glioma of the retina in their clinical features. The author believed that there were two principal types of morbid change in this class of cases—(1) irido-choroiditis, either acute and almost purulent or chronic, the result of either form being inflammation and opacity in the vitreous, with subsequent detachment of the retina and backward displacement of the ciliary processes by shrinking of the inflammatory material; hæmorrhage between choroid and retina might occur; (2) inflammation and condensation of the vitreous, especially in its outer layers, and in some cases also in its antero-posterior axis, probably the result of a chronic severe retinitis, no detachment of retina occurring. Iritis occurred in nearly all cases of "pseudo-glioma," and there was often severe inflammation of the eye in the early period of the case. It was par-

ticularly as to the causes of these eye changes that information was wanted. It was not sufficiently known that the conditions called pseudo-glioma, whether following severe inflammation of the eye or not, often came on during or soon after some severe illness, whilst in a considerable number the children were syphilitic. Measles, whooping-cough, varicella, and perhaps pyæmia and sporadic recoverable meningitis, appeared from the cases, published and unpublished, collected by the author, to be the commonest antecedents of these eye changes. He asked especially for evidence as to the nature of the communication between the ocular and the constitutional conditions. — Dr. BARLOW could recall five of these cases, and in three of them there was reason to suspect the existence of congenital syphilis. But he had not been able to realise their direct connexion with that diathesis. He thought the most likely hypothesis was that some of them, at all events, were pyæmic. He had had no opportunity of examining a case post mortem. The nearest approach to the condition described which he had been able to examine post mortem was the eye of an adult patient of his, who had ulcerative endocarditis and basic meningitis. This eye presented extensive small retinal hæmorrhages, and opacity of the vitreous, but no suppuration. During life there had been very slight steaminess of the cornea, and some iritis. Whatever the nature of the process, he thought it must begin from behind and come forwards, and that these cases might perhaps only differ in degree from those of panophthalmitis of embolic origin. With the account after general symptoms which Mr. Nettleship had given Dr. Barlow quite agreed. So far as he remembered, in most of the cases there was a history pointing to the probability of a cerebral attack, most likely meningeal. This had lasted for a time, and then came to an end, the definitive character of the brain symptoms being a special feature. In two cases he remembered the children had remained semi-idiotic, and with a certain limpness about the muscles of the neck, so that they were unable to sit up. But the active signs of brain trouble had come to an end as well as the eye lesions. — Dr. BRAILEY said that he had examined an eye which had been excised for suppuration in ulcerative endocarditis. There was much pus between the choroid and retina, and in that it differed from "pseudo-glioma." In many cases the retina is detached, with suppuration of the vitreous. Mr. Hulke first drew his attention to spontaneous suppuration of the vitreous in these cases. As to diminished tension in "pseudo-glioma" he had seen cases of intraocular hæmorrhage in which tension was increased. — Mr. WARREN TAY mentioned a case of cerebro-spinal meningitis with double panophthalmitis, and stated that Mr. Hutchinson had said that in epidemics of cerebro-spinal meningitis it was not uncommon to get this panophthalmitis. — Dr. S. MACKENZIE, who had seen a fair number of cases of sporadic cerebro-spinal meningitis, had not found this condition; but double optic neuritis. — Mr. B. CARTER referred to an exhaustive report on Epidemic Cerebro-spinal Meningitis by Hirsch, which he had translated for the Epidemiological Society's Transactions. — Dr. FITZGERALD remembered an epidemic of this disease (cerebro-spinal meningitis) in Dublin, and at least one case in which the eyes were destroyed. Since then he had seen cases of panophthalmitis in other affections — e.g., puerperal fever, and in a case of pyæmia following amputation. He believed that Dr. Stokes had pointed out the occasional occurrence of sudden destruction of the eye in heart disease. — Mr. JAS. ADAMS pointed out that the class of cases described by Mr. Nettleship — viz., "pseudo-glioma" — differed from the embolic and pyæmic cases of destruction to the globe. In "pseudo-glioma" the cornea remains transparent, and the pathognomonic condition of the iris is plainly to be seen. He had at present under observation one of these cases, in which the vitreous is undergoing remarkable changes. As there is no object in excising the globe in such cases, it would be interesting to learn what changes may take place in the affection when left to run its course.

## MEDICAL SOCIETY OF LONDON.

### *Pathology and Treatment of Whooping-cough.*

THE first meeting of the services of this Society took place on the 16th instant, the chair being taken by the President, Mr. Francis Mason, who, in a few introductory remarks, made especial reference to the extensive alterations that were being

carried on in the Society's premises. The Fellows would remember that when he had the honour of taking the chair as President for the first time, in March last, he hinted that the Council were contemplating taking additional premises in order to provide increased accommodation for the library, as well as to add to the comfort and convenience of the Fellows. He was now happy to say that that project had been realised, and he believed that, after the completion of the work, the Society's rooms would be second to none in the metropolis. He passed a well-merited tribute to the two honorary secretaries, Mr. E. Owen and Dr. I. Owen, for the zeal displayed in the negotiations, and concluded by reminding the Fellows of the claims the Society had on their support.

Mr. DOLAN read an abstract of his essay on Whooping-cough, to which had been awarded the Fothergillian medal of the Society. Dealing with some points of its pathogeny, he expressed his dissent from the view of Guéneau de Mussey, that the malady was a bronchial adenopathy, its chief symptom being induced by pressure on the vagus by the enlarged glands, and showed that this glandular enlargement was not always present in pertussis, and further that the glands may be swollen without producing the characteristic cough. The disease, indeed, bore much resemblance to those diseases the causes of which are now believed to be minute organisms or fungi. Its highly contagious nature, period of incubation, effervescence and defervescence, its regular course, and the immunity from subsequent attacks, were grounds of analogy determining the place of pertussis in the group of diseases caused by protophytic fungi. The attempt by Linnæus to prove that all diseases were produced by animalcula, or had an insect origin, foreshadowed the conclusions now arrived at by the discoveries of Pasteur. In 1867 Poulet found bacteria in the sputa of pertussoid patients, and Letzerich had induced whooping-cough in rabbits by inoculating the trachea with sputa from the human subject. The author had repeated these experiments, and found that whilst inoculation with the blood of whooping-cough patients was without effect, that of sputa and other secretions caused death. He had found also on microscopic examination of sputa ordinary bacteroid forms, and a microbe resembling the spirochæte plicatis of Cohn. The application of special methods of staining, as employed in the detection of the bacillus tuberculosis, would no doubt reveal the special microbe of pertussis. Admitting the fungoid nature of pertussis, its contagious property was easily explained by germs being thrown off into the air and received into the body, setting up constitutional disturbances, and subsequently attacking the pulmonary epithelium, giving rise to all the phenomena of pertussis. No pathognomonic lesions could be detected on post-mortem examination, for the simple reason that whooping-cough was rarely fatal; death resulted from complications which were very numerous. As to glycosuria in whooping-cough, he had found it present in fourteen out of fifty cases. Turning to the question of treatment, he pointed out the necessity for measures of isolation in preventing the spread of the disease, for the enforcement of which measures the co-operation of all classes of the community was needed; and although the course of the disease could not be controlled by treatment, the patient could be placed in the most favourable circumstances towards recovery; certain painful and prominent sources of trouble could be relieved and complications guarded against so as to assist nature in her efforts to throw off the disease. There was no panacea or specific remedy, but if the dependence of whooping-cough upon a specific virus be the true explanation of its pathogeny, the lines on which its rational treatment and prophylaxis were to be pursued became clearer and more hopeful.

WEST HERTS MEDICAL ASSOCIATION. — The sixty-ninth meeting of the Society was held at Watford, Dr. P. Hood, president, in the chair. Dr. Iles read a paper on the period of incubation in diphtheria and in German measles occurring in the same patient. The cases quoted were interesting and important, and Dr. Iles was requested to send them to some medical paper. In the discussion which followed, Drs. Hood, Brett, Saunders, Fisher, Baltonbury, Hobson, Lemon, and others took part. Mr. A. Stradling was elected a member. Dr. Hobson of Berkhamstead will read the next paper, on "Ligature of the Brachial Artery for Wound of the Superficial Palmar Arch."

## Reviews and Notices of Books.

*Spirillum Fever (Synonyms, Famine or Relapsing Fever), as seen in Western India.* By H. VANDYKE CARTER, M.D. Lond. London: J. and A. Churchill. 1882.

THE terrible famine that ravaged the western provinces of India some five years ago was succeeded by an epidemic of fever which in its leading features was unlike any other type of fever hitherto recognised in that country. As the sick flowed into the great centres of population, the fever spread there also, and Bombay became the focus of an epidemic; its hospitals were crowded with patients, and a medical commission was soon actively engaged in studying the disease. Chief amongst these was the author of this work, who has here presented us with the results of his investigations and matured experience. Taking up the work with his characteristic thoroughness and energy, it may truly be said that he has probed the disease to the bottom, and his monograph will occupy a foremost place in literature. It is a monument of patient, prolonged, and exhaustive labour, and adds to the reputation of its author as a careful and conscientious investigator.

We have indicated that until the occurrence of this epidemic, relapsing fever was hardly known in India. This no doubt was because, as Murchison, indeed, points out (and Hirsch writes in the same sense), it had been confounded with "bilious intermittent" and other tropical fevers of malarial origin; and this or a like confusion relapsing fever probably shares with other specific fevers, modified by the climatic conditions under which they arise. There can be no question at all as to the identity between the fever described by Dr. Vandyke Carter and the relapsing or famine fever formerly so well-known nearer home. Ireland used to afford the most numerous examples of epidemics of this contagious famine fever, and Scotland and England have suffered also, but not of late years. We question whether a single case has been seen in London during the past ten years. No doubt there is great cause for congratulation in this fact, although it has prevented our home physicians from following up the remarkable discoveries which more than any other have so stimulated research into the relation between micro-organisms and specific diseases—we mean the discovery by Obermeier of Berlin (who fell a victim to his zeal) in 1873 of the spirillum in the blood of patients suffering from relapsing fever, of its occurrence during the pyretic paroxysms, and its disappearance in the apyretic interval. The peculiar form of the bacterium and its constantly observed presence in such cases soon led to the discovery being confirmed wherever opportunity offered. Such an opportunity came to Dr. Vandyke Carter and his colleagues in this Bombay epidemic; the result being that Obermeier's researches were not only confirmed, but the essential part played by the organism became so evident that, as the title of this work shows, the term "relapsing" has been thrust aside, and for it has been substituted the name by which the bacterium is denoted. It is at all times a hazardous thing to import new terms to designate well-known affections, and some may doubt the wisdom of Dr. Carter's step. For it will be long before the phrase "relapsing fever" will be universally discarded, even although, as Dr. Carter insists (and this is the strongest justification for the change he adopts), there are many cases in which the "relapsing" feature, hitherto adopted as the criterion of the disease, has been lacking, whilst the other, and on scientific grounds the sounder criterion—viz., the presence of spirillar infection—has been present. The occurrence of the spirillum as the leading and most constant feature of the disease cannot, after these researches, be gainsaid; and when to this is added the fact of

the high degree of contagiousness and the results of inoculation, which Dr. Carter and Professor Koch have successfully performed, there is left no room for doubt as to the very important part played by the spirillum in the disease.

Dr. Carter's work deals first with the history of the epidemic upon which it is based, and shows that the cases occurring in Bombay were imported or developed by contagion from these. He contrasts the prevalence of famine and the fever, and raises the interesting question whether relapsing fever may not now become endemic in Bombay as in other regions. The occurrence of cases since the epidemic and within the last twelve months is in favour of this. The clinical history of the disease is dealt with in a most exhaustive manner, first by a general summary, and then in a very elaborate analysis of each symptom, of the pyrexia and its variations, and of complications. Many illustrative cases are given, and the amount of information sifted and analysed is very great. Chapters on its mortality, on the anatomical lesions, on diagnosis, prognosis, and treatment, follow; but it is not possible within our present limits to analyse these here, and we prefer to pass to the section entitled the Pathology of Spirillum Fever, as it contains those facts which, where all is interesting, are perhaps of most interest.

The examination of the blood is fully detailed, and its characters during the non-febrile and febrile stages are described. In the incubation period, as observed chiefly in inoculation experiments on monkeys, the main difference from normal blood consisted in the presence of granular protoplasmic masses, and by the third day a few spirilla; and during the apyretic intervals in man protoplasmic granules preceded the first appearance of the parasite as the pyrexial stage was reached. In the febrile stages, during the first attack, the spirilla increased in number until the height of the pyrexia, when they rapidly disappeared, being replaced by granular masses and an increased number of leucocytes. In the first relapse the spirillum reappears and remains longer than in the primary attack; in the second relapse it is less abundant, and in cases of third and fourth relapses the spirillum is often not seen, but only some immature filaments. By means of charts the author represents graphically the fact of the increase in number of the spirilla concurrently with the rise of the pyrexia in two typical cases of the first relapse, and gives the following data as pointing to a "real connexion of spirillar blood contamination with the pyrexial attacks of relapsing fever:—(1) Infection is always followed by fever. (2) With the advent and progress of pyrexia the blood-parasites increase. (3) They disappear with the cessation of fever. (4) By contact with the sick and by inoculation of blood containing the spiral organisms or their germs, the disease may be conveyed to new or old subjects." And he adds as "modifying the connexion above implied—(1) The presence of the blood-parasite during several hours, or for one or two days, prior to fever. (2) The sudden onset of pyrexia is not preceded by or attended with a proportionate visible augmentation of the spirillum. (3) The absence of any fixed relation between variation in form and intensity of fever, and varying numbers of the organism. (4) The persistence of the parasite during pseudo-crises and defervescence by lysis" (p. 361). In the next chapter, dealing with etiology, we find much valuable information upon the propagation of the fever by contagion and by direct inoculation (as in the making of post-mortem examinations of infected subjects), with the important conclusions that the disease spreads solely through means of actual contact with the sick, and that no immunity is conferred by a first attack. The author indicates the cutaneous transpiration and the breath of the sick as the probable channels of contagion. The concluding chapter upon the nature of the disease is a review of its main features in the



light of the doctrine of spirillar infection. "Regular relapsing fever was never seen without spirillar infection, and though the infection may fall short of producing such clearly recurrent fever, yet it always tends to induce it. The question whether or not the spirillum alone and *per se* produces the fever cannot be answered until the organism be completely isolated and its pathogenic power tested then as well as after cultivation in other media than the blood. At present no pathologist has succeeded in doing this; but in some comparative instances (e.g., the organisms of anthrax and some kinds of septicæmia), such testing has been accomplished, with the result of demonstrating these parasitic growths to be the *veræ causæ* of disease."

In an appendix Dr. Carter gives an account of his experimental inoculation of spirillum fever in the monkey, some culture experiments, and concurrent fevers at Bombay, chiefly remittent and typhoid. A large number of temperature-charts are given illustrative of the different modifications of the disease.

Although we have but cursorily glanced through this work, it is not because we deem it other than one of the most original and valuable contributions to medicine that has appeared of late years. The pages are full of facts personally observed by the author, and the conclusions he derives from these are drawn up with the caution and pains so characteristic of all his work. The appearance of such a monograph as this adds to the obligations which medical science already owes to the earnest band of inquirers who have done so much to advance our knowledge of fevers in India, whilst it will also do much to stimulate research into the intimate pathology of the fever of which it treats, and of allied specific diseases.

#### OUR LIBRARY TABLE.

*The Surgical Treatment of Hæmorrhoids.* By WALTER WHITEHEAD, F.R.C.S.E., Surgeon to the Manchester Royal Infirmary. London: J. & A. Churchill. 1882.—Mr. Walter Whitehead has published, in a separate form, his paper on the Surgical Treatment of Hæmorrhoids. His mode of operating is, after clearing out the bowels thoroughly by repeated enemata, and with the patient fully anesthetised, to begin the operation by paralysing the sphincter ani by stretching and massage; each pile to be removed is then seized with a forceps, and the mucous membrane dissected from its pedicle; the pile is then left attached to the rectum by its bloodvessels and submucous tissue only; this pedicle is then twisted through, the torsion being relied upon to close the vessels. The little flap of mucous membrane that is left is then stitched with fine catgut to the verge of the anus. It is urged in favour of this operation that it is precise, removing the whole pile and nothing more, that no open wound is left, and that it is easy and quite safe.

*First Aid to the Injured: Five Ambulance Lectures.* By Dr. FRIEDRICH ESMARCH, Professor of Surgery at the University of Kiel. Translated from the German by H. R. H. Princess Christian. London: Smith, Elder, and Co. 1882.—This is a far more attractive-looking little manual than that published by the Order of St. John of Jerusalem. It is printed on good paper, nicely bound, and the few illustrations are well executed. But it does not contain so much nor such exact information as its little black rival. The part that strikes us as being best done is the last lecture on transport, in which the instructions are plain and simple. In some other places too much space is devoted to a description of what the surgeon will do, and what therefore the reader is not to do, and is quite out of place. Many details which are necessary are entirely omitted: for example, in speaking of the temporary treatment of a fracture, the materials out of which splints and bandages to

fasten them on are enumerated, but there is no hint of how long or how wide the splints should be, nor as to where they should be fastened. For burns a mixture of carbolic acid and oil is one of the dressings recommended, but we do not read that it is desirable to add any particular proportion of acid to the oil. But these criticisms merely indicate how difficult it is for even a very eminent surgeon and experienced lecturer to impart the desired amount of knowledge in five ambulance lectures. Her Royal Highness has, however, furnished the numerous pupils of these ambulance lectures with a very pleasant, readable manual which contains a great deal of useful information imparted clearly and well.

*A Manual of Instructions for Stretcher Bearers.* By Dr. G. A. RÜHLEMANN, Surgeon-Major, Saxon Army Medical Corps. Leipzig: Alfred Lorenty. 1882.—This is a small album of twenty-five plates, originally prepared for the Imperial German Army, but now published in several languages. The first plate gives a view of the skeleton, the position of the main arteries and most important viscera, which is by no means accurate; thus the bifurcation of the aorta is placed opposite the second instead of the fourth lumbar vertebra; the femoral artery at the groin is shown close to the outer side of the pubic spine; and the brachial artery is shown dividing into the radial and ulnar above, instead of below the elbow joint. The following plates show simple and ready means of applying pressure to control hæmorrhage; the various modes of applying the triangular bandage, and temporary splints of all kinds; the different plans of lifting and carrying wounded persons; the ways of extemporising stretchers and ambulances, and the Silvester method of performing artificial respiration. The text does not give any directions, so that the album is only of service in refreshing the memory of those who have been previously practically instructed, but for this purpose it is well adapted, as the drawings, with the single exception we have already pointed out, are admirably done.

*Fraser's Magazine.*—The admirers of this serial, and they are not a few, will see, perhaps with surprise, certainly with regret, the announcement in the current number of its discontinuance after the present month. Established more than fifty years ago, its history has been an honourable one; it has occupied a place in the foremost rank of the "monthlies," and the non-appearance of the familiar neat green wrapper at the beginning of each month will be felt by many as the loss of an old friend. Messrs. Longman, however, in the same "breath" as that which proclaims the death of "Fraser," announce the birth of a new magazine, with their own name for its title.

*Christmas and New Year Cards.*—We have received from Messrs. Hildeheimer and Faulkner, of 41, Jewin-street, E.C., some very beautiful specimens of Christmas and New Year cards. Several of these cards are excellent works of art. Most of the designs were exhibited at the publishers' competitive exhibition, held at the Suffolk-street Galleries in August last, when the sum of £5000 was awarded in prizes, the judges being J. E. Mullais, Esq., R.A.; Marcus Stone, Esq., A.R.A.; and G. A. Storey, Esq., A.R.A. The same enterprising firm intend, we understand, to offer the sum of £1000 in prizes for the best eighty albums containing Christmas and New Year cards published by them, and a further sum of £100 for the most dainty fancy articles made or ornamented with their satin pictures.

MESSRS. LETIS, SON, & Co. have published a useful *Map Catalogue*, to which is added a list of atlases, globes, and geographical appendices, British and foreign. The pamphlet will be welcome, amongst others, to persons engaged in educational work.

A GRAND county musical festival is to be held on the 24th inst. in aid of the hospitals of West Cornwall.

# THE LANCET.

LONDON: SATURDAY, OCTOBER 21, 1882.

THE Report of the Commissioners appointed to inquire respecting Small-pox and Fever Hospitals has just been issued. It covers some 500 pages, and deals with so many incidental subjects, that we are unable to do more than give, on the present occasion, a brief account of the principal conclusions arrived at. The main points which the Commissioners have had to decide upon have been the questions: (1) Whether any of the large hospitals belonging to the Metropolitan Asylums Board have or have not injuriously affected the neighbourhoods in which such hospitals have been situated?—and (2) whether, as regards the metropolis, the present arrangements for isolation are desirable and adequate, and, if not, what other arrangements should be made so as to secure to the utmost both the welfare of the patients and the protection of the public against contagion? Amongst the witnesses called with reference to these points were Dr. BUCHANAN, Dr. THORNE THORNE, and Mr. W. H. POWER, representing the Medical Department, and Dr. BRIDGES, representing the Poor-law Department, of the Local Government Board; Sir WILLIAM JENNER, Sir RISDON BENNETT, Dr. BURDON SANDERSON, and Dr. BROADBENT; a large number of the leading medical officers of health of the metropolis; members and medical advisers of the Asylums Board; Mr. ALFRED GODRICHS, who has long been a strong opponent of the existing hospitals; and Mr. PEARSON HILL. With regard to the influence for evil of infectious hospitals upon their immediate neighbourhoods, the question of small-pox is dealt with apart from the other infectious fevers, and it is Mr. POWER's report which has in this connexion received most attention. The Commissioners testify to the ability with which that report was prepared, also to its searching character; and as regards his facts, they freely adopt them,—these facts showing, as it will be remembered, that (to use the Commissioners' words) the Fulham Hospital "is, in some way or other, a centre of infection." Mr. POWER went further; he believed that the influence for harm was exerted by the hospital *per se*, and not to any marked extent as the result of faulty administration, ambulances, &c. And the Commissioners appear to support this view as regards several essential points, for they admit the accuracy of the evidence which showed that personal communication could not account for a large number of the attacks near Fulham Hospital, and that the houses on the lines of human intercourse have not suffered more than other parts of the same neighbourhood. It is true that in attempting to decide whether the spread which took place around the Fulham Hospital was due to a graduated intensity of infection brought about by atmospheric dissemination, or as the result of human movements from the hospital as a centre to the periphery of the affected district, they incline to the view that the spread which did occur may be equally accounted for by both views. We must admit that at first

sight, and in the absence of reading the evidence on which this opinion is based, we hardly see how this can account for the spread being in no way limited to the lines of human intercourse and the roads by which these lines are traversed. But the Commissioners, in dealing with the subject in their recommendations, practically accept Mr. POWER's view as to the dissemination being due to causes not to be remedied as the result of administrative arrangements, by suggesting that inside London the number of small-pox beds at each centre for isolation shall not exceed some thirty or forty. This conclusion must have a most important effect on our future isolation arrangements; it will limit the aggregation of acute cases, from which the harm is alleged to arise, to such an extent as to do away with all possible evil; and it will need some such arrangement as country hospitals for the convalescents and river hospitals for others, such as are also recommended. The other main point is met by a proposal that in the metropolitan districts the isolation of infectious diseases should be dealt with by one single body, that the question should be entirely disconnected from Poor-law administration, and that London should be divided into hospital districts, each having a definite amount of isolation accommodation for the several infectious fevers. To these and other points we shall recur. In the meantime we would say that the Report appears to be one of the most valuable contributions to the question of the health of the metropolis which has ever been issued.

AMONG the many occurrences connected with the recent campaign in Egypt is one to which we refer with reluctance and regret—we mean the pertinacity with which certain special correspondents of the newspapers have attacked the medical officers of the army, and have attempted, by unscrupulous statements and unfounded charges, to show that the department has broken down, and that the provision made for the sick and wounded was wholly inadequate. We have ever been uncompromising advocates for the liberty of the Press, but that very liberty carries with it a serious responsibility—that of taking every precaution to test the truth of statements affecting the character of individuals and the conduct of the various departments of the public service. In this respect we regret to say there has been a grievous shortcoming on the part of some of the staff of correspondents. In the very beginning of the war it was alleged by one of them that the household cavalry had been embarked "without the smallest supply of drugs, plasters, or other medical paraphernalia," while a very moderate amount of inquiry would have shown that the statement was quite unfounded. Again, a very serious charge was brought against the Department of having no chloroform with the troops in the field, and it was stated that "at Ismailia, at the base, a Life-guardsman's arm had to be removed at the shoulder without chloroform, because there was none forthcoming." It appears now, on unquestionable evidence, that there was abundance of chloroform not only for our own wounded, but for a large number of the enemy who were brought into our hospitals; and that the Life-guardsman referred to was operated upon under the influence of chloroform is vouched for by a gentleman who was present at the operation. That some delay occurred in fitting out the base hospitals at Ismailia is undoubtedly

true, but this was in no respect the result of a break-down of the Medical Department, but arose from the rapidity of Sir GARNET WOLSELEY'S advance, and the inability of the Transport Department to keep pace with it. When the transport difficulties were so great that the troops were obliged to be put on half rations, it would have been surprising indeed had there been an unlimited supply of everything required for the medical branch of the service. A comparison has been drawn in a letter in *The Times* between the hospitals of the English and Indian troops, very much in favour of the latter. But this is easily explained by the fact that while the troops moving to the front from Alexandria were, from unforeseen events, far in advance of their supplies, and furnished with inadequate means of transport, the Indian troops landed with a complete transport service, and were able to move forward with it, instead of being compelled to do so in advance of it. The condition of the hospitals of these two forces respectively depended upon this circumstance, and not, as alleged by the writer in *The Times*, on the difference between the station hospital and the regimental systems. He does not appear to be aware that the Indian hospital service was reorganised by the present Director-General, when Principal Medical Officer in India, on the principles of the station hospital system, and that its success in Egypt, as described by him, is a strong testimony in favour of the present organisation. In fact the system is now identical in the two services. The latest denunciation of the Medical Department appears in the form of a complaint as to the dirty state of the decks of the troopships which have brought home the sick and wounded, as compared with those employed on their ordinary service. We have seen letters from competent and impartial persons disputing the accuracy of the statement; but if there were a difference it could easily be accounted for by the importance of disturbing the sick and wounded as little as possible, and the necessary abstention from wetting the decks around and under the cots of the wounded men.

In most of these charges against the Medical Department there has been such an evident bias and such a hostile feeling displayed, that we are strongly disposed to believe they have been brought forward mainly with a view to discredit the present organisation of the Department, and enforce, if possible, a return to the old regimental system. Have the writers forgotten, or have they ever studied, the frightful break-down of the latter in the Crimea? Have they forgotten the successful working of the present system in the Afghan and South African wars? or do they purposely ignore the testimony borne to it by the Field Marshal Commanding in Chief, when he said, in reference to the latter, that "he had been unable to put his finger on any defect in the organisation and working of the Department"? So far as any shortcoming has been shown to have occurred in the Egyptian campaign, it has been connected with defective transport. What would have been the case had the regimental system been in force, which requires more than double the amount of transport? But there is another very serious question left out of view. Had we been still under the regimental system, commanding officers would most undoubtedly, as of old, have laid their hands on every effective soldier employed in the hospital and sent

him into the ranks, and the sick and wounded would have been relegated, as in the Crimea, to the care of untrained regimental orderlies, consisting of the weak, inefficient, and useless men of the corps. Again, it has been generally admitted by officers who have seen field service that never were the wounded more quickly, more carefully, and with less suffering, removed from the field than they were by the bearer companies of the Army Hospital Corps. How would this duty have been done if left to the musicians and drummers, or to such native help as could have been picked up in Egypt? These are questions deserving careful consideration, and we believe they will receive it from the Secretary of State for War.

It has been stated that the Principal Medical Officer of the force has applied to Sir GARNET WOLSELEY to order a court of inquiry into the charges which have been so unscrupulously preferred against the Medical Service, and that the Director-General has been carefully investigating the facts connected with the treatment of the sick and wounded. We trust that Mr. CHILDERS will take means to make public the result of such inquiries, and that he will appoint a committee to examine into the whole matter, and thus give an opportunity to the detractors of the Department to bring forward specific instances of neglect or mismanagement, instead of dealing in generalities which, we believe, may be truly described as fictitious and groundless.

FIFTEEN years have passed since TRAUBE lamented that we have no definite experimental knowledge of the character of the intestinal movements in diarrhoea, and the series of experiments by NOTHNAGEL, of which we gave some account last week, constitute the first attempt to supply the information. It is commonly assumed that during diarrhoea the peristaltic movements are increased in energy, and more constant than in normal circumstances. The experiments of NOTHNAGEL were made upon the colon, as well as on the small intestine. The production of a moderate degree of inflammation proved a more difficult task than he had anticipated. The most suitable agent was a concentrated solution of chloride of sodium. Five centimetres of this were injected into the rectum several times in the course of twenty-four hours, the return from the anus being prevented. The movements of the bowel were observed next day in the usual salt bath. NOTHNAGEL, however, never succeeded in exciting inflammation in a larger tract than from thirty to sixty centimetres, and the enteritis was always slight in the upper, and considerable, and often hæmorrhagic, in the lower part. The production of inflammation in the small intestine was much more difficult. Attempts to produce it by injecting irritant substances into the stomach by means of an œsophageal sound, and thus to imitate an occasional cause in man, were unsuccessful. Even sulphate of copper failed. Strong solutions caused rapid death, and weak solutions had no effect. Only local inflammation could be produced by the injection of a concentrated solution of chloride of sodium through the wall of a loop of the small intestine, withdrawn from the abdomen for the purpose through a small incision.

In both large and small intestine the peristaltic movements were rapidly increased by the inflammation, and the affected portion became filled with fluid, manifestly inflam-

matory exudation. The peristaltic contractions took the form partly of oscillatory movements, and partly of circular constrictions. Sometimes, however, the affected portion became the seat of a prolonged tonic contraction, which involved both the transverse and longitudinal muscular fibres. Very different, however, was the condition when twenty-four or forty-eight hours were allowed to elapse after the injection. The inflamed and empty section of the bowel was motionless, no contraction could be seen in it as long as the experiment lasted, and this even when the inflammation which had been excited was slight in degree. The conclusion therefore is that the early stage of inflammation is attended with very strong contractions in the inflamed portion, but that when the initial period is over and the inflamed part of the bowel is empty, the movement is not greater than in the normal bowel. Moreover, it appears that the contents of the bowel are, in the early stage, moved through the inflamed portion with increased rapidity.

In the course of his experiments NOTHNAGEL had many opportunities of observing the occurrence of intussusception, which frequently resulted from a vigorous peristalsis in the uninjured intestine. The invagination always occurred from above downwards, a strongly contracted portion passing into a part in which the contraction was slighter, or which was at rest. The length of the intussusception was always slight—from half a centimetre to two centimetres. It usually quickly ceased, in consequence of the cessation of the contraction; and only once did it last as long as ten minutes. It is a frequent occurrence in the small intestine, but is comparatively rare in the colon. On one occasion an invagination of the colon was distinctly removed by the antiperistaltic contractions which were set up by an injection of chloride of sodium into the rectum.

Another subject investigated by NOTHNAGEL is the influence of morphia on the intestinal movements. It will be remembered that he discovered in his earliest experiments that a sodic salt placed in contact with the outer surface of the intestine of a rabbit causes a local contraction which passes upwards. This effect was found to be prevented by a preceding subcutaneous injection of a small quantity of morphia, one to four centigrammes. Even bicarbonate of soda, which under normal circumstances causes a very energetic contraction, no longer produces the effect. NOTHNAGEL ascribes the effect to the stimulation of a nervous mechanism antagonistic to that which is excited by the sodic salt. If, however, a much larger quantity of morphia was injected—ten centigrammes, for instance,—not only does the sodic salt produce its customary effect, but the constriction is much more energetic than under ordinary circumstances. This anomalous effect seems to indicate that, while small doses of morphia stimulate, larger doses paralyse the inhibitory nervous mechanism. Morphia appears thus to exert on the intestinal apparatus an action comparable to that which digitalis exercises on the innervation of the heart, which consists in a stimulation or paralysis of the inhibitory fibres of the vagus, according to the dose employed. Other experiments seem to show that the action of morphia on the intestine is exerted through the splanchnic nerves. The constipation produced by morphia is assumed to be the result of a stimulation of the inhibitory fibres contained in the nervous trunk, aided by a diminution in the intestinal secretion.

It is surprisingly difficult to make anybody recognise the money value of medical services, but those who are officially responsible for the administration of the Poor Laws would seem to be specially oblivious to this view of the facts. There is a wide-spread and very deep persuasion on the part of the public that we of the medical profession are so enamoured of our work that we are always eager to practise whenever and wherever a patient can be found, wholly regardless of trouble or recompense. This is doubtless an exceedingly flattering compliment to pay to our professional zeal, but does it not a little reflect on our character for common-sense intelligence as men of the world? Those who thus praise our devotion to science do so at the cost of a considerable sacrifice of the respect in which they hold our intelligence as men of business. It is only the "doctor" who is expected, and confidently counted upon, to labour without reward. The ingenious philanthropist, rich in the wit of being liberal with other men's stock-in-trade, has never hit on the device of instituting a charity for the furnishing of legal advice and assistance to neccessitous debtors, or poor folk troubled with heavily mortgaged estates or interminable law-suits; and though it is true that religious enthusiasts do establish costly missions abroad and spiritual enterprises at home, they are always careful to make special provision for the payment of their clergy. Who ever heard of any benevolent undertaking for the benefit of sick or sound, friend or foe, fellow-subject or alien, which was based, as its fundamental proposition and start-point, on the assumption that the services of its principal and active agents were to be had for nothing—except the gratuitous toil and time to be contributed by the medical profession?

At Birmingham, where they have the caucus and other refinements of an advanced civilisation, the guardians of the rates—we must decline to style them guardians of the poor—have, it seems, conceived the brilliant project of economising by appointing for the present *quasi*, and in the future they hope wholly, honorary physicians and surgeons to the care of the sick in their workhouse. They think, forsooth, the field for pathological research afforded by the local poor-law infirmary so good that "first-rate" men, being members of our most enthusiastic and self-sacrificing profession, will naturally rush to occupy it. We fear the calculation is a sound one in an economic sense, though flagrantly immoral in the light of public prudence and equity. Mr. CHESHIRE writes to the *Birmingham Daily Mail* to protest, and points out that the local profession contributes services to the money value of £80,000—on the Poor-law scale of minimum remuneration—to the aid of the sick of Birmingham. There is not the smallest reason to suppose that this argument, though conclusive in itself, will influence the guardians of the rates. It is their commission to reduce the charges on the public pocket to the lowest practicable figure, and, if they can see their way to getting the bulk of the work done for nothing, or next to nothing, it is difficult to hold them to blame for doing so.

In short, the reform that every sensible ratepayer must desire—because it is not just or expedient that the breadwinner should labour for nought—is one which can only be accomplished by the medical profession itself. We do not say that medical men ought to resort to the vulgar artifice of a

"strike," but we certainly think the time has arrived when this question of equitable remuneration for the services they render to the sick poor, particularly those of the pauper class—because their poverty is recognised by the State—should be thoroughly investigated, and, with due deliberation of course, and full notice, an ultimatum submitted to the Local Government Board and the Legislature. The determination to force work, for which payment is refused, on the medical profession, is daily gaining strength, and showing itself throughout the country. In London, guardians of the rates are resorting to the practice of sending paupers, or allowing them to go, to public hospitals when an operation is necessary, and then refusing to recompense these charities. The proceeding is a pitiful artifice to save a fee, but it must be confessed our interest in this matter is only secondary, because a fall out about funds between the committee of a hospital charity carried on by medical men gratuitously—for the glory of a posse of gentlemen who do not contribute one five-hundredth part as much as the medical staff contributes but appropriate all the *kudos* for philanthropy—and a board of guardians is not a squabble in the course of which honest men are likely to come by their own. It is opposed to all principle to sponge on the public hospitals for medical relief for the State poor, but neither the physicians and surgeons of hospitals, nor the under-paid medical officers of Poor-law districts and workhouses, will gain much by the adjustment of this difficulty. It is with the broad question of fair pay for loyal and laborious labour we are concerned. We say the medical profession must answer that question for itself. How precisely it should proceed we are not at present prepared to point out.

There would be no great difficulty in proposing a solution of the problem, but it cannot be solved unless, or until, the whole profession is agreed on the preliminary proposition that medical services ought to be required, and is resolved to refuse to work without pay. In the present state of opinion amongst us, there can be no doubt that if the Local Government Board were to yield to the parsimony of guardians, and agree to abolish paid offices for medical men altogether, in less than a week the sick would be attended gratuitously by an army of volunteers. Neither lawyers nor divines would give their services gratuitously in such an emergency, but medical men would. Some would be impelled by professional enterprise chiefly, while others would be moved by feelings of humanity, so that practically the sick poor would suffer comparatively little, if anything, by the desertion of their official friends and protectors. How is it possible, in the face of this fact, to compel the guardians of the rates, or the Local Government Board, to deal equitably by its medical officers? Manifestly the hope of coercing these authorities is vain, because the only argument by which they could be reduced to reason is inadmissible. It remains to regret the absence of a sufficient spirit of co-operation in the profession to enable us to act together for the common good. We may be proud of our high-souled philanthropy, but we cannot congratulate our profession on its *esprit de corps*, or collective intelligence. It is useless protesting year after year against the parsimony of Poor Law authorities, because they know perfectly well, and we know, that medical aid is

always to be had for the asking, and seeing that our services are always forthcoming, and the best are the most freely offered, medical labour is not unnaturally held to be cheap.

THE provincial medical schools, like the majority of metropolitan ones, continue to believe in beginning the winter's work with an Introductory Address. We were able to report pretty fully last week the address at Newcastle by Dr. THOMAS OLIVER; at Queen's College, Birmingham, by Dr. RICKARDS; and that at Leeds by Mr. JAMES WALKER; all of which will well repay perusal. These addresses are interesting not only as statements of the ordinary facts and considerations which it is thought wise to present to students of medicine at the beginning of the session or of medical study, but as indications of provincial feeling as to the state of education generally and medical education in particular, and of the efficiency of provincial as compared with metropolitan medical teaching. The existence of such institutions as the Victoria University at Manchester, the University College at Liverpool, the Physical Science College at Newcastle, Mason's College at Birmingham, and others, undoubtedly gives to provincial medical schools a new advantage in their competition with their rivals in London or Edinburgh. It is well that it should be so. We should be sorry to see an indefinite multiplication of universities, or even any serious addition to the existing number. Dr. RICKARDS, in his excellent address at Birmingham, expressed a hope that a University of Birmingham might become something more than a mere dream by the affiliation of the numerous institutions in Birmingham devoted to higher education. He seemed to regard it as a disadvantage, if not a hardship, that a Birmingham student could not get his degree of Doctor of Medicine at home without going elsewhere for it. We cannot go so far or so fast as Dr. RICKARDS. It is curious that, just when our American friends are trying to reduce the number of their degree-granting institutions, and just at the very time when a Royal Commission is reporting in favour of a great reduction in the number of bodies for granting medical licences at home, there should be a tendency to claim a university for every large provincial town. We repeat, we do not go so far as Dr. RICKARDS. Universities should be neither parochial nor provincial institutions, but national ones, so few and so constituted as to give national, as distinguished from local, value to their degrees. But we go a certain way with Dr. RICKARDS. It is a matter of great satisfaction that the centres at which a sound and substantial general education is to be got are multiplying, and are asserting themselves so actively in those towns which have long been associated with provincial medical schools. The competition implied in such a state of matters can do nothing but good. Our own metropolitan schools will be stimulated most beneficially by it. The time has gone by when London, Edinburgh, or Dublin can rely too confidently on superior teaching facilities, and every year tends to make the provincial competition more keen. So long as this does not take the shape of a multiplication of degree-factories, it is almost an unmixed advantage. There will soon be no longer any local monopoly of learning, or of science, or of professional skill. One of the advantages of this competition of the provinces may be to induce some concentration and combination of metropolitan schools.



Birmingham has set a good example in this respect. Its medical school began in 1828 as the Birmingham Royal School of Medicine and Surgery. Local medical energy led to the formation of a second school in 1851—Sydenham College. The two institutions in 1858 were wisely merged into one—Queen's College; and in 1873, for the purposes of clinical teaching, the practices of the General and the Queen's Hospital were amalgamated, and students were required to attend each hospital alternately for six months. A similar consolidation has taken place in Newcastle-upon-Tyne, very much to the strengthening of the school.

The time may come when a reduction in the number of licensing bodies will set the Medical Council at liberty to ascertain the efficiency of the medical schools and the supply of means of teaching and of capable teachers; meantime, the competition of schools is the only fact to rely on for ensuring better medical education.

## Annotations.

"Ne quid nimis."

### SURGICAL OPERATIONS AMONG THE WOUNDED AT NETLEY.

THREE important surgical operations have been performed among the wounded men who have arrived at Netley from Egypt—viz., amputation of the thigh, excision of the hip-joint, and excision of the shoulder-joint. In the case of thigh amputation, the patient was reduced to the lowest ebb by the effects of his wound—a shattered knee-joint with diffused suppuration involving the whole thigh and upper part of the leg—and by diarrhoea, which it was stated, had been continuous for a fortnight previous to his admission. Removal of the damaged limb was considered to afford the only chance of saving life, and it was performed at the lower third of the thigh. The patient survived the operation several days, at first exhibiting marked signs of improvement in general condition, but ultimately sank exhausted. In the case in which excision of the head of the femur was performed, a bullet had entered near the great trochanter on the right side, and the joint was found to have been opened. Suppuration was in this case extensively diffused among the muscles of the corresponding nates and upper part of the thigh. On the removal of the head of the femur, which was entirely denuded of cartilage, it was discovered that the bullet had traversed the acetabulum, fissuring the bone in its neighbourhood, and had passed beyond reach of detection. The ultimate chance of recovery, with the complication of a fracture of the pelvis, is of course very small; but so far the condition of the patient, as regards freedom from pain, temperature, and general constitutional symptoms, is considerably better than it was prior to the operation. The portion removed in the operation included the head, neck, and great trochanter; the connexion of the lesser trochanter, which had escaped injury, with the shaft of the femur, was left untouched. The patient in whom excision of the head of the humerus was performed is going on as well as possible, and will no doubt make an excellent recovery. The injury in this case was also caused by a bullet. The missile had entered the shoulder on its outer aspect, had traversed the joint, farrowing the head of the bone deeply in its passage, and had escaped just above the axilla. All the operations were skilfully performed by Surgeon-Major Tobin, Assistant Professor of Military Surgery, who is in charge of the surgical division of the hospital in which the wounded are placed for treatment. Like all surgical opera-

tions performed at Netley for several years past, these were done with strict antiseptic precautions; but the difference of the conditions under which antiseptic treatment is followed in cases where suppuration has been going on for weeks and in others where it is adopted as a primary process need hardly be adverted to. As yet no death has occurred among the wounded who have been received at Netley from Egypt but the one above mentioned, which occurred after amputation of the thigh, and in that instance the case was all but hopeless from the first. Minor operations, such as removal of sequestra, extraction of bullets, &c., have been performed in numerous instances.

### OFFICIAL REPORT ON THE BANGOR EPIDEMIC.

THE epidemic of enteric fever which has been prevailing in Bangor since June last is one of the most extensive outbreaks which has occurred in this country within recent years. According to Dr. Barry's official report to the Local Government Board, the number of persons attacked in Bangor and its neighbourhood from the commencement of the epidemic to Sept. 12th last was 548, and this number has unfortunately been increased since that date. The town of Bangor has a population of 8240. Near to it lies the Local Board district of Bethesda, with a population of nearly 7000; and other places affected by the epidemic are included within the Bangor rural sanitary district. The principal water-supply for all these localities is the Bangor public service, which is derived from a stream called Afon Gaseg just below its junction with the Afon Llaver, the supply being conveyed in a nine-inch main to a filter-bed of sand and gravel, and thence to a small reservoir. The Bangor district is throughout provided with sewers, but the ventilation is described in the report as being extremely defective; the house-drains are of faulty construction, the various waste-pipes being so contrived as to facilitate the entrance of foul air into the dwellings. The principal portion of the epidemic may be divided into three periods. The first, which was characterised by a series of "dropping cases," commenced in the last week in May, and continued till the first week in July. The second was marked by the occurrence of a sudden outbreak simultaneously affecting the town and its neighbourhood, and extending over the second and third weeks in July. Then came a third period, characterised again by a long series of dropping cases. At the commencement of the epidemic suspicion attached to the water-supply as the cause of the disease, and it was ascertained that the persons attacked had nothing in common as regards sewerage, milk supply, or other ordinary sources of infection. Out of some 3724 houses in the affected districts 2024 received their water from the Bangor Water Works and 1700 from other sources, and after the epidemic had continued some five or six weeks—namely, up to July 7th—Dr. Barry found that all the cases, with the exception of one group at Llwynrhindir, had one and the same water-supply—namely, that from the Bangor Water-works. What, then, was the condition of this water-service? Dr. Barry reports that in the neighbourhood of the in-take above Bethesda, a number of sources of pollution were found, including the drainage from privies, pig-styes, and a cow-house, in addition to the drainage from two houses at Llwynrhindir, which, as shown in a plan, was conveyed direct into the stream above the point of in-take. Now these houses were those which formed the exception above referred to as not receiving the Bangor water; in one of them well-marked enteric fever had occurred towards the end of May; and experiment proved clearly that the infected drainage could easily have passed into the company's filtering reservoir. Here, then, we have established a direct means of communication between the consumers of the

water, and the specifically poisoned contents of a drain at Llwynrhaidir; we have also cases of enteric fever occurring simultaneously at a distance of some miles apart, and an absence of any other common cause than that of the suspected water-service. The second outburst was probably brought about by somewhat different circumstances. Owing to an accident it appears that the water was delivered to the town on June 30th and July 1st without passing through the filtering-beds, and under circumstances which easily admitted of any accumulated filth on the surface of the filtering material being washed direct into the mains. The deposit on the filtering material can hardly fail to have contained some of the specifically poisoned drain filth from Llwynrhaidir; besides which, though the works belong to the sanitary authority, the sand had not been removed for a long series of years. From ten to fourteen days after this occurrence a large and simultaneous outbreak occurred, affecting, amongst other places, several new localities. The third stage of the epidemic was easily brought about. Such were the conditions of sewerage and house drainage that, as Dr. Barry says, "ample provision existed in Bangor for favouring the spread of such a disease as enteric fever," and we ourselves pointed out some time since that in view of the great want of proper sewer ventilation, together with the direct connexions existing between those sewers and the interior of dwellings, the worst results might be anticipated unless very active and prompt measures were at once adopted. Indeed the conditions were such that a specifically poisoned sewer air was, to all intents and purposes, laid on to many of the houses. The action taken is described by Dr. Barry in a postscript written after a second visit to Bangor on September 12th. At that date the authority were found to be acting energetically in improving the water-service, providing sewer-ventilation, removing nuisances, and securing isolation. But unfortunately the needed action had been delayed, and this whilst the disease was widely spreading. The attention of the sanitary authority was drawn as early as August 3rd to points of such urgent and imperative necessity as the provision of efficient means of sewer ventilation; but it was only ordered to be done, and this to a limited extent, on Aug. 31st. So also the removal of the filtering material, which was presumably specifically contaminated, and hence constituted a principal source of danger, was not executed until Sept. 5th. These delays must be regarded as extremely serious, but now that the needed remedial measures have been adopted it is to be hoped the disease will rapidly disappear. Indeed a marked abatement is already reported to have taken place. We may add that, both as regards the cause and the means of spread of the disease, Dr. Barry expressed his entire concurrence with the views held by Mr. Rees, the medical officer of health.

#### "THE TREATMENT OF PAUPER LUNATICS."

SIR H. W. GORDON, in a letter which we print in another column, urges the institution of a "Receiving house" for lunatics, to which cases could be sent pending the process of placing them under certificates. This proposal is identical with that which was made by THE LANCET Commission on Lunatic Asylums in 1876-77. Dr. Mortimer Granville, in his evidence before the Select Committee of the House of Commons, offered the following suggestions in reply to questions by the Chairman:—

"8876. *You would send the patients to a hospital constructed for the treatment of the insane, I suppose?*—Yes, if necessary. You do not send a case of apoplexy to a hospital in the ordinary way, and cases of delirium tremens are seldom sent to a hospital; puerperal mania would not be sent to a hospital, at any rate in that stage when it is difficult to tell whether it is not puerperal fever with excessive excitement; it would not be sent at once, the case would be treated. If the ordinary medical

attendant conceived it was desirable to remove the patient, he could then be removed, but as to a hospital, without any preliminary formality of certificates. In the event of its turning out to be a case not involving insanity the arrangements could take place in the ordinary way, and the patient would never afterwards be spoken of as a lunatic, or as having been a lunatic.

"8877. *Supposing that the recovery did not take place, then the eventual confinement in an asylum must be under regular official safeguards, I suppose?*—Certainly. The certificate to be given by the official in the name of the Lunacy Commissioners would be given within twenty-four hours or so after the admission of the patient to the asylum.

"8878. *And it would state either this is a curable case, and had better be treated as a curable case; and the patient may be out in a certain number of days or weeks, or it is probably a chronic case; that could be stated in the certificate?*—Yes, and the case treated accordingly. My proposal would be that attached to each public asylum there should be certain probationary wards set apart for the reception of cases of a doubtful character; that no patient should be removed to the other portion of the asylum or detained as a lunatic until after the reception of an official certificate by a medical man acting in the name of the Commissioners in Lunacy, and never likely, or qualified, to be called as a witness in a court of justice, or in fact engaged in private practice in any way."

This is the proposal we have supported, and which we believe would effect a solution of the difficulty of dealing with doubtful cases. We have also shown how by making special institutions "hospitals" in the true sense of the term, a vast saving would be effected for the ratepayers. In 1877 Dr. Mortimer Granville wrote as follows:—"In Middlesex the admissions to the asylums at Hanwell and Colney Heath during the year 1875 amounted to 1054. The discharges and deaths were 1044. Probably about 30 per cent. of these case-endings occurred within six months of admission. The average number resident in the county asylums is now 3900. [This was before Banstead was opened.] The accommodation required, for new cases only, would not exceed 1000 beds for the entire county. In Surrey the total of admissions in the same year at the two asylums, Wandsworth and Brookwood, (before the enlargement) numbered 834. The discharges were 568, of which something like 30 per cent. would take place within six months. There was an average number resident of 1699 in the asylums. A hospital with 600 beds would probably meet the utmost demands of the county for recent cases, and the strict purpose of cure. Something should be added to the above calculations for the pauper cases sent direct to the licensed houses; but it is difficult to determine the precise allowance to make. The general argument is not, however, affected. One curative establishment—or, still better, two—in Middlesex, and one in Surrey, not exceeding the manageable proportion of 600 beds, with an ample medical staff and a large proportion of attendants, would do more to keep down the burden of insanity by curing the highest proportion of curable cases, than the most energetic and skilful use of the machinery at present employed." We are glad to find that Sir H. W. Gordon substantially endorses the suggestion.

#### "NERVOUS SPORTSMEN."

A CONTEMPORARY observes:—"There are many sportsmen who, do what they will, are unable to avoid a painful trepidation, palpitation, or state of nervousness when walking up to the dog at its point; and the same if a bird or covey rises suddenly without being pointed by the dog." Such "nervousness" ought rather to be designated excitability. It is nearly always constitutional, and therefore incurable. In short, it is not a disease or morbid condition, but a state of impressibility. Of course the condition may be temporary and connected with, or consequent upon, some exceptional deficiency or impairment of the power of control. Steadiness as regards the nervous system is very

much a question of reserve or accumulated force. The strong are "composed" because they have within them that consciousness of force which gives buoyancy and self-possession in action. In some cases the so-called "nervousness" of the enthusiastic sportsman is a direct consequence of his enthusiasm. He is eager to a fault, and so anxious withal, that in the endeavour to acquit himself creditably in the field he is unable to make even a respectable appearance. The heart beats, the eyes dance, the hand trembles, or even visibly "shakes," and of course good shooting is out of the question. This is why many a man who is a fair shot when alone or with one keeper, is unable to hit a haystack—as the saying goes—when criticising eyes are upon him. It is so in everything and all the world over. Practice may in certain cases reduce the magnitude of the trouble, but "nervousness" is constitutional with many a too "enthusiastic sportsman," and he will be increasingly "nervous" as his enthusiasm augments.

### SPACE ABOUT HOUSES.

SPECIAL inquiry has been made, for the purposes of the Local Government Board, into the circumstances which have caused an exceptionally high death-rate in Ashton-under-Lyne, and the inquiry has been conducted by Dr. Ballard. During the past eleven years the death-rate of the borough has varied from 23 to 31 per 1000; there has been such heavy infantile mortality, that only about four-fifths of the infants born have completed one year of life, and only about two-thirds of them five years of life. Diarrhoea has been exceptionally fatal, and the large general mortality has been to a great extent the result of those zymotic diseases which are known to flourish and commit the greatest ravages in places where filth abounds. There are obviously many conditions in Ashton which have contributed to this serious result, but one above all others is striking, and it is the more worthy of note because when once it has been allowed to come into operation it is all but impossible to get rid of it, except at a cost which must often be regarded as prohibitory. We refer to the overcrowding of houses on space. Dr. Ballard illustrates his report by two lithographs, showing certain districts where disease has been especially rife. They disclose the existence of long narrow blocks of houses with hardly any space between them, and having their ends for the most part shut in by other houses in cross streets. The interior of each of these blocks is thus constituted a long narrow well, in which the air is necessarily almost stagnant. Unfortunately, too, the building by-laws for the borough, instead of attempting by degrees to remedy this state of things, tend to perpetuate it, for instead of insisting that there shall be a reasonable area of open space behind every dwelling-house, they sanction a space too small in itself, and this may be situated either at the side or at the rear. Houses can thus at the rear be brought into close contact; and not only so, but in the very houses most needing a circulation of air about them—namely, in the dwellings of the poor—the permitted minimum of space may be encroached upon by the erection of a privy and an ash-pit. This, under any circumstances, would be serious enough, but when we read Dr. Ballard's description of these receptacles, all wonder at a large zymotic and infantile mortality disappears. Filth reigns supreme in the allotted open spaces, and so utterly revolting were the conditions met with that Dr. Ballard, feeling convinced that his description of them would be regarded as exaggerated, took an opportunity of securing the company of the mayor in a visit to some of the localities in question. Thus, not only is the air in the limited space about houses stagnant, but the atmosphere of each elongated well-like space is necessarily impregnated with emanations from the most dangerous kind of filth. Indeed, as Dr. Ballard says, each such

block is nothing short of a night-soil and ashes depot, closely surrounded with human dwellings, into which the most dangerous kind of filth emanations must perforce habitually enter by the door and windows. The removal of filth under such circumstances necessarily increases for the moment the prevailing nuisance, and hence the inhabitants, in order to put off the offensive process as long as possible, store up the largest possible accumulations of refuse, until at last it has all to be carried through their houses into the adjoining street. No more striking instance could be brought forward to show what evils result from faulty building regulations as to space about houses. It is a common thing to find in bye-laws which are not of recent date a discretionary power as to the open space about houses, the builder being allowed to place it either at the side or at the rear, and this even when the minimum space provided is but small. No greater mistake can be made. A definite amount of open space should always be insisted on at the rear of each dwelling, however much additional area may be desired at the side; and the space at the back which should be absolutely free from buildings should, even in the smallest houses, never be less than one hundred and fifty square feet. The evils attendant upon a stagnant atmosphere about houses are not sufficiently recognised, although there is already reason for believing that it is a principal factor in the production of much preventable disease and death; and when to stagnation there is added the further evil of pollution of atmosphere the result is probably especially fatal to the infant population.

### SULPHUR AND MALARIA.

THE influence of sulphur compounds on organic life is familiar. It is seen only too clearly in the aspect of vegetation in many of our manufacturing districts, while the probable dependence of specific diseases on an organised contagium renders the familiar method of disinfection by sulphur another illustration of the fact. Observations on which we have lately commented afford strong reasons for believing that the active agent of malaria also consists of low organisms. It is, therefore, not surprising if sulphur emanations should be found to exert a marked influence on malaria, and some interesting facts have been lately collected by M. D'Abbadie, to show that this is actually the case. In Sicily, deposits of sulphur and intermittent fevers are both common, but occur for the most part at different elevations. In some places the sulphur deposits are found at a low elevation in malarial plains. In these districts the labourers in the sulphur works enjoy an almost complete immunity from intermittent fever, not more than 8 or 9 per cent. suffering, whereas of the inhabitants of neighbouring villages not less than 90 per cent. are attacked. In some travels in Greece, published by M. Fouqué, is an account of the ruins of a large city (Zephyria) situated in a marshy plain, in which it is impossible to pass the night without being attacked by ague. Three hundred years ago, it is said, the city contained forty thousand inhabitants and thirty-eight churches. Paludal fevers gradually destroyed the population. Twenty years ago only two hundred inhabitants remained, languishing and ill. They refused to leave the place, and the last of them died during Fouqué's visit. It is certain that malaria cannot have prevailed to the same extent during the period at which the town was in its rise and full development, and it is also noteworthy that the soil beneath the town contains abundant deposits of sulphur which was formerly worked in the vicinity, and the decadence of Zephyria dates from the discontinuance of these sulphur workings. Moreover, Fouqué has noted another instance of the same relation. The marshy plain of Catania

is traversed by the Simeto, and is infected by fever. On the western border of this plain are some sulphur works, at which are a number of inhabitants who suffer little, although a village not far away is deserted. In Ethiopia certain elephant hunters expose their naked bodies daily to a fumigation of sulphur in the belief that this will preserve them from malaria, and certainly they enjoy an almost complete immunity from the disease, although some of the districts are so unhealthy that not long ago a whole caravan perished.

#### EXPERIENTIA DOCET.

IN the popular mind, and to a less extent in the professional, there is a consensus of opinion regarding the value of experience in the treatment of disease, which, when carried to an extreme point, as it often is, must be misleading and injurious in its effects. The days were, and in some districts and among many people the custom remains, when seniority alone gave position as a consultant, and men's opinions were valued chiefly by their number of grey hairs, and for a certain careful attention to the proprieties manifested during a long course of years. This custom, like many that have stood the test of time, has much of truth to recommend it, as, during a comparatively late period in the history of medicine, knowledge was so empirical and indefinite, the study necessary for degree or licence (even when these were taken) was so slight and superficial, and examinations were such formalities, that only a prolonged acquaintance with disease, gained at the bedside, could give the authority necessary to the consultant. Experience was the chief, if not the sole teacher; and it was years before the young practitioner could obtain sufficient to cope with intricate cases of disease. In these days of accurate observation, of such rapidly advancing knowledge, of delicate instrumental aids to medical inquiry, the well-grounded student commences work with advantages against which simple experience cannot be placed, and the conscientious senior envies him his increased resources. The time is not likely to arrive when the newly fledged and highly trained youth will be equal to all the sudden requirements put upon him, or will feel independent of the more mature, though perhaps empirical, opinion of one having a longer acquaintance with the natural history of disease; but what we would point out is the lessening value now put upon experience, if that, alone or chiefly, is what constitutes the claim to superior wisdom. Fortunately for those needing medical counsel, there are many men of large experience possessed also of all the modern aids in their work; while the class of practitioners is rapidly increasing who carry their studious habits through life, correcting and improving their knowledge by close contact with disease, and ready at all times to give reasons for their faith. Superstition and secrecy in medicine are already almost things of the past, and the sagacious nod is not now thought sufficient evidence of profundity. It is to the men who remain students that we must look for trustworthy opinions and advance in the study of medicine, as without the accurate and painstaking care so necessary to the thorough knowledge of individual cases of disease no amount of so-called experience can form the basis of reliable views. An uneducated nurse of long familiarity with sickness acquires no knowledge whatever as to the real essence of the various diseases, and the effort of all medical legislation, examination, and training is to rid the profession of that class of men who are but superior nurses. It is necessary to warn the junior practitioner to discard, at all hazards, hasty and ill-considered observation, as he but too readily drops into a rule-of-thumb method of work, which is as demoralising to himself as it is detrimental to his patients. Such men may become successful money-makers, but cannot possibly become safe guides in disease; they obtain a large

amount of experience, which is but a snare—a snare unfortunately to the public as well as to themselves. We may at least feel a satisfaction in knowing that this class of men is rapidly diminishing, and, with the present opportunities for training, need no longer exist.

#### SCARLET FEVER IN LONDON.

THERE appears to be no just ground for the reports of alarmists as to exceptional prevalence of scarlet fever in London. There is no disease which has more strongly marked seasonal fatality than this exanthem. The Registrar-General, when specially dealing with seasonal mortality in London in his Annual Summary for 1880, said, with reference to the mortality curve of scarlet fever, "It forms a single wave, which, beginning to rise about the middle of May, gradually attains its highest point in the forty-third week, or the end of October, and then as gradually subsides to the end of March." In point of fact, the increase of the curve above the mean line mainly takes place in September, the mortality maintains its chief excess during October and November, and rapidly falls to the mean line during December. The present may therefore be considered as the precise season for the maximum scarlet fever mortality. Bearing this fact in mind, the excess of mortality from this disease recently reported in London by the Registrar-General affords no sufficient ground for alarm. During the first half of October 149 fatal cases of scarlet fever were registered in London; this number exceeded by but 19 the corrected average number in the corresponding week of the last ten years. It is true that on Saturday last 480 cases of scarlet fever were under treatment in five of the Metropolitan Asylum Hospitals, in addition to 130 in the London Fever Hospital. It may, however, be very misleading to attempt to estimate the extent of an epidemic from the number under hospital treatment. The managers of the Metropolitan Asylum District have placed at the disposal of the public an amount of hospital accommodation, during this scarlet fever season, considerably in excess of that available in recent corresponding periods. It may well be that at the present time an exceptionally large proportion of the cases of scarlet fever in London is under hospital treatment. It is quite certain, however, that those in hospital bear no known or fixed proportion to the total cases at any given time. It is worth noting, moreover, as evidence that the present type of the disease is not unusually severe, that of the 291 hospital cases of scarlet fever discharged by recovery or death during the past six weeks, the proportion of mortality has scarcely averaged more than 10 per cent., notwithstanding an exceptionally high rate of mortality in the Homerton Hospital. Scarlet fever has not been severely epidemic in London since 1875, a fact which it only seems reasonable to attribute in great measure to the controlling influence of the isolation-accommodation afforded by the hospitals of the Metropolitan Asylum Board.

#### SUNDAY REST FOR PUBLICANS.

THE most popular measure for diminishing drinking seems to be closing public-houses on Sunday. No harm seems likely to accrue to any one from their being now closed a great part of the Sunday; and in our opinion great further advantage to the people will result from the general adoption of Mr. Stevenson's Bill for closing them altogether, with perhaps the exception of an hour in London and one or two other large places. Four hundred towns, in various parts of England and Wales, have been canvassed, with the result of showing eight to one in favour of closing the whole Sunday. It is a curious fact that many of the class who use, and who even abuse, the public-house on Sundays vote for its being closed.

## THE MACCLESFIELD INFIRMARY.

WE regret to find from a newspaper report that there has been for some time past serious friction in the working of the Macclesfield Infirmary, which has at length culminated in the resignation of the house-surgeon and the dismissal of the matron. A special meeting of the Governors of the Hospital was held on Friday, October 13th, when a letter was read from Mr. Horace Elliott, the house-surgeon, in which he complained that, in spite of his position as responsible head of the institution and the assurance that his authority would be upheld, he found himself without any authority at all, and unable to resist undue interference with the patients on the part of the matron and servants. He further states that, contrary to his wishes, a patient who had received serious injuries to the head, and upon whom double amputation at the shoulder-joint had been performed, was left for some hours, the night after the injury, in the care of a "charwoman, ignorant of nursing, and on another occasion, some days afterwards, the patient was left in charge of a young and inexperienced ward maid, who had only recently come to the infirmary, and had other work to do in addition." Mr. Elliott adds, "On discovering this, I sent a nurse to take charge of the case, and she was ordered away soon after by the matron." It is also alleged that the matron has even attempted "to take the treatment of cases out of the hands of the medical staff by giving a patient some remedy of her own." Other irregularities were also spoken of. We learn that a long and serious discussion took place, and that ultimately Mr. Elliott's resignation was accepted, and the matron was dismissed on Monday last. From the facts before us it is clear that Mr. Elliott acted rightly in resigning his post; and we cannot question the justice of the decision of the Governors; but it is a matter for very serious regret that the Board of Management allowed matters to assume such an acute phase. It is evident that not the particular officials, but the regulations of the institution and the division of responsibility, have been to blame; and ere they can appeal to the support of the charitable public, or the confidence of the suffering poor, efficient steps must be taken to prevent the recurrence of such disorderly conduct. Of one thing there can be no doubt, that medical officers only should, under any circumstances, interfere with the treatment of the patients, and that the house-surgeon should be able to command efficient nursing for all serious cases of accident or illness. Nothing more effectually checks the support of the charitable than such exhibitions of faulty management as that which has taken place at Macclesfield.

## THE PROGRESS OF CHOLERA.

THE prevalence of cholera in the Eastern Archipelago gives prominence to certain views which M. Proust, who was the delegate of the Paris Academy of Medicine at the recent Health Congress of Geneva, has, since his return to France, expressed to the Academy. M. Proust believes there are grounds, if not for alarm, yet for the observance of strict precautions, in view of the possibility of the importation of cholera into Europe from the East. In 1832 and in 1847 the disease travelled in a westward direction across Afghanistan, Persia, Syria, and the valley of the Danube; but it is to the alternative and shorter route up the Red Sea and through the Suez Canal into the Mediterranean that M. Proust directs more pressing attention. Our neighbours, the French, have all along insisted on the necessity for quarantine measures with a view of protecting the Mediterranean ports against infection imported along the maritime canal; we, on the other hand, have maintained that if a proper system of inspection, together with the provision of means of isolation, were provided, quarantine measures as

ordinarily understood would not be needed. If one or more cases of cholera were detected on board a ship entering the Suez Canal, every necessary and reasonable precaution would be observed if the patients were isolated on shore, and if, after such measures of disinfection as were found necessary, the vessel were allowed to proceed. The lengthened retention of a vessel under such circumstances, with its crew and complement of passengers, cannot, we believe, be justified.

## NEW COTTAGE HOSPITALS.

It is gratifying to have to record this week the addition of two Cottage Hospitals to the list of these excellent institutions already in existence in the land. Of one of these the memorial stones were laid at Harrogate on September 28th last, by F. B. Greenwood, Esq., J.P., in the presence of an influential company of the residents of the town. In the course of the proceedings, Dr. Neville Williams, honorary medical officer of the hospital, gave a sketch of the circumstances connected with the origin of the proposal to erect a building capable of accommodating from fifteen to eighteen patients. The need for such an institution having become recognised, a lady came forward with a donation of £1000, Mr. Greenwood gave a plot of ground, and a canvass of the town for subscriptions was so successful as to put the committee in possession of funds sufficient to enable them to commence operations at once without fear of becoming very deeply in debt. The building, it appears, will be constructed on the pavilion system, all the details being in accordance with the scientific requirements of the day.

Another hospital of the kind will be opened at Norwood by the Lord Mayor to-day (Saturday). It is situated in Hermitage-road, Central-hill, and is built to meet the requirements of parts of Lambeth, Camberwell, and Croydon, together with the hamlet of Penge—districts which contain a population of 30,000. It is a purely local enterprise, having been built through the exertions and under the superintendence of a committee appointed by the residents in 1880. The cost of the building, which is in the Queen Anne style, intermixed with Gothic and Early English, and will hold fourteen beds, is £2000, which is already subscribed, and a further sum of £425 is also promised towards the purchase of furniture and medical appliances. Subscriptions are promised sufficient to maintain eight beds, and it is intended to form an endowment fund of £2000, to provide for the ground-rent, repairs, and the remaining beds.

## PATHOLOGICAL SOCIETY OF LONDON.

LAST year a committee of the Pathological Society was appointed to obtain further details, where possible, of the cases which had been presented to the Society in an incomplete form. Many months have now elapsed since this committee issued circulars requesting further information from exhibitors, and they are desirous of receiving replies with the necessary details as soon as possible. To this end we beg to call attention to the subject.

## AFGHAN AND ZULU MEMORIAL FUND.

AT a meeting of the committee of the medical officers, "Afghan and Zulu Memorial Fund," held at 6, Whitehall-yard, on the 14th inst., present Surgeon-Generals Thomas Longmore, C.B., J. Sinclair, and Deputy Surgeon-General J. O'Neil, C.B., it was decided to close the subscription list on December 31st, 1882. Officers who have not sent in their contributions are requested to do so before that date to the honorary secretary, Brigade-Surgeon Alfred Clarke, Royal Military College, Sandhurst, Farnborough. The amount subscribed up to date is £450.



## SMALL-POX AND PERSONAL LIBERTY IN CAPE COLONY.

POLITICIANS of Mr. Peter Taylor's stamp should study the agitation now felt in the various communities of the Cape by the presence or by the proximity of small-pox. A community in such a state is delivered from the absurd mental condition in which all sense of proportion is lost, in which the occurrence of a rash or an erysipelas is held to counteract the advantages of national compulsory vaccination. After all, there is one terrible guarantee that civilised communities have against the prevalence of such doctrines as Mr. Taylor represents in the House of Commons, and that is the disease of small-pox itself, with its unspeakable hideousness, loathsomeness, and mortality, to say nothing of its secondary and lasting consequences. Cape Town, to judge from the *Cape Times*, is in a very bad way from the prevalence of filth and filthy people in it, and the outbreak of small-pox in such a country is a terror to Port Elizabeth and other places in the colony and in South Africa generally. These places are so much horrified at the risk of small-pox coming to them from the Cape and spreading, that they are making havoc of individual liberty. Persons daring to have small-pox and to conceal it are liable to be visited under the Contagious or Infectious Disease Act No. 1, of 1856, now in force in Port Elizabeth by proclamation of His Excellency the Governor, and to be removed with all possible care and speed to any hospital open for the purpose. Persons in any town, village, or other locality in which the Act is in force may be required by two persons authorised by the Act to give proof of being vaccinated; and on failing to do so, and on refusing to be revaccinated, may be removed or detained in any building or place used as a lazaretto, there to remain until this Act shall be withdrawn, or until he shall allow himself to be vaccinated. The good people of Port Elizabeth, in public meeting assembled, have freely endorsed the action of the Governor and of the Town Council in taking strict measures, and only regret that, being under the Government of the Cape, they cannot go further, like the authorities of Natal, and impose a heavy quarantine of fourteen days on vessels arriving from Table Bay or the docks of Cape Town. We do not approve of such an extreme measure as this. But it may safely be assumed that, even if in a civilised community anti-vaccinationists could triumph for a time when small-pox is in abeyance, their triumph would be short-lived. One case of small-pox in a community uncontrolled by law and medical science, would work results, compared with which the effects of an occasional irregular or careless vaccination are a mere fleabite. By all means let great precautions be taken against these, but let us avoid the insanity of disproportion, and of two evils choose the least.

## THE HAMPSTEAD HOSPITAL.

AT the meeting of the Metropolitan Asylums Board on the 14th inst., a letter was read from the Local Government Board giving the managers authority, if the counsel's opinion was favourable, to the opening of the Hampstead Hospital, and to take all necessary steps to refit the institution, to which it was resolved to appoint Dr. Collie as superintendent.

## CINCHONA CULTIVATION IN JAMAICA.

WE are glad to learn from the report of Mr. Morris, director of the public gardens in Jamaica, that the cinchona cultivation in the island continues to promise well. The chief event of last year was the introduction of the valuable *Cinchona Ledgeriana*, which is the most precious of all known species. A small quantity of seed, less than half an ounce, was received, and from it 14,437 seedlings were raised, a considerable proportion of which will shortly be ready for

planting out. The demand for young plants from private cultivators continued large, amounting to nearly 50,000 plants and 83 oz. of seed. An analysis, by Mr. J. E. Howard, of some specimens of Jamaica-grown bark gave very satisfactory results. Only one shipment was made, which realised a good price in the London market, the best selling for 7s. 8d. per lb.

## ALLAHABAD MEDICAL SOCIETY.

A MEDICAL SOCIETY has been founded at Allahabad, and has already published three numbers of its *Proceedings*, the August number being now before us. Meetings are held monthly, the president being Deputy Surgeon-General Hindley; Hon. Secretaries, Surgeons Shirley Deakin and Sherman Bigg. At the meeting in August two papers were read bearing on the education of European children in India, and the great sickness prevalent amongst them in consequence of their enforced residence in the plains during the hot season. One paper was read by Dr. McReddie, the other by Mr. Deakin, and a resolution was unanimously passed by the meeting to the effect "that the education of European children in the plains of India during the hot weather is detrimental to their physical and mental development, and that it is desirable that they should be removed from the plains, at least during the hot weather, to schools in the hills, at new stations if possible."

## TYPHOID FEVER IN PARIS.

IT appears from the official return issued by the municipal authorities in Paris that no fewer than 250 fatal cases of typhoid fever were recorded in that city during the week ending the 12th inst. The numbers in the three preceding weeks had been 53, 57, and 134 respectively. The prevalence of the disease appears to be very general throughout the city, as only 14 of the 80 "quartiers," into which the city is divided, were free from a fatal case during the week ending the 12th inst., although 100 of the 250 deaths registered from this disease were returned from public institutions, mainly hospitals. During the first three quarters of this year the deaths from typhoid fever in Paris were respectively 436, 553, and 738; in all 1727 in the nine months ending September. The number of fatal cases of this disease during the same period in London, with a population nearly double that of Paris, was only 609, equal to a rate of mortality only one-fifth of that recorded in Paris.

## THE LATE DR. PEELE OF DUBLIN.

DR. EDWARD PEELE died last year from typhus fever after a short illness. He was a general favourite and some of his friends have erected a beautiful window to his memory in St. Patrick's Cathedral. The window represents three scenes from the parable of the Good Samaritan—the traveller falling among thieves, the Good Samaritan binding up his wounds, and his being brought to the inn. Above is the text "Go, and do thou likewise." At the base of the window is the following inscription: "To the glory of God, and in loving memory of Edward Peele, of 41, Lower Baginbun street, Dublin, physician and sometime member of the choirs of St. Patrick's and Christ Church Cathedrals; born in Durham, 8th February, 1838; died in Dublin, 18th February, 1881."

AT the Michaelmas Session of the Surrey magistrates on Tuesday recommendations were submitted by the Finance Committee in reference to dividing the county into five districts—to be designated the Metropolitan, the North-Eastern, the South-Eastern, the North-Western, and the South-Western—and appointing three additional coroners. A petition to the Queen was agreed upon.

BELIEVING firmly in the value of medical societies both as a means for advancing science, and not less as of service in promoting social intercourse amongst members of the profession, we are glad to note the success which has attended the formation of the West London Medico-Chirurgical Society. The first meeting was held on the 6th instant at the West London Hospital, under the presidency of Dr. Hart Viner, and Dr. Burney Yeo delivered the address upon the Antiseptic Treatment of Lung Diseases which was published last week in our columns. The large attendance and the vigour with which the subject of the evening was debated promise well for the future of a Society in which much good work is likely to be done.

JAMES WINGATE JOHNSTON, M.D., an Inspector-General of Hospitals and Fleets (retired) and honorary surgeon to the Queen, died on Tuesday at Southsea. He graduated at the University of Glasgow in 1823, and was appointed a fleet surgeon in 1832. He was nominated Deputy Inspector-General of Hospitals in 1847, and served at Jamaica, Walmer, Chatham, and Greenwich. In 1864 he was advanced to the post of Inspector-General, from which he retired in 1870. The deceased received Sir Gilbert Blane's gold medal for "Reports on Medical Topography of the South American Stations" in 1848.

At a recent meeting of the Association of Sanitary Engineers and Surveyors, held at North Shields, a paper was read by Mr. E. C. Buchanan Tudor, on the working of the Canal Boats Act. The author recommended, for the more efficient carrying out of the measure, a systematic periodical inspection of the boats, and that these officials should be appointed by Government for combined districts rather than by local authorities. These recommendations appeared to meet with the approval of the majority of the members present at the meeting. That some amendment of the Act is necessary few will probably be disposed to deny.

In South Africa the epidemic of small-pox continues to spread, the number of cases in the week ending Sept. 26th being larger than in any week since the commencement of the outbreak. A complete panic is said to prevail at Kimberley. Every waggon or coach from Cape Town is examined, and three waggons, containing sixteen passengers, have been quarantined because a case of small-pox was discovered among them. At Riversdale Mr. Justice Smith and the barristers on circuit have been placed in quarantine six miles from the town, because the driver of the Judge's waggon exhibited signs of the disease.

THE Report of the St. John Ambulance Association shows that the work of imparting instruction in the best means of giving first aid to the injured is being prosecuted with considerable zeal and success. During the past year many new centres have been opened, including one in the Riviera; as many as 131 detached classes—other than centres—have been taught, 8065 certificates of proficiency have been issued, and 800 pupils holding certificates have presented themselves for re-examination. The balance-sheet shows an excess of receipts over expenditure to the amount of £500.

THE deaths are announced of Dr. George Capron, for sixty years in practice as an obstetrician in Providence city, R. I.; and of Dr. William Pierson, who was a member of the New Jersey Legislature from 1835 to 1840.

DR. WILLIAM MOORE has been elected President of the College of Physicians in Ireland for the ensuing year.

A RESIDENT of Hastings brought an action last week against a lodging-house keeper in Margate for damages on account of expenses incurred by illness of some members of his family through defective drainage. The case was heard at the Margate County Court, and the plaintiff was nonsuited, the judge ruling that though a house must be fit for occupation when let, a claim for damages caused by illness could not be sustained. Leave, however, was given to re-enter the case if it could be differently framed.

WE understand that H.R.H. the Duke of Albany has consented to preside at the annual dinner to be held in aid of the funds of the National Orphan Home, Ham Common, on the 7th of November next. We would take this opportunity of commending the institution to the sympathies of the charitable.

DR. BYROM BRAMWELL has, by the unanimous vote of the managers, been appointed Pathologist at the Royal Infirmary, Edinburgh, in the vacancy caused by the translation of Dr. Hamilton to the Pathological Chair at Aberdeen. Dr. Mac Gillivray was at the same meeting elected Assistant-Surgeon to the Infirmary.

A MEETING of the members of the Senate of the University of Cambridge, and others, is convened for the 21st inst. (this day) at 4.30 P.M. in the Lecture-room of Comparative Anatomy to take steps to establish in the university a memorial to the late Professor Balfour.

It is reported that the Peculiar People have founded a Home, in which they hope to demonstrate the practicability of their peculiar doctrine that sick persons may dispense with medical treatment, and may be cured by prayer and the laying-on of hands.

It is stated that the ceremony of conferring the degrees and honours obtained at the recent examinations at the Royal University of Ireland will take place on the 8th prox. His Grace the Duke of Abercorn, Chancellor of the University, will preside.

It is rumoured (says the *Boston Medical and Surgical Journal*) that Dr. Oliver Wendell Holmes, Parkman Professor of Anatomy in the Harvard Medical School, is about to resign the professorship which he has so long adorned.

DR. AQUILLA SMITH has been re-elected a Representative of the College of Physicians in Ireland, on the General Medical Council.

THE Companionship of the Order of St. Michael and St. George has been conferred on James Mackie, M.B., Physician to Her Majesty's Consulate at Alexandria.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Wandsworth.*—In a joint report by the several medical officers of health for the parishes comprised in the Wandsworth district it is stated that in 1881 the population was 212,492, the birth-rate being 35.6 and the death-rate 17.1 per 1000. The general health of the district was good except in so far as it was affected by the prevalence of small-pox, and even as regards this disease it is noted that a comparative immunity was experienced, this result being attributed to the energetic measures of vaccination, isolation, and disinfection.

tion which had been carried out. The infantile death-rate is stated to have been small, but it being calculated on the total deaths instead of on the births, the fact is not at first sight apparent to those unacquainted with the statistics as to births. When so calculated the deaths under one year of age amount to 14 per cent. of the births. A separate report is appended by each medical officer of health with reference to his own part of the district, and Mr. Kempster in describing the epidemic of small-pox in Battersea East gives an account of its commencement at Nine Elms. The first patient attacked in this locality was an unvaccinated child whose parents had purposely moved about in order to evade the vigilance of the vaccination officer, the result being that the child's life was sacrificed and its illness led to seven other attacks of the disease.

*Glanford Brigg.*—Mr. J. B. Moxon's annual report for 1881 on the rural sanitary district of Glanford Brigg contains a good deal of matter which is of local and general interest. In a population of 28,569 the death-rate has been 17 per 1000, and it is noted that together with an increase in population since 1874, there has been a curious redistribution of the inhabitants. Thus, there has been a marked migration from the purely agricultural districts, due to the depressed condition of the farming interest; whereas, in the group of villages affected by the iron manufacture, there has, on the other hand, been a decided increase. The infantile death-rate receives considerable attention, and it is referred to as alarming. We think, however, that this is only so because it is calculated as a percentage on the total deaths, whereas it should be calculated on the total births. If there are an exceptional number of children in a district and very few old people, the number of infantile deaths must, when compared with the total deaths, necessarily be large. But when we examine the births we find there were 1052; there were also 116 deaths under one year of age. This gives a death-rate under one year of 11.0 per cent. of the births, which rate is, as a matter of fact, rather below that of the standard group of rural districts quoted by the Registrar-General, and the low rate is fully explained by Mr. Moxon's statement that the district contains "an exceptionally large proportion of young married people and their children." The question of the provision of means of isolation for such diseases as scarlet fever is dealt with in a manner rather implying the inapplicability of infectious hospitals to rural districts. We admit that public opinion is not yet prepared for such use of these hospitals as will fully secure rural districts against the spread of infection, but it is essentially scarlet fever which needs isolation in these districts, and the report recently issued by the Local Government Board on the use of infectious hospitals goes most emphatically to show that when suitable buildings are provided, the necessary educational process has rapid effect, and that the number of parents willing to part with their children has steadily increased, until the infantile admissions have been found to surpass all anticipations. If, however, the isolation is not energetically carried out in the early stage, we freely admit that it becomes to a great extent useless, as in the case of Hull quoted by Mr. Moxon, and this because such hospitals are not intended to deal with epidemics, but rather to prevent them by the immediate isolation of first attacks. An active supervision of conditions affecting health is evidently maintained, and apart from delays in agricultural areas where the financial depression has been very marked, steady progress may be regarded as having been made.

*Belfast.*—During the four weeks ending 23rd September the births registered numbered 461, and the deaths 355, or a natural increase of 106 individuals. The average death-rate from all diseases was 22.1, from lung affections 6.5, and from zymotic diseases 4.6. During the past month the public health has been satisfactory, the town having been free from any serious epidemic disease. A few cases of typhus were reported, but as only two cases proved fatal, the disease was not of a very bad type. During September 5 cases of small-pox were removed to the hospital for contagious diseases, and every precaution taken to prevent the spread of the contagion.

*Cork.*—During the four weeks ending September 9th the births registered amounted to 164, being equal to a rate of 27.20 per 1000. The deaths numbered 100, or 18.20, but deducting the deaths (23) occurring in the workhouse, the urban death-rate will then be 14.6, and from infectious diseases 1.0. These returns contrast favourably with those for the corresponding period last year, and there has also

been a decided diminution in the amount of fever of every description in the city.

#### THE SANITARY STATE OF GALGATE.

The village of Galgate, in the Lancaster rural sanitary district, has been visited by Dr. Barry on behalf of the Local Government Board. Typhoid fever has been prevalent there, and it was found that the water-supply is derived from wells which are irremediably polluted, and that, notwithstanding the provision of public means of sewerage, the house drainage is defective in the extreme, and nuisances of an excremental character are numerous.

The Wrexham Corporation has given instructions for the preparation of plans for a new sewerage scheme, with the view of ending the dispute between them and Lieutenant-Colonel Jones, tenant of Borough Farm, and to prevent the pollution of the Dee complained of by the Chester Corporation.

An order has been received at Barking by Mr. Goldicott (steward to Sir Edward Hulse, Bart., lord of the manor), from the Local Government Board, informing him that the Board has formed the town ward of Barking into a Local Government district.

#### VITAL STATISTICS.

##### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5524 births and 3522 deaths were registered during the week ending the 14th inst. The annual death-rate in these towns, which had not exceeded 20.6 and 19.9 per 1000 in the two preceding weeks, rose last week to 21.7. The lowest death-rates in these towns last week were 12.6 in Plymouth, 14.8 in Brighton, 15.0 in Wolverhampton, and 15.4 in Bradford. The rates in the other towns ranged upwards to 27.2 in Leeds, 28.0 in Liverpool, 28.9 in Sunderland, and 34.3 in Oldham. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 542, and showed an increase of 51 upon the number returned in the previous week; 147 resulted from diarrhoea, 137 from scarlet fever, 87 from "fever," 67 from measles, 64 from whooping-cough, 33 from diphtheria, and 7 from small-pox. The lowest death-rates from these diseases were recorded in Brighton and Norwich, and the highest in Cardiff and Sunderland. Scarlet fever showed the largest proportional fatality in Leeds, Sheffield, and Leicester; measles in Cardiff and Sunderland; whooping-cough in Birkenhead and Blackburn; and "fever" in Leeds, Birkenhead, and Portsmouth. So many as 26 deaths from diphtheria occurred in London, whereas but 7 were recorded in the twenty-seven provincial towns, with a somewhat larger aggregate population. Small-pox caused 4 deaths in London, 2 in Newcastle-upon-Tyne, and one in Manchester. The number of small-pox patients in the metropolitan asylum hospitals, which had been 80 and 79 on the two preceding Saturdays, rose to 84 on Saturday last; 13 new cases of small-pox were admitted to these hospitals during the week, against 17 and 14 in the two previous weeks. The Highgate small-pox hospital contained 11 patients on Saturday last, 7 new cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 300 and 253 in the two preceding weeks rose to 302 last week, and exceeded the corrected weekly average by 26. The causes of 82, or 2.3 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Derby, Birkenhead, Halifax, and Cardiff; while the proportions of uncertified deaths were largest in Wolverhampton, Salford, Oldham, Huddersfield, and Hull.

##### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which in the three preceding weeks, had increased from 18.1 to 22.3 per 1000 declined again to 19.2 in the week ending the 14th inst.; this rate was 2.5 below the mean rate during the week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 117 and 107 in the two previous weeks, further declined last week to 99; these included 26 from diarrhoea, 20 from diphtheria, 19 from whooping-cough, 18 from scarlet fever, 9 from measles, 7

from "fever," and not one from small-pox. The death-rate from these principal zymotic diseases averaged 4.2 per 1000 in the eight towns, and exceeded by 0.9 the rate from the same diseases in the large English towns. The 26 deaths attributed to diarrhoea showed a decline of 10 from those in the previous week, and were 11 below the number in the corresponding week of last year. The 20 deaths referred to diphtheria exceeded those in the previous week by 3, and included 11 in Glasgow, and 5 in Greenock. The 19 fatal cases of whooping-cough included 16 in Glasgow, and were 4 fewer than those returned in the previous week. The deaths from scarlet fever, which had been 22 and 17 in the two previous weeks, were 18 last week, of which 9 occurred in Glasgow, 6 in Edinburgh, and 2 in Dundee. The deaths referred to acute diseases of the lungs in the eight towns, which had been 102 in each of the two preceding weeks, declined to 100 last week.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 26.1, 23.7, and 19.9 per 1000 in the three preceding weeks, rose again to 24.4 in the week ending the 14th inst. During last quarter the death-rate in the city averaged 23.1 per 1000, against 18.6 in London and 17.8 in Edinburgh. The 163 deaths in Dublin last week showed an increase of 30 upon the low number in the previous week, and included 6 which were referred to diarrhoea, 4 to "fever," 2 to whooping-cough, and not one either to small-pox, measles, scarlet fever, or diphtheria. Thus 12 deaths resulted from these principal zymotic diseases, against numbers declining steadily from 28 to 14 in the four preceding weeks; they were equal to an annual rate of 1.8 per 1000, while the rate from the same diseases was equal to 3.1 both in London and Edinburgh. The 6 fatal cases of diarrhoea, showed a further decline from the numbers returned in the six preceding weeks. The deaths referred to "fever," which had been but 1 and 2 in the two previous weeks, further rose to 4 last week. The fatal cases of whooping-cough, on the other hand, showed a decline of 2. The deaths both of infants and of elderly persons exceeded the numbers returned in recent weeks. The causes of 17, or nearly 11 per cent., of the deaths registered during the week were not certified.

#### THE SERVICES.

RIFLE VOLUNTEERS.—2nd Derbyshire: William Sandham Symes, Gent., to be Acting Surgeon. 1st Essex: Albert William Wallis, Gent., to be Acting Surgeon. 24th Middlesex: Charles Drummond Moutray, Gent., B.A., to be Acting Surgeon.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of 1st April, 1881, Inspector-General of Hospitals and Fleets John Bernard has been placed on the Retired List of his rank.

The following appointments have been made:—Surgeon Thomas D. Popham, M.D., to the *Constance*; Fleet Surgeon Alexander Turnbull, for service at the Admiralty.

#### WILLS AND BEQUESTS.

THE will of Alfred James Bannister, M.D., M.R.C.S., of 11, Addison-terrace, Notting-hill, who died on Aug. 22nd last, at Great Malvern, was proved on the 22nd ult. by Mr. C. H. Johnson, one of the executors, the value of the personal estate amounting to over £13,000. The testator wishes his practice to be sold for a year's purchase, if possible, taking the average of the last three years; the purchaser to have the option of buying the lease of his house, but the money for the latter is to be paid down. To his wife he gives his furniture and household effects, and the residue of his property is to be held upon trust for her for life or widowhood, and then for his children.

The Scotch Confirmation of the holograph will of George Dickie, M.D., Emeritus Professor of Botany in the University of Aberdeen, who died on July 15th last, granted to Mrs. Agnes Williamson Low, or Dickie, the widow and

executrix nominate, was sealed in London on the 2nd ult., the value of the personal estate in England and Scotland exceeding £8000.

The will of William Drysdale Tennant, M.D., of 30, Lambert-road, Brixton-rise, who died on August 11th last, was proved on the 22nd ult. by Mrs. Sophia Tennant, the widow and sole executrix, the value of the personal estate amounting to £5000. The testator gives, devises, and bequeaths all his estate and effects, both real and personal, to his wife for her own use and benefit absolutely.

The following legacies have recently been left to hospitals and other medical charities:—Miss Mary Ann Barbara Holburne, of 10, Cavendish-crescent, Bath, £100 each to the Royal United Hospital, Bath, and the Mineral Water Hospital, Bath.—Mr. William Henry Le Bas, formerly of Willeeden Paddocks, Kilburn, but late of 16, Wilton-crescent, Knightsbridge, £100 each, free of legacy duty, to the Hospital for Consumption, Fulham-road, and the Hospital for Diseases of the Chest, Victoria-park.—Mr. Charles Patrick Stewart, formerly of Manchester and of 92, Lancaster-gate, engineer and iron founder, but late of Silwood-park, Sunning-hill, Berks, £50 each to St. Mary's Hospital, Paddington, and the Western General Dispensary, Marylebone.—Mr. Leon Emanuel, of Southampton, £19 19s. each to the Jews' Orphan Asylum and Hospital, Norwood, the Southampton Infirmary, and the Southampton Dispensary.—Sir George Howland Beaumont, Bart., of Cole Oxtan Hall, Leicestershire, who directs that his funeral shall be conducted with privacy and simplicity, and, in lieu of the cost that would otherwise be incurred, gives £100 to the Leicester Infirmary.—Mr. Adolph Mosenthal, formerly of 79, Coleman-street, but late of Copthall-buildings and of Bayswater, merchant, £300 to be distributed by his executors among hospitals and other charitable institutions in England and the Cape of Good Hope.—Dr. Wm. Thompson, late of Lisburn, £100 to the County Antrim Infirmary.—Mr. John Rogers, £50 to the Belfast Royal Hospital.

### Correspondence.

"Audi alteram partem."

#### THE TREATMENT OF PAUPER LUNATICS.

To the Editor of THE LANCET.

SIR,—As a justice of the peace for this county, and one of the visiting magistrates at one of our largest county lunatic asylums, I find that the mode of dealing with paupers deemed to be of unsound mind might be greatly improved. Between September 1st, 1881, and August 31st last I have had seventy-six persons brought before me in this parish said to be insane. Thirty of these I have sent to asylums, while I have discharged forty-six as sane. With the experience I have gained I am satisfied that we ought to have a receiving house for the county, to which all pauper lunatics, found to be such by the magistrates, should be first sent prior to their being drafted off to the larger asylums. These persons should be retained at this receiving house under supervision until each individual case has developed itself, when the party would be either discharged or drafted off to such asylum as the medical superintendent of the receiving house or hospital may consider as best suited for the particular case. If this step were taken, I believe at least one-quarter of those now passed direct to asylums would never find themselves there at all.

According to the present arrangements, the relieving officer has three days to bring a person reported to him as being of unsound mind before a justice of the peace, who within three days is bound to see such person, and he may remand the case for seven days; but then the question of sanity or insanity must be determined—that is, whether the party is to be sent to an asylum or not. It frequently happens that during the seven days a manifest improvement has taken place in the state of the patient, but not quite to such an extent as to warrant discharge. When such is the case, there is no alternative but an asylum, and the party becomes in the eye of the law a lunatic. The temporary removal of such cases to a receiving hospital would meet the

object I have in view, and save the county a heavy and increasing expenditure.

The Commissioners in Lunacy state there is a steady annual increase of 400 lunatics, after allowing for death and discharged, in this county, exclusive of the City, and, as commissioners restrict the three county asylums, Hanwell, Colney Hatch, and Banstead to 2000 each, this annual increase will involve the erection of a new asylum every five years. The cost of the maintenance of our lunatics will therefore steadily increase, unless we pursue at once some direct course such as proposed, and also classify our patients in our asylums, according to the nature of their individual cases, upon some fixed principle, and cease to keep them together in the same wards irrespective of their condition.

I addressed you in November last upon the desirability of having a separate hospital for women suffering from diseases attendant upon childbirth. As I pointed out, it is hard to visit these poor women with the brand of insanity because they are temporarily affected with a disease only requiring care and attention to restore them to health.

I cannot too strongly urge the necessity of classification; but such is the crowded state of our asylums that such an arrangement is impossible; and as the question of additional accommodation will shortly arise, I would make a beginning by erecting a receiving hospital for 200 males and 500 females; also a hospital for female cases—say 200—and an asylum for 400 males and 600 females, so constructed as to allow a classification. I believe all these arrangements could be carried out under the existing Acts of Parliament.

I am, Sir, your obedient servant,

Chelsea, Oct. 13th, 1882.

H. W. GORDON.

## POISONOUS DOSES OF MALE FERN.

To the Editor of THE LANCET.

SIR,—The lamentable occurrence reported in the *Ceylon Observer*, and commented on in your last number, induces me to offer a few remarks. Probably there is no practitioner in England who would think of prescribing six drachms of the ethereal extract of male fern for a single dose, and still less likely would he be to follow it up at a short interval by a second dose of equal amount. Having on several hundred occasions prescribed male fern in cases of tapeworm, it may encourage others who have not enjoyed equal opportunities if I state that doses not exceeding one drachm never occasioned serious mischief; and only in four instances within this experience did any untoward symptoms show themselves. In one case, that of an M.P., where two separate one-drachm doses were given, a slight attack of jaundice followed; and in another case, that of a little boy about seven years old, two half-drachm doses produced mental confusion. In both cases the symptoms soon passed off. I have seen no permanent ill effects from male fern, but I have heard of one instance in which three drachms of the extract sufficed to produce alarming symptoms. It would be a pity if this valuable remedy, the preparation of which costs pharmacutists so much trouble, should be discarded on account of its fatal employment in the Ceylon patient. In many cases of five, ten, and even fifteen years' standing, I have found it efficacious; and in one instance, where a gentleman had been treated, off and on, for more than sixteen years, a second half-drachm dose of the extract brought away the so-called *head* of the worm. In a little girl of two years old, the administration of ten drops finally effected the same result. I have tried most of the other vermifuges recommended in the *Pharmacopœia*, but out of several dozen *heads* of tapeworms in my possession not more than two of them were expelled by their agency. The male fern extract brought away all the others.

I am, Sir, yours truly,

T. SPENCER COBBOLD, M.D., F.R.S.

London, Oct. 16th, 1882.

## "BANGOR FEVER AND THE WATER SERVICE"

To the Editor of THE LANCET.

SIR,—The attention of the Bangor Local Board has been called to an article which appeared in THE LANCET of Sept. 30th, respecting the epidemic of typhoid fever at Bangor, in which it is stated that "it is much to be deplored that the Local Board of Health set their own opinion against that of their medical officer of health, and declined to accept

his view that water pollution was the real cause of the outbreak. Had they at the first outset acted on the advice of their proper adviser in such matters much sickness and distress might have been avoided."

I am directed to state that the article in question appears to the Board to be simply a continuation of the unworthy and utterly uncalled for attacks made on them at Rhyl a few weeks ago by THE LANCET's friends and patrons, and the Board feel that it is only fair to themselves and the public to submit the following questions—viz., (1) Will THE LANCET be pleased to point out any particular order or suggestion of Dr. Rees or the Local Government Board, directly bearing upon the epidemic, with a view of checking the same, that this board did not attend to and that promptly? (2) If this board had been in perfect accord with Dr. Rees' theory, and believed that the water was contaminated, could they have done one  *iota* more than they did to stay its ill effects? (3) In the serious emergency, was not every action tending directly to prevent the spread of the epidemic done at the suggestion of members of the Board or their clerk and surveyor prior to Dr. Rees' instructions for fumigating the sewers on Aug. 20th.

I am also directed to state that it is the opinion of the Board that if the writers in THE LANCET are as anxious to be truthful and accurate as they seem to be to damage the reputation of a public body by such vile aspersions, they will no doubt make further inquiries into this matter, and the Board have no fear of the result being in any one particular materially unfavourable to their proceedings.

I am, Sir, yours respectfully,

Bangor Local Board of Health, Oct. 5th, 1882.

JOHN GILL.

\*. \* It is not our custom to insert letters containing strong epithets and accusations of untruthfulness; but the occasion may be regarded as an exceptional one, and hence, in this instance, we depart from our usual practice. We would, however, express a hope that Mr. Gill is in error in attributing to the Local Board of Health for Bangor the language he has seen fit to embody in his letter. With regard to Mr. Gill's questions, we prefer answering them by references to the official report which Dr. Barry has presented to the Local Government Board. 1. As to the alleged prompt action in carrying out suggestions as to checking the disease. From Dr. Barry's report it is evident that Mr. Rees, the medical officer of health, suspected water pollution as far back as June 13th; that the sanitary authority, instead of "accepting the opinion of their medical officer of health that the primary cause of the outbreak was to be found in the water...., sought it in meteorological and other obscure directions"; and that having received a favourable analysis of some samples, "they at once concluded that the danger could not lie in that direction, in spite of Mr. Rees' statement that the specific infection of enteric fever could not be detected by analysis." 2. As to what more could have been done by the authority to stay the progress of the disease, we note that Dr. Barry, being in complete accord with the views expressed by Mr. Rees as to the cause of the epidemic, left with the authority on August 3rd a written memorandum embodying the "immediate steps" necessary for adoption. After an interval of some six weeks he reports on the 20th of September his regret at the "considerable delay" which had taken place "in carrying out some of the more important" of these measures, and he instances two serious examples. Thus, the "renewal of the old filtering material" (believed to be specifically contaminated) "was not ordered by the sanitary authority until August 17th, and the work was not executed until the 5th of September." And again, "the provision of efficient ventilation for the main sewers" (the lack of which was leading to the entrance of specifically poisoned air into dwellings) "to the necessity for which," says Dr. Barry, "I had drawn particular attention on the 3rd August, was only ordered by the sanitary authority to be done to a limited extent on the 31st August, and not fully until the 7th September." 3. We have on no occasion referred to the instructions given on August 20th as to the fumigation of the sewers. What we have referred to was



the unfortunate delay in dealing "promptly" (to use Mr. Gill's own term) with the conditions tending to the spread of this disastrous epidemic, and we need not go beyond Dr. Barry's official report for a full confirmation of what we have stated. We have received a letter from Mr. Hugh Rees, written in reply to that of Mr. Gill published in the local papers. The communication, which is too long for insertion, entirely confirms the statements we have thought it right to make in regard to this matter.—ED. L.

### PROFESSOR PACINI'S LETTER.

To the Editor of THE LANCET.

SIR,—On receiving my copy of your last impression I found, to my great regret, that some misprints in the copy of Professor Pacini's letter had escaped my notice when correcting the proof. I shall esteem it a favour if you will allow me now to correct the following *errata*:—Line 2 of the letter, for "ella" read *Ella*; line 4, for "dictro" read *dictro*; line 11, for "attribuarla" read *attribuiria*; line 14, for "morte" read *morti*; line 16, insert "dei" before *Lincei*; line 18, omit the apostrophe after "del"; at the conclusion, for "afft" read *affs*.—I am, Sir, yours truly,

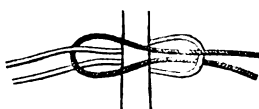
Savile-row, Oct. 17th, 1882.

GEORGE JOHNSON.

### A SIMPLE OPERATION FOR VARICOCELE.

To the Editor of THE LANCET.

SIR,—I have for some time adopted a mode of ligature for varicocele which has been found to answer very well. It is a modification of M. Ricord's plan, and will be readily understood by the accompanying diagram. The skin of the



projecting. A second needle is now passed in the opposite direction between the veins and the skin, leaving a loop also. The free ends of the ligature are then passed one under and one over each loop, drawn up tight, tied, and cut off short, the knot on each side sinking subcutaneously. The after results are the same as in the cases described by Mr. A. Barker. The performance of it is quick, simple, and efficient.

I am, Sir, your obedient servant,

Hanley, Oct. 10th, 1882.

W. DUNNETT SPANTON.

### "THE QUEEN'S UNIVERSITY DEGREES."

To the Editor of THE LANCET.

SIR,—My attention has just been drawn to a letter in your issue of the 7th inst., in which Dr. A. H. Jacob admits having stated to the Royal Medical Commission that "a student attending a Queen's College may obtain all the lectures necessary for a Queen's University degree in two years," and refers to the Queen's University of Ireland calendar as proving that "two courses of lectures at most were required by the University in any subject and these were readily obtained in two years." Now the fact that two courses at most were required is undoubted, but this does not prove that all the lectures could be taken out in two years, and in a Queen's College. As a matter of personal experience, I may say that I tried at Cork to take lectures in anatomy and medicine in the same year, and (after paying my fees, a fact which may have aided my memory) found I could not do so, as both lectures were delivered at noon and on the same days (*vide* Queen's College of Cork Calendar). Now, as two courses of lectures in anatomy are required and one in medicine Dr. Jacob's general statement about the Queen's Colleges falls to the ground. Other instances of lectures "clashing" could easily be given, and to show the strictness with which the "two-thirds" rule is carried out let me add that I have known a student who required a certificate of having attended fifty lectures, to be refused any certificate as he had attended only 75 lectures out of a course of 120, and the incident was not considered at all singular.

Passing over the curious statement that twenty-four months' hospital attendance is equivalent to two years and three months, which, as the hospital year has only nine months, seems very strange arithmetic, we read "that difficulty was *always* easily adjusted with the hospital authorities." The only meaning I can attach to these words is that the hospital authorities conspired with the students to cheat the Queen's University of Ireland by means of false certificates, and that this odious charge is not true always must be known to every medical man, so I content myself with denying that such a thing could be done in the Cork hospitals, and shall be glad to hear what evidence Dr. Jacob has of its feasibility in the other hospitals which could be attended by a "student attending a Queen's college"—i.e., Belfast or Galway. Judging from an uncontradicted letter in a recent number of THE LANCET, in which it was stated that apothecaries' apprentices obtain bogus certificates from certain hospitals or schools, and especially from the careless way Dr. Jacob speaks of so grave an offence, it might be perpetrated in Dublin, but then a student cannot be in Dublin and "attending a Queen's College" at the same time. And if the Queen's University were cheated why should Dr. Jacob think the crimes of hospitals faults in its curriculum? Could even he, with his evident experience, distinguish a false from a true certificate?

Dr. Jacob concludes his letter with the remark: "Therefore it is quite true, as I stated, that a student could (and many did) complete his entire curriculum in a couple of months over two years." But this is decidedly not what Dr. Jacob stated, for he told the Commissioners nothing about the "couple of months," and he now omits all reference to the Queen's Colleges. And what can Dr. Jacob mean by "a couple of months," which he elsewhere calls "three months from November," only to add that they were "always" evaded? How could it benefit a student to have completed his curriculum at mid-winter, when the next Queen's University of Ireland examination would be in June?

I have known over 500 Queen's University of Ireland students, and have prepared many of them for examination, and am able to say positively that very few of them, certainly not 5 per cent., took out their College lectures in even three years, that none of them took them out in two years, while the complete curriculum (college and hospital) always occupied four, and frequently five years.

In conclusion, I call upon Dr. Jacob to inspect the time-tables contained in the Queen's College of Cork calendar, and having satisfied himself of the inaccuracy of his statement as to the Queen's Colleges generally, to withdraw it (at least as far as concerns Cork), and further, to inform the Royal Commissioners that what he stated, or meant to have stated, was that the hospitals cheated the Queen's University, so as to enable a student to complete his curriculum in a "couple of months" over two years, and not that a student could honourably complete it within two years, as the Commissioners and the public understood.

I am, Sir, yours faithfully,  
W. R. F.

Oct. 10th, 1882.

\* \* We select this letter for publication out of a number of long ones on the same subject, for which it is impossible to find room. The writer of one of reasonable length says, "I should like to know even one of the many cases which Dr. Jacob has known to have been admitted graduates in medicine long before the lapse of the statutory four years."—ED. L.

### NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

THE annual meeting of our Hospital Sunday Fund was held on the 5th ult., when the committee was glad to be able to again report an increase in the aggregate amount of the 1881 collections over those of 1880. There has been in the year a slight decrease in the sums collected at places of worship, which has been more than covered by the workmen's collections for the Hospital Saturday Fund. The relative figures are as follows:—Places of worship collections, 1880, £1943 5s. 7d.; in 1881, £1911 3s. 7d., a decrease of

32 2s. Workmen's collections in collieries and factories in 1880, £1171 19s. 10d.; in 1881, £1466 5s. 3d., or an increase of £294 5s. 5d.; showing a net increase in 1881 of 262 3s. 6d. The increase in the workmen's collections is highly satisfactory, but the committee appear to be a little timid as to the slight falling-off in the Church collections. On the other hand, it is felt by outsiders that there is but little cause for fear. And may not many of the workmen who formerly gave on the Sunday, now that the Saturday collection is so well established, contribute in that direction? An attempt was made by the movers of the fund to establish a regular collection among the workmen of one penny per week, believing that a considerable sum might be realised in this way; but the project so far has only met with limited success. Upon the whole, our Hospital Sunday Fund has done an immense amount of good since its institution in 1870. I need only mention that it was in that period received and disbursed the noble sum of £36,419 10s. 10d. The committee truly say that "these figures speak for themselves, and are the most eloquent advocates"; and further, they ask that each and all may unite in securing for this year, "the first in our city history, the largest collection ever taken on behalf of our Northern Hospital Sunday Fund." Some anomalies in the distribution of the fund this year, by which the smaller institutions were received a relatively smaller amount than last year, is promised adjustment in the next distribution. Upon the whole, Mr. Richard H. Holmes and the other gentlemen associated with him have worked hard, and deserve much credit for placing, by their management, this great fund on a firm basis.

There is no use in shutting one's eyes to facts, however unpleasant they may be. There has been much talk about small-pox lately both in and out of our city chamber, some asserting strong figures, and others equally strong contradiction, the latter by those who often know least as to what they are talking about. I mean some of our councillors. The small-pox, however, has a very persistent mode of asserting itself, and it is here, and here as in epidemic. Unfortunately it is diffused, a case occurring here and there in various points of the city and the neighbouring borough of Gateshead; so that the enemy is not only "at our gates," but "in our midst." In our own city I have not seen so many bills out as in Gateshead reminding the people of the necessity of vaccination. Every day lost in doing so is much to be regretted in this stage of the epidemic; at present the type is not bad, and mortality is low, but who can say how long this may last? The Rev. Rowland East, Incumbent of St. Andrew's in this city, and who was a qualified medical man before he took holy orders, has written a terse and well-timed letter to the *Daily Express* and other papers here as to the necessity for vaccination, and showing from his own experience as a visiting clergyman its efficacy; this letter to my knowledge has done much good. There is a large class who do not read the newspapers, and these can best be got at by handbills and "mural literature," or house-to-house visitation, but best of all by the vaccinator. A staff of instructed students might in a few days vaccinate some thousands of people. We hear little or no objection urged against vaccination nowadays here, and most practitioners are busily engaged vaccinating the middle classes. If the student scheme were adopted, it would at all events enable them to usefully get rid of some of that exuberant energy of which we had evidence on the opening of the College. The question of expense might be urged against a plan of this nature; but it should be the last thing to be considered by our authorities, seeing that they are about to spend £500 on preliminary drains for the new fever hospital on the Moor, while the Sanitary Congress cost the city £200, and I do not say the money was otherwise than well spent. "Prevention" by way of extensive and systematic revaccination would in the case of small-pox be "better than cure," and I believe also cheaper in the long run.

Much interest is felt here in the coming election at Edinburgh for the post of pathologist to the Royal Infirmary, seeing that Dr. B. Bramwell is a candidate. Dr. Bramwell belongs to an old Tyneside medical family, and before he left the Tyne for "Auld Reekie" he filled the post of pathologist and physician to our infirmary, and it is not too much to say that he filled them well, and that altogether we know him to be a man of high professional attainments.

We are about to have a new institution, and one, I fear, that all our present medical charities can help to

supply with inmates. I mean a Hospital for Incurables. This has been brought about in rather an interesting way. It will be necessary, in the first place, to go back to the reign of King Henry I., when was founded a hospital here called the St. Mary Magdalene, to receive a master, or governor, and brethren, and sisters afflicted with leprosy. In course of time as this disease disappeared the funds were devoted to decayed citizens, with £500 per annum to the master, who was to be a clergyman of the Church of England, with clerical duties appertaining to the office to be performed in the chapel of the hospital. In the course of time the funds increased very much from the enhanced value of the hospital land, and now there is an accumulation of several thousands, with almost a certainty of further increase as leases fall in. The trustees had power in dealing with the income and funds, either in distribution amongst existing charities of the town, or to found and support any new medical charity deemed necessary. They very wisely decided to found a hospital for incurable diseases, and are now casting about for suitable ground for premises. Thus, to as great an extent as is possible in the present day, the funds of this ancient charity are to be appropriated in accordance with the wishes of the pious and thoughtful founder, expressed 700 years ago. In speaking to an American physician at Worcester, he told me he was much struck with the old dates of our institutions. If he sees this notice he will hear of an institution that will carry his mind back to an early period of the history of England surviving and flourishing.

Newcastle-on-Tyne, Oct. 16th, 1882.

## GLASGOW.

(From our own Correspondent.)

JUDGING from the smallness of the number of students presenting themselves for the preliminary examinations at this time, it is anticipated that there will be a marked falling off in the attendance at the University Medical School this session, more especially in the junior classes. Such a state of matters will also probably tell on the extra-mural schools, and for some of them any decided decrease means extinction.

The chloroform question claims a very large share of attention here just now, various unfortunate occurrences, in connexion with anaesthetics, which have taken place lately, having created a kind of panic in many minds. In the Royal Infirmary matters have gone still further, decided action having been taken. Passing by their standing medical committee, the managers have framed a set of rules anent the giving of chloroform, and the conditions under which it must be administered. Of these rules, which come up for consideration and perhaps adoption in the course of a week or two, nothing need be said just now, except that they are of the most extraordinary nature, and certainly not such as are likely to be easily accepted by the surgical staff. Sympathising with the surgeons, the Faculty of Physicians and Surgeons have adopted the very unusual course of calling a *pro re nata* meeting of the Fellows, at which the whole question will be discussed. It is not easy to see what the Faculty in its corporate capacity has to do with the matter, and its deliverances on the subject are awaited with some curiosity.

The contest for the Children's Hospital appointments goes on. Several of the candidates, and especially those to whom rumour assigns the strongest prospects of success, already hold office in one or other of our infirmaries. There is a certain degree of injustice in this, and it causes some irritation; it is held that such appointments should not all go in the same directions. It is understood also to be a *sine qua non* in the case of applicants for the resident medical officership that they should be *non-smokers*.

A correspondence marked by an unusual amount of ornate writing, and to which Dr. W. T. Gairdner has contributed a very excellent letter, is at present going on in the columns of one of our daily papers regarding the pandemonium of noises in which the inhabitants of this city seem content to dwell. Special complaint is made of railway whistling and of the "devils" which many employers use to call their workmen in the morning and after meals. It is to be hoped that something will come of this letter-writing,

though the prospect of such a consummation is not very bright, the principal offenders being the most powerful men in the district.

### SCOTTISH NOTES.

(From our own Correspondent.)

A DIFFICULTY at present exists with regard to the teaching of pathology in Aberdeen. The munificent gift of Sir Erasmus Wilson, by which the chair was endowed, supplied the most conspicuous want of the northern school; but the want of an hospital appointment is anticipated by Professor Hamilton to be a serious hindrance in his work of teaching. Dr. Rodger has for many years acted as pathologist to the infirmary, and his great knowledge of his subject has been made available to the students even while he received but small consideration or support from the university authorities. He is naturally unwilling to vacate his post, and the infirmary directors would hesitate much before they would dispense with the services of one who had so long and so successfully served their interest. Dr. Rodger is quite willing to supply the professor with what material for teaching may be available, but many of the students will feel anxious to have the guidance of more than one lecturer, or at least demonstrator, of pathology, and this might prove a useful check upon a too dogmatic tone on the part of either teacher, a fault not unknown among even professors of pathology. The present arrangement is that which holds good in Edinburgh, and is said there to work very well. In any case it is hoped that arrangements, chiefly in the interest of the students, may be carried out, and it is just possible that Dr. Rodger may accept the position of assistant physician to the infirmary, likely soon to be instituted. It will be unfortunate if Dr. Rodger's wide and accurate knowledge of scientific medicine is not made useful to the students.

In pleading the cause of medical students at the meeting of the University Council last week, Dr. Struthers had a congenial task. The remarkable paucity of bursaries available for medical students at Aberdeen, as compared with those existing in the other faculties, will be seen at a glance on reference to the following table:—

	No. of Students.	No. of Bursaries.	Value of Bursaries.
Faculty of Arts ...	382	282	£5058
Faculty of Divinity ...	32	32	732
Faculty of Medicine ...	335	17	345

Dr. Struthers' purpose in bringing forward this matter was to influence the University Court in favour of making the facts known to friends of the university and of science who might be looking about for some way in which they might benefit deserving youths. The great and increasing cost of medical education, the constant study during summer as well as winter, and the consequent inability of medical students to assist themselves by other work, and the assiduity of the students, were all given as reasons for claiming extraneous aid by means of bursaries. The Council, including the clerical members, two of whom spoke in favour of Dr. Struthers' views, unanimously supported him; and it may be suggested to graduates of Aberdeen that the subject is a very desirable one for their own consideration, as well as one which might with advantage be brought under the notice of wealthy and benevolent patients or friends. There are other universities in Scotland equally anxious to obtain good bursary lists, and £500 devoted to the foundation of such a prize would certainly be money well spent.

The recent local Act for Dundee contains a clause making it obligatory on the part of both doctor and householder to report cases of infectious disease to the authorities. During the first month in which the Act has been in force medical practitioners have reported in 124 cases, householders or persons in charge in 9 cases, and householders and medical men in 12 cases. It is thus seen that householders incline to leave the disagreeable duty to the doctor, but possibly it is more from ignorance than design. Dr. Anderson's first report shows the great prevalence of infectious diseases in Dundee, and the utter inadequacy of the present means of isolation. The authorities seem disposed to take active measures to remedy their former neglect.

The Sanitary Committee at Cupar having declined to

endorse Dr. Whitelaw's recommendation to close the public schools on account of the widespread and fatal epidemic of scarlet fever, that gentleman has again urgently repeated the suggestion, supported by the decided opinions of Drs. Macdonald and Douglas. He shows that many workmen have been thrown out of employment in consequence of the illness of their children, and that the disease continues to spread. Ultimately it was agreed to close the schools, with the exception of a middle-class institution, and this halting measure is said to have caused much dissatisfaction in the district.

Five new wards are at present being added to the Royal Infirmary at Stirling, and besides this, further accommodation will be provided for the convenience of the out-door patients and nurses. The cost is estimated at about £1500.

Mr. Hunter, of Forfar, sustained a rather serious accident on Saturday last. His horse shied and reared in such a manner that he was thrown backwards from the gig, falling with much violence upon the pavement.

### PARIS.

(From our Special Correspondent.)

THE epidemic of typhoid fever now raging in Paris is assuming such proportion that those who have no serious motive for visiting the city at the present time will do far better to stay away. During the week ending October 2nd, there were 536 admissions for typhoid into the Paris hospitals. In the six days ending October 8th, the number was nearly doubled, being 1001; and it is probably within the mark to estimate that there are now 3000 cases in the hospitals alone, to say nothing of those that are treated by private practitioners. At the Lariboisière, which is within a stone's throw of the Northern Railway Station, there were between four and five hundred patients last Saturday, and the other hospitals are all crowded with similar cases. A few weeks since, the disease, although extending, remained of a mild type, but it is now becoming far more fatal, and as the past week has shown a larger number of invasions than any previous one, it is to be feared that the death-rate will become even greater than at present. The causes of the present epidemic may to a certain extent be meteorological and cosmic, and consequently beyond human reach or prevision; but there are many conditions which make typhoid endemic, with a regular weekly death-rate of 30, which can and ought to be remedied.

Every one who has been in Paris must be familiar with the bad smells that prevail even in the best parts of the town. These, to a great extent, arise from the cesspools beneath the houses, and make their way up the imperfectly trapped pipes. A flat or apartment in a fashionable quarter, consisting of a drawing-room, dining-room, and from three to seven bedrooms, will vary in rent from £200 to £500 a year, according to circumstances; yet with such a rent the water-closet accommodation is generally inferior to that of an English workman's cottage. In the apartment occupied by your correspondent every drop of water must be placed by hand in a little reservoir, which is anything but sufficient for flushing the pipes. Whenever the weather is stormy the fact becomes painfully obvious by the disagreeable odour that pervades the house. As an average cesspool receives the sewage of from twelve to twenty or more families, supplying them in return with sewer-gas, the wonder is not that there is so much typhoid, but that any susceptible person can escape when there is a case in his house.

### ROYAL COLLEGE OF SURGEONS.

AT a quarterly meeting of the Council of the Royal College of Surgeons, held on Thursday last, Mr. Thomas Bryant was elected a member of the Court of Examiners in the place of Mr. Birkett, who retires; and Mr. Cooper Forster was elected Mr. Birkett's successor on the Board of Examiners in Dental Surgery. Sir James Paget was nominated the Bradshawe Lecturer. Though the date has not been fixed, it is thought that the lecture will be delivered before the close of the present year.

## THE NEW ENTRIES.

THE following are the numbers of new students at the Medical Schools from which returns have been received:—

	Full Course.	Occasional.	Total.
St. Bartholomew's ...	110	51*	161
University College ...	89†	55‡	144
London ...	87	40	127
Guy's ...	81	15	96
St. Thomas's ...	62	31	93
Charing-cross ...	41	19	60
St. George's ...	42	6	48
Middlesex ...	37	6	43
King's College ...	35	—	35
St. Mary's ...	26	6	32
Westminster ...	24	1	25
Owens College, Manch. ...	58	18 (- 12‡)	76
Bristol ...	29	—	29

\* Thirty-six of these are students for London University.

† "Mostly full."

‡ Prelim. Scient.

## Obituary.

## THOMAS PALMER, M.D. LOND.

DR. PALMER, who died on the 8th inst., was born in 1819, and was the son of the Rev. H. Palmer, of Vjcars Hill, Tipperary. On completing his professional studies in Dublin he came to London. For some time he was house-surgeon to the Western General Dispensary. On quitting this post he practised successfully for many years in Southwick-street and Radnor-place, Hyde Park. Whilst engaged in public and private practice he so studied that he graduated at the London University "with honours." He was occasionally an original contributor to this journal. He was of a very retiring disposition; otherwise, by his abilities and his persevering industry, he might have gained a distinguished career. After some years spent in laborious practice his health gave way, and he was obliged to retire. In the early spring, in spite of a severe cold, he went, as was his custom, to Switzerland, where he was seized with pleuro-pneumonia. He partially recovered, but continuing his travels, he had a relapse, and after a painful struggle to return home from Berne, he reached the residence of his friend Dr. Fussell, at Brighton, moribund, and died in three days.

## JOHN HAXWORTH, M.R.C.S., L.S.A.

THE subject of this notice was a well-known man in Sheffield and father of the medical profession in that town. He commenced the study of his profession under Mr. Hounsfield in 1814, and after attending the infirmary there completed his studies at Guy's and St. Thomas's. After qualifying he became partner with his former master, and continued to reside in the same house until his retirement, a few months ago, after sixty years' work. Retaining the old style of dress, his familiar form was easily recognised. His principal appointment was that of honorary surgeon to the Bluecoat Charity School. Ever in the van to do a kindly action, he still had the most scrupulous regard for professional honour and integrity, from which no temptation could make him swerve. A man of active habits, he maintained his mental and bodily vigour unimpaired to the last. A severe cold caught in London a fortnight before developed an attack of broncho-pneumonia, which proved fatal on July 5th. at the age of eighty-four years. Rich and poor alike joined in paying a last tribute as his remains were laid to their rest.

MIDLAND MEDICAL SOCIETY. — At the annual meeting on Oct. 11th the following gentlemen were elected office-bearers to the Society:—President: E. Malins, M.D. Treasurer: J. Harmar. Secretaries: H. Eales and T. F. Chavasse. Members of Council: Thos. Savage, M.D., H. R. Ker, Beunett May, B.S., A. H. Carter, M.D. Five guineas each were voted to the Medical Institute and to the Medical Benevolent Society of Birmingham.

## Medical News.

UNIVERSITY OF DURHAM. — The following candidates have passed the First Examination for the Degree of Bachelor in Medicine:—

Archer, Edmund Lewis, M.R.C.S., St. Bartholomew's Hospital.  
Bate, John Fredk., University College Hospital.  
Blight, William Lyne.  
Dixon, Henry W., Newcastle-on-Tyne.  
Harper, John Maurice, London Hospital.  
Hartley, Isaac, Newcastle-on-Tyne.  
Jaques, William, Newcastle-on-Tyne.  
Lazenby, James, Newcastle-on-Tyne.  
Mosse, Herbert, Charing-cross Hospital.  
Newbolt, George P., St. Bartholomew's Hospital.  
Ople, Edward Augustus.  
Robinson, Louis, St. Bartholomew's Hospital.  
Robson, James Matthew, B.A., Newcastle-on-Tyne.  
Thistle, Fredk. T., L.R.C.P., St. Bartholomew's Hospital.  
Woolmer, Shirley Lawrence, University College Hospital.

The following candidate passed in Honours (Second Class):—  
Roberts, James R., Middlesex Hospital.

Ten candidates failed in the examination as a whole. Two failed in Chemistry only, and one in Botany only.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Oct. 12th:—

Iliewicz, Henry Frederick, Marquess-road, Canonbury.  
Leftwich, Charles Harcourt, Newcross.  
Manley, John Herbert Hawkins, West Bromwich.  
Tripp, Chas. Llewellyn Howard, Royal Free Hospital.

MR. HENRY DE MÉRIC has resigned his appointment as surgeon to the French Hospital and Dispensary.

A NEW Cottage Hospital has just been opened at Aylburton, Gloucestershire.

THE Treasurer of Addenbrooke's Hospital, Cambridge, has received the sum of £147 as the first instalment from the proceeds of this year's Hospital Saturday collection.

CANTON is soon to be supplied with pure water by a native waterworks company. The capital, which is subscribed by Chinese entirely, amounts to £60,000.

THE Metropolitan Board of Works are about to try to carry out four schemes under the Artisans' Dwellings Acts, with the improved powers given to them under the new Act of Parliament.

THE Princess of Wales paid a visit on Saturday last to the London and Ascot Convalescent Home at Ascot. Her Royal Highness passed through the wards, and expressed her interest in the patients and her pleasure in the arrangements of the institution.

NORTH-WEST LONDON HOSPITAL. — The Lady Mayoress, accompanied by the Lord Mayor and Sheriffs, will lay the foundation stone of the new wing of this hospital in the Kentish-town-road on Wednesday, the 25th inst., at three o'clock.

THE WESTMINSTER HOSPITAL MEDICAL SCHOOL. — The Fence Entrance Scholarship of £40 per annum for two years has been awarded to Mr. E. O. Cox, and the Entrance Scholarship of £20 for two years to Mr. H. Brackenbury and Mr. H. S. Cooper (equal).

ROYAL COLLEGE OF SURGEONS, EDINBURGH. — At the annual meeting of the College on the 18th inst., the following office-bearers were elected for the ensuing year:—  
President: Mr. William Turner. Secretary and Treasurer: Mr. Joseph Bell. Librarian: Dr. A. Dickson. President's Council: Drs. Henry D. Littlejohn, Patrick Heron Watson, David Wilson, Mr. Francis Brodie Imlach, Drs. John Smith and Douglas Argyll Robertson. *Ex officio*, Mr. Joseph Bell, Examiners: Drs. J. D. Gillespie, H. D. Littlejohn, Patrick H. Watson, David Wilson, John Smith, Mr. Joseph Bell, Dr. J. Duncan, R. J. Blair Cunynghame, Alex. G. Miller, and P. H. MacLaren; Mr. Johnston Symington and Dr. R. Macneir. Dental Examiners: Dr. Patrick H. Watson, Mr. Francis B. Imlach, Drs. H. D. Littlejohn and John Smith, Messrs. Andrew Wilson and George W. Watson. Assessors to Examiners: Mr. William Brown, Dr. J. S. Combe, Mr. Benjamin Bell, and Mr. W. Walker. Conservator of Museum: Dr. R. J. Blair Cunynghame. Clerk: Mr. J. Robertson. Officer: Mr. Colin Mackenzie. Assistant to Conservator: Mr. George Reid.

**MEDICAL MAGISTRATE**—His Grace the Duke of Devonshire, the Lord Lieutenant, has placed William Webb, M.D., F.R.C.S., of Wirksworth, on the Commission of the Peace for the County of Derby. Dr. Webb qualified as a magistrate at the quarter sessions held at Derby on the 17th instant.

**UNIVERSITY COLLEGE, LONDON.**—Andrews Entrance Prizes of £20 have been awarded for Science to T. Varley and J. H. Hooker, and for English and other languages to T. M. Neatby. The Medical Entrance Exhibition of £100 has been awarded to H. P. Dean, that of £60 to W. P. May, and that of £40 to C. W. Jecks. L. A. Legros has gained the Gilchrist Entrance Scholarship in Engineering of £35 per annum for two years.

A CASE in which the death of an infant was attributed by the medical witness to a "soothing syrup" was under investigation by Dr. Diplock on Monday. The jury, in returning a verdict of "Death by misadventure," added a rider to the effect that some restriction should be placed on the sale of patent medicines which could be used as poisons. It is unfortunate that the official interests of the Chancellor of the Exchequer and the health interests of the public are in conflict in this matter.

**ANOTHER DEATH WHILE UNDER CHLOROFORM.**—Another fatal case of chloroform administration is to be added to the rapidly growing list. The lamentable event occurred at the Royal Berks Hospital on the 10th inst., the patient being an apparently healthy herdsman, who cut his finger whilst sharpening a scythe. Disease supervening in the joint, it was proposed to remove the digit, for which purpose, at the patient's request, chloroform was administered. Before the operation was commenced, however, the man ceased to breathe. A necropsy revealed the existence of cardiac disease, in the opinion of the house-surgeon, the result of an old attack of pleurisy.

**GLASGOW SOUTHERN MEDICAL SOCIETY.**—At a meeting of the Glasgow Southern Medical Society held in Fleming's Temperance Hotel, 11, Bridge-street, on Thursday evening, the 12th inst., the following gentlemen were elected office-bearers for the ensuing session, 1882-83:—President: Dr. James Barras. Vice-President: Dr. Robert Park. Treasurer: Dr. Edward McMillan. Secretary: Dr. N. T. Smith. Editorial Secretary: Dr. Robert Pollok. Seal Keeper: Dr. R. W. Forrest. Court Medical: Dr. Carmichael (convener), Dr. Macfarlan, Dr. John White, Dr. John Dougall, and Dr. James Morton. Council: Dr. W. Carr, Dr. T. F. Gilmour, and Dr. Alex. Napier.

**SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.**—A quarterly court of the directors of this Society was held on October 11th, in the rooms of the Royal Medical and Chirurgical Society. The chair was taken by the President, Sir George Burrows, Bart. Two new members were elected. The death of one widow was reported, and two orphans had ceased to be eligible for further grants. Applications for grants were received from sixty-one widows, five orphans, and three orphans on the Copeland Fund, and it was resolved that a sum of £1259 10s. be recommended for distribution at the next quarterly meeting. The quarterly expenses amounted to £34 17s. The state of the funds permitting, it was resolved, on the motion of the acting treasurer, to make a Christmas present to the widows and orphans in December next. The report of the committee on the revision of the by-laws was considered, and it was resolved that many important alterations should be submitted for approval at a general meeting of the Society.

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

**ARMSTRONG, WILLIAM, M.R.C.S.**, has been appointed Deputy Medical Superintendent of the Yarra Bend Lunatic Asylum, South Australia.

**AYRES, ALFRED R. ASTON, L.R.C.P. Ed., M.R.C.S.**, has been appointed Medical Officer for the Preston District of the Brighton, Hove, and Preston Provident Dispensary.

**BARLING, HARRY GILBERT, M.B. Lond., M.R.C.S.**, has been appointed Resident Surgical Officer to the General Hospital, Birmingham.

**BELL, JOSEPH C., F.C.S.**, has been appointed Public Analyst for the Borough of Birkenhead, vice Vacher, resigned.

**BENSON, A., F.R.C.S. I.**, has been appointed one of the Surgeons of the Dublin Throat and Ear Hospital, vice Windle, resigned.

**BUCHAN, WILLIAM AUGUSTUS, M.B. Edin.**, has been appointed House-Surgeon to the Clinical Hospital, Manchester.

**BUCHANAN, PETER, M.B., C.M. Glas. Univ.**, has been appointed Certifying Surgeon of Factories in the Coleford District, Gloucester.

**CARLESS, G. NICOLLS, M.B.**, has been appointed Medical Officer to Her Majesty's Prison, Devonize, vice Edward Clapham, M.D., resigned.

**HALL, B., M.B. Lond., M.R.C.S.**, has been appointed Assistant Medical Officer at Earlswood Asylum, vice Dr. Jones, appointed an Assistant Medical Officer at Colney Hatch.

**JAMES, HENRY, L.R.C.P. Ed., M.R.C.S.**, has been appointed Visiting Physician to the Austin Hospital for Incurables, Australia.

**LUCAS, HERBERT, M.R.C.S., L.S.A. Lond.**, has been reappointed Medical Officer of Health for the Godmanchester Urban Sanitary District.

**NEWCOMBE, FRANK, M.R.C.S., L.S.A. Lond.**, has been appointed Medical Officer for the Clifton District of the Newark Union.

**SCOTT, CHARLES C., M.B., C.M. Edin.**, has been appointed House-Surgeon to the Ayr New Hospital, and Surgeon to the Dispensary.

**SPENCE, WILLIAM JAMES, L.R.C.P. Ed., L.R.C.S. Ed.**, has been appointed Resident Physician to the Bradford Infirmary and Dispensary, vice Foster, resigned.

**STRAVENSON, W. E., M.B. Cantab., M.R.C.S., S.Sc. Cert. Camb.**, has been appointed Electrician to St. Bartholomew's Hospital, London.

**THOMSON, ALEX. GUTHRIE, L.R.C.P. Ed., L.F.P.S. Glas.**, has been appointed Medical Officer to the Horsmonden District of the Tonbridge Union.

**WATKINS, WILLIAM LONGWORTH, L.K.Q.C.P.I., L.R.C.S.I.**, has been appointed Medical Superintendent of the Guntary Lunatic Asylum, South Australia.

## Births, Marriages, and Deaths.

### BIRTHS.

**CAPON.**—On the 6th inst., at Edgware-road, W., the wife of Herbert J. Capon, M.D., L.R.C.P. Lond., &c., of a daughter.

**KILNER.**—On the 11th inst., at Bury St. Edmund's, the wife of Charles Scott Kilner, M.B., of a daughter.

**POTTS.**—On the 12th inst., at Sunnyside, Leatherhead, Surrey, the wife of Laurence Potts, M.R.C.S. &c., of a son.

**RENDALL.**—On the 10th inst., at Malden Newton, the wife of William Rendall, M.R.C.S., of a daughter.

**TURNBULL.**—On the 9th inst., at Kelso, N.B., the wife of G. H. Turnbull, M.D., of a son.

### MARRIAGES.

**ATKINS-INNES.**—On the 11th inst., at St. Mary's Church, Chigwell, Essex, Thomas Gelston Atkins, B.A., M.D., son of William Atkins, Esq., of Cork, to Mary Eliza (Nenone), eldest daughter of the Rev. Canon Innes, M.A., Rector of London, Ontario, Canada.

**DEVIS.**—**CATELL.**—On the 4th August, at Townsville, Queensland, Charles James Devis, M.R.C.S.E., L.S.A. Lond., formerly of Birmingham, eldest son of C. W. Devis, B.A. Cantab., to Alice, youngest daughter of William Cattell, Esq., of Leamington.

**HEATH.**—**BROWN.**—On the 10th inst., at St. Paul's, Newcastle, W. Lenton Heath, M.B., B.S., F.R.C.S., of Gloucester-road, South Kensington, to Bertha, youngest daughter of Arthur Brown, Esq., of High Park-road, Newcastle-on-Tyne.

**HILTON.**—**WOOD.**—On the 10th inst., at St. Augustine's, Northbourne, Kent, Thomas Denne Hilton, M.B., of Upper Deal, son of the late Rev. John Hilton, of Sarre Court, Isle of Thanet, to Emily Elizabeth, eldest daughter of the Rev. Thomas Wood, Rector of Northbourne.

**LAURENCE.**—**CAMPBELL.**—On the 17th inst., at St. Mark's, Regent's-park, by the Rev. F. Earle, Rector of Tanfield, Yorkshire, the Rev. Richard Laurence, Rector of Chigwell-row, Essex, to Frances, widow of W. Campbell, M.D., F.R.C.S. Eng., late of Bangkok, Siam.

**MACQUEEN.**—**GERARD.**—On the 10th inst., at Palmerston-place, Edinburgh, Daniel Macqueen, M.D., Deputy Surgeon-General, Army Medical Department, to Keturah Jane, daughter of the late James Gerard, of Midstrath, Aberdeenshire.

### DEATHS.

**COOPER.**—On the 13th inst., at Shelburne-road, Holloway, Charles Cooper, L.S.A. Lond., aged 70.

**GREENFIELD.**—On the 18th inst., Evelyn Mary, second daughter of W. S. Greenfield, M.D., F.R.C.P., of Edinburgh, aged 2½ years.

**HOLMES.**—On the 13th inst., at Tudor House, Lyme Regis, Thomas James Holmes, M.D., son of the late Robert Holmes, of Holmesdale Cottage, Lyme Regis, aged 65.

**JOHNSTON.**—On the 17th inst., at Southsea, James Wingate Johnston, M.D., Inspector-General, R.N., Honorary Surgeon to the Queen.

**PALMER.**—On the 8th inst., at his friend's residence, Clifton-terrace, Brighton, after a long illness, and three days subsequent to his return from Switzerland, Thomas Palmer, M.D. Lond., formerly of Radnor-place, Hyde-park, son of the late Rev. H. Palmer, of Vicar-hill, Cahir, Ireland, aged 63.

**RHODES.**—On the 17th inst., at Weymouth, Charles Rhodes, M.D., aged 41.

**N.B.**—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.



## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Oct. 19th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Oct. 13	29.74	W.	52	50	..	61	45	.04	Foggy.
" 14	29.05	E.	56	53	..	57	48	..	Overcast.
" 15	29.08	S.E.	53	48	..	56	47	..	Bright.
" 16	29.72	E.	49	48	..	51	43	.57	Raining.
" 17	29.73	E.	49	49	..	51	45	.41	Raining.
" 18	30.11	W.	49	47	..	52	42	.02	Overcast.
" 19	29.95	S.	53	51	..	56	45	.02	Overcast.

## Medical Diary for the ensuing Week.

## Monday, Oct. 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Rycliffe Crocker, "On a Skullcap from a Case of Congenital Syphilis," which was shown last session.—Mr. Francis Mason (the President), "On a Case of Gastronomy (with specimen)."—Mr. Thomas Bryant, "On Inflammation and Ulceration of the Tongue."

## Tuesday, Oct. 24.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Barwell, "On Dislocation of the Foot, with Version and Torsion of the Astragalus."—Dr. P. Warner, "On Ophthalmographia Externa, complicating a case of Graves's Disease."

## Wednesday, Oct. 25.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

HUNTERIAN SOCIETY.—8 P.M. Dr. Charlewood Turner will show a Heart of Two Chambers.—Dr. Herman, "On the Clinical Classifications of Backward Displacements of the Uterus."

## Thursday, Oct. 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

## Friday, Oct. 27.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. T. W. Morris, "On the Fibro-vascular Bundles in Ferns, and their value in Determining Generic Affinities."

CLINICAL SOCIETY OF LONDON.—Mr. Walsham, "On a Case of Gun-shot Injury of the Lower Jaw."—Dr. Mahomed and Mr. Pepper, "On a Case of Ligation of the Common Carotid Artery for Hemorrhage from the Throat, due to Ulceration after Scarlet Fever."—Dr. Crocker, "On a Case of Hematuria from Bilharzia Hematobia (specimens of the parasite will be shown)."—Mr. Golding Bird, "On a Case of Removal of the Uterus for Fibroid Disease."

## Saturday, Oct. 28.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

## "THE DANGERS OF TRAMWAY TRAVELLING."

UNDER this heading a contemporary calls attention to the defective ventilation of tramway cars. Doubtless there are in some localities—and those which would seem most likely to be well cared for—cars so constructed that foul air may be detained in them; but the worst of public vehicles of this class are incomparably better than the average of omnibuses. We have protested on several occasions against the neglect of proper ventilation in regard to the case of omnibuses, and the facts have not been overstated. Under the best of circumstances an omnibus must be a perambulating disseminator of disease. This is a source of mischief which deserves and requires to be taken into serious consideration, and upon the perils of which the public need to be put on their guard.

Mr. Robert Jones.—The paper is marked for early insertion.

## THE INDIAN MEDICAL SERVICE: A WARNING.

To the Editor of THE LANCET.

SIR,—Another "job" is, I understand, about to be perpetrated in India at the expense of the medical service. Sir Alexander Christison retires from the surgeon-generalship, North-West Provinces and Oudh, in October next, and will be succeeded by Dr. Walker, the Inspector-General of Prisons. Dr. Walker's appointment is to be given to a civilian. For your readers to appreciate the injustice of such an appointment it will be necessary for me to explain the connexion of the service with the gaols. Up to within the last twenty or thirty years the administrative and executive duties of gaols were entirely in the hands of civilians. In consequence of the failure of the gaol system under civilian officers, the department was handed over to the medical service, with a doctor as Inspector-general, and civil surgeons as superintendents of gaols in their respective districts. Large central prisons, capable of containing two or three thousand prisoners, were erected, and placed entirely under the charge of medical officers, who showed a special aptitude for gaol work. It is now, and has been for years past, a well acknowledged fact that the gaols in the North-West Provinces are a pattern to those in the rest of India. The efficiency of this department is now about to be recklessly sacrificed and a large body of officers made discontented simply to provide a good appointment for civilians, and thus remove to some extent the block in their promotion. Disaster must follow by placing a civilian at the head of a purely medical department. The medical superintendents will never work with advantage or harmoniously under a civilian chief, and friction, ending in hopeless confusion, must be the result.—I remain, Sir, yours, &c.,

Oct. 1882.

GAOL OFFICER.

H. M. L. may refer to Dr. MacEwen's book on the subject, published by J. and A. Churchill, or to his lecture, which appeared in THE LANCET on Sept. 13th, 1880.

Mr. N. D. Cohen is referred to a general notice at the head of this column.

J. D.—The paper will be inserted as early as possible.

## "THE 'EIRA' ARCTIC EXPEDITION."

To the Editor of THE LANCET.

SIR,—As I see by your impressions of Aug. 26th and Sept. 2nd that the non-occurrence of scurvy in the late Eira Expedition is again brought prominently before the public, I would beg to call your attention to my article on this subject published in your impression of January 17th, 1883, p. 61. I also published an article in the Army and Navy Gazette of June 9th, 1877, which will be found of much interest.

I am, Sir, yours faithfully,

W. S. OLIVER, Brigade Surgeon.

Spring-garden-road, Halifax, N.S., Oct. 2nd, 1882.

## SEATS FOR SHOPWOMEN.

A DEPUTATION will shortly wait on the owners of the principal drapery establishments in Belfast for the purpose of inducing them to provide seats for their female assistants. A very influential ladies' committee has taken up the matter, and a circular has been issued in which they ask the concession with confidence, believing that any little inconvenience attending the change of practice will be amply made up by increased diligence on the part of the females employed. We have little doubt but that the leading establishments in Belfast will comply with the wishes of the deputation.

*Ethnologist.*—Dr. Crowther, F.R.C.S., of Hobart Town, was severely handled for endeavouring to secure the skeleton of King Billy, a celebrated aborigine, for the museum of the Royal College of Surgeons, and had to restore it; soon after which the skull was missing, and now that of Guiteau has been taken from the Washington Museum. The skulls of Eugene Aram, Jonathan Wilde, and John Thurtell are in the museum of the Royal College of Surgeons.

*Dr. Evans.*—Our correspondent should submit his suggestions to the head of his department. They are chiefly matters of detail, which could be more advantageously considered in that manner, and with more chance of being adopted, than if discussed in our columns.

*Mr. T. Smart.*—Certainly not. He should have consulted another surgeon.

## "TESTIS IN PERINEO."

To the Editor of THE LANCET.

SIR,—Allow me to add another case to the list of this malformation. The deformity was noticed a few days after birth. The child is now about five months old, and otherwise very well developed. The left half of the scrotum is perfectly normal, and contains a well-formed testis. The right half is well formed, contains "dartoid tissue," but is minus its usual occupant; it is perfectly separated from its fellow by the septum. The "missing tenant" has taken up its quarters on the right half of the perineum, partially under cover of the ramus of the ischium, and is covered by normal integument. The testis is smaller than its fellow, is freely movable up as far as the "external ring," but cannot be replaced in the scrotal pouch. The "cremaster reflex" is fairly developed on both sides, especially when the parts are relaxed by warmth. The parents are anxious to have "something" done, either in the way of "removal" or by "transplanting" to its normal scrotal pouch. Has any attempt ever been made to transplant the testis under the above conditions? Would the division of the false "septum" subcutaneously with a tenotomy be of any use? I may add that there is no hernia.

I remain, Sir, yours faithfully,

T. HENDERSON POUNDS, M.R.C.S.

Snodland, Rochester, Oct. 5th, 1882.

To the Editor of THE LANCET.

SIR,—The above subject seems to interest several of your correspondents just now. No one, however, has pointed out the fact that, in the edition of the Medical Digest just published, a series of papers, culled both from THE LANCET and other journals, giving full details of the best operative procedures may be consulted in section 1219:4. Allow me to bear my testimony to the daily value of Dr. Neale's work to every practitioner of whatever grade or attainments.

I am, Sir, yours faithfully,

Birchington-road, Kilburn, N.W.,  
Sept. 30th, 1882.

D. TEMPLETON HOSKYN.

*L.R.C.P. Ed.*—Our strictures have reference not to the examiners, but to the examinations and the system by which one body accepts the examinations of another.

*Theta (Dundee)* has not enclosed his card.

## "THE EFFECT OF LIGHT IN AIDING SNEEZING."

To the Editor of THE LANCET.

SIR,—Sneezing is a reflex act, the afferent fibres being the nasal branches of the fifth nerve; but Foster states that in those persons in whom a bright light causes sneezing the optic nerve appears to become the afferent nerve in the reflex chain. Why this should be so in some persons and not in others must, I suppose in our ignorance, be said to be due to idiosyncrasy. From Foster's words one would gather that any bright light would thus produce sneezing, but to judge from the case of your correspondent, "A Layman," and of my own, sunshine alone is capable of producing this result. Looking up to a bright sun always produces sneezing in my case, whether I have previously felt a desire to sneeze or not; but in the previous case the resulting sneeze is more vigorous.

Oct. 7th, 1882.

I am, Sir, yours, &c.,

R. P.

To the Editor of THE LANCET.

SIR,—I beg to submit the following reply to "Layman's" alleged "effect of light in aiding sneezing." May the impression referred to by him not be attributed to the fact that in the act of looking upwards at the sky or clouds a larger surface of mucous membrane of the nostrils is exposed to the waves of air, with consequent increased irritation, than when in a normal position? Has "Layman" ever tried the effect at sunrise or sunset? If with the result he mentions, it might then be attributed to the light.—I am, Sir, yours, &c.,

Hull Dispensary, Yorks, Oct. 11th, 1882.

P. W. G. CANNING.

## PAY HOSPITALS.

THE last issued number of the *Philanthropist* publishes a table of pay hospitals and departments. The table includes a list of sixteen institutions with this feature in their constitution, and adds in separate columns the address, the number of beds for paying patients, the average number of such patients in the year, the year when such beds were first provided, the charges per week, and information as to whether the charges include medical attendance and all necessaries. The list is not quite complete, but may be useful for reference.

*J. P.*—It was seriously debated at the Mansion House in 1572, before William Allen, the Lord Mayor, the Bishop of London, the Master of the Rolls, and other learned persons, whether a surgeon could lawfully prescribe internal remedies, when it was decided he could not—not even in "morbo gallico," and a surgeon was afterwards mulcted for so prescribing.

## "A DISAGREEABLE DUTY."

To the Editor of THE LANCET.

SIR,—The grounds on which I made my statement referring to the non-appearance of Mr. Wise's name in the Medical Register and Directory were these: a careful examination of both these books and a visit to the registration office, where I was told there was no such person on their list as Alfred Wise, M.D. There was an Alfred Thomas Tucker Wise, late of Sutherland-gardens, who was travelling in Switzerland at the present time, and entered in the Directory as being abroad. I have since learned that this gentleman formerly lived in Church-street, Bethnal-green, so conclude that Dr. Alfred Wise now writing to THE LANCET and Dr. Alfred Thomas Tucker Wise are one and the same person. This being so, I am only too happy to retract my statement, and apologise for the error unwittingly committed.

It is greatly to be regretted that Dr. Wise, in making a complaint in THE LANCET, should have neglected to sign both his name and qualifications in full.

I still maintain that Dr. Wise had no discourtesy shown him, and the facts of my last letter referring to what passed in the hospital remain unaltered and unanswered.—I am, Sir, yours, &c.,

RICHARD HINGSTON, M.R.C.S., &c.

London Hospital, E., Oct. 17th, 1882.

*J. S. O.*—The clerk is, unfortunately, right; neither etiquette nor equity is "in the bond" which blinds medical men in the service of "guardians of the rates." The medical officer has no professional "rights" in his incumbency, and he is not master of his work or of those appointed to act nominally under him as "assistants."

*Mr. C. F. Jesusbury.*—The documents are not now in our possession.

## "CARFERAL."

To the Editor of THE LANCET.

SIR,—In answer to "Æsculapius's" inquiry, carferal is, as its enigmatical name denotes, a mixture of carbon, ferrum, and aluminium, the latter being the principal ingredient, with about two per cent. of iron, and a very small proportion of carbon. It can only be used in a granular form, and for this reason is, in my opinion, inferior to silicated carbon. Its cost is from 28 to 23 per ton, and it can be obtained from the Carferal Company, whose offices I believe are in Queen Victoria-street. Silicated carbon in slabs is far preferable as a medium for filtering water.

I am, Sir, yours faithfully,

Oct. 11th, 1882.

F.R.C.S.

To the Editor of THE LANCET.

SIR,—In reply to "Æsculapius," car-fer-al is a mixture of carbon, iron, and aluminium. Filters containing this material are manufactured by Messrs. Murray and Co., Caledonian Pottery, Rutherglen, Glasgow, who will doubtless give any information required.

I am, Sir, yours truly,

Liverpool, Oct. 7th, 1882.

ALFRED H. MASON.

*Idiot.*—We are not aware of the existence of an institution specially appropriated to the class of sufferers mentioned, save that at Earlswood.

*Iconoclast.*—We are sure that neither of the corporations mentioned will take the trouble to prevent the use of the title named.

## A TACK IN THE EAR.

To the Editor of THE LANCET.

SIR,—I presume the discovery of a carpet tack in the external auditory meatus is not a very usual occurrence, and I therefore send a short note of the case.

A lady consulted me a few days ago for deafness and occasional throbbing in the right ear, and on examination with the ear-speculum I found a black mass on the bottom of the meatus. Being firmly imbedded in a mass of clotted blood, wax, and cotton-wool, it resisted all attempts at removal by the use of a large syringe and hot water; but by the aid of a small artery forceps and a short hook set in a handle, I succeeded in extracting a carpet tack, head foremost. As the mass completely plugged up the meatus (in which it had been for years), it was very difficult to extract. She now hears perfectly.

I am, Sir, your obedient servant,

Spring-grove, Upper Norwood, S.E.,  
Oct. 10th, 1882.

EDWARD HAUGHTON, M.D.

## TESTIMONIALS BY HOUSE-SURGEONS.

**THE Exeter and Plymouth Gazette** of Oct. 6th contains an absurd puff of what is called the Imperial Ottoman Healer, as a remedy for everything, from burns to bronchitis. But the most absurd part of it is a testimonial to the virtues of this secret nostrum by the house-surgeon of the Salop Infirmary. Surely it is not among the duties of house-surgeons to give testimonials of this kind.

**Mr. G. H. Smith** (Southsea).—The account of Taylor's freezing microtome, given in *THE LANCET* for Oct. 7th, seems to us quite clear, and we would recommend our correspondent if he wishes to obtain further particulars, to write to Dr. Thomas Taylor, of Washington, U.S., who, we do not doubt, will furnish him with the particulars he requires, or, if need be, supply him with one of his microtomes.

## "BELLADONNA POISONING."

To the Editor of *THE LANCET*.

SIR,—Referring to Dr. Miller's case of belladonna poisoning, mentioned in your issue of the 7th inst., I can give my own personal experience of an overdose of that drug.

A short time ago, while suffering from tic, I proposed to give myself a hypodermic injection of morphia. Going into the surgery at night, I took down a bottle and gave myself an injection. Almost immediately I was seized with the most alarming symptoms, which I did not recognise as those following the administration of morphia. On giving it a little thought, I suddenly remembered that I had taken down the wrong bottle, and found I had injected a solution of atropine, the dose given being 1-60th of a grain. My chief symptoms were a greatly accelerated pulse (130), intense thirst, and dryness of tongue and throat, widely dilated pupils, and a condition which I felt narrowly approached delirium. I immediately injected half a grain of morphia, and, to my great mental relief, the symptoms gradually disappeared, and I went about the next morning as usual.—I beg to remain, Sir, yours truly,  
Leeds, Oct. 10th, 1882.

MEDICAL.

**Incredulous.**—The circumstance as related cannot have occurred. Possibly the lecturer mistook the gin-bottle in the woman's hand for the mamma. The evenings are drawing in.

M.R.C.P. Edin. might apply to Tribner and Co., Paternoster-row.

## ENGLISH UNION HOSPITALS.

To the Editor of *THE LANCET*.

SIR,—I would be greatly obliged if some of your English Poor-law readers would state what is the practice of their English Local Government Board in the case of such a medical appliance as a weighing machine. Some time ago I ordered one for hospital, when, to my astonishment, the Irish Local Government Board refused to allow for it as a medical appliance; thereupon the hospital authorities requested them to reconsider the matter on these grounds:—1. That no well-ordered hospital is now without such in connexion with the treatment of the sick. 2. That it is exclusively used for such. 3. That it is necessary. 4. That the mere fact that similar machines are employed for other purposes cannot therefore deprive this one of the character of a medical appliance. The result was their continued refusal.

I am, Sir, yours, &c.,

THOMAS LAFFAN.

Cashel, Oct. 3rd, 1882.

## COMPRESSED AIR BATHS.

To the Editor of *THE LANCET*.

SIR,—A patient of mine asked me for some information respecting the above. Can you or any of your readers tell me anything about them?

I am, Sir, yours faithfully,

M.D.

Oct. 12th, 1882.

\*. Compressed air baths are an old remedy, especially carried out at Reichenhall. They are apt to cause tinnitus aurium, pains in the ears, and headache. They slow the pulse; raise the arterial tension. They have been recommended in emphysema and whooping-cough. They are said to increase expectoration and excretion (Burdon-Sanderson in *Practitioner*, vol. I.). With only slightly compressed air the effects are mainly those of increased absorption of oxygen. Ducrocq, Waldenburg, Biedert, and Montard-Martin have written on this subject.—ED. L.

## PRUSSIC ACID IN ALBUMINURIA OF DIPHTHERIA AND SCARLATINA.

To the Editor of *THE LANCET*.

SIR,—I wish to draw attention to a remedy I have found useful in treating the albuminuria of diphtheria. In 1877 I gave to a patient under my care for diphtheria, which was attended by albuminuria and followed by extensive paralysis, full doses of the dilute hydrocyanic acid to allay vomiting. The next day I found the albumen had diminished 50 per cent., and in a few days all traces of it had disappeared. I have used the drug in several similar cases with uniformly good results since that time, and I have recently tried it in scarlatinal nephritis, in which disease it appears to be equally beneficial, diminishing the excretion of albumen and increasing the secretion of urine. I think it deserves a more extended trial than I can give it.

I am, Sir, yours, &c.,

Coleshill, Oct. 1882.

VERE G. WEBB, L.K.Q.C.P.I., &c.

## "HOLY WATER."

**THE Chemical Review** states that recent analysis of the water from the Holy Well at Mecca, which is so eagerly drunk by pilgrims, shows this water to be sewage, about ten times stronger than average London sewage.

**Suspicious.**—The *nom de plume* which our correspondent has chosen exactly expresses our views of the case. It is very shocking that a woman should be allowed to go on in labour till the os uteri was fully dilated, and then die without seeing a doctor. Our correspondent does not say if there has been an inquest. There certainly should have been one, and an examination of the contents of the stomach.

**F. M. S.**—Dr. Spencer Thomson has written a work on the subject.

A Victim should consult a physician on his case.

## "TREATMENT OF EPILEPSY."

To the Editor of *THE LANCET*.

SIR,—Your correspondent "Alpha's" question in the last number of *THE LANCET* gives me an opportunity of correcting a slight inaccuracy in my note of the 2nd inst.

The formulae given in the second paragraph of my letter are from Dr. Boyd's thesis, to which I referred to freshen my memory. My patient, however, did not take any valerian, nor is this an essential part of the treatment. Professor Ball's plan consists of the simultaneous administration of the bromides, with oxide of zinc and belladonna.

I mention this as a matter of fact, and in order to make known exactly what medicines I did use in this particular case, but I do not wish to convey the impression that the addition of the infusion of valerian is a matter of indifference. Although decidedly nasty, it is quite possible that it may enhance the efficacy of the other drugs; and even alone it is sometimes successful when other means have failed.

With this digression, I will now reply to "Alpha's" query. I prescribed one of the pills twice a day with breakfast, which on your side of the channel means lunch, and dinner, and I directed two tablespoonfuls of the bromide mixture (and it will be as well to mention that a French tablespoon is equal to fifteen grammes) to be taken the first thing in the morning, and the same quantity on going to bed.

I am, Sir, yours obediently,

OSCAR JENNINGS, M.D.

Boulevard Malesherbes, Paris, Oct. 17th, 1882.

## "A QUERY."

To the Editor of *THE LANCET*.

SIR,—The party, to whom Dr. F. Pratt alludes in his query in *THE LANCET* of Oct. 14th, has been in the habit of having morphia subcutaneously injected daily for years. In olden days, while under water treatment at Malvern, I used to hear of patients in whom, under the influence of packing, masses of old drugs that had deposited themselves in the system after imbibition exuded from the skin, especially in the vicinity of the liver. Dr. Charles Pratt, Dr. F. Pratt's brother, lately deceased, received this chronic victim of morphia coming into Apple-dore from a distance. He disliked the treatment, but did not exactly see his way to stop it. *Me judice*, Dr. F. Pratt has now had a very broad hint to drop morphia in this case.—I am, Sir, yours faithfully,  
October 16th, 1882.

G. H. J.

To the Editor of *THE LANCET*.

SIR,—Dr. Pratt's case seems to be somewhat analogous to one described in a paper read before the Medical and Surgical Society in June, 1845, and thought to be a kind of pityriasis nigra.—*Vide THE LANCET* for 1845, vol. II., page 46.—I am, Sir, yours, &c.,  
Penzance, Oct. 15th, 1882.

A. B. B.

## ACCIDENTAL POISONING.

To the Editor of *THE LANCET*.

SIR,—How often do we hear of accidental poisoning caused by persons mistaking poisonous lotions for medicines, and sometimes from ignorant nurses not able to read the labels. I recently purchased a small quantity of poison from a chemist in Germany, and was struck by the label affixed to the bottle. It was a death's head and crossbones, black on white ground, with the word "Gift," that is poison, printed underneath. The most ignorant or stupid could not mistake it even at night. I enclose a specimen, and would suggest its adoption by all apothecaries.

I am, Sir, yours, &c.,

Oct. 7th, 1882.

CHEYNE BRADY.

\*. It is clear we want still more precautions against accidental poisoning. The above suggestion seems a good one.—ED. L.

## "THE MINUTES OF EVIDENCE BEFORE THE ROYAL COMMISSION ON MEDICAL ACTS": THE PURCHASE OF HIGHER TITLES.

To the Editor of *THE LANCET*.

SIR,—The wording of Mr. Nelson Hardy's statement is rather unfair to the Edinburgh College of Physicians. A man must possess the knowledge necessary for the ordinary, and not only the modified, examination of the Apothecaries' Hall. The statement being made by Mr. Hardy is personally rather amusing, as, according to the Register, he took the M.R.C.S. Eng. in 1867, went north for his L.R.C.P. in 1868, and obtained the F.R.C.S. Ed. in 1872. I am sorry to be personal, but those who live in glass houses should not throw stones.

I am, Sir, yours obediently,

Oct. 1882.

M.R.C.S. Eng.

## THE GAFFNEY FUND.

THE following further sum has been received through Dr. A. P. Stewart:—

Mr. G. W. F. Bury, F.R.C.S. Eng., Barnet .. .. £2 2 0

W. M.—We cannot go quite so far as our correspondent. The right of the patient to go to another town and consult another practitioner cannot be questioned. The most that the practitioner could do was to communicate the fact to the regular attendant, and in taking this course we think he acted courteously.

## BRAIN PRESSURE IN ELEMENTARY SCHOOLS.

To the Editor of THE LANCET.

SIR,—You have been good enough on various occasions to direct the attention of your readers to the fact that an undue amount of pressure is sometimes brought to bear in preparing young people for the numerous examinations which are now the fashion of the day. Teachers are quite alive to the evils of the system; but anything which they may urge in mitigation of the injurious effects of over-pressure is set down as so much selfish argument in behalf of lightening their own work. The teachers who are engaged in the elementary schools of the United Kingdom are specially interested in the subject of the ill that arise from excessive brain pressure in the case of the young.

On behalf of the members of the National Union of Elementary Teachers, nearly 14,000 in number, I have to invoke your powerful assistance. The teachers are anxious to obtain the unbiased independent opinion of medical men as to the amount of illness among the children in attendance at elementary schools, which can be traced to overwork in the way of study, as compared with some ten or twenty years ago.

If your professional readers will favour us with their opinions on this important subject, either through the medium of your columns, or privately to myself, for the use of the National Union of Elementary Teachers, they will be doing a service to the cause of public health and of national education. I am, Sir, yours faithfully,

Bridewell-place, New Bridge-street, E.C., JOHN RUSSELL.  
Oct. 17th, 1892.

If Mr. James Wheeler (Ifracombe) will forward a sample of the preparation it shall be examined and tried.

Mr. G. Rincey.—Apply to the Secretary of the Anti-Tobacco Society.

## THE TREATMENT OF GONORRHOEA.

To the Editor of THE LANCET.

SIR,—Some years ago, when this subject was under discussion in THE LANCET, I advanced the opinion that the most rational, and, consequently, most likely to be successful, mode of treatment was a local one, and gave the results obtained by it. Further experience has proved that those results, which were so favourable as to have their accuracy called in question, were not exceptional, and that the view upon which the treatment was based was correct.

I am, Sir, yours very faithfully,

Leeds, Oct. 17th, 1892. PHILIP FOSTER.

Mr. F. Young will find the corrections made in Dr. Johnson's letter in another column.

Sellers is referred to a medical agent for the information he desires.

## A SUGGESTION.

To the Editor of THE LANCET.

SIR,—Now that so much discussion is going on in your journal as to the relative merits of the different Medical Examining Boards, it would be very interesting to know where the successful candidates at the late Navy, Army, and Indian medical examinations studied and passed.

I am, Sir, your obedient servant,

Dundee, Oct. 7th, 1892. APO MORPHIA.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir H. W. Gordon, London; Sir E. Lechmere, London; Professor, Gamgee, Manchester; Mr. Walter Whitehead, Manchester; Mr. Scott, London; Dr. F. C. Barker, Bombay; Mr. G. H. Makins, London; Mr. E. Spratt, London; Dr. Manson, London; Mr. Lane, Northampton; Dr. Markham Skerritt, Bristol; Dr. Weatherly, Portishead; Brigade-Surgeon Oliver, Halifax, N.S.; Dr. Giblin, Hobart; Dr. Fussell, Brighton; Mr. Wm. Robinson, Dorset; Dr. Pollok, Pollokshields; Dr. Goldie, Leeds; Mr. Ingpen, London; Mr. Powell, Beckenham; Mr. Parbury, Horsham; Dr. Wadham, London; Dr. Drummond, Newcastle-on-Tyne; Dr. O'Brien, Carrick-on-Suir; Dr. Jonassen; Mr. Roger Williams, London; Dr. Newham, Winslow; Mr. F. Treves, London; Mr. Berry, Birmingham; Dr. Campbell Black, Glasgow; Mr. Jordison, Malpas; Mr. Millican, Kington; Mr. Craske, London; Mr. Gubbin, Sheffield; Mr. L. E. Kay Shuttleworth, San Remo; Mr. Montgomery, Storrington; Mr. Redwood, Rhymney; Mr. Bryan, Hornsey; Mr. Edmunds, Chesterfield; Mr. Knightley, London; Dr. Hollis, Bradford; Dr. Eastwood, Darlington; Messrs. Hewlett and Co., London; Mr. G. A. Brown, Tredegar; Mr. Roebuck, Leeds; Mr. Hingston, London; Mr. John Russell, London; Mr. John Gill, Bangor; Mr. Aubrey Wicks; Mr. James Young, Glasgow; Dr. Neale; Mr. Savory, London; Mr. Spencer Watson, London; Mr. E. Penny, Greenwich; Mr. H. H. Austen, Greenwich; Messrs. Lelasseur and Co., Paris; Mr. T. Cooke; Mr. Capley, Preston; Messrs. Beale and Co., Brighton; Mr. Gray, Rugeley; Mr. Evans, Llanerchymedd; Dr. Cook, Colchester; Mr. Rawdon Macnamara, Dublin; Dr. Barry; Mr. Blackett, London; Mr. Williams, Portsmouth; Mr. Mahomed, Bournemouth; M.R.C.S. Edin.; F. M. S.; Alpha, London; W. M.; M.D.; Physician, London; X. B. W.; M.R.C.S. Eng.; Incredulous; P. A. R.; Freshman; A. B. B.; Gael Officer; Idiot; L.R.C.P. Ed.; Suspicious; &c. &c.

LETTERS, each with enclosure, are also acknowledged from—Mr. Blake, Croydon; Mr. Woodall, Scarborough; Mr. Jackman, Coggeshall; Dr. Macadam, Edinburgh; Mr. Johnstone, Tavistock; Mr. Stillard, Birmingham; Messrs. Wharton and Co., London; Mr. Lovegrove, Wollaton; Mr. Allsop, Shipley; Mr. Churchill, Chesham; Dr. Ridge, Kingston, U.S.A.; Mr. Whittaker, London; Mr. Phillips, Adelaide; Messrs. Ingram and Co., London; Mr. Poole, Dudley; Mr. Praen, London; Mr. Stoney, Cheltenham; Mr. Bell, Totteridge; Mr. Maw, Bradford; Mr. Boulding, Liverpool; Dr. Spanton, Stoke-on-Trent; Mr. Hunt, Castleknock; Mr. Bales, Rock Ferry; Mr. Baron, Ulceby; Mrs. Markham, Portsmouth; Mr. Batley, Nottingham; Mr. Moyland, Glasgow; Mr. Swale, Leeds; Mrs. Ransford, Lowestoft; Mr. Roach, Belfast; Mr. May, Morton Hampstead; Mr. Brown, Westbourne-park; Mr. Norris, Weston-super-Mare; Mr. Boarer, Folkestone; Mr. Neame, Birchington; Mr. Sandell, Kensington; Mr. McGill, Manchester; Dr. Ker, Manchester; Medicus, Holborn; Delta; Alpha, Sandymount; Camberwell; L. S. R.; M.D., Barking; M.P.; Medicus, Slaitwaite; Z. U.; Medicus, Liverpool; H. W. G., Cardiff; M.D., Neath; M. C., Canningtown; Pulvis, Leicester; K. P.; M.D.; A. B.; C. J. A.; M.D., Doncaster; F. C. P., Halstead; Warro; Kentish-town; W. M., Brackley; Alpha, Fulham; E. C. U.; A. E., Colchester; Surgeon, London; Medicus, Shrewsbury; Omega; K. J.; Medicus, Wigan; J. W. H.; Medicus, Westbourne-park; X. Y. Z., New Barnet; L.; Hac; D. S., Manchester; Dominus, Haxby; Beta; W. A., Caledonian-road; W. R., Bristol; A. C., Kidderminster; Delta, Margate; Alpha, Edinburgh; &c. &c.

New York Daily Tribune, The Philanthropist, Night and Day, Exchange and Mart, Birkenhead and Cheshire Advertiser, Macclesfield Courier, Alliance News, Watford Observer, Port Elizabeth Telegraph, Oldham Evening Express, Lymington Chronicle, Hampshire Telegraph, &c., have been received.

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## Clinical Lecture

ON

## TUMOURS.

Delivered in the Liverpool Royal Infirmary, July 26th, 1882,

By RUSHTON PARKER, B.S., F.R.C.S.,

PROFESSOR OF SURGERY IN UNIVERSITY COLLEGE, LIVERPOOL.

THE word "tumour" is familiar throughout the scientific world. In English, French, and Italian the spelling differs only by a letter or two from that of the Latin "tumor," which is preserved unchanged in Spanish and by a large proportion of English-speaking persons. A tumour is a swelling or lump, and these three names are applied, in medical practice, to morbid conditions in which increase of size is a feature. Every enlargement is accordingly a tumour, which, on complete investigation, will invariably be found to be one of the following things:—

1. A *distortion or displacement*: as in a hernia, a fractured or dislocated bone, ruptured muscle or other organ, and in some congenital deformities. A *distension*: as an over-filled bladder, intestines, &c.; an aneurism, a varix, a hydrocele. In some such sense a hæmatoma or blood extravasation must often be considered.

2. An *obvious inflammation*: as in abscess, especially chronic; in rheumatic enlargement of bones, and other indurations.

3. A *local hypertrophy*: as in congenital enlarged toes or foot, congenital moles of the skin, elephantiasis, hyperostosis (?).

4. A *tumour proper*.

Though every tumour necessarily falls into one of the above four categories, it is by no means always easy, or even possible, to be certain which that category is. For various reasons, the many elaborate definitions that have been devised with the view of representing exclusively those new formations or neoplasms that are reckoned among tumours proper are unnecessary, since every specimen in the above list of morbid conditions is confessedly called a tumour in practice, both before and after recognition. They are, moreover, useless, since not one of these definitions successfully describes the fourth group in language that invariably excludes the other three.

1. In the first class a hernia, a dislocation, or an over-distended bladder are capable of certain distinction from tumours proper. Yet a hydrocele of the tunica vaginalis or spermatic cord is a pathological effusion of fluid into a cyst that should be empty or absent. Is it an accidental physiological "distension" of Class 1, or is it a well-ascertained "inflammation" of Class 2; or is it without ascertainable cause, and a form of cystic "tumour proper" of Class 4? Again, an atheromatous sebaceous tumour is physiologically due to retention and accumulation of sebaceous secretion, closing, over-distending, and thickening a cutaneous gland, converting it into a more or less globular cyst. It is confessedly regarded as a cystic variety of tumour proper; yet its causal resemblance to hydrocele is very close, and the distinction of either from an over-filled urinary bladder is one of degree rather than of kind.

2. Among "obvious inflammations," a chronic abscess and a glandular enlargement are capable of a recognition, that if not clinically easy or immediate is ultimately certain on dissection. A fluid distension of a patellar or other bursa is a purely inflammatory phenomenon, which subsides on the application of suitable treatment, with or without previous evacuation; yet a fibrous thickening of the same bursa, though equally of inflammatory origin, may fail to disappear on the removal of irritation. There is something of the nature of "hypertrophy" in the increase of fibrous growth or production; though for all essential purposes it is called a tumour proper. Yet the clinical features and many

No. 3087

of the pathological phenomena of certain tumours called malignant partake so strongly of the inflammatory type as to call for detailed comparison presently under the proper head.

3. Enlargement of bone, the obvious effect of inflammation, and similar enlargements called hypertrophy or hyperostosis, are constantly and inseparably blended with bony "tumours proper," from which they cannot always be distinguished, and with which they must often be identified. Is a pedunculated exostosis, produced by acrogenous ossification of its cartilaginous tip, an instance of "displacement," in the period of growth, of a fragment of epiphysal ossifying cartilage? Is it an example, in addition, of "hypertrophy" of cartilage, of bone, or of both? or is it, when finished, a "tumour proper," whether as a pedunculated exostosis, or as a great "enchondroma" with so proportionally inconsiderable a bony pedicle as hardly to suggest its similar origin and mode of growth? Who is to say? Except obvious inflammation, all the above categories may claim it.

4. Tumours proper are of many kinds, and must be classified for systematic discrimination, and for the mutual assistance of observers. Such arrangement as may be from time to time adopted for this purpose depends upon a variety of considerations, summed up in the purport and ultimate result of a tumour in its natural course, or in that modified by interference. Some tumours give little or no inconvenience, being harmless excrescences when situated in parts ordinarily concealed by the clothing, or, if exposed, being at worst unsightly. Others that may be painless are inconvenient deformities, whether concealed or exposed, attaining an excessive size and weight, the physical incubus of which is scarcely mitigated by an associated slowness of growth. But pain, though generally, is not always absent from otherwise non-injurious tumours, and those that are painful happen to be usually small and sometimes diminutive, not seldom suggesting, from their situation in or beneath the skin, the probable entanglement of nervous filaments. The situation of an otherwise harmless growth, as, for instance, beneath the tongue, in the orbit, or displacing the windpipe, may imperatively demand its removal. Finally, the skin over an innocent tumour now and then becomes ulcerated, with risk or loss to life through hæmorrhage or blood-poisoning. Such catastrophes are but indirectly associated with the morbid growth, and are, in fact, more or less accidental complications, which may accordingly be avoided.

These, then, are the attributes of benignancy, as contrasted with those of malignancy, next to be considered. All tumours proper are either benignant or malignant. The former are local abnormalities that have no inherent tendency to endanger life, and frequently fail to inconvenience their possessor; while the latter, though occasionally perfectly curable by operative removal, are always dangerous, and, though often temporarily checked with the effect of prolonging life, are only too frequently rapidly or hopelessly fatal. The size of a malignant tumour may be little or no guide to its nature, or measure of its danger. Rapidity of growth, however, is an almost constant feature, rendering them all conspicuous, and giving to their proportions, if at all huge, a significance that is sometimes appalling. There is a special inveteracy in their growth, evinced in varying degrees and modes—(a) Ulceration of the integuments, over malignant growths, is a conspicuous though not invariably feature. The attendant exhausting complications, blood-poisoning, hæmorrhage, and pain, though often as adventitious as in their more exceptional occurrence in the benign, assume by their frequency quite an integral importance. (b) A liability to reappear near the seat of removal, even after what has seemed to be thorough excision; suggesting the neighbouring existence of infective particles which, though undiscovered by the naked eye and microscope alike, are still suspected to imbue the tissues or fluids. (c) An infective spread to, and inveterate infiltration of, the lymphatic glands pertaining to, and draining, the seat of primary growth. (d) A dissemination in viscera, serous membranes, or subcutaneous and interstitial connective tissues, of tumours identical in most particulars with a primary original growth, which latter, though almost invariably obvious, occasionally eludes discovery. These disseminations are believed to be embolic, the infective particles being conveyed in the blood-stream and lodged in the arterial or capillary system, growing into tumours after their arrest. Some evidence is circumstantially furnished in the form of

R



thrombi, composed of the tissue of malignant tumours, that are sometimes found filling neighbouring veins of various sizes visible to the naked eye, and that may be often presumed to similarly invade smaller veins that are not thus visible. Microscopic investigation has, moreover, revealed the actual presence of malignant emboli, impacted in minute afferent bloodvessels of viscera; proving to demonstration both the fact of conveyance and its mechanism.

Now, ulcerated swellings of the lip or tongue, the face or cheek, skin, or mucous membrane, due to cancerous invasion, to syphilitic infection, or to non-specific inflammatory induration, have resemblances conspicuous and puzzling to all, sometimes temporarily misleading the ripest experiences, and therefore undeniably real. The clinical import, various in name and in course, is eventually clear in most instances, but the anatomical comparison, pushed to its furthest histological limits, not merely confirms the characteristics of divergence, but clenches the identity in points of resemblance. A simple inflammatory induration subsides on the discontinuance of the physical irritative cause, a specific infection of syphilitic influence as truly disappears by exactly similar means, or by the organic administration of a constitutional chemical antidote, or by both. The physiological aberration in simple inflammation, due to the irritation of mechanical agency, is reproduced in the infective forms, where the irritative effects of a specific virus, as a parasitic organism, when known at all, are chemically and otherwise manifested. Such are the exudations of pyæmia, of syphilis, of tubercle. The visible products of malignant disease suggest comparison with those of infective inflammation. They are more luxuriant than the simple inflammations, but incapable of undergoing absorptive resolution on the removal of irritation. They are exempt from suppuration, except, apparently, in the added complication of putrid irritation, but are amenable to no ascertained system of antidotal medication, and share with tubercle the necessity of removal as the sole accessible means of practical cure. They appear, especially in the case of some sarcomata, to partly owe their commencement, mysteriously but almost undeniably, to the operation of local injury, in which respect "acute traumatic malignancy" resembles infective inflammation, such as acute necrosis and, perhaps, caseous tubercle [of bone. In anatomical structure malignant tumours conform largely, and often strictly, with inflammatory type; in superficial features, in physiological infection, and in much of their clinical inveteracy, they resemble products of known parasitic agency. There lacks only the discovery of a visible parasite to complete the analogy.

#### *Classification of Tumours proper.*

Accumulated observations of the external appearances, general behaviour of tumours, their localities, physiological development and anatomical structure have resulted in attempts at classification, truly reputable in their day, but necessarily changing with the advance of knowledge, and proving eventually more or less unsatisfactory in phraseology, if not in fact. The diseases remain the same if their names have been changed, though by fresh discoveries they seem sometimes to be multiplied, at others to be reduced in number. Some of the names, too, have undergone changes of meaning; so former terms and their previous significations must be noticed for purposes of interpretation. Among benign tumours the names explain themselves and their possible synonyms; it is in a portion of the malignant series that confusion has arisen. The classification of tumours according to their anatomical structure, associated with the name and times of John Abernethy, was a memorable step in naked-eye procedure. The refinements of the same principle, effected in the microscopic era, have celebrated the name of Virchow and of his contemporaries at home and abroad. The resolute appreciation of all clinical features, and a refusal even to admit anatomical distinctions except in subordination to the former, are at once most conspicuous characteristics of the example and teaching of Billroth, and a tribute to all that is excellent in cultivated empiricism. By employing two methods of classification in alliance, instead of preferring or excluding either, there has latterly resulted a systematic arrangement of all tumours proper, the malignant apart from the benign, assorted in anatomical sequence. The best statement of this kind is probably that which appeared in 1877, in the seventh edition of Erichsen's Surgery, found also in all essential outlines in the subsequent edition of Green's Pathology, and

of Holmes' smaller work. The following table is prepared, with slight alterations, from Erichsen's account.

Benign tumours are divided into—

#### I. Cystic tumours in general.

##### (1) retention cysts.

##### A. In glands or their ducts.

Cutaneous (sebaceous), as wens or atheromatous tumours, including "horns."

Mucous (mouth, vagina, &c.):

Glands of Bartholin—Cysts of vulva.

Glands of Cowper—Male perineal cysts.

##### Larger glands:

Salivary—Ranula.

Mammary—Simple cysts.

##### B. In ductless glands or cavities.

Bursæ—Hydrocele, housemaid's knee, bunion.

Sheaths of tendons, ganglion—Liquid, fibrinous, fibrous.

Ovary or thyroid gland—Simple cysts.

##### (2) Newly formed closed cysts.

##### A. Dermoid, congenital tumours.

(a) Sebaceous, placed away from seat of sebaceous glands.

(b) Ditto, with wall of true skin structures, glands, hair, &c.

(c) Containing teeth, bone.

##### B. Serous, simple cysts.

Congenital, as hydrocele of neck or shoulder. Arising in solid tumours.

##### C. Proliferous, compound cysts, of ovary and elsewhere.

##### D. Blood-cysts—Hæmatoma, hæmatocela.

(The same occurring in solid tumours.)

##### E. Parasitic cysts—Hydatids.

#### II. Tumours composed of one of the modifications of fully developed connective tissue.

Fat—Lipoma.

Fibrous tissue—Fibroma.

Mucous tissue, like that of umbilical cord or vitreous humour—Myxoma.

Cartilage—Chondroma, enchondroma.

Bone—Osteoma, exostosis.

Tooth—Odontoma.

#### III. Tumours which resemble in structure, more or less perfectly, one of the more complex tissues of the body.

Muscle—Myoma, myofibroma, as in uterus, prostate, &c.

Nerve—True neuroma.

Blood-vessels—Angioma, nævus, also called cavernous or erectile tumours.

Lymph-vessels—Lymphangioma.

Lymph-glands—Lymphadenoma.

Papillæ (of skin or mucous membrane)—Papilloma, or wart.

Secreting glands—Adenoma.

##### A. Myeloid tumour of bone (*see* Sarcomas).

#### Malignant tumours are divided into—

IV. Sarcomas, or tumours composed of tissue which is either purely embryonic, or is undergoing one of the primary modifications seen in the development of adult connective tissue. Arising in connective-tissue layers and interstitial spaces, such as fasciæ, periosteum, bone, marrow, adipose tissue, corium, submucous tissue, the framework of secreting glands, and lymph glands.

##### Present names.

##### Older names.

A. Myeloid or giant-celled sarcoma. (This variety alone is non-malignant.)	} Myeloid, fibro-plastic tumours (in some cases).
B. Spindle-celled sarcoma. Fasciculated sarcoma.	
B*. Spindle-celled melano-sarcoma.	} Fibro-plastic tumour (as generally understood). Recurring fibroid.
Or Melanotic } Spin.-celled Or Pigmented } sarcoma.	
C. Round-celled sarcoma.	} Melanosis, melanotic cancer, fungus hæmatodes.
Alveolar sarcoma.	
Fibro-sarcoma.	
Lympho-sarcoma and malignant lymphadenoma.	
	} Encephaloid cancer. Medullary sarcoma or cancer.

Round-celled coma.	melano-sar-	} Melano-sis, melanotic cancer, fungus hæmatodes.
Melanotic Pigmented	Round-celled sarcoma. Alveolar sarcoma.	
Myxosarcoma.		
		} Probably often called colloid cancer.

V. Carcinomas, or tumours composed of cells of an epithelial type, arranged in spaces in a stroma consisting of more or less perfectly developed fibrous tissue. Arising in and consisting largely of cutaneous, mucous, or glandular epithelium.

- A. Cutaneous epithelioma of skin.  
Cutaneous epithelioma of lip, anus, &c.  
Cutaneous epithelioma of prepuce, glans penis, vulva, &c.
- B. Mucous epithelioma of tongue, gums, mouth, fauces, gullet.  
Mucous epithelioma of stomach, intestine.
- C. Glandular cancer of breast, pancreas, and other glands.

#### *Sarcomas of Bone.*

Any of the malignant sarcomas may arise in the fibrous covering of bones, their names being then preceded by the additional word "periosteal." Or they may arise in the central fat, whether of cancelli or of tubular marrow. In any of these central tumours may be found giant-cells or myeloplakes; sometimes so abundantly as to give the growth a resemblance to ordinary myeloid, microscopically, though differing in all other respects. The following sarcomas are peculiar to bone, and may be of either central or periosteal origin: osteoid chondro-sarcoma, osteo-sarcoma or ossifying sarcoma, both otherwise known as osteoid cancer. Carcinoma never arises primarily in any bone, but invades it secondarily either by contiguous spread from another primary source (as skin, tongue, mammary gland, &c.); or as a reproduction by distant conveyance in the circulating fluids.

#### *Mammary Tumours.*

#### I. Benign.

##### (a) Cysts.

- |  |  |
|--|--|
| (1) Simple   | } Unilocular.<br>Multilocular.                                     |
| (2) Adenocenes.<br>Cystic adenofibroma.<br>Cystic adenomyxoma.<br>Cystic adenocarcinoma. |  |
| (3) Parasitic hydatids (rare).   | } Other names: Chronic<br>mammary tumours,<br>sero-cystic tumours. |
| (b) Simple tissue tumours (rare curiosities).<br>Lipoma, chondroma, osteoma.             |  |

##### (c) Adenomas, and pure hypertrophies.

- (1) Non-cystic adenofibroma of young women.
- (2) Simple general hypertrophy.
- (3) Simple local hypertrophy.  
Acinous adenoma.  
Tubular adenoma.

#### II. Malignant.

##### (d) Sarcomas.

- |   |   |
|---|---|
| Round-celled sarcoma.<br>Spindle-celled sarcoma.<br>Myxosarcoma.<br>Alveolar melanocarcinoma.<br>Alveolar giant-celled sarcoma. | } Known formerly as<br>fungus hæmatodes,<br>pulpy medullary<br>sarcoma, fibro-<br>plastic tumours,<br>and some cases of<br>so-called encephalo-<br>id cancer. |
| (The rare varieties observed by Billroth)   |   |

##### (e) Carcinomas.

Anatomical varieties, now classed by Billroth, as—

- |   |   |
|---|---|
| (1) Acinous cancer.<br>(2) Tubular cancer.<br>(3) Shrinking cancer. | } Various known<br>as scirrhus and<br>medullary, or<br>encephaloid<br>cancer. |
| (4) Gelatinous cancer.  |   |

As to the causes of tumours proper, many of them among the benign are known to be either congenital or developmental excrescences, as for instance—1. Dermoid and other congenital cysts in the permanent or temporary orifices, or in the cavities and organs of the body. 2. Pedunculated cartilaginous exostosis. 3. All nævi, warty and pigmented

cutaneous moles. But a notion has arisen, and has been treated of by Cohnheim, that tumours have their origin in portions of embryonic tissue lying in the numerous interstices of the body, and undergoing the developmental alterations necessary to produce them; a form of growth which, in the case of simple solid tumours, is a mere repetition of that which occurred in the completed tissues which they imitate or exactly resemble. This notion has been so far supported by experiment that fragments of embryonic cartilage, transplanted to the aqueous chamber of the eye, to the peritoneal cavity, and into the stream in the jugular vein, have grown into cartilaginous tumours, whereas fragments of completed periosteum and hyaline cartilage, similarly dealt with, grew only for a time, and eventually underwent absorption. The notion, though quite as yet unproved, is interesting, if not important, affording a credible and comprehensible mode of accounting not only for all solid and some cystic benign tumours, but possibly malignant too, for, when considered along with a supposed anatomical alliance with inflammation of a possibly infective type, and with the strongly suspected "traumatic" excitation of "malignancy," one or other, and sometimes all, of these hypothetical explanations may be applicable to the origin of the groups sarcoma and carcinoma in completion of the idea. In fact, evidence is not wanting in support of some such idea in the case of certain instances of "branchial carcinoma," related by Volkmann (*Centralblatt f. Chir.*, Jan. 28th, 1882). This term he has applied to examples of deep, primary carcinoma of a distinctly cutaneous epithelial composition, excised by him from the stylo-hyoid region, and supposed to have arisen in epidermic structures included at the obliteration of the branchial clefts.<sup>1</sup> Among the tumours of the breast preserved in this museum is one (F. 30) of cystic nature, excised with the whole gland. The soft contents had the naked-eye appearance which characterises some softened epitheliomatous swellings, especially when secondarily affecting lymph glands, and the cyst wall was found by Mr. Paul to show the microscopic structure of unmistakable cutaneous epithelioma, an opinion which I entirely confirm from inspection of the slides. Such a product is extremely uncommon if not as yet unique, and not accounted for on any plan that has yet been devised to explain the origin of tumours, except the one now referred to. One may imagine a congenital or developmental aberration of cutaneous tissue, such as might form a small sub-cutaneous or even intra-mammary "dermoid cyst," however minute, subsequently undergoing the same transformation into epithelioma that any previously healthy cutaneous part would have to undergo when invaded by this disease. The same may apply to sarcomas, and may account for their hitherto mysterious appearance in the numerous connective tissues and interstitial spaces of the body. Their relation to congenital structures is so far known that a cutaneous pigmented mole may in after life be the actual and only seat of sarcomatous infiltration. Such a specimen is mounted in this museum. It is said that, under circumstances such as these, the usual malignant course is not manifested, though the structure be identical with that seldom unattended otherwise by recurrence, infection, and fatality.

<sup>1</sup> I have also met with one case of this kind, and have the microscopic slides prepared from a deep primary cutaneous epithelioma, removed some years ago from the left side of a middle-aged man's neck by Mr. J. P. Harris, assisted by me. The thing had puzzled me until I saw Volkmann's paper.

THE GUILD OF ST. LUKE.—The annual chapter of this Church Guild for medical men and students was held on Tuesday evening, Oct. 17th, at the English Church Union Rooms, Wellington-street, Strand. The Provost, Dr. Alfred Meadows, presided, and after reviewing the work of the year past, announced his intention of resigning his office, to the unfeigned regret of all present. The Treasurer, Dr. Holman, read the report for the year. Mr. George Cowell was elected Provost, Dr. Meadows Vice-Provost. Dr. Holman was re-elected Treasurer, and the Rev. G. Greenwood, Warden. Mr. A. K. Willis, Gascony House, West-end lane, N.W., was elected Secretary. On Wednesday (St. Luke's day) there was a celebration by the Warden at St. Thomas's, Regent-street, at 8 A.M. Afterwards the members sat down to breakfast at the residence of Dr. Meadows. Festal evening was sung the same day at St. Paul's Cathedral by a choir of the London Gregorian Choral Association.

# Introductory Lecture TO THE COURSE OF SURGERY IN THE UNIVERSITY OF EDINBURGH.

*Delivered Oct. 24th, 1882.*

By JOHN CHIENE, M.D. EDIN.,  
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THE Chair of Systematic Surgery in the University of Edinburgh is of comparatively recent foundation. The cause of this is not far to seek. For many years it was held conjointly with the Chair of Anatomy. As the range of anatomical science increased in scope and importance, and when in 1736 the foundation of the Royal Infirmary by the Royal College of Physicians brought more prominently forward the practical aspects of surgical teaching, it was evident that the double work was too great for any one man. The Royal College of Surgeons early recognised this necessity, and in the interests of surgical science they petitioned the patrons in 1777 to found a separate chair. It was not, however, till the year 1831 that a Chair of Surgery was founded, and J. W. Turner was elected professor of surgery. He was succeeded in 1836 by the great physiologist and scientific surgeon, Charles Bell. He, in his turn, was succeeded in 1842 by James Miller; and on his death in 1864, James Spence, whose loss we now mourn, became professor of surgery. I well remember Mr. Spence's introductory lecture, delivered in this class-room eighteen years ago, before a crowded audience of students, former pupils, and friends: his leading thought—the gradual growth of surgical science; his subject—the Edinburgh School of Surgery. He laid special stress on the influence of John Bell and Robert Liston. Of John Bell he says, "He was no ordinary man, but a real surgical genius, of great natural talents, and imbued with that enthusiasm which is a mark of genius, and which does so much to create enthusiasm in others." Of Liston he says, "As a bold, and cool, and dexterous operator, I have scarcely seen his equal. His great power in diagnosis, the wonderful faculty he possessed of perceiving, as if by intuition, the true nature of a case in all its bearings, and of adopting adequate measures for its treatment was such as are rarely to be met with." Syme and Fergusson were then alive, and the time had not yet come to form an estimate of their great power for good. William Fergusson had gone to London, and was at that time at the height of his fame as a skilful surgeon, a brilliant operator, and, above all, a kind friend and adviser to anyone from Scotland. Of this I have a very pleasant recollection, when, in 1867, he gave me sound advice in what was probably the turning point of my career, advising me to stay in Edinburgh, and not to migrate south as so many of my countrymen had done. He never forgot the land of his birth. James Syme was then the leader of Scottish surgery, of whom it might truly be said in the words of that good kindly man, the author of "Rab and his Friends," "He was, I believe, the greatest surgeon Scotland ever produced." "He had that quality of primary minds of attaching permanently those he had relation to, his students never ceased to love him, and returned to him from all regions of the world." As one of his pupils may I be permitted, in John Brown's words, to say, "Of what he was to me—his patience, his affection, his trust, his wisdom, and still more, what he might have been to me had I made the most of him,—it is not for me now to speak. He remains in my mind as one of the strongest, clearest, capablest, most valuable understandings; one of the warmest, truest hearts I have had the privilege and the responsibility of knowing." It has often been a matter of surprise to me that Syme's works have never been re-issued in a collected form. They will always be classical. I feel sure of this that there are many of his old pupils who would gladly undertake the task. Mr. Spence, in his introductory lecture, pointed out to us, his students, the great importance of anatomy and clinical study, of the dissecting-room and

the hospital ward. He could speak with authority on these points, because he had been for many years a teacher of anatomy, and for fifteen years a surgeon in the hospital and lecturer on surgery in the extra-mural school. When we remember that Charles Bell held the Chair of Surgery in this university, physiology must always play an important part in the surgical teaching. With our vivid recollection of the complete mastery James Spence had over all the details of anatomy, we can never forget the paramount importance of anatomical dissection as the basis of surgical practice.

As many of you know, it has been my endeavour, during the last twelve years, to teach the principles of surgery from a physiological standpoint, the practice of surgery from an anatomical point of view. While I certainly shall have difficulties as to the best way fully to utilise and develop the great opportunities for good which my present position affords, one thing I feel sure of is this, that in the future there will be no necessity for any departure from the method of teaching that I have always hitherto followed. I shall be encouraged, in so doing, by the remembrance that I hold a position previously occupied by Charles Bell and James Spence. It was my good fortune to be the pupil both of James Miller and James Spence. Miller, an eloquent lecturer, a brilliant operator, and a kind-hearted man; Spence, the representative, for some years before his death, of Scottish surgery, the careful and painstaking surgeon, whose skill as a diagnostic surgeon was unrivalled. You know how well he did his work as your professor; he never forgot—what has ever seemed to me the reason why Edinburgh attracts so many students,—that teaching was his primary duty. His daily lecture, his hospital visit, were to him a time sacred to learning and teaching, and not to be lightly interfered with by the calls of practice, however urgent. You know how hard he worked; of late the troubles of declining years interfering in no way with that thoroughness in all he did, and that daily round of arduous duties, the performance of which was to him his chief pleasure and his life-work. I would desire to remind you of his avoidance of all show. I recall at the present moment the early days of the winter session of 1862, the operating theatre in the Old Infirmary, Spence evidently pre-occupied, restless, and excusing his restlessness by an occasional glance at the instrument-tray, as if every knife and every needle had not been carefully examined and arranged by himself; the theatre crowded to the ceiling, a small sprinkling of practitioners amongst a host of students. The juniors, of whom I was one, were somewhat anxious, and perhaps not over-confident of their staying powers; the seniors, who had left the medical house to visit their old haunts and see "Spence operate," were there in great force, some perhaps thinking of the time when they were juniors, with heart-searchings of time misspent, never to be recalled, others in whispered comments recalling some dreadful operation which they had witnessed, patrouising, but withal in a kindly fatherly manner, us juniors. The patient was soon brought in, a pale but healthy middle-aged woman. She suffered from a large tumour of the neck. I need not detain you with an account of the operation; the time seemed to me short—it must have occupied an hour. During all that time Spence went on with his work quietly; little was said, but gradually the large growth, separated from its attachments, became more and more apparent, until at last it was removed, and a gap was left, exposing the carotid vessels and the internal jugular vein from the angle of the jaw to the clavicle. That large blue vein is still vividly before me. I remember my only thought was, that man must be a good anatomist. This was my first lesson from James Spence; since that day it has been my great privilege to receive from him very many practical lessons and much kindness. It will be an evil day for the teaching of surgery in this school when the useful lessons which Spence taught are forgotten by his pupils. He was a good practical surgeon, a kind friend, and an honest man. In his "Lectures on Surgery" he has left us a guide which will always be eminently trustworthy, more especially in those branches of practical surgery to which he devoted special attention. His chapters on hernia, aneurism, diphtheria, croup, stone in the bladder, their diagnosis and treatment, are to my mind full of sound advice, and will always be read and acted upon, and Spence's name will be handed down as an authority in practical surgery.

The term "introductory" may refer either to the lecturer or to his subject. Personally I am pleased to feel that I require no formal introduction. May I then be permitted to

utilise what remains of this hour, and make it a part of the course on which we are now entering? I have no desire that this lecture should in any sense be of the nature of a pastime, but that to-day, as I trust in every lecture this session, something will be learned by you and by me. To be useful, what I have to say must be more or less elementary; for this I cannot but feel that I owe an apology to those present, old friends and former pupils, who come here to welcome me in a new position, and to other kindly critics present, who have perhaps finished or are now finishing their university course. While my remarks are more especially addressed to students of the second year who are commencing the study of surgery, I am well aware that there are some present fresh from school life who are only now beginning their medical studies, and who as yet consider it a privilege to attend an introductory lecture, and who can still enjoy their comparative freedom as university students, comparing it favourably with the rigour of school discipline with which very lately they were so well acquainted. May I as a friend say to them a passing word? In your present freedom there is a great danger: see that you use that freedom aright. Remember that you are now university men. Your school looks to you to be a credit to your up-bringing; your university hopes in the future to be proud of you. Take this to heart, that your future prosperity very much depends on the way you spend your first year here. I earnestly entreat you to take great care what friends you now make. You will most certainly be tempted. Learn then, above all things, to be able to say "No;" that is the whole business, and I have no fear of the result. "Read carefully; do not be satisfied with a superficial understanding of a book, nor hastily give your assent to those who talk too much."

Pardon me for this short digression; I could not help it. I have seen in my day many bright beginnings end only in disaster, self-reproach, and home misery. My audience is a large one; perhaps what I have now said may be of use to some one junior student now present.

The healing of wounds has from the beginning occupied the attention of surgeons. Rapidity of healing and freedom from pain during the process have mainly been sought after in their treatment. In saying a few words regarding wounds, I would first direct your attention to the treatment of a wound twenty years ago, when I was a student, comparing it with its treatment at the present time. I necessarily, in my comparison, take the practice of the school with which I am most familiar. Its practice, however, has always been a pretty good gauge of the work of practical surgeons. I do not wish to say that it has been foremost, but certainly it has always been among the first to institute or to adopt any improvements. Twenty years ago, as at present, there were differences of opinion in minutiae, but the practice of the majority at either period will be taken as the basis of our comparison. I will have no difficulty in showing that most remarkable alterations have taken place; and I will then ask you to look into the past history of surgery, and I think be able to show you that the present practice has been more than foreshadowed, and that much that is now done has been done long ago. In some minds there seems a tendency to dwell upon the so-called ignorance of our forefathers. I would assert the very opposite, and say that there were clear-headed, shrewd, and intelligent surgeons in those days who can most favourably be compared with the present generation. This assertion, if just, is a comforting one, and may encourage us to hope that any honest, truthful work that is now being done will be appreciated by our successors. If then I can show that the present practice of surgery is a revival of what was done in the past, it will be my endeavour in the next place to point out the real difference, and to show that, while surgeons formerly worked empirically, we are now working on a scientific basis.

The present practice and its results on general surgery will occupy our attention during the coming session. While I have no desire to prophesy concerning its influence in the future, or to predict its permanency, I would suggest, that if I can show that the whole history of practical surgery has been more or less an empirical struggle to overcome difficulties and dangers, the primary cause of which is now clearly understood, then this fact encourages the belief that the present change, in so far as it is founded on a scientific basis, will be a permanent one. The practical details will most certainly change—are in fact daily changing—and will be improved while the great primary truth on which it is founded will always be our standard. There is a great law

governing our physical and mental well-being—namely, that growth and development are accompanied by change, that to stand still and make no advance must necessarily soon be followed by physical and mental decay. Twenty years ago in the treatment of any large recent incised wound, the bleeding arteries were tied with well-waxed silk ligatures. The ligatures were left long and brought out at the corners, or at the most dependent part of the wound. Plenty of cold water was used to wash the wound; the edges were brought together with silver stitches, and a piece of dry lint was laid over the incision and retained in position by a bandage. As a rule this dressing was not touched till the second or third day, when it was removed in consequence of local uneasiness. This removal was always accompanied by a certain amount of pain, which was modified by soaking the lint with warm water before removal. Occasionally, in consequence of the absence of uneasiness, the lint was untouched for a longer period, and removed at the end of a week or ten days to find that union by the first intention had taken place, except at the point or points where the silk ligatures emerged. Sooner or later these ligatures became loose and were removed one by one, when complete healing occurred. The uneasiness complained of was due to local tension as evidenced by redness of the lips of the wound. This redness and uneasiness were relieved by bathing with warm water, or by the application of warm-water dressing (lint and gutta-percha), or by the removal of a stitch or stitches, when the confined discharge escaped as pus. If this pus had a disagreeable odour, then the cavity of the wound was gently washed out with a syringe filled either with simple warm water, or with warm water tinged with Condy's fluid. The wound was dressed night and morning, sometimes even more frequently, and gradual consolidation by means of union by the second intention took place. I make no allusion to the constitutional dangers of which every now and then sad examples occurred, sometimes epidemic, sometimes epidemic, except to say that the principal danger, termed pyæmia, was looked upon as in great part due to the constitution of the patients. The treatment of this danger was entirely curative—quinine, iron, and stimulants were freely administered. Prophylaxis did not occupy the practical mind, because the primary cause of the condition was unknown. Nowadays the treatment of a recent incised wound, as most of you know, is very different. The vessels are tied with catgut instead of silk, the ends of the ligatures are cut short, and we see no more of them. The wound is thoroughly washed with an antiseptic lotion, and a drainage-tube, a hank of catgut or of horsehair, is introduced to the bottom of the wound and brought out at a dependent point. The wound is stitched and a dressing is applied, the essential feature of which is that it contains some antiseptic. This dressing is not interfered with until the discharge soaks through it, or appears at its edges, or unless the wound is painful. This pain is due to an imperfect application of the drainage. The wound is never exposed to the air, but is examined under cover of a cloud of antiseptic vapour. The wound, as a rule, heals without suppuration and without pain.

Here, then, we have two very different pictures: the main differences between them seem to be, ligatures of catgut instead of silk, free drainage, and antiseptic precautions. Are any of these methods really new? *Physic* of New York, Astley Cooper, and others, used catgut; John Vigo and Ambrose Paré recommended drainage-tubes; Würtz alludes to drainage by means of a hank of horsehair; Guy de Chauliac, Vigo, Arcæus, Würtz, Purmannus, Ambrose Paré, Colbatch, and others used various antiseptics—turpentine, alcohol, camphor, myrrh, and various resins. External dressings were applied containing antiseptics. Watson Cheyne, in his recent valuable work on "Antiseptic Surgery," speaks of Arcæus's treatment as "a fair antiseptic method, and not far removed from an aseptic one." These surgeons whom I have named flourished between 1350 and 1750. During these centuries we find, in the great majority of the surgical works, that much stress is laid upon putrefaction. We find, for example, that Guy de Chauliac, Vigo, and Woodall, define a wound as a solution of continuity—fresh, bloody, and free from putrefaction; and they speak of their remedies as of use in preventing and curing putrefaction. Not only do they mention putrefaction as an evil thing, but we find that Paré, Würtz, Magatus, Colbatch, Belloste, Heister, Benjamin Bell, Alexander Munro, and Abernethy, all considered that the entrance of air into the wound is in some unknown way associated with inflammation

and unsatisfactory healing; while Paré and Magatus, in the beginning of the sixteenth century, tell us that the air is charged with miasms, and warn us to avoid such air. In consequence more especially of the teaching of John Hunter and John Bell towards the end of the last and the beginning of this century, these views with regard to the evil effects of the air were almost lost sight of. In consequence, more especially of the teaching of Syme and Liston, simplicity of dressing, such as I have described as made use of in 1860, was the rule in surgical practice. At the same time it is to be noted that the valvular openings recommended by Abernethy, the aspirator long ago recommended by Delacroix and Anel, and subcutaneous surgery generally, retained their place in the practice of surgery. In the beginning of the present century chemists, scientific men, having no knowledge of, and altogether apart from, the practice of surgery, began the study of fermentation, described the products of the process, and searched after the cause. Schwann demonstrated that the oxygen in the air was not the cause, and in 1836 he and Cagniard de Latour discovered independently the yeast plant, and its constant association with alcoholic fermentation. After a time this plant was shown to be the cause of the alcoholic fermentation. Pasteur, in 1858, made the next great step, and pointed out that putrescence is a form of fermentation, and brought forward the doctrine that this is due to organisms planted in a putrescible substance. This doctrine has, up to the present day, been termed the germ theory of putrefaction. This theory is now proved to be correct, and as we speak of Newton's Law of Gravitation, so I am of opinion that we are now in a position to speak of Pasteur's Law of Fermentation. All this work, it will be observed, was done by scientific men, apart from and apparently unconnected with the practice of surgery. For some years before 1860 there were various indications that this scientific work was soon to be utilised in surgical practice, and there can be no doubt that to Lemaire the credit is due of having first seen the connexion. He used coal tar and carbolic acid as disinfectants in wounds. It is unnecessary to inquire the reason why the work of Lemaire did not gain general acceptance. The fact undoubtedly exists, that his ideas were not adopted by the majority, and that they were even abandoned by those surgeons who had given them a trial.

(To be concluded.)

## RUPTURE OF THE URINARY BLADDER.<sup>1</sup>

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### PART II.

#### SYMPTOMS AND DIAGNOSIS.

THE primary symptoms of rupture of the urinary bladder will be more or less marked according to the condition of the patient at the time of the occurrence. If the sufferer, as is too frequently the case, happens to be intoxicated, he may be unconscious of anything amiss. He may be found lying insensible on the highway, or be picked up in the street as simply inebriate, and be carried to a police station or to the hospital, or walk into an adjoining room and go to bed, or stagger to his home, and only become alive the next morning to the fact that he has sustained a grave injury. If the accident occurs to a sober individual, or to one who is only convivial or slightly tipsy, there will be, at the moment of rupture, intense pain at the umbilicus or in the hypogastrium, or perhaps faintness or complete syncope, and a feeling of something having given way within the abdomen. The sensation of something having given way is common to the traumatic and idiopathic cases. In the majority of instances of intra-peritoneal rupture the power of locomotion is either abolished or very greatly impaired, and, even if the sufferer be able to walk, he will in all probability do so slowly, painfully, in a stooping position, or with the assist-

ance of others. In five cases the power of locomotion seems to have been retained in a more remarkable degree (cases related by Dr. Alfred Taylor,<sup>2</sup> Mr. Hird,<sup>3</sup> Dr. Harrison,<sup>4</sup> Mr. Crossley,<sup>5</sup> and Dr. Gillespie<sup>6</sup>). In Dr. Harrison's case the patient kept about and at work till the fourth day after the injury. At the post-mortem the recto-vesical cul-de-sac was seen to be shut off from the general cavity of the peritoneum by adhesions between the lower intestines and the bladder, and contained a quart of colourless urine. It has been conjectured that the retention of the urine in the cul-de-sac would not be attended with the same immediate disturbance to the system as its diffusion through the general peritoneal cavity. This explanation, though possible, does not appear to me to be so probable as the occurrence at first of a partial rupture afterwards becoming complete. Dr. Max Bartels alludes to the latter method of explanation, and appears to lean towards it.

As soon as the shock, pain, and peculiar feelings occasioned by a ruptured bladder have subsided, the subject of the injury, who had previously felt an urgent call to void urine, and may have been on his way to satisfy the call, experiences, perhaps, a temporary feeling of relief. Very soon, however, he begins to be tormented with a strong and frequent desire to make water. On attempting to do so nothing comes away, but straining may cause a few drops of blood, or bloody urine, to issue from the urethra. Accompanying this distressing condition pain will be felt in the hypogastric region, or there may be constant acute pain at the umbilicus or all over the belly, the pain being intolerable in the erect position. Pallor and anxiety of countenance, restlessness, thirst, difficulty in movement, nausea and vomiting, depression, and feeble pulse will be the evidences of grave constitutional disturbances. The introduction of the catheter draws off blood, or a variable quantity of blood and urine combined, or fails to remove anything at all. Usually the catheter will pass readily enough into the empty and more or less contracted or collapsed bladder. When the point of the catheter impinges on a sound part of the wall it will be found difficult to rotate the instrument and to depress it between the patient's thighs, but if the rent is in the posterior wall, on withdrawing the catheter a little and altering its direction it may suddenly slip through the rent into the peritoneal cavity, become freely movable, and withdraw a large or considerable quantity of fluid. The amount of blood mixed with the urine is variable. The quantity of urine drawn on occasions subsequent to the first introduction will vary according to the frequency of catheterism and the position of the extremity of the instrument. A catheter confined to the cavity of a ruptured bladder will not remove more than a few ounces of urine, rarely, I think, more than four or six at the most, but whenever it traverses the rent half a pint to thirty ounces and even more fluid may be expected to issue. As the contraction of the muscular coat of the bladder no longer assists the flow, and as the abdominal muscles will probably be exerted only for the purposes of respiration, the urine will either well out gradually and run down by the side of the catheter, come out almost *guttatim*, or pass from the instrument in an intermittent stream during the periods of expiration. As a general rule the patient from the first is unable to pass water, and continues to display this inability to the end. In a few cases water has been passed voluntarily by the patient, either at the outset or at some period during the progress of the case. In my fourth case, where the rupture was situated just above the prostate, there was at first incontinence of urine, and in a recent case of idiopathic rupture behind the prostate, brought before the Hunterian Society by Mr. Tay, urine seems to have dribbled rather freely from the urethra.

The primary symptoms which have been enumerated, pain in the abdomen, a feeling of something having given way within that cavity, difficulty in standing and walking, a certain amount of shock or depression, temporary relief to the desire to make water, followed by a more urgent desire but inability to do so, and the results of catheterism in bringing away blood or bloody urine, or nothing whatever, are common both to the intra- and extra-peritoneal ruptures. Here, however, the two classes of cases diverge from each other. In the intra-peritoneal ruptures the symptoms are decidedly more severe. The shock at first is greater, and the symptoms of peritonitis, as a rule, set in within a few hours and increase in severity. Only in a severe injury is

<sup>1</sup> The particulars of the reported cases of recovery and illustrations of the statements made in the text are omitted in this abstract, which nearly corresponds to a paper read at the Hunterian Society on Oct. 11th, 1882.

<sup>2</sup> Medical Jurisprudence. <sup>3</sup> THE LANCET, Oct. 3rd, 1836. <sup>4</sup> Op. cit. <sup>5</sup> Med. Times and Gazette, 1872. <sup>6</sup> Ed. Med. Journal, 1859, p. 311.



any external mark of violence likely to be observed. Most probably the abdomen will be found swollen or prominent in front, tender on the slightest pressure, and tympanitic, but in the hypogastric region for a variable distance, and sometimes extending towards one or both iliac fossæ, the percussion note is likely to be dull, more especially in the erect position. There may even be a more or less defined swelling resembling the bladder between the umbilicus and pubes, due to the circumstance that the urine is temporarily confined by the disposition of the coils of intestine. Examination per rectum will elicit tenderness and pain, and in some cases the fingers may be able to detect a collection of fluid in the rectovesical cul-de-sac. As a general rule there is no collection of fluid in this situation. In a typical case of intra-peritoneal rupture the patient will exhibit all the symptoms of peritonitis in addition to those proper to the lesion itself. He will lie in bed with his knees drawn up, or be propped up with pillows to relax the abdominal muscles. He will have a pinched, anxious, haggard expression of countenance, look pale and anæmic, and be tormented with a frequent or constant desire to make water leading to ineffectual efforts to empty the bladder. He will suffer from thirst, and sooner or later be troubled with vomiting, bringing up a greenish-yellow fluid, and even the water which he had drunk copiously to quench his thirst. With vomiting hicough is frequently associated. The pulse will be small, feeble, and rapid, ranging between 90 and 130. The temperature will probably be a little over the normal. The respirations will be hurried, accompanied, perhaps, by dyspnoea, or a feeling of oppression at the chest. The abdomen will be tense, tender, tympanitic above, dull and possibly fluctuating below. The tongue will be furred and dry, and the bowels confined. Occasionally there may be rolling of the intestines and distressing tenesmus. Unless stupefied with alcohol, the patient may be expected to pass the first night after the injury in much torture, vainly endeavouring to procure rest and sleep. Throughout the illness there will be marked restlessness and insomnia. As the case proceeds the symptoms become aggravated; the swelling and tension of the abdomen increase; clammy sweats appear on the skin; the hicough and vomiting become more urgent and distressing; the pain is intolerable; the countenance sunken and ghastly, and the patient may sink into a state of collapse, or a typhoid condition attended with delirium and coma. Not infrequently, after a few days, especially about the fifth or sixth, if the patient survive so long, there are marked signs of amendment. Nature has commenced the repair of the rent in the bladder, and the edges of the rent have become agglutinated or blocked by the sigmoid flexure or a coil of small intestine. The patient passes water voluntarily, takes food without rejecting it, sits up in bed, is free from pain and comparatively cheerful. An error in diet, or a purgative acting on the bowel, or the course of the disease itself, dispels the deceitful improvement, the former symptoms recur, and the patient may expire on the very day which follows the signs of hopefulness and recovery. In one or two cases stercoraceous vomiting has occurred, and in a case at St. Bartholomew's Hospital a coil of intestine entered the rent in the bladder, and gave rise to symptoms of intestinal obstruction which masked the symptoms of rupture of the bladder. In the extra-peritoneal ruptures the symptoms of peritonitis will not be present, unless the peritoneum has been injured by the violence which occasioned the rupture of the bladder, or becomes involved secondarily, either by contact with urine effused under it, or in the course of the diffuse inflammation and sloughing of the sub-peritoneal areolar tissue. In regard to the local symptoms, a less amount of urine may be expected to follow the introduction of the catheter than in the intra-peritoneal ruptures, as the point of the catheter will not readily enter the rent in the bladder. Nevertheless, manipulation with the finger in the rectum may occasionally succeed in causing the point of the catheter to pass through the rent into a pouch outside the bladder, containing urine mixed with blood and the products of inflammation. The situation of the collection will vary according to the position of the opening in the bladder. When the rent is in front, the urine either forms a circumscribed tumour outside and anteriorly to the bladder, occasioning marked dullness on percussion, or it becomes widely diffused, mounting up towards the umbilicus between the peritoneum and the abdominal muscles, or passing into the iliac fossæ, or through the obturator foramina, and the inguinal and femoral canals into the thigh and scrotum. When the

opening is behind the prostate the fluid will ascend into one or other of the iliac fossæ. Wherever extravasation occurs it sets up inflammation in the connective tissue and fasciæ, followed in due time by suppuration and sloughing. Occasionally the urine is collected in a kind of sacculus, the walls of which are composed of connective tissue matted by lymph, simulating the appearance of a lining membrane to the adventitious cavity. The general symptoms will be less marked than in the intra-peritoneal ruptures, and be of the character familiar to the surgeon in connexion with extravasation of urine.

In a typical case the diagnosis will be easy, but it is likely to be obscure if the surgeon cannot obtain a satisfactory history of the case, or where the symptoms are masked or slight, and in which, possibly, the patient has passed water voluntarily, or when it flows from the urethra. The surgeon needs to be constantly on the alert, and to have his mind directed to the possibility of rupture not only where there has been an abdominal injury, but in cases of retention from stricture, or from hypertrophy of the prostate gland, or from any other cause, and where the patient comes under his care stupefied with alcohol. In extra-peritoneal ruptures doubt will soon be removed by the occurrence of extravasation of urine, but in the intra-peritoneal I believe that the best local test is the possibility of passing the point of a long catheter through the rent into the peritoneal cavity, allowing free movement and drawing off a large quantity of fluid. When contrasted with a prior limitation of rotation, and of depression, and the removal of blood, or a very small quantity of bloody urine after the instrument had undoubtedly passed the prostate gland, the sudden slipping of the catheter up to the hilt in the urethra, with the effect stated, is extremely significant. Mr. Heath injected warm water through the catheter, and the stream was distinctly felt by the patient in the groins and abdomen. This means of diagnosis might be used when the surgeon could not make one without it, but it tends to diffuse the urine already present in the peritoneal cavity, and it is probable that the warm water itself may exercise an injurious effect upon the peritoneum. If the bladder is sound, injection of fluid ought to furnish decisive evidence by causing the formation of a circumscribed tumour, which disappears on catheterism with recovery of the fluid.

One great disadvantage of an incorrect diagnosis and mistaking some other form of abdominal injury for a ruptured bladder, or an extra-peritoneal for an intra-peritoneal rent, is that if recovery ensues the case is published with a flourish, and the treatment pursued is quoted as well worthy of adoption in a similar case. In recent years there has been a serious increase in the number of reported cases of recovery after an alleged rupture of the bladder, and several are said to have been ruptures into the peritoneal cavity. Before accepting any case as a genuine instance of recovery after simple uncomplicated intra-peritoneal rupture, the following points should be well considered:—

1. It is desirable to have clear evidence that the bladder was full at the time of the accident. A distended bladder can scarcely escape from a severe blow or contusion of the abdomen, but a bladder empty, or nearly so, and under the protection of the pelvic bones, may elude the greatest violence.

2. It must be borne in mind that the bladder may be merely contused or displaced, and that many of the symptoms of rupture may be present—viz., blood in the urine, inability to micturate with desire to do so, and some difficulty in the passage of the catheter. A case of this kind I have seen, and Mr. Le Gros Clark's case, which has been quoted as an example of rupture, certainly appears to me to be an instance in point. In the history of the case no evidence is adduced to show that the bladder was distended at the time of the accident; the most typical primary symptoms, a feeling of something having given way, a distressing desire with inability to micturate, and the peculiar results obtainable by manipulation after passage of the catheter, were absent, and the quantity of urine removed or passed does not appear to have been at any time defective.

3. Difficulty experienced in drawing off a patient's water, and the necessity for altering the direction of the catheter or the position of the patient before succeeding, cannot be taken as conclusive evidence of a rupture of the bladder. A blocked catheter, hitching in a fold of mucous membrane, a swollen veru montanum, entrance of the point of the catheter into the sinus pularis or a false passage, displace-

ment of the bladder, submucous extravasation of blood, and enlargement of the prostate gland, may all occasion impediments.

4. It is erroneous to suppose that the peritoneum tolerates the presence of pent-up urine. The idea of tolerance appears to have originated partly from the fact that post-mortem examinations of cases of ruptured bladder sometimes detect very slight, if any, traces of peritonitis, and partly on cases which appear to indicate the ability of the peritoneum to absorb effused urine. The basis will not support the superstructure. For if the history and progress of the cases in which pathological peritonitis was absent be examined, all the symptoms of intense irritation and inflammation of the peritoneum will be found, and the issue was death. The presence of absence of lymph, as evidence of inflammation and irritation or the contrary, is little to the purpose. Purulent collections or serous exudation may take the place of lymph, and evidently the tolerance of urine by the peritoneum must be judged not merely by the effusion of lymph, but by the local and general symptoms and by the issue of the case. If the intrusion of urine into the peritoneal cavity produces intense pain, tenderness, and distension of the abdomen, and if these symptoms are accompanied by constant vomiting, restlessness, a sunken anxious countenance, altered temperature, feeble pulse, hurried respiration, clammy sweats and intense prostration, terminating in death, I cannot understand why it should be affirmed that the peritoneum tolerates the presence of pent-up urine because after death it is sometimes found to have retained its smooth glistening aspect, and to be free from undue vascularity, adhesions, and lymph. That the peritoneum may absorb urine effused into its cavity I will not dispute, though I believe that this absorption is slight. But even if it takes place in any quantity, as conjectured by Solly, Le Gros Clark, Max Bartels and others, I entertain no doubt whatever that it exercises a most depressing influence upon the system of the patient, so that the matter may be summed up in this way: However tolerant of urine the peritoneum may appear in some cases of ruptured bladder, intolerance of it is plainly exhibited by the system of the patient. Nor is urine tolerated in the areolar tissue, be it the urine of the infant or the urine of the adult. Both alike, when pent-up in the meshes of the tissue, will set up inflammation, supuration and sloughing, and I distrust altogether any statements which would involve any opposite conclusion.

## A SCHEME FOR THE MORE COMPREHENSIVE STUDY AND PREVENTION OF SO-CALLED ZYMOTIC DISEASES.

By THOMAS M. DOLAN, F.R.C.S. EDIN.

### PROVISIONAL OUTLINE.

THE theory of creative evolution has placed the study of the genesis of species on a scientific basis. The germ theory promises as much for medicine. A richer fruition will result if the germ theory be studied by the light of evolution. We have seen its application in the animal and vegetable world; it has been extended to the sociological aspects of life, &c. It may be applied with advantage to the study of disease. Disease is not an entity standing alone. It should always be considered in its relation to the cosmos. Buckle, in his "History of Civilisation," vol. iii., p. 447, tells us that the great glory of Hunter as a pathologist was that he formed the grand conception of a universal pathology. Buckle says: "With him [Hunter] the science of pathology did not mean the laws of disease in man alone, or even in all animals, or even in the whole organic kingdom; but it meant the laws of disease and of malformation in the entire material world, organic and inorganic. His great object was to raise a science of the abnormal. He determined to contemplate nature as a vast and complicated whole, exhibiting indeed at different times different appearances, but preserving amidst every change a principle of uniform and uninterrupted order, admitting of no deviation, undergoing no disturbance, and presenting no real irregularity." In the views herein set forth there is then nothing new, except perhaps in the

method in which they are set forth. It is one which has occurred to many minds. There is a tendency at the present time to consider disease in its relation to evolution. The papers by Dr. Airy, Dr. Roberts, Surgeon-General Gordon, and Mr. Millican indicate the direction in which this current is setting. The principal zymotic diseases are small-pox, scarlatina, measles, whooping-cough, diphtheria, cholera, and typhoid. We have evidence to support the view that these diseases are caused by micro-organisms. These diseases must be studied in the same way that the naturalist studies animals and plants. The naturalist, when engaged in the study of the life-history of any individual animal or plant, looks in a broad-world point of view at his subject, and by the aid of evolution throws light on the genesis, distribution, development, transmutation, and varieties of each animal and plant. The scientific physician must approach the study of disease in the same way.

The following is an outline of what I believe should be done:—

1. *The Genesis of Contagium Vivum.*—Under this head will be included the life-history of each form, tracing it as far back as possible. Evolution does not tell us when each seed, as, for instance, that of the oak or the ash, first appeared. We can only go as far back as the historical period extends; so we cannot expect to be able to reach the ultimate stage when each disease first appeared. Evolution fixes in what part of the globe each plant examined first appeared, as the scientist not only traces back to the earliest period its existence, but also, by the study of its habits, is able to determine the zone in which it could exist. As regards the genesis of each individual disease germ we must apply the general principles of evolution.

2. *Reproduction.*—Under this head will be considered the mode of reproduction, whether slow or rapid, whether the seeds are derived from seed forms, or whether multiplication takes place by fission. Example: Drs. Dallinger and Drysdale's experiments on the life-history of some monads. These observations are models of what is wanted.

3. *Development, Maturity, and Decay.*—Duration of life in each form of contagium. How long may it be preserved? Average period of existence in mature and embryonic form. Morphology and physiology.

4. *Laws Controlling Contagia, &c.*—Special seasons of activity; the influence of environment on each disease; sanitary conditions and relation to physical phenomena; influence of oxygen in the atmosphere; heredity, variations; crossing or transmutation; susceptibility; relation of the habitat; progressive development of types; application of analogy of laws regulating plant life.

5. *Distribution in its Geographical Relations.*—Influence of climate; atmospheric variations; warmth, moisture, winds, barometric, electric, thermic disturbance, &c. Secondary natural influences; currents; winds; animals, transport by. Effects of human interference. Example: Measles introduced into Fiji Islands. Migrations. Effects of cultivation by civilisation. Effects of extinction of diseases by sanitation, similar to extinction of weeds in the plant world. Distribution of disease in zones. Relation of disease to flora and fauna. Natural selection for localities. Latitudes in which diseases are found. General method of diffusion.

6. *Geological Distribution.*—Nature of soil, subsoil, alluvium, clay, &c.; rock. Mountain, valley, or plain; drainage; swamps; watershed; rivers; lakes.

### GENERAL PREVENTIVE MEASURES.

These can only be secured by establishing, as it were, a sanitary cordon round the world, and by the combined investigation of disease by an international method,—London, Paris, Berlin, Vienna, Brussels, &c., to be in communication, so that the heads of sanitary bureaux in each country may know the sanitary state of each country. This could be done by maps, charts, and records, to be framed and kept on a uniform plan. The incidence of disease in individuals and communities will be noted; sex, age, colour, nationality will have their proper place assigned; sporadic, endemic, and epidemic states will be considered in relation to causation. Hygiene will thus be carried out in a cosmic spirit; all those minor considerations as trades and professions will be examined in their relation to disease; whilst the value of food, pure air, water, &c., will be also appraised.

Vast statistics on almost every point connected with disease will by these means be secured, and conclusions drawn

theretrom. Thus will be obtained the sum of the conditions of the causes and propagation of disease; thus will be found the varying effects of climate and other agencies; and, above all, we shall learn the value of preventive measures necessary for its eradication. We have not as yet in England arrived at an appreciation of some of the simplest elementary truths in reference to prevention; for instance, the notification of infectious diseases and hospital accommodation for them are two of the first essentials. They should be State regulations. Each town is now allowed local option as to what it shall do. It seems Quixotic to attempt a broader scheme in the face of the prevailing indifference or disregard for both these measures in England. Prevention and spread of disease are not only State questions, but they have a cosmopolitan interest. Now that communication between different countries is so rapid and so much facilitated by steam, the health of one country is of vital interest to all countries; causes operating in England may affect France and *vice versa*. For example, let us take the sanitary state of Hull. Hull is a seaport town. Let us look at the sanitary state of this town in the year 1881. In consequence of the prevalence of scarlatina the Local Government Board sent down Dr. Airy to inquire into the sanitary condition of the town. Dr. Airy held the inquiry on the 9th and 10th of March. The medical profession of the town submitted a memorial from which I extract a few items. The memorial sets forth that the outfalls of the sewers are blocked for sixteen hours out of the twenty-four, and that the ventilation of the sewers is most defective. The present mode of collection of night soil is very inefficient, being effected irregularly in open carts. Refuse is deposited in various parts of the town on unused plots of ground. The connexion of houses with the main drainage is notoriously insufficient. New houses are not examined during the course of erection as to their drainage and other sanitary arrangements, and building sites are frequently formed by the filling up of disused brickponds with animal and vegetable refuse and street scrapings. The Artisans and Labourers' Dwellings Act and the Sale of Food and Drugs Act are not properly carried out, nor are the sections of the Public Health Act dealing with offensive trades and the smoke nuisance. A reservoir supplying water to the town is uncovered, though exposed to the foul emanations issuing from fish and bone manure works in close proximity. The hospital accommodation for cases of infectious disease occurring in the town is totally inadequate, especially in view of the special danger to Hull arising from its close and frequent communication with the Continent. Disinfection is not undertaken by the local authorities free of expense, and the charges which the Corporation make no doubt deter many people from having their disinfection properly done. There is no mortuary in the town, and the means adopted for the prevention of epidemics are generally inadequate. This is a sad picture in the nineteenth century. Hull in this insanitary condition is a danger to the world. She may distribute scarlatina by ships as well as wind and wave currents. At present health officers of different countries are ignorant of the general sanitary state of other countries. Under my system the state of Hull would be known. Perhaps a friendly communication might be made by some foreign State to the Minister of Public Health in England to look after the sanitary state of Hull if this international system were at work.

My leading ideas are—1. That the sanitary authorities of each country should work on one uniform plan and under central direction. 2. That all sanitary authorities in every country should interchange maps, &c., and that the methods of recording disease should be the same. It is easy to draw up forms for international use. I have given one quotation from Buckle. I shall conclude with another, as an excuse for not tracing in detail the way in which diseases have originated or spread:—"To do this would require a learning and a reach of thought to which hardly any single man ought to pretend, since it is one thing to have a perception of a large and general truth, and it is another thing to follow out the truth in all its ramifications, and prove it by such evidence as will satisfy ordinary readers"—(vol. i., p. 131).

Hallifax.

THE committee of the Hastings Infirmary have just accepted an offer from the Misses Brisco to present to the trustees the large and commodious White Rock Villa for the purposes of a convalescent home for the infirmary patients.

## SOME OBSERVATIONS ON THE CONTAGIOUS DISEASES ACTS.

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SENIOR SURGEON TO THE WESTMORELAND LOCK (GOVERNMENT)  
HOSPITAL, DUBLIN.

OF the many burning questions at present agitating our minds, perhaps there is none discussed with greater warmth than the propriety of retaining amongst our statutes the Acts of Parliament known by the name of the "Contagious Diseases Acts." Whether they should be abolished, retained, or even extended is discussed with an amount of energy approaching acrimony, calculated to excite surprise in the calm mind of a philosopher; and yet it strikes me that in all this controversy the question has been almost exclusively approached by those who would wish, not only their continuance, but their extension, from the man's side of the case, to a very great extent ignoring that of the woman; whilst the opponents of these measures seem to me to think that any beneficial results that may flow from such enactments are confined to the male sex—on their side also ignoring the woman in the discussion. Whilst at once avowing myself as an uncompromising opponent of the "billet de santé" system—an occupation in my opinion degrading to any respectable surgeon—still I should wish to point out, from the woman's standpoint of view, why it is that I should wish these Acts not only to be continued, but to be widely extended; and the facts which I shall submit in support of my views cannot be gainsaid—facts which, if called upon to do so, I can support by unquestionable documentary evidence. During the past five years our return of patients admitted into the Lock Hospital would show an average of 700 unfortunates annually admitted. Of these I am in a position to prove that 511 were reclaimed—something like one out of every seven saved from a life of sin!—225 sent to asylums, 88 reconciled and restored to their parents, 50 sent to the poor-houses, and 148 provided with respectable situations. All this good work due to the fact that their admission into the hospital brought them under the direct pious ministrations of our chaplains, the Rev. Dr. Gibson and the Very Rev. Canon Forde, whose exhortations, ably aided by our Matron, Mrs. Hogan, bore this good fruit. It would be but to abuse the patience of my readers were I to point out how inaccessible to such influences would have been these poor sinners were there no such hospital for their reception; and it is a matter for legitimate speculation how many more might have been rescued were the Acts compulsory, thereby bringing a larger number under such influences.

So far I have been considering the subject from its moral aspect. I should desire now to say a few words upon the physical side of the case. How often have I wished when admitting these unfortunates into my hospital that some of the most earnest of the opponents of the Contagious Diseases Acts could be present to judge for themselves the amount of suffering they would inflict upon an erring sister by permitting her to ply her trade at a period when to do so must have been present torture and future misery. How often has the question been as it were wrenched from me, "My poor girl, why have you not applied ere this?" No one in general practice and unconnected with a Lock hospital can have any idea of the fearful condition in which from time to time patients are admitted into my hospital, which is situated in a city unfortunately not under the Contagious Diseases Acts. Were these Acts in force in Dublin, it would be simply impossible for such harrowing cases to present themselves. As it is, patients rarely present themselves in the earlier stages of their disease, when their treatment is manifestly more amenable. The effect of this on our general population, and more especially upon our garrison, it is unnecessary for me to point out.

Dublin.

PRESENTATION.—Dr. Robert Jones, who has filled the office of Assistant Medical Officer at Earlswood Asylum for two years, and has just been appointed to a similar position at Colney Hatch Asylum, has been presented by the Earlswood staff with a very handsome timepiece and illuminated address as a mark of their high esteem and regard.

ON A CASE OF  
PSORIASIS TREATED BY CHRYSOPHANIC  
ACID INTERNALLY.

BY LEWIS W. MARSHALL, M.D.,  
SURGEON TO THE CHILDREN'S HOSPITAL, NOTTINGHAM.

THE following case is of interest in connexion with others published by Dr. Napier in THE LANCET of May 20th, because, while I endeavoured to act rigidly up to the rules laid down for the administration of chrysophanic acid internally by the author of the paper referred to, the result was not so favourable as could have been wished.

Sarah A. C—, aged thirteen years, was admitted to the Children's Hospital, Nottingham, on May 24th, 1882, having numbers of patches of psoriasis all over her trunk and upper and lower extremities, those on the legs being most numerous and the largest. They existed chiefly on the extensor surface of the arms and legs. She gave a history of having suffered from the rash for six months, when it appeared in small spots, gradually enlarging and becoming scaly. On the day of admission she was ordered the following diet and treatment:—One-third of a grain of chrysophanic acid, with a sufficient quantity of sugar of milk, three times a day, this powder to be used after a meal, and to be continued unless diarrhoea or vomiting ensued. Diet to consist of meat, and avoidance of farinaceous products.

May 25th: Vomited directly after powder last night (5 P.M.), when they were stopped, but resumed at 11 A.M. to-day.—26th: Vomited again last night; no pain or discomfort.—31st: Dose increased to half a grain three times daily; spots fading slightly.

June 5th: Dose increased to one grain.—9th: Vomited after the morning powder.—19th: Dose to be a grain and a quarter.—28th: Two-grain doses used; spots on hands less distinct; made out-patient, but to continue treatment.

July 1st: Spots improving, but not markedly so; has vomited twice since she left the hospital.—12th: States to-day that she vomits everything she eats, and the treatment was discontinued.—19th: An ointment of chrysophanic acid with vaseline (twenty grains to the ounce) was used locally, after which rapid improvement was noticed.

Sept. 8th: The patient was discharged well.—29th: To-day I have heard that the spots have not returned.

Nottingham.

A CASE OF COLIC FROM UNUSUAL CAUSE.

BY HERBERT FENTON, L.R.C.P., &c.

ON Saturday, Sept. 16th, I was called to see Mrs. H—, an Anglo-Indian lady whom I had attended in childbirth a month previously, and found her suffering from colicky pain of a particularly violent character, associated with distressing retching and vomiting.

The history the patient gave was that on the previous Thursday, whilst lifting a box, in weight about equal to a scuttle of coals, she felt a sudden sharp pain in the lower part of the stomach. No notice was taken of this at the time, and the usual household occupations were continued until Saturday evening, though not without occasional twinges of pain. Physical examination showed the abdomen dull on percussion in the left iliac region, though there was no definite tumour on palpation. Elsewhere the abdomen was slightly tympanitic. Tenderness was complained of, and the pain was greatly increased by pressure. There were no signs of hernia. The pulse was 60; temperature normal. Tongue coated with a soft creamy but thick white fur, and the bowels had been opened once since the first feeling of pain on the Thursday. An ordinary effervescent mixture, with two drops of prussic acid (Sch.) in each dose, was prescribed, and turpentine supes directed to be applied over the abdomen. No food, except a little milk, to be given. On Sunday morning the symptoms, with the exception of the vomiting, which was slightly relieved, were aggravated. An ounce of castor oil, with forty minims of laudanum, was then given, and the bowels were relieved about eight o'clock the same evening. One of the neighbours who was acting as nurse kindly washed and examined the

motion, and found a splinter of wood two inches in length and about as broad as three matches. At the time of passing the motion most agonising pain was experienced. After the passage of the wood the symptoms were all relieved, but what was described as a raw pain was still felt in the left iliac fossa. One grain of opium was then given every four hours, with a diet of milk and beef-tea. On the Monday there were signs of general peritonitis, which were speedily subdued by the free use of opium, and the patient then rapidly regained her usual health.

Remarks.—This case shows the necessity of carefully examining the motions in every case of intestinal obstruction, and also illustrates how the patient's own account may to a certain extent mislead; the pain experienced on lifting the box being perhaps a coincidence, perhaps due to some displacement of the previously innocuous piece of wood. The wood was probably swallowed with some French beans, which a boy who prepares them is accustomed to slice on the edge of the table, but at what time it was eaten is unknown.

Cumberland-street, S.W.

A Mirror  
OF  
HOSPITAL PRACTICE,  
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

SURGICAL CASES.

(Under the care of Mr. A. CLARK.)

THE following cases which have lately been attending in the out-patient room present some features of interest.

CASE 1. *Chancere of Lower Lip, followed by Secondary Symptoms.*—E. B—, aged twenty-two, attended first on Dec. 29th, 1881, complaining of a hard swelling underneath her jaw. It did not take much consideration to decide that this was a glandular enlargement secondary to a sore on the lower lip, and the sore was a typical Hunterian chancre. The patient herself attached but little importance to the sore, which she stated she had had several weeks, but it was the hard increasing swelling which alarmed her. The girl's explanation of the lesion was that in the course of her employment, filling pickle-tins, she had accidentally cut her lip with a sharp edge. She declared she had kissed no one except a young man to whom she was expecting shortly to be married, and who was seen by Mr. Clark, and found to be perfectly healthy. The patient herself had always previously enjoyed good health, and there was no reason to believe that she had knowingly exposed herself to syphilitic infection; her own statement and that of her mother, who accompanied her, were perfectly straightforward. The treatment adopted was a drachm of the solution of perchloride of mercury three times a day, and in a week there was a marked improvement; in three weeks the chancre had all but healed, and the glandular enlargement much reduced, but then a rash appeared and ulcerated throat, and she has gone through the ordinary course of syphilis. Considering herself well on June 8th, when she discontinued her attendance of her own accord, only, however, to return with palmar psoriasis on July 8th, for which iodide of potassium was prescribed, and this she still continues to take.

CASE 2. *Abscess of the Parotid Gland.*—A. G—, aged fifty, first came on May 18th, 1882, with considerable enlargement about the right parotid, which she stated had been coming for several months. It was in the main hard, but there were several soft fluctuating nodules projecting from it; there was some enlargement of the submaxillary lymphatic glands and several carious teeth, but of these the patient did not complain. The diagnosis was between glandular abscess affecting the right parotid and enchondroma of the parotid. A mixture of carbonate of ammonia and chinchona was ordered, and locally an ointment of belladonna and iodide of potassium was applied. For the next two or three weeks the swelling continued to get harder

and larger, and it was not until Aug. 31st that it burst, and then it rapidly disappeared, leaving a small discharging sinus. The patient always declined to have anything done to her teeth.

**CASE 3. Enlarged Glands surrounding the Carotid Artery and simulating Aneurism.**—E. B.—, aged thirty-three, presented herself on June 26th complaining of pain in the left side of her neck, the result of a blow there ten days previously. There was evident enlargement on that side and some induration round the carotid artery, and with each beat of the heart the tumour expanded in every direction; there was no redness of the skin, not much tenderness on ordinary manipulation, and no perceptible difference in the two radial pulses. There was some enlargement of the cervical glands; the diagnosis was between aneurismal dilatation of the carotid and glandular abscess. The former seemed the more likely. A local application of belladonna and iodide of potassium was ordered and a tonic given internally. She was seen again on June 29th, when there was no perceptible difference. On July 6th the objective signs were the same, but the patient complained of more pain, inability to sleep, and an unpleasant pulsation; she was therefore admitted as an in-patient, and a subsequent exploratory incision proved the case to be one of enlarged glands entirely surrounding the artery.

**CASE 4. Deep-seated Abscess in Axilla.**—L. C.—, aged fifty-six, presented herself on April 10th, complaining of intense pain in her right axilla. She attributed it to a twist some three weeks previously, following which the pain began, and had expected it would get better of itself, but it daily increased in severity, and her health was beginning to be affected from want of sleep, so she reluctantly came to the hospital. There was some fulness over and below the pectoralis major, and extreme tenderness both there and in the axilla, but there was no specially tender spot, no redness of the skin, no fluctuation, no history of a rigor, and no glandular enlargement to be felt. It was believed to be a deep-seated abscess, so a long narrow bistoury was carefully introduced, and some laudable pus escaped; the opening was then enlarged by means of dissecting forceps. There was a free discharge; and the next day the patient expressed herself as being quite well; nothing but a sinus remained, which healed by the 27th, and the patient was discharged. She, however, returned on June 15th, with some oedema of the arm, which, under local friction and the administration of quinine and iron, disappeared.

#### STANLEY HOSPITAL, LIVERPOOL.

UNUNITED FRACTURES OF HUMERUS, RADIUS, AND ULNA, SUCCESSFULLY TREATED; REMARKS.

(Under the care of Mr. ROBERT JONES.)

**CASE 1. Ununited Fracture of the Right Radius.**—J. K.—, aged forty, a sailor, fractured his right radius on the way to New Zealand. The captain of the vessel undertook its treatment for the first two months, which consisted in the application of the usual side splints. The patient on landing procured a surgeon, who proclaimed non-union, and persisted in the use of splints for a further period of six weeks. No success, however, accompanied this, and, in J. K.—'s own words, "For four months once a week the doctor took hold of my arm and elbow and shook it for five minutes." The patient subsequently returned to England; and in August, twelve months after his mishap, he was admitted as an out-patient to the Stanley Hospital. The radius was ununited at the junction of the middle with the upper third. Around the fractured ends some thickening was perceptible. He complained of pain at night, more especially when the previous day had witnessed much use of the arm. He was quite unable to do heavy lifting, and any attempt at closing the hand firmly produced "shooting pains" around the elbow. Furthermore, a dependent position of the arm invariably gave rise to an unbearable feeling of fulness at the seat of fracture.

**CASE 2. Ununited Fracture of the Ulna.**—R. S.—, a sailor, aged fifty, became in October last an out-patient at the hospital. On examining him an ununited fracture was found at the middle of the ulna. The ends were freely movable and thickened, and the skin over the seat of fracture much hypertrophied. The subjective symptoms were, pain

at night, loss of power in the limb, and violent neuralgic pains during damp weather. He gave the following history: Twelve months previously he broke his arm in a pugilistic encounter on the plains of the Argentine Republic. It was plastered next day by a practitioner, who advised the removal of the dressing in about a fortnight. This injunction the patient obeyed while at sea, but necessarily with unpleasant results. On his arrival at a foreign port, a doctor applied more plasters and advised more rest. For five weeks this treatment was adopted with no improvement save in the matter of pain. Three months later the patient arrived in England, where he immediately sought advice from a medical gentleman, who proposed cutting down upon the fractured ends and excising them. This procedure he would not submit to.

**CASE 3. Ununited Fracture of the Surgical Neck of the Humerus.**—J. R.—, fifty-six, was admitted an out-patient for fracture of the surgical neck of the humerus. He had met with the mishap the day before, and on his admission the contusion and swelling were so formidable as to render the application of splints quite out of the question; nor were these appearances sufficiently modified to admit of the use of supports until the ninth day, when the arm was immovably fixed. With the exception of the usual weekly trimming, this fixity was undisturbed for seven weeks, at which time there was absolutely no union. Three weeks more of anxious waiting and withal no change.

**Remarks by Mr. JONES.**—In the treatment of these cases I followed the method introduced to the profession by Mr. H. O. Thomas—that known as "percussion." Of this there are two varieties. The one consisting in severely percussing the limb over the seat of fracture at long intervals; the other in its daily but gentle performance. Whichever plan be adopted elastic bands should also be tied above and below the fracture to induce local congestion and thereby facilitate the reparative process. More especially is this necessary at night time, when the circulatory system is less active than during the day. The hammerlog is performed with an instrument covered by an indiarubber cap, so as not to lacerate the soft structures. In its absence, however, anything almost will suffice. In Case 1, the bone being somewhat deep seated, I adopted the method of severe hammering, which I performed once a week. The patient tolerated it very well and complained but little of the pain, although the indiarubber tubes tied round his arm at night made him very restless. I applied no splints, but merely permitted the carriage of his arm slung in hammock-like fashion. This lasted five weeks. After each beating a good deal of swelling and even some contusion marked the occasion. At the end of the fifth week, having noticed a decided thickening of the ends of the bone, I applied splints for four weeks, removing them in time to find union complete. Case 2 is more interesting because more rare. In treating the patient I dispensed with the elastic tubes, and the bone being superficial it was, of course, better to try the gentle mode of percussion than that adopted in Case 1. Accordingly I hammered twice a week and kept the splints firmly applied. In a little over four weeks union was firmly established. In both these cases the treatment gave the patients hardly—if indeed any—more inconvenience than they had already endured. Case 3 differs from the others in being a less confirmed non-union. The patient was ten weeks in splints after a primary delay of nine days; and it is impossible to say but that another month's continuance would have produced union. I thought it best, however, not to trust to this alternative, and, using my fist for a hammer, I worked away twice a week for nearly two months, with completely satisfactory results. I may mention that the elastic tubes may be applied immediately after the gentle method, but it is best after the severe mode to wait until the local irritation commences to subside, and thereby prolong it. Should the contusion be very marked, it would, of course, be unwise to apply them at all. As a matter of detail, I may add that the tubing should not always be tied to the same spot, or else ulceration may result. Generally speaking its application at night-time is quite sufficient, and affords the arm very acceptable respite during the day.

THE New Orleans City Lunatic Asylum has been abolished and its inmates transferred to another institution. This step, it is stated, has been taken in consequence of the exposure by a novelist, Mr. G. W. Cable, of serious abuses in the asylum.



## Medical Societies.

### ROYAL MEDICAL & CHIRURGICAL SOCIETY.

*Dislocation of the Foot, with Version and Torsion of the Astragalus. — Ophthalmoplegia Externa, complicating Graves's Disease.*

THE first meeting of this Society after the vacation took place on the 24th inst., Mr. John Marshall, F.R.S., President, in the chair. At the commencement of the business of the evening, the President directed the attention of the Fellows present to certain proposed alterations in procedure initiated by the Council, comprising increased facilities for the discussion and reading of papers, the insertion of debates in the Proceedings and the exhibition at the meetings of scientific inventions, anatomical and pathological preparations, &c.

Mr. RICHARD BARWELL read a paper on Dislocation of the Foot with Version and Torsion of the Astragalus, of which the following is an abstract. Dislocation of the astragalus is not uncommon, the bone, displaced from the socket formed by the leg-bones as well as from the rest of the tarsus, receiving, in nearly all instances, a twist, so that its surfaces look in abnormal directions. Another very rare form of injury is that of which the following is an example: G. F—, aged twenty-eight, received the injury by the overturning of a gig that he was driving, he falling on the right foot. The foot was greatly inverted, the heel raised; the inner malleolus was much obscured, the outer very prominent. The round head of the astragalus was in front of and below the external malleolus. Running from the head to the upper part of that malleolus was a ridge of bone convex outward. A small wound a little way up the leg communicated with the seat of injury. Attempts at reduction, even though the Achilles tendon was divided, were ineffectual. Mr. Barwell excised the astragalus. It was in its normal place in the tibio-peroneal socket, but was twisted, so that the trochlea looked outward, and rested against the articulating face of the outer malleolus. The man did extremely well; he was discharged in three months, walking with crutches, and was shown at the Society's meeting, walking well without any assistance from crutch or stick. After a few remarks on the difficulty of nomenclature in dislocation about the tarsus, the author referred to Malgaigne's description of version and torsion "*sur place*," the former referring to a turn of the astragalus on its perpendicular axis. Of these Malgaigne gives four examples, and the author had collected two others. They all, with one exception, were inward. Torsion, by which he means a twist on the antero-posterior aspect, is in reality more rare, although it would appear on first sight more common because Malgaigne quotes six cases; but on examination of the original records, these changes he found to be not *sur place* save in one case, Dupuytren's—and even here the bone was nearly extruded—and one preparation, the history of which is unknown, and in which the turn is very slight. The author's case is the only one in which a diagnosis has been arrived at during life, and, as far as can be ascertained, the only one in which the bone turned a quarter of the circle, and lay fairly in the tibio-peroneal socket. An appendix was added giving a short description of every case both of torsion and version in corroboration of these statements.—Mr. SPENCER WATSON, after remarking upon the rarity of dislocations of the astragalus, referred to the case of a girl who sustained a compound dislocation of the bone outwards, necessitating its excision. The result of the operation was very satisfactory, for having seen the patient a few years afterwards he found that there was free movement at the ankle and a normal appearance of the foot. Such a result was encouraging for the ultimate issue of Mr. Barwell's case.—Mr. BARWELL explained the grounds upon which he arrived at a diagnosis in his case—viz., the projection outwards of the convexity of the trochlear surface of the astragalus. He exhibited a preparation of a foot after excision of the astragalus, showing bony union of the os calcis, scaphoid, and tibia—and believed this always took place—the subsequent mobility occurring at the tarsal joints in these cases, and not at the ankle. He referred to the fact that Malgaigne had misread some of the descriptions of astragalus dislocation, and stated

that he excised the bone in preference to attempting its reduction, because it was detached from all sources of its nutrient supply.—The PRESIDENT confirmed Mr. Barwell's statement as to the discrepancies arising from imperfect descriptions of such injuries, and pointed out that the astragalus differs from all the other tarsal bones in having no tendon inserted into it. Its main connexion was with the broad astragalo-calcaneal ligament, which must be torn through in the dislocation, thus seriously damaging the vitality of the bone, and leaving the surgeon no alternative but its speedy removal.

Dr. FRANCIS WARNER then read a paper on Ophthalmoplegia Externa complicating a case of Graves's Disease. The patient was a woman twenty-five years of age, and was the subject of Graves's disease of four years' standing. There was marked mental excitability, and she was frequently attacked with gastric crises, vomiting, dyspnoea, and palpitation. Both eyes were nearly immobile, a condition not accounted for by proptosis; this had existed five months before admission into hospital. Limitation of movements was not equal in the two eyes, and was greater in the horizontal than in the vertical directions; double ptosis was marked. There was also bilateral paresis of the seventh and fifth pairs of nerves, and marked tremor of the legs. There appeared to be no evidence of syphilis. Under treatment the goitre subsided, and the general condition greatly improved, but the ophthalmoplegia remains. The unequal amount of paralysis of the two eyes is taken as some evidence of an independent nerve-centre for the movements of either eye, and this is supported by observations in infants in deep sleep and adults in coma, when either eye may be seen to move separately and independently. Again, the greater limitation of movement in the horizontal as compared with the vertical direction is pointed out as probable evidence that separate centres govern these movements respectively.—Mr. POWER pointed out the reasons in favour of regarding Graves's disease as dependent on lesion of the cervical sympathetic, especially the cardiac and the gastro-intestinal derangements. In Dr. Warner's case the protrusion of the eyeball alone was not sufficient to account for its impaired movements, and there was evidently independent oculo-motor paralysis. Corneal ulceration was very rare in Graves's disease, and he attributed it in this case to inability to move the eyeball upwards beneath the lids. In this case there were evidently cerebral lesions superadded to those of Graves's disease.—Dr. ALTHAUS had never met with the association of Graves's disease and ophthalmoplegia. Although the symptoms of Graves's disease point to lesion of the cervical sympathetic, yet in many carefully recorded cases no such lesion had been found. Syphilis was the almost invariable cause of ophthalmoplegia, whether internal or external. Speaking of Mr. Hutchinson's view as to the localisation of lesion of the lenticular ganglion in internal ophthalmoplegia, and of the nucleus of the third nerve in the aqueduct of Sylvius in external oculo-motor paralysis. Dr. Althaus remarked that recent observations (pathological and experimental) in Germany pointed to the existence of centres governing the iris and ciliary muscle in close proximity to the third nerve nucleus. Again syphilitic lesions were often widespread (e.g., ophthalmoplegia might complicate locomotor ataxy) and it was conceivable that both the centre mentioned and the cervical sympathetic were involved in this case. He also referred to the persistence of ophthalmoplegia and its intractability, as well as liability to relapse, although some amelioration may be produced by large doses of iodide of potassium.—Dr. SAVAGE had seen many cases of Graves's disease in the insane, but never associated with ophthalmoplegia. In two cases examined post mortem he had failed to find any lesion of the sympathetic; but in one there was disorganisation of the suprarenal bodies. Although Graves's disease was a nervous disease, it exhibited three or four different conditions, and was met with in general paralysis of the insane as well as with other derangements.—Dr. B. O'CONNOR said that in some of Graves's earlier cases the thyroid enlargement was temporary, and in one case a peculiar form of dyspnoea was attributed to temporary dilatation of the aorta pressing on the trachea. He suggested that the cardiac ganglia might be the seat of lesion. In later cases described by Graves, the goitre was more permanent, and a marked difference was observed between the carotid and radial pulse.—Dr. WARNER, in reply, pointed out the large area involved in this patient, there being paralysis of the fifth and seventh nerves as well as of the third, and the tremor of the feet indicated some

change in the spinal cord. There was no evidence at all of syphilis; and the corneal ulcer was purely local, and probably due to the lesion of the fifth nerve. Mercurial treatment has been tried but abandoned; and the diminution in the thyroid swelling followed the application of cold by Leiter's tubes. This improvement under cold suggested sympathetic disorder, the ophthalmoplegia remaining.

At the close of the meeting the President directed attention to two scientific instruments upon the table. One was an apparatus designed by Mr. Robson of Leeds, for the purpose of producing a dry antiseptic vapour. It consisted of two metal U-shaped tubes in connexion with a foot-bellows, one tube being filled with cotton wool to filter the air, and the other with pumice to receive the antiseptic fluid—e.g., eucalyptol. The apparatus had been used in cases of ovariotomy, and it was intended to replace the spray. The other instrument was the ingenious metallic clinical thermometer originally shown to the Medical Congress last year by Messrs. Mayer and Meltzer, who had since perfected it. It is constructed on the principle of a Bourdon tube, which is filled with a highly expansive fluid, and which in expanding moves a pointer set on a dial by means of a rack and pinion.

### MEDICAL SOCIETY OF LONDON.

#### *Cranial Osteophytes in Congenital Syphilis.—Gastrostomy.—Inflammation, Suppuration, and Ulceration of Tongue.*

At the meeting of this Society on the 23rd inst., Mr. F. Mason, President, in the chair,—

Dr. RADCLIFFE CROCKER showed the Skull-cap of a child aged a year and ten months, with well-marked Osteophytes from Congenital Syphilis. The living case was shown last year with extreme anæmia, enlarged spleen, and cranial thickenings, but with no other signs of syphilis. The family history of miscarriages, and early deaths was corroborative. The child died from bronchitis. The thickenings were well marked over the frontal and parietal eminences, and on each side of the sagittal suture posteriorly. The borders of the anterior fontanelle were quite thin. The rough drab-coloured surface of the new bone was in marked contrast to the smooth, white, healthy bone.—The PRESIDENT thought there was very little evidence of congenital syphilis in the case; and Dr. CROCKER said that he relied on the anæmia and enlargement of spleen for his diagnosis, which was confirmed by the existence of the cranial osteophytes.

The PRESIDENT related the particulars of a case in which he had performed the first stage of Gastrostomy. The patient was a man aged sixty, who had carcinoma of the left tonsil, which was growing so rapidly as to interfere with deglutition and respiration to a dangerous degree. The general details of the case had already appeared in THE LANCET of Oct. 14th; the specimen showed the kind of union that had taken place between the parietal layer of the peritoneum and the visceral layer of the stomach, an amount of union not sufficiently strong to justify opening the cavity of the stomach. Had life been prolonged a few days the union would probably have been thoroughly solid. Death took place on the third day after the operation, partly it was thought from exhaustion, but directly from a sharp attack of dyspnoea, for which tracheotomy was performed with temporary relief only.—Mr. BRYANT said it was important to determine when the second part of the operation—viz., the perforation of the stomach—should be performed. The parietal peritoneum should be included in the stitches, of which six or eight should be put in close together. Four should be stout, the rest fine ones. His own experience was too small to accurately fix the date for opening the viscera. In one successful case of his, vomiting displaced the adhesions and one of the stitches before the incision was made into the stomach; he therefore delayed the second part of the operation. In some cases the stomach may be opened on the third day, but if the adhesions are not firm it should be left till the fifth or eighth. In a case of ovariotomy performed by him fifteen or twenty years ago, treated with the clamp, death having occurred on the third day from bronchitis, the abdominal cavity was found to be already closed by adhesions from the external wound.—Mr. GOULD had had lately two cases of gastrostomy. In the first the stomach was opened on the third day with difficulty, for the mucous membrane was corrugated and separated from the muscular and serous coats. The tenotome had to be introduced quite up to the hilt before performing it. Death

occurred from peritonitis forty-eight hours after; the adhesions were extremely slight. The patient was in a state of extreme starvation. He expected to find the stomach thinned; and he had therefore been led to make the stitches too shallow. In the second case the dyspnoea was first relieved by tracheotomy. The stomach was opened on the eighth day after the first part of the operation, and food was introduced several times a day. Peritonitis set in two days after, and death took place on the fifth day. The adhesions were firm, and the cause of the peritonitis was not apparent. Perhaps the injections of food were too large and too frequent.—Mr. E. OWEN preferred Mr. Mason's course of waiting and performing gastrostomy when necessary to that of excising the tonsils.—Dr. HEYWOOD SMITH asked how the antiseptics were managed, and spoke of the value of the eucalyptol spray in abdominal operations.—Mr. BRYANT had introduced his plan of the two stitches to obviate the difficulty met with in Mr. Gould's case. Much care should be exercised in feeding, and for the first few days only warm milk should be given in small quantities.—The PRESIDENT, in reply, said that he had no experience of the eucalyptol spray; his patient suffered from carbolic poisoning, though the exposed surface was so small. The spray was used throughout the operation. As regards the number of stitches, he thought four were enough, and in this case they were closely set. In the future he should use two needles—a surgical needle to go through the abdominal walls, and an ordinary sewing needle to perforate the stomach.

Mr. BRYANT read a paper on some Cases of Inflammation, Suppuration, and Ulceration of the Tongue. He detailed examples of abscess due to injury as well as to idiopathic causes, and showed how this affection has a tendency to get well, and more particularly after an early puncture. He recorded two examples of hydatid of the tongue. The subject of chronic superficial glossitis then received attention, and it was illustrated by cases as well as by a preparation. Superficial ulcerations were then described, and some good examples quoted of the simple dyspeptic ulcer. Ulcers due to local irritation were then described, and cases quoted, in one of which the ulcer had existed for two years, and had been mistaken for a cancer. Deep-seated ulcerations were fully considered, and the differences between the syphilitic, epitheliomatous, and tubercular forms dwelt upon. The tendency for the chronic syphilitic disease of a tongue to pass into cancer was emphasised, and the danger of not recognising the tendency to the full pointed out. The connexion between epithelial cancer of the tongue and ichthyosis was demonstrated, and the local character of the cancer noticed. The necessity for the early removal of a cancerous tongue was strongly enunciated, and some good cases quoted in which a long immunity from the disease, if not a cure, had been obtained. The different modes of operation were then discussed, and statistics given of operations, in which the mortality as a whole from the operation was shown to be about 10 per cent. Amongst the advantages of the operation was advanced the fact that when a cure does not take place great comfort is given, and that a return of the disease is more likely to occur in the glands of the neck than in the tongue itself. Time not permitting of some remarks being made on tubercular disease of the tongue, it was deferred to another occasion. The paper was illustrated by drawings and preparations.—The PRESIDENT said that in his experience patients seldom survived more than two years after removal of the tongue. Cases of abscess and hydatid of the tongue are rare, and so are cases of cancer in persons under forty. He had operated in a case of cancer of the tongue in a lady thirty-three years of age.—Dr. ROGERS asked why Mr. Bryant had given up the use of the galvanic écraseur.—Mr. HUTCHINSON had had similarly favourable experience in operations for the removal of the tongue in cancer. In very few cases was a second operation on the tongue required. Of course the disease returned very frequently in the lymphatic glands. He agreed with Mr. Bryant that the galvanic écraseur was a suitable and convenient instrument, but preferred the wire écraseur because (1) of less liability to secondary hæmorrhage, and (2) the wound takes on a more healthy action after the cold écraseur.—Mr. H. MORRIS spoke of the importance of Mr. Bryant's statements as to the frequency of lung complications in cases not operated on as well as in cases operated on. Two of his own cases related in his paper last session had now lived over two years after the operation. He did not recommend ligaturing the lingual artery in excising, as hæmorrhage was so easily controlled; but in a case of cancerous

hæmorrhage from the mouth he had ligatured both facial and lingual arteries (the former to avoid risk of secondary hæmorrhage) with good result, hæmorrhage ceasing, and the patient living for two years after. At the post-mortem examination the usual foul, sloughy condition of mouth was wanting. He asked if Mr. Bryant considered that abscesses of the tongue always healed readily. In one case he was surprised at the rapid healing of an abscess.—Mr. WALSHAM had also observed rapid healing of lingual abscess. He alluded to the advantage of the cord compressor in removal of the tongue in preventing secondary hæmorrhage and obviating shock.—Mr. BRYANT, in reply, was himself surprised at the favourable results of his statistics of removal of the tongue. He strongly believed in cancer being local at the outset. He was not quite satisfied of the superiority of the ordinary *écraseur* over the galvanic, and did not recall many cases of secondary hæmorrhage after the use of the latter. In one case this was due to the haste needed in operating. In using the cord it had once snapped during the operation, and he preferred a wire to a chain. Mr. Morris's allusion to ligation of the lingual artery was valuable, and he agreed with Mr. Hutchinson as to the infrequency of local recurrence. In one case he removed what was thought to be a recurrent mass a year after excision of the tongue. The patient had lived three years and a half since without further recurrence.

### OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, Oct. 4th, Dr. Matthews Duncan, President, in the chair.

*Spurious Hermaphrodite*.—Dr. FANCOURT BARNES showed a child (living) which presented malformations such as those classified by Sir James Simpson under the title of "spurious hermaphroditism." He could find no trace either of testes or of uterus, but thought the child most likely a male.—Dr. CHAMPNEYS had, in a somewhat similar case, detected the uterus by examination per rectum.—Dr. SWAYNE said that there was a specimen in the Museum at Bristol in which the external parts were like those in this case, but the internal organs those of a female.

*Hypertrophy of Placenta*.—Dr. HERMAN showed a specimen of hypertrophy of the placenta. It had been removed piecemeal, and a large part left at the patient's house. The portion exhibited weighed more than four pounds. To the naked eye its structure did not differ from that of normal placenta. The child was decomposed when born.—Dr. ROBT. BARNES had observed in some cases of hypertrophy of the placenta, dropsy of the placenta, and ascites and anasarca of mother and foetus. Possibly the placental villi were overdeveloped in order to find enough pabulum in the hydræmic blood.

*Degeneration of Placenta*.—Dr. CHAMPNEYS showed (for Dr. Murray) a placenta exhibiting fibrinous degeneration in the uterine and calcareous degeneration on the foetal surface. The child was born alive.

*On an Obliquely Contracted Pelvis of Unilateral Synostosis*.—Dr. CHAMPNEYS read a paper on this subject. The pelvis was that of a child, aged between seven and fifteen, in which the changes at puberty had already slightly commenced. At this point the left sacro-iliac joint became inflamed, leading to synostosis of part of the articular surface. The left half of the sacrum was dwarfed, and this bone rotated so as to look somewhat to the left. The left half of the pelvis was narrowed, the pubic symphysis driven to the right, and its left half displaced behind the right. But compared with most Naegle pelvises, the outline of the brim was less straight, there was less verticality of the ilium than usual, and there was no evidence of transverse rotation of the left os innominatum on its acetabular axis. The author considered the specimen one of a half developed obliquely contracted pelvis of unilateral synostosis, most instructive in its bearing on the production of the typical pelvis of Naegle.—Mr. GRIFFITH thought that the synostosis was congenital. If so, Dr. Champneys' theory would require modification.—Dr. CHAMPNEYS thought the joint showed clear evidence of disease.

*Transverse Septum in the Vagina*.—Dr. GERVIS described a case of the above malformation. The patient was aged twenty-two, and menstruated regularly. She sought advice on account of pain in micturition, due to a urethral

caruncle. About an inch and a half or two inches from its orifice the vagina seemed to end in a cul-de-sac, having on either side a pouch, giving at first the impression that there was a double vagina. In the left cornu was a small opening admitting a probe into the space beyond. The hymen was present. The uterus could be felt per rectum. The septum was divided with the thermo-cautery, giving exit to a quantity of brownish mucus. A granular erosion surrounded the os uteri. The caruncle was at the same time removed. The patient did well, and the endocervicitis began immediately to improve when freed from the apposition of retained secretions. The author remarked on the value of the thermo-cautery in lessening the risk of septic infection in such cases.

*Case of so-called Imperforate Hymen*.—A paper on this subject, by Dr. MATTHEWS DUNCAN, was read. He was induced to relate the case by three circumstances. 1. There was a remarkable absence of any kind of suffering during nearly the whole time of the development of the disease. The patient had never menstruated nor suffered from any uneasiness in connexion with that function until eight months before admission, when she was told by a medical man that she had a lump in the lower belly. Since then she had suffered from irregular aching. The author thought the probable explanation of this was that the uterine body was not distended, for facts showed that dilatation of the uterine body was more difficult and painful than dilatation of the vagina and uterine cervix. 2. The case illustrated the treatment without any injections, which had been the subject of remarks at a recent meeting of the Society. An incision was made by Paquelin's cautery knife. About twenty-five ounces of the usual treacly fluid escaped, about twenty ounces on the following day, and the last of it on the fifth day, in all about fifty ounces. At no time had it any fætor. No hypogastric pressure or interference with the flow was permitted. A piece of carbolised lint was put to the vulva. The patient made an uninterrupted recovery. He thought the risk of peritonitis was increased by the washing out sometimes practised. He thought the cautery knife was preferable to any other mode of making the incision, because its wound was not an absorbing surface. 3. The condition of the pudendum, rendering the term "imperforate hymen" erroneous and misleading. The vagina was closed by a membrane upon which the hymen could be seen entire and healthy, and after the operation the hymen could be seen to have its normal position and relations. He had made the same observation in other cases, and he had seen the hymen present when vagina and uterus were both absent. On these grounds he regarded the view of M. Budin (that the hymen was nothing but the anterior extremity of the vagina) as incorrect.—Dr. ROBERT BARNES said that in these cases toxæmia arose before the blood was evacuated, from decomposition of the hæmato-globulin in the retained fluid. He had not used injections; they were not called for in all cases.—Dr. GERVIS could hardly accept Dr. Duncan's view, that the membrane occupying the area within the hymen was vaginal wall. He thought the variations in shape of the hymen, and the absence of muscular fibres in it, militated against M. Budin's view.—Dr. CARTER had had under his care a case similar to that described by Dr. Gervis. He had divided the septum and the patient did well. He thought washing out was troublesome unless the discharge was offensive or there were symptoms of septicæmia.—Dr. ROGERS mentioned a case under his own care. Some pyrexia followed the operation. The vagina was not washed out till a week after the operation, and when this had been done the pyrexia subsided.—Dr. GALABIN thought it an important question whether in these cases it was desirable to use injections immediately after an interval or not at all. The danger was greater the higher the atresia was situated. He had known of two cases of high obstruction, in which death had followed evacuation, although no syringing was used. Emmett had published a number of cases, many of them of atresia high up, in which recovery had followed treatment by injections. He generally let the fluid flow for twenty-four hours, and then began antiseptic injections. All his cases so treated had been successful. Perhaps it would be best if a perfectly aseptic condition could be maintained by antiseptic dressings.—The PRESIDENT said that Dohrn had entered elaborately into the developmental histories of vaginal closures. What he (Dr. Duncan) wished to show was that cases with blue, thin-walled bulging between the labia were generally, often erroneously, called imperforate

hymen, whereas in many, and also in cases where there was no vagina, a hymen could be distinctly seen.

*New Intra-uterine Stem Pessary.*—Dr. SWAYNE showed a new form of stem pessary. It consisted of a perforated vulcanite stem, which rested on an indiarubber band attached to a modification of Greenhalgh's pessary. These were introduced separately, but when *in situ* united by a silk thread. The advantages he claimed for it were that it was easily introduced, kept in place, and allowed uterine mobility, so that it was free from some of the dangers that attend stem pessaries. He should only use stem pessaries when simpler and safer means of treating uterine flexion had failed.—Dr. HEYWOOD SMITH asked what advantages Dr. Swayne's pessary had over that of Dr. Wynn Williams?—Dr. EDIS thought stem pessaries very dangerous. The position of the uterus was too much regarded, whereas its condition was the chief thing. Numbers of cases of pelvic peritonitis occurred from the injudicious employment of stem pessaries, producing much suffering and not infrequently death.—Dr. ROGERS did not think Dr. Swayne's instrument more perfect than that of Dr. Wynn Williams.—The PRESIDENT did not use any kind of stem pessary. He had known of many deaths from them, but he never knew of a case of version or flexion cured by them.—Dr. ROBERT BARNES thought stem pessaries necessary in some cases. Accidents had occurred from them, but now more scientific instruments had been contrived. He preferred that of Dr. Greenhalgh. He had cured cases of antelexion with stem pessaries.—Dr. HERMAN had known of a death following the use of one of Greenhalgh's stem pessaries.—Dr. SWAYNE said that in his pessary the indiarubber supporting the stem was firmer than in that of Dr. Wynn Williams. He had used it many times, always with good results. He had always carefully watched the patient, and withdrawn the stem whenever it gave rise to pain or rise of temperature.

#### EPIDEMIOLOGICAL SOCIETY.

THE thirty-second session of the Epidemiological Society was opened on the 18th inst. by a conversazione given by Dr. George Buchanan, F.R.S., to members and friends of the Society, at University College, Gower-street. Among the distinguished company present were the Directors of the Army and Naval Medical Services, and other eminent members of the profession. Several microscopical specimens, illustrating subjects with the study of which the Society is specially concerned, were shown during the meeting. Among them, preparations of the ova and living ciliated embryos of *Bilharzia hæmatobia*, exhibited by Dr. Cobbold attracted special attention. The embryos were seen making vigorous movements within the firm outer shell of the ovum, which finally ruptured and allowed them to escape. The specimens were obtained from the urine of a patient who had contracted endemic hæmatobia while in Egypt. Dr. Klein also demonstrated specimens of bacillus tuberculosis in the sputum and lung from tuberculous patients, from the lung of a cow suffering from bovine tuberculosis (*Perlaucht*), of the bacilli of anthrax and septicæmia, of the bacilli met with in the Welbeck and Nottingham cases of ham-poisoning, and the micrococci present in the lymphatics in ovine variola, and in the blood and liver of patients suffering from infantile diarrhoea. A section through the tongue from a case of *Actinomyces bovis* also showed very beautifully the stellate masses of fungus, surrounded by a deeply-stained layer of inflammatory exudation, containing numerous leucocytes. Specimens of the embryo filaria sanguinis hominis from the blood of a patient suffering from chyluria, and from the Chinese mosquito, were exhibited by Dr. Stephen Mackenzie. Examples of trichina spiralis in the muscles of a wild boar, of dracunculæ embryos, of the micrococci of diphtheria, septicæmia, pyæmia, and ulcerative endocarditis, and of the ringworm fungus (*trichophyton tonsurans*) artificially cultivated were also shown by Drs. Easton, Gibbes, Henderson, Mackenzie, and Mr. Malcolm Morris.

The first ordinary meeting of the Society will be held at University College on Nov. 1st, when a paper will be read by Dr. Norman Chevers, C.I.E., "On the Sanitary Defects of the Site of London and its Suburbs."

#### WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

THE first meeting of this Society was held on Friday, October 6th, at the West London Hospital, Hammersmith. The President, Dr. Hart Vinen, was in the chair, and over eighty-three gentlemen were present.

The PRESIDENT delivered an inaugural address, in which he thanked the members for the honour they had conferred upon him by electing him their first President, and congratulated them on the large number of practitioners who had already joined their ranks, which augured favourably for the future progress of the Society. After alluding to the numerous Societies which exist for the prosecution of scientific pursuits, and the value of their labours to the general welfare of mankind, he urged the members to look to science as the best aid to the successful practice of their profession, and as not without its moral results. "For if the suggestion of Newton, that in proportion as natural philosophy is improved in its various branches, the bounds of moral philosophy will be enlarged also—if this be true, as it undoubtedly is, we may point to the labours of our scientific men as not only serving to extend the boundaries of our intellectual horizon, but as exercising a refining and humanising influence over man's moral nature. But there is another light in which we may regard such societies as this, I mean their social aspects. The daily routine of professional duties too often restricts medical men to a very limited orbit, and furnishes them with few occasions for friendly intercourse with their brother practitioners. Here they have opportunities of meeting periodically on common ground, of exchanging opinions on professional and other topics, and by other men's experience enlarging and correcting their own. No remedy is so effectual for healing professional animosities as frequent intercommunication; and if I were asked to prescribe a panacea for their prevention, I should recommend an occasional dinner at the Star and Garter. Some may think this view of the matter savours too much of the sensual, but the periodical recurrence of such a social reunion would, perhaps, be more productive of good results than the strictest code of medical ethics." Dr. Vinen then alluded to the fact that more than twenty years had elapsed since he had filled the presidential chair of another medical society, and referred briefly to the most prominent changes which had taken place during the interval, especially dwelling on the germ theory of disease, which recent researches had done so much to establish, and the benefits which resulted to public health from the advance of sanitary science, in which he claimed for the medical profession the honour of being the foremost workers.

Dr. BURNEY YEO then delivered the address, which was published *in extenso* on October 14th.—Dr. THUDICHUM said he was much interested in Dr. Yeo's paper, though he did not agree with him. There was no proof that the bacteria were destroyed by his process. Those who had examined the expectoration of a phthisical patient and observed the bacilli present in it must have been impressed with the awful nature of the disease; the incalculable number present in the organ seemed to him to render the question of total destruction mathematically impossible. Dr. Yeo admitted that advanced cases were not suitable for this treatment, but he thought that there was no specific which did not cover all cases. He would ask how could these antiseptic inhalations reach the brain, or heart, or any other organ (except the lungs) which might happen to be the seat of tubercular disease?—Dr. ALDERSON thought that great benefit was to be derived from the use of the respirators, and was most certainly ready on this, as on other points, to reiterate the President's cry for "More light."—Dr. RAYNER also endorsed Dr. Yeo's theory.—Dr. BROWNE wished to know how long it was necessary to wear the respirator at a time.—Mr. JACK was of opinion that whether the bacilli were destroyed or not, the process, in whichever form adopted, put the patient into a condition calculated to prevent a nidus being formed for the bacilli.—Dr. THOROWGOOD had no great experience on the subject, but he had most certainly noticed great improvement in those cases which he had so treated. He was accustomed to order the respirator to be worn for an hour in the morning and evening; he found it promoted expectoration. Of the

various antiseptics he himself preferred creasote. Sea air as obtained in a voyage was, too, he thought, most efficacious in the early stages of the disease; later on, it seemed to do more harm than good.—Dr. YEO, in reply, said he did not wish in the remarks he had made to dogmatise in any way, he was only anxious to show that the theory he had been laying before them had a scientific basis. He must say, in answer to Dr. Thudiehum, that he was unaware of his having used the expression "specific"; it was not his custom to use the word, and he failed to see anything detrimental to his theory in the fact that advanced cases were not suited to the treatment. As regards the alarming number of bacilli pictured, he would simply suggest that if Mr. Lister had frightened himself about the number of organisms to be encountered there would never have been any such thing as antiseptic surgery. The advantage of the respirator, as suggested by himself, consisted in its lightness and comfort in wear, in fact to its not being a muzzle; his patients wore theirs as long as possible during the working day, it being only necessary to remove it while eating or drinking. He agreed with Dr. Thorowgood in preferring creasote, but he had used eucalyptus and pine-wood oil with great advantage, though the latter was to some rather irritating. He saw no reason why still more direct treatment should not be attempted, and he hoped soon to try the effect of injecting by the long needle of an aspirator, a small quantity of bichloride of mercury.

Mr. SAVILE KENT and Mr. BAKER showed specimens of Bacilli, Bacteria, &c.

## Reviews and Notices of Books.

*Medical and Surgical Aspects of In-Knee (Genu Valgum); its Relation to Rickets, its Prevention, and its Treatment with and without Surgical Operation.* By W. J. LITTLE, M.D., F.R.C.P.; assisted by E. MUIRHEAD LITTLE, M.R.C.S. Illustrated by upwards of 50 Figures and Diagrams. London: Longmans, Green, and Co. 1882.

THE appearance of this book at a time when surgeons are numbering their osteotomies by the score, and even by the hundred, is very opportune. The authors regard "in-knee" as an affair of the joint, as the deformity to the production of which there is a natural tendency in the articulation, and to which many morbid changes in and around the joint conduce; the insufficient support of the joint by the surrounding muscles being one of the main direct causes of the deformity. They by no means share in the opinion that "in-knee" is in all cases due to rickets. "In the several forms and subforms of genu valgum resulting from different diseased actions, the point on which the progress of distortion may be said mainly to turn is undue contact of the external condyle with the opposing part of the tibia, and consequent arrested development or deterioration of these parts. The identity of distortion and mechanical changes is undoubtedly due to the identity of mechanical acting forces." The pathological views of the authors are briefly expressed in this passage, and they hold that "enlargement of the internal condyle is not pathognomonic of any form of in-knee; that the essentially most damaged parts of the joint are the external condylar part, and the external articular portion of the tibia." As regards treatment, our authors are opposed to much that is now in vogue, and to all that partakes of any roughness or severity. They admit that there are some cases of neglected in-knee in which osteotomy is the only or the best mode of relieving the deformity, and of all the ways of performing this operation for genu valgum they prefer that practised so often and so successfully by Macewen of Glasgow. The authors' treatment aims at correcting the deformity, and preventing its re-formation until the joint surfaces have recovered their proper shape and the muscles and ligaments are able to support the joint. They say: "A long-continued experience has shown that to cure in-knee, besides diet and hygiene, two things are necessary—viz., to keep the knee extended during the treatment by an un-

yielding apparatus, and to employ a similar contrivance to attain adduction of the leg." It is with justice insisted on that this mechanical treatment requires great skill on the part of the surgeon, and demands his personal attention, and should not be left to friends or to the instrument maker. To the neglect of these precautions much of the alleged ill-success of the mechanical treatment has been due, and children who ought to have been rescued by proper management have been sent into life crippled.

*Health Resorts and their Uses. Being Vacation Studies in various Health Resorts.* By I. BURNEY YEO, M.D. Lond. Pp. 316. London: Chapman and Hall. 1882.

THIS work consists chiefly of a reprint of articles which have appeared in *The Times* and *Fortnightly Review*, and may, therefore, be considered as having been intended chiefly as a guide to invalids and others in the selection of suitable health resorts; but it also contains much information which must prove valuable to those members of the profession who have not had the opportunity of personally visiting these places. In an introductory chapter Dr. Yeo discusses at some length the important differences between the action of sea and of mountain air upon the system, and points out in detail their respective properties. He then asks the practical questions, Who should go to the mountains? Who should go to the sea? And who should go to neither? For the answers we must refer our readers to the book itself, where they will find the conditions stated which ought to influence them in deciding this vital point. Of the high mountain resorts, the author gives a very full and interesting description of those in the Upper and Lower Engadine and of Davos Platz, with special reference to the influence of a prolonged residence on cases of incipient consumption. Of Davos Platz he appears to entertain a favourable opinion as far as the climate is concerned, but calls attention to the very serious evils of overcrowding and over-building, which have arisen from its growing popularity, and on that account is disposed to recommend St. Moritz, in the Upper Engadine, as being preferable, except "to the feeble classes of pulmonary invalids who are also the victims of more advanced disease." A short account is given of the principal health resorts of the Pyrenees, and the cases to which they are most likely to prove beneficial, and also of some of the other French watering-places, especially Vichy, Royat les Bains, Mont Dore, and La Bourboule. A chapter is devoted to some of the more important Rhenish spas, with special reference to "their sanitary conditions, and to the provisions which obtain in them for the prevention of the origin and spread of epidemic and contagious diseases," and with a view to provide a detailed professional estimate of their respective merits. The book concludes with a couple of chapters on the important and interesting subject of winter quarters for those who desire to avoid the damp, cold, and variability of our winter climate. Dr. Yeo has gone fully into the characteristics of the climate of Egypt, Mogador, Tangier, Algiers, and the various resorts on the Western Riviera. He has given the climatic, sanitary, and social conditions of these in sufficient detail to enable medical men to select the locality most likely to benefit their patients, and the latter to choose that which is best suited to their habits and tastes. To those members of the profession who are consulted on the subject of health-resorts for the delicate and the diseased, Dr. Yeo's book will afford much useful information in a pleasant, readable form, and may aid them in the selection of the most suitable residence for their patients. We would, in conclusion, only remind them of the importance of impressing upon their patients how much of the benefit to be derived from these resorts depends upon the care they take of themselves, and



the precautions which are necessary on the part of invalids to avoid the dangers, even in these comparatively mild climates, to which they are too apt to expose themselves.

*Quarterly Journal of Microscopical Science.* No. LXXXVIII. Edited by Professors LANKESTER, DYER, and KLEIN. London: J. & A. Churchill. 1882.

THIS part opens with a tribute of regret to Professor Balfour, whose premature death on the Swiss Alps, in July last, must be a subject of deep regret to all who are interested in the advancement of that branch of physiology in which he took so deep an interest—embryology. The University of Cambridge, in recognition of the importance of his subject, had created a professorship in it, and had committed to him the duties of the chair. It will be difficult to find his successor.

Amongst the most important of the papers is one by Dr. Horst on the Development of the European Oyster, a subject of considerable obscurity and very difficult to elucidate, since the embryos not only pass their first stages of development within the pallial cavity of the mother, but the impregnation of the eggs takes place also internally instead of externally, and it is possible that the eggs and the spermatozoa even meet in the efferent ducts of the genital gland. The successive stages have to be followed in a series of animals, since the opening of the oyster by the division of the adductor muscle is fatal to it, and the development of the spat is arrested. The segmentation appears to be the same as that of other Lamellibranchs; it passes through a gastrula stage. The shell gland early appears, and is of great size, arising by an invagination of the epiblast. It is an azygous formation, so that there are not two glands for the two shells. Some good illustrations of the first stages of development in the oyster are given in the plate which accompanies the paper. Mr. H. Marshall Ward gives the result of his researches on the Morphology and Life History of a Tropical Pyrenomycetous Fungus. Mr. Blomfield describes the thread-cells and epidermis of the Myxine; Mr. Hickson describes the eye of the Spondylus, one of the Lamellibranchs. The retina stretches across the eye-cup as a broad band. Mr. Walter Gardiner shows that there is an open communication between the cells in the pulvinus of *Mimosa pudica*; Mr. Haddon gives a short paper on the development of Mollusca, describing the earlier stages; Mr. P. H. Carpenter continues his Notes on the Morphology of the Echinoderms; Professor Lankester describes the vertebration of the tail of Appendicularia; Professor Moseley supplies some notes on the structure of Seriatopora, Pocillopora, and some other corallines, and Dr. Vincent Harris a note on the Pacinian corpuscles.

*Brain.* October, 1882.

THE current number opens with an interesting systematic account of "Alternating Insanity," or "Folie à Double Forme," by Dr. Achille Foville, translated by Dr. Urquhart. Dr. Obersteiner of Vienna describes some additional cases of chronic morphinism with especial reference to the mental changes which result. The pathological physiology of the nervous discharge in convulsions is the subject of some speculations by Dr. Mercier; Dr. Ross contributes several interesting observations of spasmodic paralyses of infancy, and a case of tumour of the brain, causing localised convulsions, is discussed by Dr. Hughlings-Jackson. Among the reviews the most noteworthy is a lively and trenchant criticism of Luys' "Brain and its Functions," by Dr. Bucknill, and amongst the clinical cases an observation by Dr. Ferrier, of the singular condition in which impressions on one-half of the body are referred to the corresponding point on the opposite side, termed by Obersteiner "Allochiria," a condition which is at present a physiological enigma.

## ON ABSORBENT DRESSINGS, ETC.

To the Editor of THE LANCET.

SIR,—I have read with pleasure the article on the above subject, with illustrative cases, by Mr. Berry, in your issue of the 21st inst., and make a few brief notes concerning the cases. In Case 1 I find the good effects of the "dry absorbent dressing" were promoted by a little red lotion (dry?) and boracic lint. Nevertheless, an ulcer, going on to erysipelas, occurred before complete recovery, and the patient had to be removed to another ward, and appropriate treatment was employed. I imagine undue pressure caused the ulcer, and want of antiseptic dressing might be answerable for the erysipelas. In Case 2 carbolic tow (aseptic) was employed, and the case did well. Case 3 seems to have recovered in spite of everything, for the sutures ulcerated out and were replaced by strips of plaster. The flaps swelled in spite of the absorbent dressing evidently, and got well *per vim naturæ*. A week or two after this Mr. Berry performed a similar operation (on a healthy subject), for accident, who died shortly afterwards. This case is not reported. Case 4, Mr. Berry states, had been treated antiseptically previously to his taking charge of it. Now, why should he laugh at antiseptic treatment, and write his letter to you on April 15th, when on May 18th he sponged out an abscess cavity in Case 4 with a solution of carbolic acid? No doubt at the same time he sponged the new wound (through the condyles), and brought the flaps together; the natural glaze of lymph and the dressing over it prevented further access of noxious atmospheric particles to the part. Mr. Berry says he is not particular as to what material his dressings are made, or whether they be aseptic or not. From his cases we at least learn (?) what we knew before, and see once more that antiseptic dressings were followed by the best results in these cases. The fact that Mr. Berry only publishes his favourable cases takes materially from the value of his communication. Though not attached to the infirmary, I had frequent opportunities during the past year of visiting the Wigan institution; seeing many things, saying few, I came to the conclusion that Listerism, or the antiseptic treatment, are terms not fully understood there. An operation is there followed out thus antiseptically, except that—(a) As a rule the part to be operated on is not cleansed with antiseptics previous to operating. (b) The spray is not in working order to begin with, and when the steam is up the vapour plays either under the table or in the operator's face, occasionally perhaps on the wound. (c) The operator's hands are not invariably dipped in antiseptic fluid before operating. (d) The assistants may keep their hands in their pockets until required, and without cleansing them may handle the wound or the instrument, and feel the patient's pulse between whiles. (e) Anyone of the staff (general practitioners in the town) requires no cleansing, because his breath is antiseptic when the spray does not play on the wound, and his hands are invariably considered pure and aseptic. (f) The instruments are not carefully cleansed in antiseptic fluid before use. A pair of forceps used to pick up an artery is put down anywhere, and then used to secure another uncleaned. (g) The spray, exhausted before the operation is over, is not used when changing the dressings. (h) If the operation is not very successful they blame their method. I blame their method—not Lister's.

In the treatment of wounds, whether by Listerism or otherwise, I suppose we are all taught in our hospitals the value of drainage and rest. Concerning pressure, we are usually told it should be gentle and equable. Mr. Berry gives us pressure without any reference to the number of pounds on the square inch, nor whether one part should be pressed more than another. Now for absorbents. The employment of tow is no new thing, nor is the use of cotton-wool, nor lint, nor a strip of worsted, but they are the better for being aseptic. What can be more soothing to the patient than a strip of lint soaked in glycerine and applied to a swollen, painful, and raw wound of a finger?

I am, Sir, yours, &c.,

Brighton, Oct. 21st, 1882.

H. ROGERS-TILLSTONE, M.B.

THE sum of £393 18s. 6d. has been handed over to the treasurer of the Lincoln County Hospital, as the proceeds of the last Hospital Saturday collection.

## THE LANCET.

LONDON: SATURDAY, OCTOBER 28, 1882.

IN a previous article on the report of the Royal Commission appointed to inquire concerning small-pox and fever hospitals, we indicated the principal subjects which had been dealt with. Some of these subjects are of immediate and pressing concern in connexion with the actual prevention of epidemic disease in the metropolis; others deal with matters relating to the history of small-pox in London, to sanitary administration, and to allied topics. The principal interest for the moment centres in the past work of the Metropolitan Asylums Board, and this is entered into in much detail by the Commissioners. The report commences with a history of the constitution of that Board and of the establishment of the five hospitals under its control, together with some account of the proceedings to which the Board have been subjected as regards the Hampstead and Fulham Hospitals. Dealing next with the behaviour of small-pox both in England and the metropolis, it is shown in some valuable tables that, in London especially, whereas this disease had steadily been falling under control up to 1860, it has since then been fitfully but sensibly gaining upon us. Recognising the great source of danger attendant upon the treatment of infectious diseases in ordinary dwelling-houses, and also the fact that much of the spread of small-pox is due to the need of proper means of isolation, the Commissioners urge that the notification of infectious diseases should be made compulsory, and that it should be associated with a power of removal to hospital, not as now merely in the interests of any patient who does not happen to possess proper accommodation so far as his own welfare is concerned, but rather in the interests of the public, who are by reason of his illness exposed to danger. The notification is in the main to be made by the householder, and it is to pass first to the sanitary authority and thence to a metropolitan hospital authority—a method of procedure which will, we fear, lead to the very delay which in such cases it is so important to avoid. It is further suggested that in the matter of the provision of isolation the distinction between the pauper and the non-pauper should be abolished; that all alike who, in the interests of the public, submit themselves to isolation, should be treated at the public cost; and that the hospital authority for the metropolis should be a single body, which in its general aspect ought to be, not a pauper, but a sanitary authority. Coming next to the amount of isolation accommodation needed for small-pox cases in the metropolis, it is, after careful calculation, believed that a permanent provision of some 2100 beds would answer the needed requirements even in years of exceptional prevalence; and it is further stated that, since a large proportion of the milder attacks, as also of the convalescents, could easily be moved outside London, the existing accommodation in the Asylums Board hospitals would suffice, provided it could be used without injustice to the neighbourhoods in which the hospitals are situated.

At this point, however, the Commissioners, before making

any recommendation as to how the needed small-pox hospitals are to be provided, find it necessary to inquire whether such hospitals are or are not centres of infection, and they at once admit that by some means or other the Asylums Board small-pox hospitals have caused an increase of that disease in their neighbourhood. The cases of the Hampstead and the Fulham Hospitals are specially considered, and a well-deserved tribute is paid by the Commissioners to the remarkable report by Mr. W. H. POWER on the influence of the latter hospital. From this report the Commissioners specially quote the proofs, statistical and other, which go to show that in some way the Fulham Hospital, whilst in use for the reception of small-pox patients, did on several occasions most injuriously affect the surrounding neighbourhood. Similar, though less complete, evidence is given as to the influence of the Homerton, Deptford, and Stockwell Hospitals when in use for small-pox. The fact that large small-pox hospitals, containing a considerable proportion of acute cases, are centres of infection, is thus, after full consideration, freely assented to; but the question remains—Are they a source of danger only in their incidents, or are they such *per se*, by disseminating infection through the atmosphere? We have dealt fully with Mr. POWER's views as to this, but we would here further remark that although the "gradation of hospital influence from centre to periphery" might, as the Commissioners point out, result equally whether the influence for harm were brought about by the conveyance of infection by human movements or by atmospheric dissemination, yet the hypothesis of personal communication does not easily explain the following facts: (1) "That the houses on the lines of human intercourse have not suffered more than—or even as much as—other parts of the same neighbourhood"; (2) "the sudden and simultaneous attack of a considerable proportion of susceptible people living round the hospital, and having no discernible relations with the hospital or with each other"; and (3) the striking "constancy in the gradations of incidence upon the several divisions of the special area" round the Fulham Hospital, during five separate and distinct periods when the buildings were in use for small-pox patients. On the other hand, however, all these, in addition to other obscure points, are explicable on the hypothesis of the conveyance of infection through the atmosphere. Indeed, in dealing with this matter we seem to detect a divided opinion on the part of the Commissioners. If they were unanimously of opinion that personal communication by nurses, ambulances, &c., had really led to the spread of disease around Fulham, the recommendations which they make as to small-pox would hardly have been based, as they appear to be, on the operation of an atmospheric dissemination of infection. One proposal as to small-pox is that the number of beds for patients suffering from this disease in any one hospital ought to be limited to "thirty or forty," and it is added that with this limitation "the evil arising from atmospheric diffusion will be reduced within very narrow limits."

With regard to fever hospitals, the Commissioners believe that when well conducted they involve no appreciable risk to the neighbourhoods in which they are situated, and hence they propose that the existing hospitals belonging to the Metropolitan Asylums Board should be retained for the treatment of the infectious fevers other than small-pox, the

fever convalescents being removed to country hospitals. As regards small-pox patients, it is proposed that all the mild cases and all the convalescents should also be removed to hospitals in the country; and, further, that some of the less severe cases should be treated in floating hospitals or in buildings on the banks of the Thames. But they believe that some provision must be made in London itself for the more severe cases, and hence they suggest that on each of the hospital sites belonging to the Metropolitan Asylums Board there should be a detached small-pox hospital for some thirty or forty patients. At first sight, it might appear that under such a course of action our measures of defence against small-pox would turn out to be less effective than those available in the case of other infectious diseases. This, however, is not so. In vaccination we possess a means of prevention against small-pox which as yet has no counterpart as regards any other of the specific fevers; a point fully recognised by the Commissioners, who declare that if careful vaccination were general the liability of the metropolis to serious epidemics of this disease would cease.

Hitherto it has been the practice to use the existing hospitals for patients from any part of the metropolis, an arrangement which has called forth strong protests from the inhabitants of the districts into which outside cases of infection were thus imported. The Commissioners, having regard to the future, condemn this arrangement, for they say, "It is most important to avoid as far as possible the injustice of transferring, in any case, the disease of one populous district to another." And they go on to consider how London may best be divided into hospital districts. That each parish should become a hospital centre, and manage its own affairs as regards isolation, is at once set aside, on the ground that this would necessitate the sudden establishment, on the occasion of every great epidemic, of thirty or forty institutions, some of which would certainly be mismanaged and become effective foci of infection. But it is thought that with a more effective method of election, and with fresh powers as to the purchase and retention of sites, the Metropolitan Asylums Board might be the Isolation Authority for all classes, and that London might under this arrangement be divided into some eight independent hospital districts, each dealing with its own infectious sick, much in the manner already indicated. This arrangement would still leave a considerable aggregation of fever patients at each centre, and it would concentrate together, in a manner heretofore not contemplated, a number of the more severe of the acute cases of small-pox. These points are by no means unimportant, and we hope shortly to revert to them, especially in connexion with a proposal by Dr. BURDON SANDERSON, F.R.S., as to specially constructed infectious hospitals. According to the plan proposed, the hospital ventilation would be effected in such a way as to secure that all air should be forcibly drawn into the wards, and that it should be subsequently discharged into a chamber where it could be subjected to a temperature sufficient to destroy all contagion. A plan and description of such a hospital, as also Dr. THORNE THORNE'S General Report on the Use and Influence of Hospitals for Infectious Diseases, Mr. W. H. POWER'S Report on the Influence of the Fulham Small-pox Hospital, Mr. SHIRLEY MURPHY'S Report on the

Influence of the London Fever Hospital, and several other valuable documents, go to form an important Appendix to the Report of the Commission.

THE nature of Croupous Pneumonia has always been a fertile field for speculation. The opinion that it is a simple inflammation due to a simple cause long received unquestioning acceptance, until points of resemblance between pneumonia and an acute specific disease led to more careful study of its conditions of origin. It is still to these that the attention of physicians is chiefly turned. Pathologists, it is true, are seeking for its associated bacterial organisms, and we lately referred to the important observations of FRIEDLANDER on this subject; but bacterial pathology is still in too early a stage to permit much weight to be placed on the discovery of organisms in association with acute inflammation as evidence of a necessary causal relation. But the etiological facts, if well observed, have a value which no theory can shake, for they must be embraced by it as a necessary condition for its acceptance.

Many facts have lately been adduced in support of the opinion that croupous inflammation of the lung is but the local expression of a general disease, and the evidence in favour of this view has been ably summarised by an American physician, Dr. E. SANDERS, in the *New York Archives of Medicine*. The most weighty evidence is, of course, that furnished by the analogies to which we have referred, but the occasional epidemic character of outbreaks of pneumonia is an etiological point of considerable weight in support of the theory. It is necessary, however, in order to establish the specific pathology, to disprove the current opinion that croupous pneumonia may result from mere exposure to cold. Some have, indeed, been content to overcome the difficulty by the admission that there are two forms of croupous pneumonia—one due to cold, and the other a specific disease. But the sporadic cases which are usually referred to cold are precisely those which present that resemblance to acute general diseases which still constitutes perhaps the strongest part of the argument for the specific nature of the malady. Accordingly, most of the advocates of the latter view have felt that, to establish their argument, they must disestablish the current theory and disprove the dependence of croupous pneumonia on exposure to cold.

The task is one of no small difficulty, and from isolated observations perhaps impossible. Attention has therefore been turned to the comparison of pneumonia with the meteorological influences. It seems well established that the disease does not coincide in the time of its occurrence with the lowest annual cold. It is not a disease of winter, but of spring. Some facts corroborating this opinion have been lately collected in the *Revue des Sciences Médicales*. In the three great hospitals of Vienna, between 1866 and 1876, 11,442 cases of pneumonia were treated—8247 men and 3195 women. The largest number of cases were admitted in the month of April, the next largest in the month of March, and next in the month of May. KÖHNHORN observed in the barracks at Weser 300 cases of pneumonia in the course of eight years, and found that the number of cases in the three months of March, April, and May was four times as great as in the months of September, October, and November.

WARFWINGE, in Stockholm, observed a maximum in the month of May.

But we can scarcely admit the validity of the assumption that because pneumonia does not coincide in prevalence with the lowest temperature it is therefore not due to exposure to cold. The prevalence in Vienna was compared by BIACH with the meteorological report, and three conditions seemed to coincide with the disease: a sudden fall in atmospheric pressure, a low temperature, and sudden changes in temperature. A similar comparison has been made by MASSON with regard to 400 cases of pneumonia occurring at Berne and Neuchâtel; and he found that pneumonia was most frequent when the temperature of the air was low and its humidity slight; and a comparison of the conditions on the day before the onset of each case showed with great frequency a sudden fall in both temperature and atmospheric pressure. On the other hand, KÖHNHORN failed to observe any relation between his cases and the temperature; but his data appear more open to objection than the others to which we have referred.

The evidence afforded by epidemics of pneumonia would be more conclusive if such epidemics were less rare. Nevertheless they are of great interest, and certainly deserve most careful study. Some of them are described by Dr. STURGES in his work on Pneumonia, and several others have been lately recorded. HOLWEDE and MÜNNICK observed an outbreak of fifteen cases in a small village (Ober-Sikle), containing only 400 inhabitants, and in some instances as many as three persons were affected in one house. At the same time other neighbouring villages, exposed to the same meteorological influences, and in the same geological conditions, were free from the disease. In the village of Becherbach, with 460 inhabitants, BUTRY observed as many as twenty cases in the course of a few weeks, and no less than nine were fatal. The cases occurred in a small number of families, which were so grouped around those first attacked as to favour the idea of a spread by infection. In most of the cases the prostration was great; in several there were cerebral symptoms, and in five there was jaundice. In seven the apex of the lung was invaded; in five the pneumonia was double; in three there was secondary pleurisy. The spleen was not enlarged in any case. KERSCHENSTEINER observed 161 cases of croupous pneumonia in a prison at Amberg (Oberpfalz), during the four months January to May. The *materies morbi* appeared to him to be endemic and not transportable. In a district of Norway containing 6000 persons LÖBERG observed sixty-three cases of pneumonia in 1879, and twelve occurred in a limited region containing only 200 persons. The cases were grouped, several occurring in the same house. PENKERT has recorded an epidemic of forty-two cases, in which he believed himself able to trace an infection from person to person, and JELLEY observed a wife to contract pneumonia from her husband, and to communicate it in turn to a sister who nursed her. Similar cases have been noted by WYMAN. No instance, however, is more remarkable than that published in our columns by Dr. DALY a year ago, in which six members of one family were affected in the course of three weeks. The rarity and striking nature of these facts, however, may well suggest caution in reasoning from them to the familiar sporadic form of the disease.

Attempts have been made to ascertain whether the contagiousness of pneumonia can be proved by experiments on animals. KÜHN inoculated seventeen animals with the sputum of a case of "endemic pneumonia." Of the rabbits, two died on the first two days with symptoms of collapse, but in six others fever followed the inoculation, and presented critical oscillations at the end of the fifth or sixth day. Diarrhoea and prostration accompanied the pyrexia. The animals killed between the sixth and tenth day showed pleurisy and hepatisation of the lung, lobar or lobular. Five recovered. KÜHN, perhaps too hastily, regards his results as affording evidence of the specificity of croupous pneumonia.

Those physicians who find, with LECHTENSTERN, the contrast in etiological conditions between the sporadic and epidemic forms of pneumonia too striking to be ignored, and ground for a division of croupous pneumonia into two classes, have endeavoured to establish a clinical distinction between the two. SCARPARI, for example, has lately emphasised the asthenic character of the epidemic form, its association with jaundice, with yellowish fibrinous pleural exudation, the absence of resolution, and the occurrence of changes in liver and spleen similar to those which are met with in acute specific diseases. LÖBERG observed the frequency with which several initial rigors marked the onset of his cases, sometimes preceded, for three or four days, by the symptoms of catarrhal fever, and the frequency of jaundice, but he failed to find enlargement of the spleen. Several observers have noted the tardiness of resolution and the frequency with which the apex of the lung suffered. KÖHNHORN, on the other hand, at Weser, observed splenic enlargement to be the rule. It is very desirable that the actual weight of the organ should be noted in all fatal cases.

THE current number of the *Westminster Review* contains an article on River Pollution, by Mr. URQUHART A. FORBES, which possesses interest for many of our readers. Mr. FORBES has given us a vivid sketch of the still modern history of legislation in regard to the pollution of rivers, and drawn conclusions which are peculiarly apposite just now, when we all hope that further legislation is impending.

The history may be said to begin in 1848, when sewer-drainage was first enforced by Act of Parliament. The new system was extensively adopted, and it was soon found that while it did much good to the land, it did very great harm to the rivers. As London and many other towns are supplied with water from these rivers, complaints soon arose, which were intensified by the experiences of the cholera epidemics of 1854 in St. James's, and of 1866 in East London. In 1865 a Royal Commission, consisting of Messrs. RAWLINSON, HARRISON, and WAY, was appointed to inquire into the whole subject. They published three Reports, the last in 1867. In 1868 another Commission, consisting of Sir WILLIAM DENISON, Professor FRANKLAND, and Mr. J. C. MORTON, continued and extended greatly the labours of the first. The sixth and final Report of this second Commission appeared in 1874, so that the Commissions sat altogether for a period of nine years, in which time they issued no less than sixteen folio blue-books. Most valuable information respecting pollution by sewage, and by the refuse of factories, was collected. Dr. FRANKLAND in

particular, who had introduced new methods of analysis and shown the fallacy of some old ones, performed countless analyses and made experiments on purification which have the highest value, and altogether did more than any other observer in the same field, before or after. His labours resulted in the suggestion of certain standards of purity, which, it was contended, might, without undue severity, be imposed on towns and manufacturers. The whole inquiry, from first to last, cost an enormous sum of money, and is a model of patient scientific investigation.

With these ample materials in hand Mr. DISRAELI'S Government produced in 1875 a short and feeble Bill of the permissive order, in which most of the recommendations of the Commissions were completely ignored. This Bill fell through, and in the following year a second and feebler one was introduced by Mr. SCLATER BOOTH. After additional emasculation both in Commons and Lords, this second measure received the Royal assent on August 15th, 1876, and is now known as the Rivers Pollution Prevention Act, 1876. We expressed a strong opinion at the time of the inefficiency of the new measure, pointed out that it contained every element of vagueness and weakness that such an Act could contain, and predicted that it would prove a dead letter. It has long been known that this prediction has been fulfilled to the letter. Mr. FORBES tells the story so graphically, that we prefer to use his words:—

"The Rivers Pollution Prevention Act, 1876, resembles the celebrated picture told of in the 'Vicar of Wakefield,' which though it pleased Dr. Primrose and his family highly, was rendered worse than useless by the fact that it was of such a great size that it could never be got out of the kitchen where, for convenience sake, it had been painted. It is admitted to be an admirable statute, save for one fault—it cannot be put into operation. It applies to England, Scotland, and Ireland; it, for the first time in the history of legislation, recognises pollution as an offence, and punishes it by a fine of £50 a day; and it prohibits the putting of solid matter, sewage pollutions, and mining and manufacturing pollutions into rivers, streams, canals, lakes, and water-courses, other than water-courses at the passing of this Act, mainly used as sewers, and emptying directly into the sea, or tidal waters which have not been determined to be streams within the meaning of this Act by order of the Local Government Board. Yet in spite of all these merits, the few instances in which it has been attempted to enforce it since it came into force in August, 1877, have entirely failed. The reasons of this failure were made clearly manifest by Mr. Cresswell in his speech on the necessity of amending the Act at the Conference of the Society of Arts on Public Health in 1880. It is due in the first instance to the fact that it makes no satisfactory provision for the payment of costs, and hence the expenses of bringing it to bear on offenders have been so heavy as to be almost prohibitive. Secondly, like all similar enactments on the subject, it throws the onus of beginning to institute proceedings on individuals who feel themselves aggrieved by pollutions, and further requires them to act only through the local sanitary authorities, who, as has been so frequently pointed out, are the chief offenders."

Several other fatal defects are pointed out by Mr. FORBES, and we could extend the list in many ways; but enough has been said to show how perfect an example of weak and tinkering legislation the Act of 1876 was. We can only conclude with expressing an ardent hope that the result of

the Royal Commission, whose labours will recommence before these words are printed, will be not only to relieve Londoners and travellers on and by the Thames from the hideous nuisance from which they now suffer, but also to pave the way for an Act of Parliament which shall be in truth, and not merely in name, a Rivers Pollution Prevention Act.

It would be satisfactory to know that the Government intends to bring in a measure founded on the recommendations of the Royal Commissioners. We venture to hope that a question will be put to Mr. MUNDELLA which will elicit information that is anxiously awaited by the profession. We do not, of course, expect any immediate action by the Government. The present session is entirely exceptional in its character and object. It is a session practically of only one branch of the Legislature, and that for a definite purpose. The purpose in our estimate is a great one, and justifies the calling of the House of Commons together that it may exclusively be carried out. In common with other members of the Press, we have been struck of late years with the inefficiency of the House of Commons as a business instrument. When surgeons have an inefficient instrument they sharpen it. And no different device will save the reputation of the House of Commons. Apart from all political theories and partialities, there are great acts of legislation urgently demanded, which it is simply hopeless to expect so long as every group of agitators can waste week after week in noisy and unpractical declamation. We devoutly wish success to the new Rules of Procedure so far as they are calculated to make the House of Commons do more and talk less, for the disproportion between its loquacity and its acts has become a scandal and a pain to all earnest men. But though Mr. MUNDELLA may scarcely be expected to lay a Bill on the table, he would do great service by intimating at once and decisively that he meant to deal with the amendment of the Medical Acts in the direction of the report of the Commissioners. It is evident that things cannot continue as they are. There is not a medical or surgical corporation that is not perplexed with "thoughts of change." All the medical students of the period are similarly affected, and it would be the greatest boon to them to substitute the existing and fragmentary examinations by other and complete examinations. Students at present are harassed and hampered by the defects and differences of the examining boards. When they do get a diploma they find out that it is only half a diploma, and very likely that it is disparaged and aspersed by those who represent other and rival diploma-granting bodies. Our recent numbers have contained the evidence of the gross inequality of the examinations, in different parts of the kingdom, that should be practically the same. We shall soon deal with other parts of the evidence having reference to the inefficiency of the Medical Council. An educationist and a reformer like Mr. MUNDELLA cannot fail to see in this evidence, and in the report based on it, the necessity for legislation, and we venture to hope for an assurance that legislation will be undertaken in an earnest spirit.

NOTICE is given in the *London Gazette* of the 20th inst. that vessels arriving in Italy from Florida or Texas, U.S., will be regarded as infected with yellow fever and subjected to quarantine.



## Annotations.

"Ne quid nims."

### ARMY MEDICAL SERVICE IN EGYPT.

WE are glad to learn that Mr. Childers has appointed a committee to inquire into the truth of the statements which have been made respecting the alleged shortcomings of the Army Medical Service in Egypt. It will consist of the following members:—The Earl of Morley, Under Secretary of State for War, Chairman; Admiral Sir W. R. Mends, K.C.B., Director of Transports; Major-General Hawley, C.B., Deputy Adjutant-General; Major-General Sir Evelyn Wood, C.B., K.C.B., K.C.M.G.; Dr. T. Crawford, Director-General, A.M.D.; Sir W. MacCormac, M.D., and G. Lawson, Esq., Assistant Director of Supplies and Transports. The composition of the committee is a sufficient guarantee that the whole question will be carefully, honestly, and intelligently considered, and we have no doubt that valuable suggestions will be made with a view to render the service more efficient, and to remedy any defects in its organisation which may be brought to light.

### EDUCATION BASED ON THE LAWS OF HEREDITY.

ATTENTION has been recently directed—notably in a little book entitled "Youth; its Care and Culture"—to the wisdom of basing education on the laws of heredity. This is something more than a mere recognition of what are called "physiological principles." If that term, as commonly used and understood, expressed all it actually implies, there would be no need to amplify its import. Mind is brain-function, just as locomotion is one form of muscle-function. The brain, when it acts, thinks and reasons, and judges and forms purposes. As the size, weight, form, and development of the bony skeleton, with its muscular apparatus, determine the limits and nature of physical power and activity, so do the size, weight, form, and development of the brain, with its apparatus of sense-organs, determine the limits and nature of intellectual power and activity; and as the personal characteristics of the physique are in great part inherited, in like manner the personal characteristics of mind are handed down from parent to child, so that the mental and moral qualities offering themselves for culture by processes which are, in the true sense of the word, *educational* in any individual, are the sum, or the resultant, of the aggregate qualities of the two parents, *plus* the influence of congenital conditions and immediately surrounding circumstances. It is essential to recognise this initial fact, and so to order and apply the processes of education as to develop the good and repress the evil elements in the inherited character. Education ought to be individual and to comprehend a complete system of influences and processes adapted to the cultivation of the physical and mental nature in its concrete form and potentiality. There can be no greater or more ignorant blunder than to regard education as *teaching*. "Training" is a better term to use than teaching, but education in its full and practical sense means much more than both the ideas indicated by these two terms; it implies *improvement*, and "improvement, as applied to the compound organism, the physical and mental nature of man, must include the essential processes of culture, planting or grafting, uprooting or pruning, and growth-stimulation and training. Unless this threefold purpose of education—employing that term in its comprehensive and only true sense—is fulfilled, genuine improvement is impossible, whether consciousness strive to improve self, or others labour to nurture and train it. This

is true of both body and mind, subject to the mutual relations which exist between these two parts of man's nature, if, indeed, they are separate. Every child born into the world is charged with potential energies that need to be stimulated, and with some which, in the interests of individual happiness and social expediency, it is necessary to eliminate, or, at least, repress." This being so, two consequences must be seen to ensue. First, to be really effectual, each child in a school or family should be trained and taught in a manner and upon principles peculiar to himself or herself, and not by a common method or to a common pattern. Second, the surroundings of child-life, the influences brought to bear upon it, the tasks imposed, the exercises body and mind are required to perform, the food with which they are severally fed, and the *régime* to which they are subjected, ought to be carefully selected and graduated to the individual nature and its special needs. If only a tithe of the truth about education were clearly understood, it would be seen that the care of the young is not only a responsible duty, but one which calls for special knowledge, rare sagacity, and exceptional skill.

### THE MILK OF INTEMPERATE MOTHERS.

LAST week we received a letter from a correspondent, who stated that at a "blue ribbon" meeting (for women only), a working man's wife said that she was present at a similar assembly a short time before, in the course of which a physician, by way of proving to the nursing mothers present the injurious effect of intemperance on their off-spring, left the room and presently returned with a sample of milk drawn from the breast of a drunken woman, to which he then applied a light, the result being that the milk burnt for five seconds. Our correspondent, who signed herself "Incredulous," asked if this were possible, and although we had no hesitation in answering in the negative, the question raises several very interesting issues. First, as to the presence or absence of alcohol in normal human milk. It is of course well known that koumiss is an alcoholic liquor prepared from milk by vinous fermentation of the lactose; the change is a slow one, lactose being of all sugars the least susceptible of fermentation. In the milk of the cow and ass, even when freshly drawn, alcohol was found by Béchamp, the alcohol increasing if the milk was allowed to set. This of course suggests the same origin for the alcohol as in the case of koumiss. With regard to human milk, the presence of alcohol, even if found, would suggest a similar explanation, but its presence has never been proved. Still, the wife of the working man is not the first person who has made assertions as to the alcoholic milk of alcoholic mothers. On examination, however, these assertions are seen to be founded not on chemical analysis, but on statements as to the effects of the milk on the infant. In an adult these would of course consist of exhilaration, followed by swimming eyes, inarticulate speech, unsteady gait, "dyskinesia" (uterine, no doubt, in female children), and even inability to stand. We may observe many, if not all, of these symptoms in most infants at the breast; and, indeed, in this way the inability to recognise one's own father might be taken as evidence of double vision. Is, then, the whole infant population to be regarded as more or less permanently drunk? Again, evidence may be obtained from the remoter effects of alcohol. We have heard a story of a child who died of cirrhosis of the liver from the prolonged exhibition of steel wine; but we may safely affirm that if even a trace of the alcohol constantly imbibed by a large proportion of nursing mothers were to find its way into their milk, specimens of infantile cirrhosis would be far from rare. On the other hand, there is no doubt that some of the alcohol of alcoholic mothers not unfrequently finds its way into the

system of their infants by a more direct route than the milk. Setting aside, therefore, the question of alcoholic human milk as contrary to fact, one question still remains—namely, that of the general effects of alcoholic drinks on the milk of nursing women. To this question no short answer can be given. It may be stated at once, that the diet which ensures the best state of health and nutrition also ensures the best milk, but that no hard-and-fast rule can be laid down on the subject. Overfeeding, as well as underfeeding, will often impair both the quality and quantity of the milk. It is, however, as in so many other questions, highly unscientific to lump all alcoholic drinks together, seeing that in those most generally useful, the alcohol is by no means the principal ingredient. To put gin and mild beer and claret together is to collect strange companions, who have, indeed, a common property, but little more. We are, however, within the mark in saying that, special medicinal questions apart, no nursing woman should drink spirits; that the less stimulant she can take (consistently with good health) the better; but it is no less true that in mild malt liquors, and especially in sound porter and stout apparently from the special preparation of the malt, we have a very simple and excellent stimulant to the lacteal secretion in many cases where it flags, and even in some cases where malt alone or other stimulants have failed. Of the impoverishment of the milk of women whose health is impaired by drinking there can be no reasonable doubt, and too much can hardly be stated in this respect. We quite agree with the blue ribbon orator so far as this, that if all nursing mothers were teetotallers it would be far better for the totality of British babies. In saying this, however, we must add that some infants would, in our opinion, be the worse; but that, on the principle of "the greatest good for the greatest number," more would be benefited than injured. If only those nursing mothers took stimulants whose health was really improved by them, it would be better still. There are facts which seem to show that alcoholism produces in some women a functional or temporary sterility. On this question, being beside our present subject, and also as not unlikely to serve as an incentive, or at least an excuse, for intemperance, we will not enter. Is it not somewhat of an irony of fate that the teetotal cow and ass should produce alcoholic milk, while the alcoholic human female produces none?

#### HÆMORRHAGE AFTER EXCISION OF THE TONSIL.

THE removal of an hypertrophied tonsil is a frequent and simple surgical operation, in connexion with which any complication is so infrequent as to be unheeded by many operators. Experience abundantly proves, however, that it is not unattended with danger from hæmorrhage, one of the most serious features of which is that it may not be primary but intermediary, or what is usually spoken of incorrectly as "secondary." There may be only the usual slight amount of hæmorrhage at the time, and then some hours later a profuse flow of blood occurs. This fact it is which gives additional import to the complication. Dr. Lefferts, of New York, has recently drawn attention to this subject, and has recorded cases in which the bleeding has been profuse, and discussed the appropriate treatment. In this country, we believe it is a not infrequent plan to give every patient an astringent powder to be moistened with water and introduced into the back of the throat should bleeding come on. Dr. Weir has recently recorded a case of this intermediary hæmorrhage, which illustrates well one cause of it, and the explanation of its mode of occurrence. One tonsil of a young man was removed with a guillotine; there was slight hæmorrhage at the time, but several hours afterwards, severe loss of blood—estimated at a pint—ensued, which was controlled by the

application of persulphate of iron and by pressure; the bleeding recurred twice subsequently. When Dr. Weir saw the patient he found that the bleeding vessel was an artery in the anterior pillar of the fauces. The vessels of the tonsils are small and lie in soft tissue, which readily permits of their natural closure when severed, and the various movements of the throat do not of themselves disturb the wounded vessels. Not so is it with the palatine arteries; they are, in the first place, larger, and, as they lie in the muscular tissue of the palate, when wounded they are constantly exposed to disturbance from the contractions of the palate muscles in deglutition. If one of these vessels be wounded then, in the operation of excising the tonsil, not only is the hæmorrhage freer than from the tonsillar vessels, but there is a great tendency to recurrent bleeding from the constant movements to which the wounded vessel is exposed.

#### THE MUNICH ELECTRICAL EXHIBITION.

IN addition to a varied display of electricity as applied to technical uses, there is a special branch of the above exhibition devoted to the illustration of the employment of this force in theoretical and practical medicine. In the descriptive remarks which Dr. Stintzing has published on the subject, he alludes to the value of electricity as an exciting medium when judiciously applied to various parts of the human organism, and remarks that electro-physiology has done much to increase our knowledge of the properties and functions of the nervous system, the muscles, the glands, &c. Another important branch of medical science connected with electricity is the diagnosis of certain diseases by means of electrical tests applied to the living body; on which subject he further remarks that physiology teaches us the laws as to convulsive motions, according to which the nerves and muscles are affected by the exciting power of electricity. For instance, if an electrical current (whether constant or interrupted) of a given strength be applied to a nerve, the muscles with which it acts are excited and become contracted according to fixed laws. In these involuntary reactions of the organs of motion upon the electrical current it makes a difference whether the latter passes through the nerves in an ascending or in a descending direction, and whether the action of the positive or negative pole preponderates. When the body is diseased, these physiological laws are subject to changes, and by carefully noting the deviations from the general rules which may be observed in the application of the electrical current in different ways to sick persons, conclusions may be drawn of practical value in the diagnosis and prognosis of such cases and in the regulation of the most suitable form of treatment for them. Electro-diagnosis and electro-therapeutics go hand-in-hand, and the exhibits at Munich affecting medical electricity illustrate both subjects; the appliances connected with the former being of course the more complicated. The Munich Medical and Clinical Institute and various manufacturing firms exhibit instruments of great exactness for ascertaining and regulating the force of the electrical current. A great variety of instruments and appliances of a portable form, suitable for general use by medical men, are also exhibited, including batteries, communicators, wires, &c., constructed with special reference to the different models which the various parts of the body require for the successful application of the electrical currents. For electro-therapeutical purposes the accurate measurement of the strength of the electrical current is indispensable, and the simple yet effective galvanometers for this purpose, made in two sizes by Dr. Edelmann of Munich, at the suggestion of Professor von Ziemssen, are highly spoken of. In contrast with the use of electricity, as applied by means of batteries and inductive appliances, the employment of electricity obtained by friction has been specially recommended of late by

Dr. Stein of Frankfurt, and various instruments &c. required for the application of this method are exhibited by Messrs. Albert, of that city. The photographs illustrative of the effects of electricity upon the nerves and muscles, and other representations showing the muscles, or groups of muscles, most easily affected by the electrical current, are interesting adjuncts from a medical point of view. Dr. Stintzing also refers to an electro-endoscopic apparatus, which is applicable to diagnostic purposes. It is intended for the partial illumination, by electrical means, of the ear, nose, jaws, and other portions of the human body. In the same category mention is made of two small endoscopic instruments exhibited by Dr. Michael, of Hamburg, in which phosphorescent substances are subjected to the influence of an electrical discharge.

#### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE present Council of this old-established Society, under the guidance of its President, Mr. Marshall, and the Hon. Secretaries, Dr. R. Thompson and Mr. B. Hill, have been carrying out certain "innovations," which, although, as the President stated, of comparatively minor importance, are steps in the right direction to ensure a high standard of merit in the papers read before the Society, as well as to enhance the value of the debates arising upon them. One of these innovations is the printing of the abstracts of the papers three or four days before the meeting, so as to enable intending speakers to obtain copies of these abstracts for private perusal and study. In this way it is hoped that the speeches will be more matured and more distinct contributions to knowledge, adding greatly to the importance of the discussions. Authors of papers are also to be allowed, when deemed necessary, to read their own papers. Hitherto this task has devolved upon the Hon. Secretaries, and we think the change one which will greatly facilitate the proceedings of the Society. Reports of the discussions are also to be printed in the Society's Proceedings—a step which will, it is thought, and rightly, cause this publication to be more read than it is at present. Another feature of the meetings is the addition of demonstrations of subjects of scientific interest, new inventions of practical and scientific value, new subjects in anatomy and pathology, &c., all with a view to render the meetings more attractive and useful. In each and all of these directions we think the Council has acted most wisely, and we trust that the communications made to the Society will maintain the high reputation it has already gained, and increase the attendance at the meetings. It may be added that during the recess considerable structural alterations have been made in the Society's rooms, and a great improvement has been effected in the lighting of the main hall.

#### A NEW VEGETABLE STYPTIC.

A RECENT number of the *Neus Freie Presse* states that during the French expedition to Mexico a plant was discovered, called by the natives by a name which may be rendered as "Fowlwort" (*Tradescantia erecta*, Jacq.), which has the property, when chewed or crushed, of stopping any hæmorrhage. A specimen planted in 1867 by the discoverer, in his garden at Versailles, has not only flourished, but flowered and fruited, without having its peculiar properties as yet appreciably diminished. Although no exotic, or remarkable for particular beauty of bloom, it, nevertheless, deserves a wider extension on account of its valuable properties, especially as its acclimatisation may be regarded as having been fully established. Its action exceeds that of all styptics as yet known, as, for example, perchloride of iron, and it can, moreover, be very cheaply procured.

#### THE DANGERS ATTENDING SHAMPOOING.

RECENT and unsatisfactory experience in one or two West-End hair-cutting saloons leads us to inquire whether sufficient care has been bestowed on the sanitary management of the shampooing contrivances. Those persons who avail themselves of the very refreshing pleasures of a "shampoo" must, however, have noticed that they are compelled to bend over, and bring their faces in close proximity with, the hole in the centre of the huge basin used for this purpose. If they watch the soapsuds that form round this hole before any large volume of water is allowed to flow, they may perceive the air coming up the pipe; for it inflates the soap and forms a large bubble that bursts close under them. Whatever may be within, it is too near to avoid breathing its contents. Nor does the absence of any suspicious odour inspire a sense of security; for it is very evident that even a strong whiff of sewer gas would be lost in the scent that perfumes the soap and surrounding atmosphere. If therefore the pipes attached to the basins communicate direct with the house-drains and the sewer, there is surely some danger that the atmosphere breathed within a couple of inches of the aperture may carry, disguised under the fragrant of the rose or jasmin, the virus of disease. In one of the most celebrated West-End houses we noted that the pipes from the shampooing basins all led on to the roof of an out-house, and there the soapsuds and water travelled some three or four yards in the open air before reaching the water-spout that conveyed them to the sewer. A back current could therefore only bring in air from the roof—that is, air as pure as any to be had in London. But in another house nearly as celebrated the pipe from under the basins ran direct to the drains. There was no S-trap visible, and apparently no intercepting ventilation. The basins had, in fact, all the appearance of so many sewer mouths, ventilating the sewer-gas into the faces of the customers as they leaned over the aperture. Even a syphon in such cases is not, we maintain, a sufficient protection; the constant flow of water, the difference of temperature between the hot and cold water, and the varying degrees of density of the water through the presence in small or larger quantities of soap, oil, &c.,—all these circumstances must so affect the pressure and tension of the air within the pipes as to produce suction, up currents, and syphonage. Consequently it is indispensable that all the pipes conveying the waste from hairdressers' saloons should empty in the open air over a gully-trap or an interceptor, and should not have any direct connexion with either the house drains or the public sewer.

#### SUMMER DIARRHŒA IN 1882.

JUDGED by the figures published from time to time in the Registrar-General's weekly return for twenty-eight of the largest English towns, with an aggregate population of about eight million and a half of persons, it is evident that the fatality of diarrhœa during the past summer, although slightly higher than it was last year, was again considerably below the average. In London the annual death-rate from this disease showed a larger proportional decline than in the provincial towns, and did not exceed 1.5 per 1000, against 3.2 and 2.5 in the summers of 1880 and 1881. The rates in the large provincial towns showed the same, a similar variation which should throw light upon the true causation of this disease, but which has not yet led to its satisfactory explanation. During the thirteen weeks ending September 30th last the death-rate attributed to diarrhœa did not exceed 0.9 in Halifax, 1.0 in Bristol and Derby, and 1.3 in Plymouth and Huddersfield, whereas the highest rates in the other provincial towns were 4.0 in Leeds, 5.7 in Leicester, 5.8 in Hull, and 6.0 in Preston. All these towns are old offenders in respect of infantile diarrhœa, and

of infant mortality generally. It is also noticeable that while, as we have stated, the death-rate from diarrhoea last quarter in these large towns showed a general increase upon that in the corresponding period of 1881, the rate of increase varied in a marked manner; indeed, in several of the towns the rate showed a decline. All these facts point conclusively to controlling influences other than meteorological. It may be hoped that the Local Government inquiry on this subject, now being conducted by Dr. Ballard, will throw satisfactory light upon this much discussed but yet unsolved problem.

#### THE LATE PROFESSOR BALFOUR.

AN influential meeting was held on Saturday last in the Lecture room of Comparative Anatomy at the New Museum, Cambridge, to consider the best mode of establishing in the University a memorial of the late Professor Balfour. The Vice-chancellor presided, and the meeting was attended by Professor Huxley, Messrs. H. Smith, Lankester, Foster, Paget, Humphry, Newton, and others. Great regret at Professor Balfour's untimely close of a career so full of promise was expressed by every speaker. Professor Paget proposed the first resolution, that a memorial of Professor Balfour be established in the University of Cambridge, which was seconded by Mr. H. Smith. In supporting this resolution Mr. Adam Sedgwick instanced as proof of the attractive address and teaching of Professor Balfour that his class which at first only consisted of ten or twelve students, had in the course of seven years increased to ninety. Professor Huxley then proposed that the memorial take the form of a fund to be called the Balfour Fund for the promotion of research in biology and especially animal morphology. Professor Newton proposed, and it was unanimously agreed upon, that the proceeds of the fund should be applied to establish a studentship, the holder of which shall devote himself to original research in biology, especially animal morphology, and further, that the fund should supply occasional grants of money for the furtherance of original research in the same subjects. Professor Foster finally proposed that the studentship should be endowed with £200 per annum, and that it should not be given away by competitive examination. It was stated at the meeting that £3000 had been subscribed by the family of Mr. Balfour, and that £1000 which he had himself bequeathed to Professor Foster would be expended in promoting the objects aimed at in the memorial.

#### TUBERCLE OF THE CHOROID.

AN interesting discussion took place at the Ophthalmological Society on the 12th inst. upon the significance of choroidal tubercle. Examples of the disease were related by Drs. Mackenzie, Warner, and Brailey, and the discussion turned chiefly upon a point raised in the communication of the second-named gentleman—namely, whether the choroidal affection were not more frequently met with as a part of general tuberculosis than in association with tubercular meningitis simply. The question produced some slight divergence of opinion,—such experienced observers as Dr. Baxter, Mr. Hulke, and Mr. B. Carter stating that tubercle of the choroid was of extreme rarity in cases of meningitis, and therefore the inference is that much reliance cannot be placed upon it in determining a diagnosis, or rather that its absence proves nothing in the exclusion of a diagnosis of tubercular meningitis. On the other hand, Dr. Barlow mentioned that he had detected it in as many as twenty cases, verified on post-mortem examination. After all, the issue seems to have been a narrow one; for it must be borne in mind that in the vast majority of cases of tubercular meningitis there is tuberculosis of other viscera, and that the meningeal affection is as much a part of the

general dissemination of tubercle as is the choroidal. At the same time this fact is plain, that tuberculosis of the choroid no more depends upon tuberculosis of the pia mater than this latter does upon tuberculosis of any other organ. Dr. Sansom's contribution to the discussion was instructive. He cited a case with symptoms of meningitis in which he had given a most unfavourable prognosis because ophthalmoscopic examination revealed choroidal tubercle. The event proved one of three things: either that tubercular meningitis is not necessarily lethal, or that tubercle may exist in the choroid without being present elsewhere to any grave extent, or that the ophthalmoscopic diagnosis of choroidal tubercle is open to fallacy. Which of these interpretations is the most likely must remain undecided, but it is to be regretted that Dr. Sansom had no opportunity of again examining the eye after the recovery of the patient from the meningitis. The attention thus drawn to the subject should encourage investigation into the occurrence of choroidal tubercle, not only as detected by the ophthalmoscope, but as found in post-mortem examination of all cases of tuberculosis.

#### SIR THOMAS WATSON, BART.

THE whole profession will learn with deep concern that the health of this revered physician has during the last few days been a source of anxiety to his family and friends. He had for some weeks past been staying with his son at Reigate. On Sunday last, although now in his ninety-first year, he was in his usual good health and attended the morning service. On attempting to rise from his chair after lunch he suddenly inclined towards the left side, and would have fallen on the floor if he had not been supported by his son. He afterwards took a short walk in the garden, but there was an evident weakness of the left leg, and this continued to such a degree that he is now unable to walk without assistance. There is no appreciable loss of power in the arm, but the tongue when protruded deviates slightly to the left. There has been no drowsiness, and he is in complete possession of his mental faculties. His kind neighbour, Dr. Walters of Reigate, is in daily attendance, and he has been visited by his old pupil and friend Dr. George Johnson, to whom he calmly remarked, "This is the beginning of the end." His medical attendants are agreed that there is probably some arterial obstruction by thrombosis in the neighbourhood of the right corpus striatum.

#### IRISH LUNATIC ASYLUM REPORTS.

THE twenty-first report on Irish Lunatic Asylums, for the year 1881, states that at the end of the year there were in the twenty-two district asylums 8667 patients, 4685 males and 3982 females, being an increase of 311 during the year. Of 2044 admissions, 453 were relapses, and from this the deduction is made: "That while medical science is able to contend with physical affections to a great extent, the mind is beyond its control, as a rule, save when bodily diseases may have superinduced in it an unhealthy action." This would convey the impression that the mind was regarded as an entity at times entirely independent of physical causes. Would it not be possible to suggest several other equally probable explanations of these figures. The recoveries are estimated at 40 per cent. on admissions, or 11½ per cent. on the daily average of patients. The death-rate is low, 7½ per cent. on the number under treatment. The inspectors defend themselves from a charge of a disposition to extravagance very tersely and truly. They say: "A waste of money arises when an expenditure is too restricted to be useful. In fact, our only desire is to locate in public asylums suitable inmates, ensuring at the same time in each district a becoming receptacle for others who need less attention." Great liberality

in salaries and pensions of the asylum staffs is advocated, and would seem to be very necessary from an examination of the tables in which the former are stated. There are 3600 persons mentally afflicted in poor-houses, and the inspectors advocate that a poor-house in each asylum district should be solely devoted to the care of harmless lunatics, thereby avoiding the construction of additional asylum accommodation, many of the asylums already containing a considerable excess of patients over their estimated capacity. There can be little doubt that this plan is well adapted to the wants of the country, and is an example of the practical appreciation of their work which the inspectors manifest throughout their report.

#### THE NEW BUILDINGS OF THE MEDICAL SOCIETY OF LONDON.

SOME months ago the property between the Medical Society's Rooms in Chandos-street and the corner house in Cavendish-square was to let. The Society has been fortunate enough to secure it together with its old holding on a long lease at very reasonable terms. This has afforded an opportunity of constructing additional accommodation, as well as of remodelling the existing premises of the Society. The part of the building to be erected on the newly-acquired land has already advanced considerably, and is nearly ready to be roofed in. The new building, as designed by Mr. H. C. Boyes, of 9, Bow Churchyard, will extend along a frontage of about 120 feet in Chandos-street. It will comprise two stories, covered by a Mansard roof containing a third. The plan of the ground-floor, besides an entrance and staircase-hall, with ample cloak-room and lavatory accommodation, provides several suites of offices, which will be sub-let, as now, for business purposes. From the hall a semicircular staircase ascends to a wide landing, from which the rooms of the Society open. To the left is the council-room, and a corridor leading to a small library to be occupied by the Entomological Society. Facing the stairs a door gives access to the present meeting-room, which, enlarged by an annexe, is retained as the future library. To the right opens the large new meeting-room, 38 ft. by 26 ft., and 19 ft. high, occupying all the north wing of the old building. From the corridor a staircase leads to the Registrar's apartments above. It has fortunately been found possible to regulate the builder's operations so as not to interfere with the working of the Society during its session. The meetings will take place as usual in the existing meeting-room until the new one is ready to receive the Fellows. Though access to the library is at present debarred, this inconvenience will, it is hoped, be shortly removed. On the completion of these alterations it is believed that this ancient Society will be housed in a more commodious manner than any of its younger rivals; while its very valuable, and far too little known library, so rich in old medical works, will be more advantageously placed than hitherto.

#### THE ORGANISMS OF TYPHOID.

MARAGLIANO of Genoa has published, in the *Centralblatt für die Med. Wissenschaften*, an important note on the uniform occurrence of organisms in the blood of patients suffering from typhoid. He has found them in the blood of the spleen as well as in that of the general circulation. The blood was obtained by means of a hypodermic syringe, the middle of which was passed through the abdominal wall into the substance of the spleen. Dr. Sciamano of Rome first showed that blood may be thus obtained from the substance of the spleen during life without any injurious consequences. The blood of the general circulation was taken from the tip of the finger. In each method every precaution was taken

to avoid the accidental introduction of organisms. The examination, in this way, of fifteen patients gave the following result. At the height of the disease the blood of the general circulation contains micro-organisms both isolated and grouped. These consist, almost exclusively, of spherical bodies, which have a delicate contour, appear to be homogeneous, and are analogous to micrococci. Some of them are mobile. Similar organisms, again, were seen in the blood of the spleen, and in it, too, were others, rod-shaped, also with delicate outlines, perfectly corresponding to those described by Eberth and Klebs. During convalescence these micro-organisms lessen in number in both the splenic and systemic blood. When quinine was given to the patient in large doses the organisms either disappeared from the blood, or were present in it only in small number. The blood from both the finger and the spleen was treated by the method of fractional culture, and a large number of rods were then obtained, similar to those seen in the fresh blood except that some of them were of greater length. The presence of such organisms in the blood of the spleen after death had been previously established by Sokoloff and Fischel, but Maragliano is the first who has demonstrated their presence in the splenic blood during life. He avoids the expression of any opinion as to their relation to the disease.

#### REMOVAL FROM THE MEDICAL REGISTER.

THE customary caution as to the risk of being erased from the Medical Register is published by the Registrar in our advertising columns. It cannot be too clearly apprehended by our readers that any change of address should be intimated to the Registrar of the division of the kingdom in which their registration first took place; and that in the event of letters of inquiry being sent to registered practitioners and remaining unanswered, the Registrar's instructions are to erase their names. Much irritation has been caused by such erasures, but they are strictly in accordance with the Act of 1858. They may all be avoided in the Register of 1883, which is now being prepared, by the timely answering of letters addressed by the Registrar to registered persons, and by timely intimations of change of residence. It is exceedingly unsatisfactory to find one's name omitted, without one's crime, from the great roll of the profession. We are convinced that it is the desire of the Registrar to make his Register as correct as possible, and that the profession will co-operate with him in making it so, even if they think that the method prescribed in the Act admits of amendment, like so many other parts of the Act of 1858.

#### ILLEGITIMACY AND MANSLAUGHTER.

DR. A. L. WEATHERLY, deputy coroner for Somerset, is reported by the *Bristol Post* to have made some very appropriate observations in the case of an inquest on the body of a newly-born female child, the illegitimate offspring of a young woman in the service of a family at Poolridge. As the servant was found guilty by the jury of manslaughter, we think it well to postpone comment, excepting on one point. Both the mistress of the girl and an elderly woman who frequently worked at the farm suspected that the girl was in the family way. It is wrong when experienced women notice young women to be in the family way, and even suspect them to be in labour, not to say anything about it. It is no doubt painful to recognise that a young woman is illegitimately pregnant; but it is monstrous to refuse to recognise it. As the coroner pointed out in this case, the consequence of doing so is that a young woman finds herself committed on a charge of manslaughter. Had her friends or her mistress, or her fellow servant, determined to ascertain the truth of their suspicions, the girl would have been saved from an extremely painful position.



### VISITATION OF THE MEDICAL CORPORATIONS BY THE MEDICAL COUNCIL.

OUR readers are aware that the examinations of the nine medical and surgical corporations of the United Kingdom were recently visited and reported on by three visitors of acknowledged competence and impartiality, Professor Gairdner, Mr. Stokes, and Mr. Teale. Though the immediate result of their reports and the conclusions of the Council were somewhat disproportionate to the expectations raised and the money expended on the visitation, yet the reports contain a great amount of information and criticism. These reports and the answers of the bodies to the criticism of the visitors make up a volume of considerable interest and value at the present moment. It is made much more so by an index, the preparation of which must have entailed great labour and trouble. This, together with all the publications of the Council, can be had of Messrs. Spottiswoode.

### BANQUET TO THE MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.

WE understand that it is intended at an early date to give a banquet of welcome to the medical officers of the army and navy who served in the Egyptian expedition. The chair will be taken by Sir William Jenner, Bart., K.C.B., President of the Royal College of Physicians. Sir James Paget, Bart., Sir Joseph Fayrer, K.C.S.I., Medical Officer to the India Board, and Mr. T. Spencer Wells, President of the Royal College of Surgeons, have expressed their intention of attending the banquet, and Dr. Crawford, Director-General of the Army Medical Department, and Dr. Reid, Director-General of the Naval Medical Department, will also be present as guests. A committee is being formed to make the necessary arrangements; meantime, communications from gentlemen desiring to attend may be addressed to Mr. G. Eastes, M.B., 69, Connaught-street, Hyde-park, W.

### BLOOD AND OZONE.

It is usually asserted by physiologists that even traces of ozone, introduced into the blood, injure it by leading to the formation of methæmoglobin, and conversely ozone in contact with blood quickly undergoes destruction. The question has been reinvestigated by Professor Binz of Bonn, who has found that pure ozonised air has an action on human beings quite similar to that of nitrous oxide. Persons whose respiratory passages are so little irritable that they can take a full inhalation, experience a brief agreeable stimulation, and then become somnolent and actually fall asleep for a short time. This observation has led him to make further experiments on the tolerance of blood for ozone. He found that a stream of ozonised air might be passed through defibrinated blood for at least an hour without the occurrence of any change in its aspect, or microscopical or spectroscopical appearances. The only difference is that the alkalescence diminishes more than in similar blood, through which simple pure air is passed. The ozone manifestly first combines with the dissolved organic elements of the blood, and only acts on the formed elements after prolonged action. A small quantity of blood subjected to a similar current of ozone first becomes bright red, then darker, and, at the end of an hour, it resembles reduced blood in aspect, but differs from this in not regaining its tint when shaken up with air. Its spectrum presents weak but unmistakable oxidation lines, which are not accompanied by methæmoglobin lines until the following day. Microscopically the blood-corpuscles were pale, and apparently spherical, and no fragments were visible. In another series of experiments the ozonised air was passed through fresh blood, to which a little saline solution had been added.

At the end of ninety minutes the blood was uncoagulated, dark, but still showing oxygen lines, and the corpuscles had lost their depressions. A longer exposure rendered the blood very dark, and the next day the corpuscles had disappeared, and the methæmoglobin had considerably increased in quantity. A solution of pure oxyhæmoglobin resisted the action of the ozone much less than the blood, although it never presented alterations in less than ten minutes. Binz further ascertained that the decomposition of ozone by blood is not complete; considerable traces seem to remain in the blood in an unaltered state, and can be recognised by the usual tests.

### OUR ORIGIN AS A SPECIES.

THE first number of *Longman's Magazine*, to whose prosperity we wish well, contains an article by Professor Owen with the above title, and which is a polemic upon a paper by Grant Allen in a late number of the *Fortnightly*. That author had rather strongly insisted on the evolution of man from some man-like animal developed from the anthropoid apes, and living about the mid-miocene period; a creature that was partly frugivorous, partly carnivorous—a tall and hairy creature, more or less erect, but with slouching gait, black-faced and whiskered, with prominent prognathous muzzle and large pointed canine teeth, those of each jaw fitting into an interspace in the opposite row; the forehead low and retreating, with bony bosses underlying the shaggy eyebrows; his brain about halfway between that of the anthropoid apes and that of the Neanderthal skull. Then came the Pleistocene period, and with it the age of the cave-men, who presented some similarity to the existing Eskimo, but with lower foreheads, with high bosses like the Neanderthal skull, and big canine teeth, like the Naulette jaw. Professor Owen, in commenting upon these statements, observes that the human jaws of this supposed period which he has examined give no evidence of a canine tooth of a size indicative of one in the upper jaw necessitating such vacancy in the lower series of teeth, as the apes present. He refers to the skulls he himself obtained from the cavern at Bruniquet, and now in the Museum of Natural History, which show neither lower foreheads nor higher bosses than do the existing races of mankind, and he makes an observation which, coming from such an expert, is of great weight—that, so far as his experience has reached, there is no skull displaying the characters of a quadrumanous species, as that series descends from the gorilla and chimpanzee to the baboon, which exhibits differences, osteal or dental, on which specific and generic distinctions are founded, so great, so marked as are to be seen in the comparison of the highest ape with the lowest man. Clearly the missing link has not as yet been discovered, and many more undoubted specimens of river-drift and cave-men must be collated before any positive statements can be made.

### PEAT DRESSINGS.

AT the suggestion of Dr. Neuberg, Professor Esmarch has recently been using in his hospital at Kiel bags of peat-dust impregnated with an antiseptic. This dust is very light and powerfully absorbent of gases and liquids, taking up more fluid, it is asserted, than jute, gauze, or cotton wool—even to nine times its own weight; it is also soft and elastic, and in Germany very easily obtained and inexpensive. The peat may be used alone in bags of muslin, but the more approved method is to have two bags of muslin—one twice the size of the other—purified by being wrung out in carbolic solution, 5 per cent. The smaller is filled with the peat-dust containing  $2\frac{1}{2}$  per cent. of iodoform, and is placed immediately in contact with the wound. The larger bag is filled with the peat-dust soaked in carbolic solution, 5 per cent., and this is placed over the other. Such

a dressing may remain undisturbed for from several days up to a fortnight, and it is stated that excellent results have been obtained with it. This we do not doubt, but we are unable to believe that this newest form of "antiseptic" dressing will in any way revolutionise surgical practice or become generally adopted.

#### NOTIFICATION OF DISEASE TO THE VICAR

THE heading of our annotation may suggest an additional argument in favour of notification to the sanitary authority. The opponents of such a measure, in whatever form, may see that the notification of infectious disease is so taking hold of the public mind that, if the medical officers of health and the sanitary authorities do not make themselves recipients of the information, other authorities will inter-meddle. In *St. James's Parish Magazine*, Tunbridge Wells, the following suggestion is made: "Notice of any infectious case, such as scarlatina, measles, &c., should be at once communicated to the vicar, that it may be promptly taken in hand, and the infection be as far as possible prevented from spreading." We should have thought that the vicar had quite enough on hand, in all the sin and vice of his parish, without the addition of cases of measles and scarlatina. But it is clear that the sanitary authority of Tunbridge Wells has a serious rival in the ecclesiastical sphere.

#### EXCISION OF THE PYLORUS.

ON the 17th inst., at St. Thomas's Hospital, Mr. Sydney Jones removed the pylorus for malignant disease. The patient, aged fifty-seven, was under the care of Dr. Bristowe. A large growth completely surrounding the pylorus, together with some affected glands, was removed. The operation was a prolonged one, and was carried out with antiseptic precautions. The patient was much emaciated before the operation, and unfortunately did not rally from the shock, dying about six hours afterwards. We hope shortly to publish the particulars of the operation and morbid appearances.

WE regret to have to record the death of Wm. Alexander Anderson, M.D. Aber., F.R.C.S. Eng., of Uxbridge. The deceased had been in the Commission of the Peace for Middlesex for some sixteen years, and was one of the most active members of the Uxbridge bench of magistrates up to the time of his death, which took place suddenly on Sunday last. Dr. Anderson was formerly assistant-surgeon at the Royal Naval Hospital, Plymouth, and took his Fellowship of the English College of Surgeons in 1853.

THE Regius Professor of Medicine at the University of Oxford has issued a notice requesting candidates for a certificate of proficiency in subjects bearing on Preventive Medicine and Public Health to send their names to him on or before Friday, Nov. 10th. No person can be admitted as a candidate who has not obtained the degree of Bachelor of Medicine in the University.

THE terrible hurricane which has played such havoc with the buildings of Manila would seem to have verified the truth of the adage that "it is an ill wind that blows no one any good." It is stated that on the first day after the storm not a single case of cholera occurred in the town or the island.

IN January next (says the *New York Medical Record*) a night medical service will be established in Brooklyn. In Washington, D.C., where the plan has been in operation some little time, the calls average between one and two every night.

By the death of James W. Johnston, M.D., Honorary Surgeon to the Queen and Inspector-General of Hospitals and Fleets (retired), a good-service pension of £100 a year is placed at the disposal of the First Lord of the Admiralty.

DR. F. W. KÖHLER, of Louisville, performed resection of the stomach for cancer on September 2nd last. This operation is stated to be the first of its kind done in America.

#### TREATMENT OF THE SICK AND WOUNDED IN EGYPT.

[FOR the following account we are indebted to Mr. Edgar Crookshank, house-surgeon of King's College Hospital, who, having arrived at Ismailia in the *Lydian Monarch*, was attached to the medical staff in Egypt, and followed the campaign from the base of operations to Cairo. His notes are not only valuable from his previous acquaintance with the methods of antiseptic surgery as carried out in its minutest detail at King's College Hospital, but more particularly as they tend to show that the alleged deficiencies in the care of the wounded and the administration of medical comforts were based on a want of sufficient professional acquaintance with the working of the Medical Department.—ED. L.]

Various accounts having been circulated with regard to unsatisfactory treatment of the sick and wounded in Egypt, a few notes of my experience during the campaign may be of interest to the profession.

Arriving at Ismailia in the *Lydian Monarch*, I was attached to the base hospital on Aug. 29th. Having the free run of the hospital, and being desirous of gaining experience in every particular, I keenly observed its working. At the time I arrived, I was greatly pleased with the cleanliness, ventilation, and general sanitation of the building. In the surgical division in which I worked, I was at once struck with the wholesome condition of the wards and the absence of that peculiar unhealthy atmospheric condition which so speedily results in overcrowded or ill-ventilated hospitals. The isolation in tents of the infectious cases, the suspension of carbolic sheeting, and the use of tea-leaves sprinkled with carbolic acid in sweeping out the wards, were the chief means in use for the preservation of the purity of the air. Equally satisfactory was the general appearance of the wards, the patients lying on mattresses arranged with sufficient interval to secure for each the requisite amount of ward space, and surrounded, when the cases were severe, with mosquito curtains. Folded coats and helmets were neatly arranged in the corners or where they were out of the way; and in the centre, chatties, and occasionally even flowers, were placed on empty packing-cases covered with clean towels.

Whilst dressing patients and conversing with them, with the exception of the incidents to which I will subsequently refer, I always found that they expressed themselves as comfortable, as having all they wanted, and grateful for the care and interest taken in them by the surgeons. The room set apart for operations, containing an operating table in the centre, and an extemporised table on one side, arranged with all the instruments, dressings, bowls, sponges, and solutions necessary, could not possibly have been more suited for its purpose if it had been the operating theatre of a civil hospital. Whenever a serious case was under notice a consultation of two or more surgeons was held, and the case thoroughly entered into and discussed. Conservative surgery was the golden rule persistently adhered to, and

therefore it will be seen how groundless could be any complaint of inattention or unnecessary mutilation. One case has been especially referred to—viz., that of a Life Guardsman, whose arm was amputated at the shoulder-joint. This required the services of two surgeons to attend to the dressing daily, and as, arriving shortly after the operation, I was requested to be one of the two, I inquired minutely into all the details of the injury and of the operation, and I am perfectly sure that chloroform was administered. With regard to his after-treatment, I can speak with certainty; he was not only always dressed with the utmost care and gentleness, but any little fancy that he had was promptly attended to. For instance, he used to ask for champagne, beer, chicken, fish, beefsteak or chops, and a special requisition was then made, and if it were possible—which was nearly always the case—his wish was gratified. The report of the deficiency of anæsthetics was utterly inaccurate. I was myself detailed for the inspection and distribution of antiseptic dressings and appliances which had been supplied in large quantities, and it was necessary for me to go through the invoices of all the medical stores deposited in the cellars of the hospital. I remarked, while doing so, how amazed I was at the quantity of every drug, dressing, and appliance that could possibly be required, and my attention was specially drawn to the rows and rows of bottles of ether (in addition to the chloroform)—a most gratifying sight for those who of late have commented so much on the superiority of this anæsthetic. At the majority of the operations at the base hospital I was present, and not only in operations, but also in all difficult cases where it was necessary to inflict pain in making a careful examination, an anæsthetic was administered. The heart having been examined, chloroform was nearly always used, being given by means of Skinner's inhaler or by the Listerian method, on a towel. Such was my experience at the base.

On September 11th I was ordered to proceed to Kassassin, and, being attached to the advanced-field hospital, I accompanied the force and was present at the battle of Tel-el-Kebir. From the battlefield the wounded were brought by the stretcher- and dhoolie-bearers to tents which were pitched by the side of the canal. Cases and panniers were quickly opened, and everything was ready when the wounded came pouring in. The surgeons and men of the Army Hospital Corps worked with such energy and rapidity that the amount of work done in the time can only be accounted for by sympathy for the sufferers, and the earnest desire to attend to each one immediately on arrival, enabling them to work uninterruptedly for hours, and to battle against the prostrating effect of the sun. Cases in which bullets were immediately under the skin and could be removed by a small incision were attended to at once, an anæsthetic not being required, and it was marvellous to observe how the despondent and anxious look of the sufferer who begged for the bullet to be taken out was instantly changed for an expression of delight when the unwelcome visitor was put into his hand to be taken home and proudly shown as a trophy among his friends. Opium was administered to those in pain, filtered water in abundance to the thirsty, and nourishment in the form of beef-tea and milk was ready prepared in pails. As soon as dressed the wounded were carefully and gently carried a few yards and placed in cutters and flat-bottomed boats, strewn with hay, which when filled were towed along the canal to Kassassin, returning when empty for another batch. I accompanied one convoy which started in the evening and arrived late the same night. I was delighted with the easy and pleasant motion, and the absence of the jolting of vans or trains, so great a boon in the case of gunshot fractures. On arrival at Kassassin their destination was the canal-lock hospital. Those requiring it were dressed again next day, and while assisting in doing this I took note of the administration of champagne, and of the plentiful supply of ice. From Kassassin in the afternoon I accompanied a train full of wounded, assisting the surgeon who had been sent in charge. Good water, lime-juice, brandy, and Liebig's extract were supplied for the wounded during the journey, and whenever a stoppage occurred every carriage was looked into and

medical comforts supplied to those in need of them. On our arrival at Ismailia station the same evening a surgeon met the train with pails of tea, from which basins and mugs were filled and handed round. So that with regard to the treatment of the wounded during their transport by rail or canal on every occasion on which I had the opportunity of witnessing it, nothing more could have been done. A short distance by the new rail then brought us to the doors of the base hospital. The antiseptic treatment which had been carried out on the battlefield was continued at the base hospital, and carefully followed out until all the wounded were transferred to ships for England; the results obtained so far reflected the greatest credit on the surgeons who employed this method. When ready to be transferred, the sick and wounded had only to be carried a few paces to the nearest point of the canal, in consequence of the dam, constructed at Tel-el-Kebir by the Egyptians, having been cut through after the fight, so that the level of the canal at Ismailia rapidly rose; the canal lock was utilised, and flat-bottomed boats, drawn by a steam pinnace, conveyed the wounded to the vessels in the lake. Practically, therefore, there was water transit from the battlefield to England. The incidents to which I referred were such as follows:—The wounded at the base were dressed antiseptically, and the surgeons in making their daily rounds examined the dressing, and passed over those cases in which, as is characteristic of this method, it was not necessary or even advisable to change it for two or three days. This was in several cases the cause of grumbling and discontent. The soldiers' idea was that if they were not dressed every day they were not being treated properly, so that it became necessary to explain to them that the fact of their not requiring to be touched was a proof that everything was going on well. It is easy to see how a misunderstanding and misrepresentation of this might lead to the report that the wounded were so neglected that even at the base hospital they were left for several days without being dressed! Again, one night a batch of wounded arrived. Nourishment, as usual, was supplied to all previous to their being told off to their respective wards. Next morning, on interrogating a patient as to how he was, he said he was starving, as he had had nothing for nearly two days. I immediately asked him how it was that he missed his turn the night before, and whether he had not had some tea, beef-tea, or milk on arrival. He replied that he did not call that anything, what he wanted was something solid. Anyone believing the man's first statement, without further question, might have been easily misled into the belief that he had actually been starved. From Ismailia, when the hospital had been cleared of all its surgical cases, I proceeded to Cairo, where I frequently visited the Citadel hospital, and found everything equally satisfactory. From thence I went to Alexandria, and re-embarked in the *Lydian Monarch*. Like other civilians, I had formed an erroneous opinion as to the value and efficiency of military hospitals. I have now learnt from my experience in this campaign that not only in essential points are they as well ordered and managed as the best civil hospitals, but that many lessons of great value might be learnt from them by the lay and medical authorities of even the best managed hospitals of our large cities.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF INSPECTORS TO THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*Enteric fever at Clapham.*—A prevalence of enteric fever in Clapham, and which was locally attributed to the use of milk from a certain dairy, was recently brought under the notice of the Local Government Board, and they instructed their inspector, Dr. Parsons, to inquire into it. Twenty-one persons in sixteen households appear to have been affected, the attacks having occurred in June and July last. Nearly all the houses affected were of a superior class, and they were either situated on the edge of Clapham Common or were widely scattered in the neighbourhood; no two being in the same, or even in adjoining streets. The water-supply was mainly from the Southwark and Vauxhall Water Company; some

three households had a supply from the Lambeth Company; and one used a well on the premises. Investigation exhibited no one sanitary condition as a cause in common to the households affected. When, however, the question of milk distribution came under inquiry suspicion at once attached to the supply of one milk-dealer who obtained a part of his milk from two dairy-farms at Musbury near Axminster. His customers, who were 118 in number, may be divided as follows: eighteen, including a public institution, took "nursery" milk alone; eight used both nursery and ordinary milk; and ninety-three the ordinary milk alone. The enteric fever was found to be entirely limited to the consumers of the ordinary milk, one in seven of every house so supplied being affected. On the supposition that the fever was conveyed by the milk this proportion seems a small one, but it is possible that, in many of the households which escaped, milk was used only in small quantities, and it is further believed that a large consumption implied the use of the article as a beverage uncooked, whereas a small consumption referred to its use in tea, puddings, &c. Several of the houses taking large supplies were affected with the disease. The ordinary milk was supplied from the two farms referred to, and these were in consequence at once inspected. Neither of them exhibited the sanitary conditions which should exist on a dairy-farm. At one the water was derived from a well sunk in a gravelly soil, and was shown on analysis by Dr. Dupré to be largely polluted by sewage or surface drainage, being entirely unfit for drinking or culinary purposes. About eight yards from the dairy and twelve yards from the supposed position of the well belonging to it is a brook which higher up flows through a rough stone sewer. Now, last winter six cases of enteric fever occurred in Musbury, the last one being still ill during the month of March; and it is known that the infectious excreta from this case were thrown into a privy with a vault of primitive construction, from which, when full, the contents are got rid of by pouring down water, and washing them away through a rough drain into the sewer. Having regard to all these circumstances, we gather that the persons affected with enteric fever were not specially exposed to any known local conditions likely to have brought about the disease, that they were not in any close personal relation with each other, but that they had a milk-supply in common, and that this supply came from the dairy-farm in question at Musbury. At the latter village we have further the existence at no remote date of enteric fever, with the possibility of access of the specific poison to the dairy-farm well by percolation from the sewage-polluted brook through a porous gravelly soil; and we feel bound to accept the view expressed by Dr. Parsons, that the water from this well being used for dairy purposes, it is highly probable, if indeed not practically certain, that the infection was distributed by the medium of milk.

*Diphtheria at Folkestone.*—A large fatality from diphtheria in the Folkestone urban district has been under investigation by Dr. Parsons, on behalf of the Local Government Board. The disease commenced in October, 1881, and continued without interruption until the end of May, when as many as 60 fatal cases had been registered, in addition to certain deaths from so-called croup and pharyngitis. This indicates a very serious outbreak, and, unless it was of a specially fatal character, there must probably have been over 300 attacks in all. Of 152 new cases occurring in seventy-five households, and which came under inquiry, the frequency with which the first case in each household proved fatal is noteworthy. Thus, of twenty-seven households in which both fatal and non-fatal cases occurred, in nineteen the first case proved fatal, and in only eight the first case recovered. No satisfactory history could, at the date of the inquiry, be elicited as to the origin of the epidemic. The first person attacked was a child, who did not appear to have been in contact with other persons affected, either in Kent where the disease was somewhat prevalent, or in connexion with the French traffic from Paris, in which city many cases prevailed. As to its spread, it is clear that in many cases the disease was carried from household to household by unrestricted personal communication, and this apart from the ordinary method of infection as the result of school attendance. There was no community of milk-supply, and a large number of houses attacked received their water from the public service which, though intermittent, did not come under suspicion. As regards other matters, however, it is most unfortunate to find that an inspector, in dealing with a health resort, finds himself obliged to report that as regards

local wells "no pains are taken to exclude surface soakage, hence they are very liable to become contaminated." And again, as regards the houses, it appears that "in almost all ..... in which diphtheria has occurred, dangerous communications with the drains were found, of a nature to allow the entry of sewer air into the house." Folkestone has begun to get rid of its shallow surface wells, and, according to Dr. Parsons, it is locally admitted that the number of sewer ventilators is insufficient. Further action should not be delayed, for a good water-service is available, and the circumstances of the sewers are exceptional, owing to the fact that the sewer outlet is tide-locked during the greater part of the twenty-four hours. Amongst the recommendations which are forwarded (together with Dr. Parsons' report) to the Folkestone Town Council is one urging improvement in the ventilation of the public sewers, and the severance of the direct connexion existing between drains and houses. Folkestone possesses an excellent hospital for infectious diseases, but for some reason or another it was allowed, as regards this serious epidemic of diphtheria, to lie all but idle, for "only a single case of that disease" was admitted. The lesson taught in that one instance is, however, noteworthy, for it is reported that in the household from which the patient came no further cases occurred.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5468 births and 3308 deaths were registered during the week ending the 21st inst. The annual death-rate in these towns, which had been equal to 19.9 and 21.7 per 1000 in the two preceding weeks, declined again last week to 20.4. The lowest death-rates in these towns last week were 13.7 in Bolton, 14.1 in Norwich, 15.1 in Nottingham, and 16.6 in Bristol. The rates in the other towns ranged upwards to 25.9 in Birkenhead, 28.3 in Cardiff, 31.0 in Preston, and 34.2 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 535, and within 7 of the number in the previous week; 136 resulted from scarlet fever, 118 from diarrhoea, 92 from "fever" (principally enteric), 91 from measles, 57 from whooping-cough, 35 from diphtheria, and only 6 from small-pox. No death from any of these diseases was recorded in Bolton, whereas they caused the highest death-rates in Preston and Sunderland. Scarlet fever showed the largest proportional fatality in Sunderland and Sheffield; measles in Wolverhampton and Sunderland; and "fever" in Leeds, Blackburn, Liverpool, Portsmouth, and Preston. The mortality from whooping-cough was generally below the average. The 35 deaths from diphtheria in the twenty-eight towns included no fewer than 28 in London, whereas but 7 were recorded in the twenty-seven provincial towns, of which 2 occurred in Birmingham. Small-pox caused 3 deaths in London, 2 in Newcastle-upon-Tyne, and one in Manchester. The number of small-pox patients in the metropolitan asylum hospitals, which had been 79 and 84 on the two preceding Saturdays, declined to 78 at the end of last week; only 8 new cases of small-pox were admitted to these hospitals during the week, against 14 and 13 in the two previous weeks. The Highgate small-pox hospital contained 8 patients on Saturday last, no new case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 253 and 302 in the two preceding weeks, were 290 last week, and 36 below the corrected weekly average. The causes of 76, or 2.3 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Leicester, Brighton, and in four other smaller towns. The proportions of uncertified deaths were largest in Salford, Hull, Preston, Huddersfield, and Cardiff.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which in the two preceding weeks had been equal to 22.3 and 19.2 per 1000, was 19.7 in the week ending 21st inst.; this rate was 0.7 below the mean rate during last week in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 117, 107, and 99, in the three pre-

vicious weeks, further declined to 96 last week; they included 28 from diarrhoea, 23 from scarlet fever, 18 from whooping-cough, 16 from diphtheria, 8 from "fever," 3 from measles, and not one from small-pox. The deaths from these principal zymotic diseases averaged 4.1 per 1000 in the eight towns, and exceeded by 0.7 the rate from the same diseases in the large English towns. The 28 deaths attributed to diarrhoea exceeded the number in the previous week by 2, and were 3 above the number in the corresponding week of last year. The 23 fatal cases of scarlet fever, exceeded the number returned in any recent week, and included 8 in Glasgow, 8 in Edinburgh, and 8 in Paisley. The 18 deaths from whooping-cough were within 1 of the number in the previous week; 13 were recorded in Glasgow, 3 in Greenock, and 2 in Dundee. The 16 deaths referred to diphtheria included 8 in Glasgow and 4 in Edinburgh. Eight of the 5 deaths from "fever" were returned in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 102 and 100 in the two preceding weeks, rose to 108 last week, and exceeded by 5 the number in the corresponding week of last year.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 19.9 and 24.4 per 1000 in the two preceding weeks, declined again to 22.5 in the week ending the 21st inst. During the first three weeks of the current quarter the death-rate in the city averaged 22.3, against 19.8 in London and 17.3 in Edinburgh. The 150 deaths in Dublin last week showed a decline of 13 from the number in the previous week, and included 4 which were referred to diarrhoea, 2 to scarlet fever, and 2 to whooping-cough. Thus the deaths from these principal zymotic diseases, which had declined steadily from 28 to 12 in the five preceding weeks, further fell last week to 8; they were equal to an annual rate of but 1.2 per 1000, the rate from the same diseases last week being equal to 3.4 in London and 3.6 in Edinburgh. The 4 fatal cases of diarrhoea showed a further decline from the numbers returned in the seven preceding weeks. The 2 deaths from whooping-cough corresponded with the number in the previous week, while those of scarlet fever exceeded recent weekly numbers. Only once previously, since the beginning of the year, has a weekly return for Dublin shown no fatal case of "fever." The deaths of infants showed a decline, whereas those of elderly persons exceeded the numbers returned in recent weeks.

#### THE POPULATION OF QUEENSLAND.

An official synopsis of the census enumerations of the population of Queensland during the twenty-one years, 1861-81, has recently been issued, and contains some interesting statistics of the rapid growth of that colony. Six census enumerations were held during the above-mentioned period, and the population increased from 30,059 in 1861 to 213,525 in 1881. Thus the population at the last census was seven times that enumerated twenty years before. As might be expected, the rate of increase is declining, for whereas the population doubled itself in the three years between the enumerations in 1861 and 1864, the increase did not exceed 23 per cent. in the five years between the two last enumerations in 1876 and 1881. A marked feature of the population of all new colonies is the excess of males over females, and the Queensland figures show similar results; it is, however, satisfactory to find that the inequality between the numbers of the sexes is decreasing. At the five enumerations in 1861-76 the number of females to 100 males ranged between 64 and 67. During the five years 1876-81, however, the increase of 40,242 in the population was almost equally divided between the two sexes, consisting as it did of 20,316 males, and 19,926 females. In 1881, therefore, the proportion of females to 100 males had increased to 70. The age distribution of the Queensland population is fully as abnormal as that of the sex proportion. It is not surprising to find that the population contains a largely excessive proportion of young adults and of children, whereas the proportion of elderly persons is exceptionally small. The mean age of the population must also be exceptionally low, and those who still believe in the value of the mean age at death as a test of sanitary condition, would certainly find the mean age at death in Queensland very low, and would be inclined to infer that this fact afforded unfavourable evidence of the health of the population. We need scarcely point out how fallacious

such an inference would be. It appears from the synopsis before us that at the last three enumerations a sickness return has been made. The heading of the columns containing the result of this inquiry is "Sickness and Accidents." The figures tell us that 647 persons were at the time of the last census suffering from sickness in private houses, and 360 in hospitals. It is difficult, without precise knowledge of the instructions given to the enumerators as to the definition of sickness and accident, to estimate the value of these sickness returns. Roughly, however, they appear to show that less than five per 1000 of the Queensland population were at the last census suffering from illness or accident. If these figures are not deceptive, they speak well for the sanitary condition of Queensland.

#### THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Deputy Surgeon-General John Edward Moffatt has been granted retired pay, with the honorary rank of Surgeon-General. Brigade-Surgeon J. Ferguson, to be Deputy Surgeon-General, vice J. E. Moffatt, granted retired pay. Surgeon-Majors Decimus Filius de Hodgson, M.D.; David Mackie, M.D.; Charles Mackinnon; and Campbell Millis Douglas, M.D., V.C., have been granted retired pay, with the honorary rank of Brigade-Surgeon.

Surgeon-Major John Henry Beath, M.D., to be Brigade-Surgeon, vice J. Ferguson, promoted.

Surgeon-Major Henry Hummerston Burford, from half-pay, to be Surgeon-Major, vice A. G. Bartley, retired on temporary half-pay.

Brigade-Surgeon Bruce, officiating Deputy Surgeon-General, Presidency Division, Bombay, is confirmed in that grade and appointment, vice Moore, whose tenure of office has expired.

Surgeon-Major Cameron MacDowall, 3rd Bombay Light Cavalry, is promoted Brigade-Surgeon, vice Bruce, promoted.

BENGAL MEDICAL ESTABLISHMENT.—Brigade-Surgeon Alfred James Dale, to be Deputy Surgeon-General.

MADRAS MEDICAL ESTABLISHMENT.—Surgeon-Majors Henry Cocker, M.D.; Hunter Adam; and Donald Coleman McAllum, to be Brigade Surgeons.

RIFLE VOLUNTEERS.—3rd Monmouthshire: Thomas Gilbert Prosser, Gent., to be Acting Surgeon.

ADMIRALTY.—Deputy Inspector-General John Traill Urquhart Bremner, M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets, with seniority of October 21st, 1882. Fleet-Surgeons George Robertson, M.D., and George Bewsher Beale, M.D., have been placed on the Retired List of their rank.

The following appointments have been made:—Fleet Surgeon Walter F. C. Bartlett, to Pembroke-yard, vice Wilson; Fleet Surgeon James N. J. O'Malley, to the *Agincourt*, vice Bartlett.

#### Correspondence.

"Audi alteram partem."

#### "THE TREATMENT OF PAUPER LUNATICS."

To the Editor of THE LANCET.

SIR,—The letter of Sir Henry Gordon, in your last week's issue, touches a point of the greatest importance to the insane poor and to the ratepayers of the county of Middlesex.

My experience, as one of the medical superintendents of Hanwell Asylum for ten years, warrants me in the expression of the opinion I have formed, that the great want for the satisfactory treatment of the insane poor in this county is a hospital constructed and organised on the most liberal principles. Such a hospital, acting as a central receiving house, would greatly tend to check the enormous accumulation of the insane, as well by increase of cures as by preventing the sending of unfit cases to the various distant asylums, and would thus be a source of great economy. Additional economy would also result by saving the large outlay necessitated by transferring patients from one institution to another in the present hap-hazard system of distributing them. Numerous other reasons might be advanced



why a more liberal provision for medical treatment should be made, but I will content myself with one illustration.

In Scotland there are, roughly speaking, 6000 insane paupers in asylums; in Middlesex there are 5700 in the three asylums of Colney Hatch, Hanwell, and Banstead; the latter have fourteen medical attendants; the former, treated in six parochial and eighteen district asylums, have, on the most moderate computation, twenty-four. The comparison might be carried into every detail of asylum accommodation, and in regard to the relative amounts of land provided for asylum use, the inequality would be found still more striking; the one point of medical attendants is sufficient to enforce my argument. What is true of Middlesex is true to a greater or less extent of the whole of England, that, while the buildings for the detention of the insane have been provided on a liberal scale, the means for treatment, as gauged by the numbers of medical officers, have been niggardly supplied; so that in this respect England compares most unfavourably with France, Germany, America, Russia, in fact with almost every civilised country. This result has been brought about by the building funds being derived from a practically uncontrolled source; the current expenditure, on the other hand, being sharply checked by the parish authorities.

I fervently hope that, in supplying the additional accommodation now required, Middlesex will, by providing a liberally organised hospital, set an example that will tend more than anything else to check the increase in this country of lunatics needing asylum detention.

I am, Sir, your obedient servant,

Hanwell, October, 1882.

H. RAYNER.

### STRYCHNIA POISONING DELAYED EIGHT HOURS BY OPIUM.

*To the Editor of THE LANCET.*

SIR,—I think the following case may prove of interest to some of your readers from the long interval between the taking of the strychnia and the onset of the symptoms.

On June 24th last, at 1.50 P.M., I was called to a case of poisoning at the police station, and found in the guard-room a stout, healthy-looking, well-developed young woman of twenty-three, six months advanced in pregnancy, suffering from well-marked symptoms of opium poisoning. She was unable to stand without assistance; could with difficulty be made to answer questions; and her face was becoming pale and ghastly. A quarter of an hour previously she had been discovered in a semi-conscious state near the river, and in her pockets were found a two-ounce bottle containing a few drops of tincture of opium, a packet of Battle's vermin killer torn in two, and with five grains of the powder remaining, and a pill-box which afterwards proved to contain ordinary aperient pills; also a letter to her mother and father stating she intended to commit suicide. I could only elicit from her that she had poisoned herself, but I could obtain no further particulars. I gave a large dose of sulphate of zinc, which produced vomiting in a few minutes, the vomit being composed principally of fruit, and only smelling slightly of opium. After that she had draughts of hot water, coffee, and mustard and water, till her stomach was completely washed out. I left her much better at 2.45 P.M., with directions that she was to be kept walking up and down, and that I should be sent for immediately if any change occurred. I returned at five o'clock, and found her still improving, without the slightest symptoms of strychnia poisoning; so that I began to think it almost impossible she could have taken the vermin killer. In fact, the only difference the case presented from an ordinary one of opium poisoning was that the pupils were little, if at all, contracted; at any rate, not nearly so in proportion to the severity of the other symptoms. I returned about 7 P.M., and found that slight clonic convulsive movements of the hands, and in a less degree of the legs, had set in, and was informed they had commenced a little after 6 P.M. As she was very drowsy, and dropping off between the spasms, and as I thought it possible they might be in great part hysterical, I hesitated about giving chloral; but finding after an hour the convulsions increasing, both in extent and degree, I gave forty grains of hydrate of chloral, and had her removed to the union infirmary. An hour afterwards (9 P.M.) I saw the patient in company with Dr. Paterson. The spasms were now well

marked, extending over her arms, hands, and shoulders, and in a less degree over her legs and feet. There was slight opisthotonos and considerable pain at the pit of the stomach, but no trismus, and but little twitching of the muscles of the face. The pulse and temperature were only slightly above normal. The opium symptoms had almost entirely disappeared. She was ordered two drachms of chloral, half a drachm to be taken every hour. For a couple of hours the symptoms increased in violence, but after that they gradually subsided, and by 4 A.M. (Tuesday) had almost disappeared. Next morning she only complained of general soreness and of feeling very hungry.

On instituting inquiries we discovered that early on Monday morning she had purchased at one shop a packet of vermin killer, and at another an ounce of laudanum, a box of pills, and a drachm of white precipitate. The latter, I may here remark, was never traced. She said herself she had taken the powder a little after 10 A.M., and immediately after two ounces of laudanum. A packet of Battle's contains two grains of strychnia, so that she must have taken almost a grain and a half, and as I did not see her till nearly four hours after, the emetics could hardly have removed it. Though the poisonous dose of strychnia, as in the case of most other drugs, varies greatly from half a grain, which quantity killed Dr. Wain in fourteen minutes, still, I think the above might under ordinary circumstances be considered a fatal dose, particularly when a person is unused to the drug. Taylor mentions four hours as the longest interval before the appearance of the symptoms, while here we have nearly a grain and half producing not the slightest effect for eight hours, during which time the patient had every symptom of opium poisoning with the exception of contracted pupils. Strychnia is said, in poisonous doses, to produce dilatation of the pupils, so that it would seem as if the strychnia must have neutralised the effect of the opium on the pupils; the opium, on the other hand, neutralising, at least for a time, the effect of the strychnia on the cord. I think this might have a practical bearing in strychnia poisoning when chloral or the other usual antidotes, Calabar bean, &c., were not at hand, for though opium is mentioned in books as an antidote, still I think it is seldom or never used.—I am, Sir, yours, &c.,

ROBERT D. W. MECREDY, M.B., C.M.

Gantham, Lincolnshire, Sept. 1882.

### SUDDEN DEATH AFTER DIPHTHERIA.

*To the Editor of THE LANCET.*

SIR,—The following details and observations may help to explain the subject of "Sudden Death following Diphtheria," to which attention has lately been drawn in your journal.

Hitherto it has been considered by many that the action of the diphtheritic virus upon the nerve-centres was sufficient to account for sudden lethal terminations (when not obviously due to other causes), but recent observations may tend to modify that assumption.

During the Practical Pathology class at the Middlesex Hospital, in Nov. 1881, attention was particularly drawn to certain changes present in the heart of a case of diphtheria. The muscular tissue was somewhat pale and flabby, and presented microscopically the following conditions:—Muscle fibres cloudy and undergoing fatty changes; neighbourhood of bloodvessels, interstitial connective tissue and spaces, were infiltrated by an abundant proliferation of nucleated and granular cells about  $\frac{1}{300}$  in. in diameter. Scattered here and there were also seen a few granular, yellow bodies, in size about three times that of nucleated cells, but possessing no distinct nuclei. This condition was not peculiar to any particular portion of the heart's wall, but occurred in several large unequally distributed areas. Both fatty and interstitial changes were seen together.

The following case is also in point:—

Sarah B—, aged fifteen, a domestic servant, was admitted into the Middlesex Hospital, under Dr. Coupland's care, on March 14th, 1882, with marked symptoms of diphtheria—pain on swallowing, dyspnoea, swollen parotid, submaxillary, and cervical glands, and abundant false membrane on tonsils and pharynx; tongue coated thickly; heart and lungs normal. Temperature 98.4°; pulse 64. She was ordered steam inhalations, and a draught containing perchloride of iron. The pharynx was painted with a saturated solution of bicarbonate

of soda. Diet, milk and beef-tea. The urine contained one-quarter albumen. The false membranes soon disappeared, the symptoms rapidly abated, and she seemed very much better. On March 21st she appeared greatly depressed, extremities were cold, and pulse became extremely weak. The urine contained one-quarter albumen. She was ordered a draught of ether and ammonia and brandy. Took her food fairly well. On 23rd, at 2 P.M., owing to the ward being emptied for the annual cleaning, she was removed to another ward, and at 10.45 P.M., same day, died suddenly. At the post-mortem examination both sides of the heart were found filled with coloured fleshy clots; walls pale and soft; valves healthy. The lungs were partly collapsed. The liver was of a nutmeg colour; the spleen soft, not enlarged; whilst the kidneys were swollen and bloodstained. Microscopically the heart presented similar characteristics to those previously described.

With the exception of some observations made by continental authorities—e.g., Leyden and others (*vide* THE LANCET, May 6th, 1882), comparatively slight attention has been paid in Great Britain to this condition of interstitial myocarditis (diphtheritic). Bouchut has stated that endocarditis is a common event in diphtheria; it, however, has not been present in any of the fatal cases which have occurred at the Middlesex Hospital of late years. In conclusion, allow me to note two important details of treatment, which I trust will not be considered irrelevant—viz., the application of solutions of alkalis to false membranes, and avoidance of chlorate of potash. Alkalies acting as solvents of greater portions of inflammatory exudations, are preferable to acids and astringents, since the latter produce coagulation, and therefore cause accumulation of the membrane. Chlorate of potash is contra-indicated by reason of its irritative influence upon the kidneys, and should therefore not be administered internally.

Yours faithfully,

V. A. WYATT WINGRAVE.

Torrington-square, W., Oct. 3rd, 1882.

## "A SIMPLE OPERATION FOR VARICOCELE."

To the Editor of THE LANCET.

SIR,—The diagram of Mr. Dunnett Spanton, in your last impression, represents a "granny's knot," and not a "reef knot," which is on all hands acknowledged to be the superior one for subcutaneous ligature of veins. Both free ends of the wire or cord should be under or above the surface of the loop, conversely, to form the reef knot. In several cases on which I have operated for varicocele, I have done so by placing a doubled strong silver wire, one before and the other behind the veins, with the loop conversely, and passing the free ends inversely through each loop. A reef knot is thus formed which does not give way, and which can be tightened as frequently as deemed necessary by tension of the free ends, which are conveniently held *in situ* by being rolled round small corks. In performing this operation Professor G. H. B. Macleod used to include the veins by making the necessary puncture by means of a trocar and cannula, and passing the wires through the latter. I understand that now he ligatures the veins, and completely excises the intervening portion. In your impression of the 7th inst. Mr. Jalland states that he cuts the ligatures short, drops them into the wound, and closes it over. A piece of Chinese silk is used, previously "boiled for half an hour in a 10 per cent. solution, and afterwards left to soak for some hours in a 20 per cent. solution of carbolic acid." I presume this procedure is intended to kill the Chinese spores in the "Chinese silk." Not so many years ago, a man who confessed to the performance of such a fetish would run the risk of having his personal liberty somewhat circumscribed.

I am, Sir, your obedient servant,

Glasgow, Oct. 21st, 1882.

D. CAMPBELL BLACK.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Sixty-one new students have entered at this College for the present year—viz., thirty-one for the full curriculum, and thirty for part of it. The latter, with one or two exceptions, are candidates for the medical degrees of the Durham University, and have entered in accordance with the regulations requiring them to fulfil a year of residence there.

## EDINBURGH.

(From our own Correspondent.)

OPENING OF THE WINTER SESSION.—PROFESSOR CHIENE'S INTRODUCTION TO THE CHAIR OF SURGERY.—THE PHYSIOLOGICAL DEPARTMENT.—THE OLD AND THE NEW LECTURE-ROOMS.—CHANGES IN THE EXTRA-ACADEMICAL SCHOOL.—DR. MILLER'S INTRODUCTORY LECTURE.

THE winter session commenced on Tuesday the 24th. As yet it is impossible to give any accurate idea of the number of students, but so far as can be judged the large entries of recent years will, at least, be maintained. The dissecting rooms of the University, Minto House, and College of Surgeons, are well filled, and the active work of the session has already commenced.

Prof. Chiene, the newly appointed Professor of Surgery, delivered his inaugural address on Tuesday at two o'clock. The lecture was delivered, as is customary on these occasions, in the large chemical lecture-room of the old buildings. The Principal, the President of the Royal College of Surgeons, the professors of the University, a large proportion of the extra-academical lecturers, and many practitioners of medicine were present—indeed, I have never seen the room so completely filled as it was on this occasion. Professor Chiene, who is extremely popular, was well received, and the lecture<sup>1</sup> is acknowledged on all hands to have been a great success. Dr. Chiene thoroughly impressed his audience with his own earnestness of purpose, and with his determination to do all in his power to help each individual student in his work.

Professor Rutherford formally opened the Physiological Department of the new university on Wednesday, the 25th, and delivered an introductory address. The Principal of the University, the President of the Royal College of Surgeons, several of the professors, and a considerable number of practitioners were present, and the large lecture-room, which is calculated to seat 500 students, was completely filled. He reviewed the work done by his predecessors in the chair of physiology, and gave every credit to Hughes Bennett for the foresight and energy he had displayed in organising the first physiological laboratory in Edinburgh, and in having been the first in this country to organise the teaching of practical histology and other branches of practical physiology. He then described the objects to be fulfilled by the numerous departments of the new physiological laboratories, and eloquently pleaded for the endowment of research. He suggested the foundation of Fellowships for young graduates who have given proof of earnestness, of exceptional ability, and of a desire to prosecute original inquiry. By the establishment of such Fellowships, skilled and earnest workers could support themselves and at the same time devote their time and energy to the prosecution of original research, the objects of which are unselfish, and which confer unmistakable blessings on the whole of the human race. He hoped such endowments would fall, not only to the physiological laboratories of Edinburgh, but to all other laboratories in other universities and similar institutions. He announced that the first step towards the realisation of this wide scheme had already been taken, for a liberal gentleman, who desires to withhold his name, had, as a preliminary experiment, generously given five hundred a year to the University of Edinburgh for three years. By this means five working Fellowships of a hundred a year for three years had been established. The appointments to these Fellowships have just been made, and the university authorities are sanguine that the results will fulfil the expectations. He then showed how all the elaborate machinery provided for them in the new buildings was to enable the student to become a reasoning practitioner of medicine, and explained the order of study necessary for that object, illustrating the point by a quaint extract from the introduction to the first lectures on Clinical Medicine given in the Edinburgh Royal Infirmary by Professor John Rutherford a century and a half ago, in which it was pointed out how the reasoning physician differs from the empiric, and what are the studies needed to emancipate medicine from empiricism. The importance of physiological study to the psychologist and metaphysician

<sup>1</sup> The first part of this appears in our present issue.—ED. L.

was then explained, the point being illustrated by a brief account of the mechanism of the organs of sensation. He showed why the physiologist maintains that consciousness and sensation must be regarded as psychical expressions of the activities of nerve cells, although he was unable to offer any explanation of the manner in which they result from physical activities. Lastly, he showed how our knowledge of the telephone is calculated to alter existing theories regarding the sense of hearing, and, through the knowledge thus attained, of the other senses. The lecture occupied fully an hour and a quarter in delivery, and the fact that it was attentively listened to, long after the orthodox hour had expired, is the best proof that can be given of its exceptionally interesting nature and of the lecturer's power.

The increased comfort and advantage of the new over the old lecture-room was very apparent to anyone who attended the introductory lectures of Professors Chiene and Rutherford. The atmosphere in the old chemical lecture-room, which seems hermetically sealed up, with the express purpose of retaining as much foul gas as possible, was simply suffocating, and more than one student actually fainted; while the ventilation in the new physiological lecture-room was extremely satisfactory.

Dr. Alexander Miller has succeeded Dr. Heron Watson, who retires, as Lecturer on Surgery in the Royal College of Surgeons; and Dr. MacGillivray takes Professor Chiene's place at Minto House. Dr. P. Young gives a qualifying course of lectures on Midwifery and Diseases of Women at Park Place, and Dr. Berry Hart is to deliver a course of lectures on Diseases of Women in the same lecture-room.

Dr. Miller gave his introductory lecture on Tuesday to a large audience of practitioners and students. The subject which he selected, "Four and a half years' experience in the lock wards of the Royal Infirmary," was treated in a masterly manner, and was, in short, a summary of the lecturer's personal experience in the treatment of venereal affections. Dr. Miller promises, like his father (the late Professor of Surgery in the University), to be a successful teacher.

Dr. Claud Muirhead has been appointed successor to Dr. William Robertson, as Medical Referee to the Scottish Widows' Fund. This is a most valuable appointment, and is much coveted by the profession here.

Dr. Blair Cunynghame has, I understand, been appointed Superintendent of the Statistical Department in the Registrar-General's Office, Edinburgh—another valuable appointment which was held by the late Dr. Robertson.

#### GLASGOW.

(From our own Correspondent.)

WITH regard to the chloroform question, and the rules which the managers of the Royal Infirmary proposed to lay down for the guidance of the surgeons in the administration of anaesthetics, the whole matter is now, as it should have been at first, referred to the medical committee. This removes part of the very natural objection of the surgical staff to receive instructions from a lay body, in reference to a matter purely surgical. The Faculty of Physicians and Surgeons also have departed from their intention of discussing the question. In the meantime, the public of Glasgow ought surely to be well informed in subjects physiological. During the course of this winter we are to have another course of health lectures, under the auspices of our local Young Men's Christian Association. Professor G. Buchanan delivered the first of these last week, on the structure of the body, to a somewhat select audience. The second was delivered on Tuesday, by Dr. W. J. Fleming, on digestion. In the remainder of the course are included lectures on the eye, the ear, the teeth, the skin, and the hygiene of infancy; the last of the course being, with what many regard as questionable taste, on "healthy motherhood," to ladies only. This is probably the complement of the very popular lecture delivered last year by another rising obstetrician, on "healthy womanhood." Some rather silly hostility has been manifested in certain quarters to these health lectures, on the ground mainly that they afford opportunity to ambitious men to pass before the public as learned specialists, to the detriment of their professional brethren. It is, however, surely not wrong that

the public should have such subjects as those named above put before them in a simple and popular way; and by whom could such instruction be more appropriately given than by medical men?

Some months ago a writer in the *Sanitary Journal* was at considerable pains to show that various of our coast health-resorts, especially on the Firth of Clyde, were the reverse of healthy resorts; that in fact, so far as their meagre health statistics indicated anything, they proved that these places had a very exceptionally high death-rate. Amongst these towns Gourock was placed highest, with a death-rate of 36.4 per 1000. In reference to this locality, the authorities stated at the time that the majority of the deaths noted occurred in an institution, the Smithston Asylum, which, though technically in their registration district, did not really belong to them, but to Greenock. During the last few months the Gourock Police Commissioners have kept accurate mortality statistics of the borough proper, and have just published them. From them we learn that during July, August, and September, when the town is usually crowded with visitors, there occurred 33 deaths in the registration district; 15 of these took place in the Smithston Asylum, which is outside of the burgh boundary, while another was also in the registration district, but outside the same boundary, so that the actual number of deaths in Gourock proper was 17. Calculating on the last census returns, this gives a death-rate of 10 per 1000 of the population. It is right that these facts should be known, as Gourock is a much frequented watering-place.

Out of 115 students who went up recently for the first professional examination at Glasgow University, no fewer than 54 were "plucked." This is a very high percentage of rejections, and points either to great stringency of examination, or to a falling off in the quality of the men presenting themselves. The subjects included in this examination are elementary anatomy, chemistry, and botany.

#### SCOTTISH NOTES.

(From our own Correspondent.)

THE proper teaching of pathology at Aberdeen is not likely to be facilitated if action is taken on the lines suggested by the Infirmary Committee at their meeting last week. Compromise may in many cases be necessary, but this seems emphatically a case where firmness was demanded. The committee will recommend to the general court of directors, meeting in December, that their present pathologist shall take the duties alternately with the newly-appointed professor. Had this been an amicable arrangement between Dr. Rodger and Professor Hamilton, discomfort might possibly have been avoided, but notoriously this is not the case; and it is hoped that by December a clearer course may be open. Dr. Rodger deserves every consideration from the directors; he has signified no wish for assistance in the performance of his duties, and has offered to the professor the free use of what material the infirmary may afford, as well as full advantage of the museum he has done so much to render valuable. If it be true, as is asserted, that Dr. Hamilton made formal application to the directors to be appointed pathologist, well knowing that there was no vacancy in that office, and that he is not willing to accept Dr. Rodger's offer, which met the views of the Museum Committee, there seems no proper course but to refuse Dr. Hamilton's application, and that on the simple ground that there is no vacancy.

Your strictures upon the Edinburgh Colleges regarding the manner of election to the Fellowship, excite much attention in the north, and, though the profession feel a just pride in the history of those ancient bodies, there can be no doubt that the evil you refer to has been noticed for some time past, and deeply deplored. The many eminent Fellows of the College of Surgeons must feel that pecuniary consideration should not alone guide their council, and the increasing number of young and totally undistinguished names added to their list has already reduced the value of what ought to be a high honour to a position which a loyal Scotchman will not wish to characterise. As the Fellowship no longer confers such distinction in the profession as is attributed to it by the public, it becomes a hardship that its possession

should be still a *sine qua non* to men who wish infirmiry appointments or recognition as lecturers at the various schools. The same remarks apply, at least, equally to the Glasgow Faculty, and, in both instances, their splendid libraries are now the chief attractions. While much has been done towards steadily raising the requirements of licentiates, it is unfortunate that the Fellowships should no longer be a guarantee of superior merit.

Prosecution for professional accounts is so unusual that the public, knowing the reluctance of medical men to appear in court, too often profit by this unwillingness, and defraud the profession of very large sums. A certain unpopularity attaches to those who in this way claim their own, and, as a consequence, isolated action is not frequently taken. It might be well if the example of Dr. Collins, late of Bervie, was followed, and able, but unwilling, debtors were made to settle their accounts. A few days ago, Dr. Collins, at the Stonehaven sheriff court, sued thirty-eight of his late patients for sums due; few, if any, of these put in an appearance, and decree was given in all the cases. Such wholesome and wholesale action will not be lost upon the district.

Dr. Andrew Wilson, of Edinburgh, has now commenced a series of lectures under the Combe Trust in various towns throughout Scotland. A general view of physiology will be presented in the eight lectures which make up the course, and special reference will be made to the value of a due observance of physiological laws if personal and public health is to be well maintained. The lecturer's past success ensures him a cordial reception everywhere, and his first two appearances in Perth indicate a hearty appreciation of physiological teaching on the part of those it is intended to reach. If all is true that is written regarding the sanitary condition and polluted water supply of that city, an excellent field is open for Dr. Wilson. In the second lecture the value of vivisection was convincingly shown.

Typhoid fever has appeared in an epidemic form in the parish of Bonhill, Vale of Leven. The cases, so far, have mostly occurred in the village of Jamestown, where about thirty people are affected. Some fatality is already reported, and the type of the disease is said to be severe.

## IRELAND.

(From our own Correspondent.)

THE ceremony of conferring the degrees of the Royal University of Ireland is expected to take place on the 8th proximo. His Grace the Duke of Abercorn, Chancellor of the University, will preside.

At a special meeting of the Dublin Town Council, held last Monday, presentments amounting to £4595 were passed for the support of various hospitals. This sum included £300 to Mercer's, Jervis-street, Meath, Hospital for Incurables, Sir Patrick Dun's (with £50 for Maternity), Rotundo, Cork-street Fever, and City of Dublin Hospitals; £150 to St. Mark's Ophthalmic, Steevens', and Children's Hospitals; £520 to the Coombe Lying-in Hospital; £400 to St. Vincent's and Mater Misericordiae Hospitals; £100 to the National Orthopaedic Hospital and the National Eye and Ear Infirmary, and £25 to the Throat and Ear Hospital. A proposal to increase the salary of Dr. Whyte, coroner for the city, to £700 per annum was defeated.

The Academy of Medicine of Ireland, which is intended to absorb the Medical, Surgical, Pathological, and Obstetrical Societies, will, it is expected, begin its work in the present session. The scheme proposes that there shall be four sections, devoted respectively to medicine, surgery, obstetrics, and pathology; and the subscriptions proposed are two guineas for Fellows (of whom there will be 100), one guinea for Members, ten shillings for Associates, and five shillings for Student Associates. It is intended to issue an annual volume of Transactions, which will be supplied free to Fellows and Members.

It has recently been stated that the Belfast medical student, as a rule, does not receive any practical knowledge of the diseases of women and children, and of diseases of the eye and ear, in consequence of the Royal Hospital, the only general hospital in Belfast, not having had apartments for these diseases, or money or space to found such in an efficient manner without impairing the utility of the hospital.

Further, candidates for a degree in medicine of the Royal University of Ireland are required to produce a certificate "of having attended at a recognised midwifery hospital, where clinical instruction in midwifery and diseases of women and children is given for a period of six months, or of having attended for six months at a midwifery dispensary where similar clinical instruction is given." To remedy this defect it has been proposed that the special hospitals should be amalgamated with the Belfast Royal Hospital, but there are great difficulties in the way of accomplishing the object, more particularly as regards the arrangement of the hospital fees; for it naturally follows that if these special hospitals throw open their doors to students of the Royal Hospital, their medical officers will expect some remuneration from the students attending their classes, which probably the staff of the Belfast Royal Hospital may be disinclined to agree to. The only course would be for the latter to increase their hospital fees and thus recoup themselves, or let the medical students not only take out the practice of the general hospital, but also that of an ophthalmic hospital, and attend the maternity department of the Union Hospital.

The Londonderry City and County Infirmary is an institution which alleviates a large amount of suffering at a very moderate outlay. During last year 423 accidents were treated as external cases, including dislocations, fractures, burns, and wounds, and 768 patients were admitted to wards. Seventy-one operations were performed with only one death. The Hospital Sunday collections only amounted to £33. Collections in aid of the Dublin Hospital Sunday Fund will be held this year on the 12th November.

An address and testimonial have recently been presented to Dr. Thomas D. Foreman, Ballynahinch, previous to his departure from that place to settle in Denton, Manchester. The address was beautifully illuminated, and the presentation consisted of an elegant tea and coffee service with salver. Dr. Foreman, after the presentation had been made, entertained the deputation and a number of his neighbouring medical brethren at supper at Walker's Hotel.

## PARIS.

(From our Paris Correspondent.)

AT a clinical lecture at the Hôpital de la Pitié, Professor Lasègue made some very interesting remarks on the pathology and treatment of diabetes. He divides diabetic patients into two classes: fat and lean, according as they may be found in either of these conditions. He also divides them into small and great diabetics, according to the quantity of sugar which their urine may contain. The patient that excretes twenty grammes of sugar a day may be classed among the former; those who pass more than thirty or forty belong to the second class. Professor Lasègue attaches great importance to this division, for as the small diabetic patient never becomes a great one, each class retains its peculiar character; from which it may be concluded that a patient who presents great irregularities in the quantity of sugar he excretes, and appears to pass from one class to the other, is affected more with accidental or casual diabetes than with the true affection. A third class of diabetic patients is what Professor Lasègue calls "les diabétiques fixés," and these may be found among the two former classes. In this class of cases the quantity of sugar excreted varies only by a few grammes, whatsoever the treatment employed, or the diet adopted, but this should not be considered of much importance in a prognostic point of view, the quantity of sugar not being a fair criterion of the gravity of the disease; for although the proportion of sugar in the urine may remain stationary, the extent of the general disorder of the system may still be very considerable. This, however, does not apply to patients who pass 200 or 300 grammes of sugar in the twenty-four hours: these cases must be considered exceptional, and always of some gravity. M. Lasègue establishes two other forms of diabetes, which he designates the remittent and intermittent; in the first case the quantity of sugar is considerably reduced; in the second the sugar disappears, sometimes even completely, at certain periods; and although these states of remission or intermission may be considered more favourable than the other forms, yet patients of this category become cachectic,

as patients of the other classes almost invariably do. This state, according to M. Lasègue, would constitute the principal indication of treatment; but he does not approve of the severe restrictions generally placed upon the diet and regimen of diabetic patients. He allows them to continue their usual mode of living, not even depriving them of farinaceous substances, or the use in moderation of sugar, water, or wine. As for gluten bread, so much prescribed for these cases, M. Lasègue condemns it *in toto* as not only being worthless, but it ends by disgusting the patient, takes away his appetite, and so hastens the cachectic state, which it is the very object of the physician to avert by all the means in his power.

During the holidays of the Faculty of Medicine the professors avail themselves of a well-earned respite, being replaced at the hospitals by agrégés or sub-professors. At the Hôpital de la Charité, Dr. Landouzy, who acted for Professor Hardy, delivered a very interesting lecture on the contagiousness of tuberculosis. Dr. Landouzy is evidently in favour of the theory of the contagiousness of this affection, as will be seen from what follows, and in order to give some support to his belief he prefaced his observations by the remark that in many diseases contagiousness is admitted without its being positively proved. Having referred to the experiments of Villemin and others in favour of this doctrine, he cited a case which came under the observation of his father, and which he thinks could leave no doubt as to the contagiousness of tuberculosis. He referred to another case recorded by Dr. Weber in support of his theory, which he considers is sufficiently conclusive. The case observed by his father was that of a young physician, who, being affected with tuberculosis, but imagining himself cured, got married and had two children. Soon after the birth of his second child he had another access of pulmonary tuberculosis, when he was advised to spend his winters in a mild climate. He consequently went to Algiers, where he spent his first winter without much difficulty. The disease, however, continued to progress, and during the second year he became considerably worse, which induced him to return to France, his native clime, where he soon died. His wife, who was till then in robust health, soon followed her husband to the grave, with one of her sons, both of whom succumbed under the same malady. This case necessarily suggests the question, whether mother and child were not affected by contagion or transmission of the malady of the father. Dr. Landouzy replies, that although he would speak with reserve, yet it is the duty of every physician to act in such circumstances as if the contagiousness of tuberculosis had been proved. There is one point, however, in Dr. Landouzy's lecture which deserves particular notice—viz., the mortality among military men from tuberculosis. He states that in 1872, in France, the proportion of deaths from this malady was 452 per 1000; in England it was 782 per 1000; and he makes the startling remark, that the British army, during the rigorous winter of 1854-1855, before Sebastopol, lost fewer men from pulmonary phthisis than in their barracks. In this circumstance also Dr. Landouzy sees great presumption in favour of the contagiousness of the malady in question.

Dr. Gustave Le Bon lately submitted to the Academy of Sciences two new substances, the glyceroborate of calcium and the glyceroborate of sodium, which, according to him, possess powerful antiseptic properties, and may with advantage be substituted for carbolic acid wherever the use of the latter is indicated. They are much more soluble in water in all proportions, perfectly inodorous, and are so harmless that they may be applied even in a concentrated form to such sensitive organs as the eye. Dr. Le Bon recommends them as powerful disinfectants and for preserving meat and other alimentary substances. Before submitting these new agents to the Academy, Dr. Le Bon sent a quantity of meat slightly coated with them to La Plata, which they reached in as fresh a state as when they started from Paris.

A great deal has been said and written about the injurious effects of tobacco on the system, but these effects have been greatly exaggerated. There is no doubt that the excessive use of the weed is noxious, but its habitual employment in moderation is not so dangerous as anti-smokers endeavour to make out; for, when it is considered that about two-thirds at least of the inhabitants of the globe use tobacco in one form or other, there is every reason to believe that the charges against it are not quite justifiable. The bulletin of the Association Française against the use of tobacco contains a note by Dr. Piasecki, physician to the tobacco manu-

factory at Havre, on the effects of the weed on the women employed in the manufacture of cigars, &c. After a minute inquiry among the women of the establishment, 540 in number, Dr. Piasecki, has arrived at the following conclusions—that the manipulation of tobacco, even on such a large scale as is practised in the manufactory, had no pernicious influence on their general health, that they were not more subject to the maladies peculiar to their sex, nor was the mortality among them and their children greater than among women otherwise employed. Dr. Piasecki, however, adds, that a short time after their admission to the manufactory, the women generally complain of headache, giddiness, nausea, but they soon get accustomed to the work, and to the emanations of the tobacco, and continue their work without any further inconvenience.

Paris, October 24th, 1882.

## AN AMERICAN CONVALESCENT HOME.

(From a Roving Correspondent.)

THE first convalescent institution ever established for hospital purposes in America was opened on April 25th, 1882. It was founded by Miss Mary Russell, to whose devotion it owes much of its success. It is called the Waverley Convalescent Home, and is worked by the trustees of the Massachusetts General Hospital. Waverley is about seven miles from Boston, the country around is hilly and well wooded, and the site selected for the convalescent home is a singularly beautiful spot. With all the progressive genius for which the Americans are famed, for some unexplained reason they have not heretofore recognised the advantages of convalescent hospitals. I shall have more to say of the Massachusetts General Hospital on another occasion, and so need not refer further to it here. The Waverley Convalescent Home has been erected from a fund of 100,000 dollars, which was specially raised for this purpose, 30,000 dollars being spent on the buildings and furniture, and 70,000 dollars being invested as an endowment fund for the permanent maintenance of the Home. It contains thirty beds for patients, and has two wards of nine beds each, one with three beds, two with two beds, and four single-bedded rooms. The Home is intended mainly for the use of the patients at the Massachusetts General Hospital, and both free and paying patients may be admitted. The proportion of accommodation for paying to free patients is about one to five; but as the object of the trustees is first to benefit the poor who are unable to pay the expense of procuring fresh air and change, so far none but free patients have been received. This is remarkable, and shows how easily the combined pay and free system works in the general hospitals of America. Although the majority of the patients treated in the Massachusetts General Hospital pay something towards the cost of their maintenance during their residence within its walls, the trustees enact that the Convalescent Home shall be for the minority—i.e. the poor; no pay patient is admitted, and no difficulty whatever arises. The whole arrangements at the Waverley Home are admirable, and the cheerful and cleanly appearance of everything fills the visitor with gratification. Every ward, every room, every office, from roof to basement, is admirably arranged and perfectly kept. Indeed, I have never seen a more model institution than the Waverley Convalescent Home.

The sanitary arrangements have been very carefully planned. The w.c.'s and slop-sinks are on a new and very simple but excellent plan, and might with advantage be introduced into English hospitals. The closet consists of a simple glazed earthenware hopper fixed upon an S-pipe placed upon a floor of glazed white tiles. No wood-work whatever is used except the seat, two seats being fixed with hinges, one on each side of the pan, so that the same closet serves for nurses and patients. The nurses' lid is raised, fixed to the side, and locked, except when in use. The slop-sinks are large and of galvanised iron, being two feet in diameter at the top, so that they serve as urinals when necessary; they are also fixed on a tiled floor. The partitions between the closets are of wood; they are placed six inches above the floor, the doors to the closets being one foot above the floor at the bottom and louvered throughout. Thus all parts of the closets and lavatories can be washed



out with ease, there is no accumulation of dust or dirt, and all pipes are exposed. The woodwork and doors throughout the home are of pitch pine varnished, and the furniture is made of the same wood. This, the first American convalescent home, is well worth a visit, and I have little doubt many others will soon be erected. The plans and arrangements reflect great credit upon Dr. Whittemore, the able superintendent of the Massachusetts General Hospital, whose knowledge of hospital administration and the zeal with which he enters into his work must prove invaluable to the trustees.

## MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Tuesday, on the motion of Mr. Dodson, the report to the President of the Local Government Board, by the inspectors appointed to inquire into certain deaths and injuries alleged to have been caused by vaccination at Norwich, was presented to Parliament. Captain Aylmer gave notice of a question as to the transport and commissariat arrangements during the Egyptian campaign.

On Wednesday, Sir R. Cross gave notice of two questions to the Home Secretary as to what steps are being taken under the Artisans' Dwellings Acts by the Metropolitan Board of Works and the Commissioners of Sewers of the City of London.

Mr. P. A. Taylor will inquire on Tuesday next of the President of the Local Government Board when the report of the Norwich vaccination inquiry will be in print.

Mr. Cochrane Patrick has given notice that next session he will call attention to the operation of the Factory Laws in Scotland.

## Medical News.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen, having passed the required examination, received the Diploma in Dental Surgery at a meeting of the Board of Examiners on Wednesday last:—

Ackland, John M.K., Exeter.  
Albert, Henry Louis, Sloane-street.  
Andrew, John James, Belfast.  
Bate, Frederick William, Al-xander-road.  
Cornelius, William Fyer, Teignmouth.  
Edwards, Richard, Pontdolgoch.  
Gould, John Horace, Exeter.  
Hughes, Morgan, Redhill.  
Kisack, Frank Hill, Douglas, Isle of Man.  
Royston, Jonathan, Douglas, Isle of Man.  
Patterson, William Todd, Kingsland.  
Tester, Alfred Horace, Brighton.

One candidate was referred.

**UNIVERSITY OF CAMBRIDGE.**—The following Degrees have been conferred:—

M.D.—Charles Clement Lapage, Magdalen.  
M.B.—John Grissell Marshall, Clara.

The under-mentioned have passed the examination for the Certificate in Sanitary Science:—

D. S. Davies, M.B.; A. MacLachlan, M.D.; C. J. McNally, M.D.; T. Maxwell, M.D.; C. J. W. Meadows, M.R.C.S.; A. Penn, L.R.C.P.; S. M. Salaman, M.D.; Joseph Smith, M.R.C.S.; W. E. Steavenson, M.B.; J. A. Thompson, L.R.C.P.; Henry Smith, M.B.

The following Examiners have been appointed for the ensuing year: For the First M.B. Examination—Messrs. Main, Garrett, and Vines; for the Second M.B. Examination—Dr. Watney, Dr. Shuter, and Mr. Marshall; for the Third M.B. Examination—Drs. R. E. Thompson, Galabin, and Handfield Jones. Messrs. Luther Holden and Thos. Bryant have been appointed Examiners for Medical and Surgical Degrees, and Dr. Cheadle Assessor to the Regius Professor of Physic, during the ensuing year.

**COLLEGE OF PHYSICIANS IN IRELAND.**—The following Member of the College has been elected to the Fellowship:— John Henry Chapman.

The following gentlemen have been admitted Members of the College:—

Walter Charles Bourney, William Dyas, Frederick Ffolliott, William Henry O'Meara, John Alexander Scott.

At examinations held during October the following can-

didates obtained the Licences in Medicine and Midwifery of the College:—

**MEDICINE.**—Henry Adcock, John Mary Harrington, Thos. Chatterton Hitches, John Henry Jones, Claudius O'Donel, John Wm. White, William Henry Wright.  
**MIDWIFERY.**—Henry Adcock, William Hallaran Bennett, John Mary Harrington, Claudius O'Donel, John William White.

At a special examination held in September the following gentleman obtained the Diploma in Midwifery:—

John William Williams.

The following office-bearers have been elected for the ensuing year:— President: W. Moore. Vice-President: F. R. Cruise. Censors: F. R. Cruise, Arthur W. Foot, Fleetwood Churchill, and C. J. Nixon. Additional Examiners: G. F. Duffy, J. Magee Finny, A. V. Macan, C. J. Nixon, J. M. Purser, and W. G. Smith. Registrar: John W. Moore. Treasurer: Aquilla Smith. Examiners in Midwifery: J. R. Kirkpatrick and Stephen M. MacSwiney. Professor of Medical Jurisprudence: R. Travers. Representative on the General Medical Council: Aquilla Smith.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Oct. 19th:—

Jackson, Paul, Torrington, Devon.  
Schön, Charles Henry, Bridge, Canterbury.

The following gentleman also on the same day passed the Primary Professional Examination:—

Morgan, George, Charing-cross Hospital.

THE Poplar Hospital is to be opened for the reception of scarlet fever patients.

THE munificent legacy of £20,000 has been bequeathed to the Salop Infirmary by the late Mr. Henry Spence, merchant of Shrewsbury, who died on the 18th inst.

MR. THOMAS ASPINALL, L.R.C.P. Edin., of Over Darwen, has, we regret to learn, suffered serious injuries by being thrown from his trap.

THE Rowley Sanitary Authority have, in consequence of the prevalence of zymotic disease in the district, decided to provide an infectious disease hospital.

A MAN died last week in the Glasgow Infirmary from hydrophobia resulting from the bite of a rabid dog on March 14th last.

THE salary of Dr. Stevenson, medical officer of health for Paddington, has been increased from £300 to £400 a year.

THE balance of the proceeds of the recent Guild Festival at Preston amounts to £626, which it is proposed to hand over to the treasurer of the infirmary.

**CHARING-CROSS HOSPITAL MEDICAL SCHOOL.**—Mr. W. Morrison has obtained the first Entrance Scholarship of £30, and Mr. G. H. Biden the second Entrance Scholarship of £20.

THE foundation-stone of a new wing of the North-West London Hospital, in the Kentish-town-road, was laid on Tuesday by the Lady Mayoress. The subscriptions amounted to £285.

**VACCINATION GRANTS.**—The following gentlemen have received the Government grant for efficient vaccination:—Mr. W. Hood, M.R.C.S., L.S.A., City of York (second time); Mr. W. H. Hatfield, Hambleton District of the Droxford Union; and Mr. C. Lyddon, Oldbury.

A PLOT of land has been offered by the Hammer-smith Burial Board to the Fulham District Board of Works for £873, on which to erect a mortuary, a coroner's court, and a post-mortem room for the district. The offer has been accepted.

**HALIFAX MEDICO-CHIRURGICAL SOCIETY.**—A meeting of the practitioners of Halifax was held at the infirmary on Monday, Oct. 23rd, for the purpose of forming a Medico-Chirurgical Society for Halifax and its district. The chair was taken by Dr. Bullin. It was resolved to inaugurate a Society having for its leading features the distribution of medical periodicals, and the monthly reading of short practical papers, with exhibition of specimens. There cannot be a doubt as to the social influences for good of local societies.

**MANCHESTER SOUTHERN HOSPITAL.**—The annual meeting of the subscribers to this institution was held on Monday last, the Mayor of Manchester presiding. The report stated that 176 in-patients had been admitted during the past year, 3536 out-patients (women and children) relieved, and 332 poor married women had been visited by the medical officers. The expenditure had been £955, which was very nearly met by the receipts (£947).

**HOSPITAL SATURDAY FUND.**—No less a sum than £160 has been received from the Royal Arsenal, Woolwich, towards this fund, of which £101 was contributed by the Laboratory Department alone. The total collection at the Arsenal last year amounted only to £90. The receipts from the Post Office are also considerably in excess of 1881, amounting in the aggregate to £286. The workshop collections are still coming in satisfactorily, and thus far both in number and amount are generally in advance of those of preceding years. The time fixed for the reception of these collections, admitting of their inclusion in the present year's balance sheet, has been extended to the 18th of next month. Between thirty and forty different hospitals and dispensaries have intimated their willingness to receive representatives of the fund at their respective boards of management as life governors.—*Times*.

## ROYAL UNIVERSITY OF IRELAND.

M.D. DEGREE EXAMINATION.  
(Sept. 18th, 1882.—9.30 A.M. to 12.30 P.M.)

### ANATOMY.—(PASS.)

#### Section A.

1. Describe the nasal fossæ.
2. State precisely what are the relations of the right ureter in the male and female respectively.
3. Describe the necessary dissection to be made in order to expose the sphenopalatine ganglion.

#### Section B.

4. Describe the lymphatics of the inguinal region. Trace the course of the superficial and deep epigastric arteries, giving the relations and branches of the latter.
5. Give the boundaries of the fourth ventricle, and mention all the parts observed on its floor. What is the ligula?
6. Describe the arytenoid cartilages, and the ligaments connected with them.

(This examination comprised, besides, a dissection with an oral on the dead body and an oral on osteology.)

### ANATOMY.—(HONOURS.)

#### Section A.

1. Describe a dissection that will bring into view the malleus, incus, and stapes in position. (No description of parts is required.)
2. Give a detailed account of the movements of the knee-joint.

#### Section B.

3. Describe the intrinsic muscles of the tongue.
4. Give the position and vascular and nervous connexions of the coecal gland. Describe its appearance, size, and structure. (Also a dissection and oral on the dead body, &c.)

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

- APPLEFORD, S. HERBERT, M.R.C.S., has been appointed a House-Physician at the London Hospital.
- BADDELEY, CHAS. EDW., M.B.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Gosnell District of the Newport (Salop) Union.
- BARLOW, THOS. CAREY, L.R.C.P.Ed., has been appointed Medical Officer to the Third District of the Hackney Union.
- CLENDINNEN, J. GEORGE, L.R.C.S.I., L.A.H.Dub., has been appointed Medical Officer of Health for the Lower Sedgley Urban Sanitary District, vice Eagleton, resigned.
- CROSS, FRANCIS RICHARDSON, M.B.Lond., F.R.C.S.Eng., has been appointed Honorary Surgeon to the Bristol Eye Hospital, vice Bartley, deceased.
- EASON, ALEXANDER M., L.R.C.P.Ed., L.R.C.S. Ed., has been appointed Medical Officer of the Talbot Clifton Friendly Society, and the Order of Druids, Lytham, vice William E. Pountney, M.D., resigned.
- FERRIS, JOHN SPENCER, M.B., L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Denham District of the Eton Union.
- FINLAY, Rev. HUNTER, M.D., L.F.P.S.Glas., has been appointed Surgeon to the Hodgkinson District Hospital, Queensland.

GALE, A. K., M.R.C.S., late House-Surgeon to the London Hospital, has been appointed Assistant Medical Officer to the Fulham Fever Hospital.

HAYCROFT, CHARLES H., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Bow District of the Crediton Union.

KNIGHTS, Mr. JAMES WEST, has been appointed Public Analyst for the County of Huntingdon.

MACCARTHY, FFENNELL, M.B., B.Ch. Univ. Dub., has been appointed Surgeon to the Midland Railway, Worcester District, vice Geo. F. A. Knapp, M.R.C.S., deceased.

MACDONALD, ALEXANDER, L.R.C.P.Ed., L.R.C.S. Ed., has been appointed Medical Officer for the Kirkoswald District of the Penrith Union.

MACGILLIVRAY, CHARLES WATSON, M.D., F.R.C.S.E., has been appointed Assistant-Surgeon to the Royal Infirmary, Edinburgh.

PENRUDDOCKE, CHARLES, M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer to the Vale District of the Winchcombe Union, vice Thos. Newman, M.R.C.S., L.S.A.Lond., deceased.

PRATT, JAMES, M.R.C.S., has been appointed Resident Medical Officer to the St. George, Hanover-square, Dispensary, vice F. Prince, M.R.C.S., resigned.

REYNOLDS, JAMES J., L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., of Stoke-by-Clare, Suffolk, has been appointed Assistant-Surgeon to the Portland Convict Prison.

RYAN, JOHN, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Second District of the Northleach Union.

THISTLE, FREDERICK T., L.R.C.P.Lond., M.R.C.S., has been appointed Senior House-Surgeon to the Torbay Hospital and Provident Dispensary, Torquay.

WILEY, ARTHUR ORMSBY, L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer for the Scriven District of the Knaresborough Union.

## Births, Marriages, and Deaths.

### BIRTHS.

ALLEN.—On the 12th inst., at Brunswick-terrace, Freeman-street, Grimsby, the wife of T. W. J. Allen, L.R.C.P.Lond., M.R.C.S.Eng., of a daughter.

ALLEN.—On the 20th inst., at Uxbridge-road, Shepherd's-bush, W., the wife of Thomas Allen, Surgeon, of a daughter.

BEVERIDGE.—On the 16th inst., at Dart Villa, Totnes, the wife of H. T. S. Beveridge, M.D.Edin., Staff-Surgeon, Royal Navy, of a daughter.

HUTCHINSON.—On the 29th August, at St. Kilda, Melbourne, Australia, the wife of B. C. Hutchinson, M.D., of a son.

JONES.—On the 14th inst., at North-park House, Harrogate, the wife of A. O. Jones, M.D., of a son.

MACNALT.—On the 16th inst., at Colton Old Vicarage, Greenod, Ulverston, the wife of Frank C. MacNalty, M.A., M.D.Dub. Univ., of a son.

RAVEN.—On the 19th inst., at Broadstairs, the wife of Thos. F. Raven, L.R.C.P., of a daughter.

SMITH.—On the 23rd inst., at Phillimore-terrace, the wife of W. Towers Smith, M.R.C.S., of a son.

### MARRIAGES.

BOTHAMLEY-SMITH.—On the 14th inst., at St. John's, Lewisham High-road, R. Broughton Bothamley, M.R.C.S., of Bromley, Kent, to Jeannetta Harrison, daughter of the late William Smith, of Southwark.

BULLOCK-SULIVAN.—On the 14th inst., at Holy Trinity, Bournemouth, Henry Bullock, F.R.C.S., of Overtown House, Spring Grove, Isleworth, to Sophia Henrietta, eldest daughter of Admiral Sir B. J. Sullivan, K.C.B., of Tregew, Bournemouth.

KENNEDY-HAYLE.—On the 17th inst., at St. Mary's, Rochdale, William A. Kennedy, M.B., L.R.C.P.Lond., son of the late Dr. J. F. Kennedy, of Newcastle-on-Tyne, to Sarah, third daughter of Thomas Hayle, M.D.Edin., of Rochdale.

POPE-PECKHAM.—On the 25th inst., at the Parish Church, Pinner, by the Rev. J. S. Lyon, assisted by the Rev. Dr. Pinnock, Vicar, Percy Pope, M.R.C.S., L.R.C.P., of Owston Ferry, Lincolnshire, youngest son of the late John Robinson Pope, M.R.C.S., L.S.A.Lond., of Woodridings, to Kate Florence, fourth daughter of the late Robert Peckham, Solicitor, of Doctors' Commons, and of Tottenham.

### DEATHS.

ANDERSON.—On the 22nd inst., at Hillingdon Heath, Uxbridge, William Alexander Anderson, M.D.Aber., F.R.C.S.Eng.

BROUGHTON.—On the 14th inst., at Ambleside, Francis Broughton, F.R.C.S., late of Her Majesty's Medical Service, Bombay, aged 62.

EDWARDS.—On the 13th inst., at his residence, Stony-hill, Colebrookdale, Shropshire, Benjamin Edwards, M.R.C.S., L.A.C., last surviving son of the late William Edwards, M.R.C.S., of Colebrookdale, aged 67.

HOLLIS.—On the 19th inst., at his residence, Alvaston, near Derby, William Hollis, Surgeon, aged 76.

PEARCE.—On the 5th inst., at Cadiz, of consumption, George A. C. Pearce, M.B., F.R.C.S., late of Dane's-inn, London, and Lee, Kent, aged 31.

WATERHOUSE.—On the 17th inst., at Peating Magna, Leicestershire, of enteric fever, Joseph Bourne Waterhouse, M.R.C.S., in his 30th year.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Oct. 28th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Oct. 20	29.82	S.	47	47	..	62	45	.41	Overcast
" 21	29.61	S.	53	52	..	57	41	.10	Raining
" 22	29.25	S.W.	53	51	..	55	47	.33	Raining
" 23	29.51	W.	46	43	..	56	39	.17	Bright
" 24	29.19	S.E.	46	45	..	58	41	.38	Raining
" 25	29.55	W.	44	43	..	53	37	.23	Foggy
" 26	29.56	S.E.	41	40	..	53	35	..	Foggy

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

## A MUCH NEEDED IMPROVEMENT.

GREAT inconvenience is experienced by ladies in London by the absence from our streets of any sort of accommodation for them similar to that to be found in every principal thoroughfare for the use of gentlemen. With the exception of railway stations and a very few of the better class restaurants, no facilities are provided of the kind referred to for females, and any movement for supplying the deficiency is worthy of support. Such a movement is now on foot, promoted by Mrs. Emily Wilcox, of 189, King's-cross-road, who will be glad to receive subscriptions in aid of the scheme. This lady proposes to open an experimental retiring-room in the neighbourhood of King's-cross first, and, as the funds flow in, to increase the number by providing them at all crowded spots. The use of these places is to be open to all without charge, but a box will be provided in each for the reception of gratuities towards defraying the expenses. The scheme is a deserving one, and ought not to have been left to private enterprise by the parochial authorities. Probably, however, when once provided, the expense of keeping the rooms in a fit state for use will be undertaken by the local governing bodies. On hygienic grounds alone the proposal is deserving of success.

Kent.—F. H. Whymper, Esq., Factory Department, Whitehall.

## A CASE OF COMPLETE INVERSION OF THE UTERUS.

To the Editor of THE LANCET.

SIR,—The above is an accident which occurs so infrequently as to be worth a passing notice. I was called at 6.40 on Saturday morning, the 15th October, to see a married woman, aged twenty-six years. This was her third confinement. The child was born at half-past five, very rapidly. She was being attended to by a midwife, and I was sent for because there was something wrong about the after-birth. On my arrival I found the woman lying on her back on the floor, perfectly exsanguine and collapsed, and without pulse. The placenta was attached exactly in the centre of the fundus of the uterus, and it, still adherent, along with the whole of the uterus, lay between the legs of the woman; and the bed and clothes were completely saturated with blood. I peeled off the placenta, replaced the uterus, and tried to rally the woman, but she died from shock and hæmorrhage ten minutes after my arrival.

The history was as follows:—The woman was very anæmic; had a rupture of the perineum at her first labour; the midwife had pulled at the cord to separate the placenta from the uterus; and this last, along with the central position of the attachment of the placenta, which was firmly adherent, and the rupture of the perineum, had probably caused the complete inversion which I found.

I am, Sir, yours, &c.,

Crawshawbooth, Manchester, Oct. 1882.

J. L. KERR, M.B., &c.

## "A QUERY."

DR. PRATT, in reference to a note which appeared under this heading in our issue of Oct. 14th, writes to say that the cause of the discolouration referred to has been found to be an ointment used by the patient which was not official, and the composition of which was not known until after the note appeared in THE LANCET. This ointment produced a copious ink stain, which has disappeared from the dressings since the unguent has been discontinued.

Manchester should consult Mr. Burdett's book on Cottage Hospitals, published by Messrs. Churchill.

## "THE USE OF TOBACCO."

To the Editor of THE LANCET.

SIR,—Having been a regular and moderate, never at any time immoderate, smoker for the past twenty-five years, and having closely observed the effect of tobacco upon myself, you may possibly think the impressions I have formed worth recording. Even as a student I never smoked during the day, and have for seventeen or eighteen years smoked nothing but Cope's "mild Havannah" out of a briar-wood pipe, which I have frequently cleaned or changed. I should estimate my average is about four pipes of medium size every evening between 9 and 11 o'clock; cigars or cigarettes I rarely smoke. I consume five pounds of tobacco a year. About four years ago I began to suffer from severe nasal catarrh, which in a few months completely destroyed my sense of smell. I have not since then been able to smell or taste the smoke in the slightest degree. This misfortune has lessened my pleasure of smoking very much, and taken away much of the desire for it; but I still feel that I have missed something if I do not smoke at least one evening pipe.

Now, as to the effect of tobacco on the system. I am perfectly certain that it is the man with abundant nerve power who most keenly enjoys his pipe and is least harmed by it. The weary, the anxious, the worried do not enjoy or resort to smoking for the pleasure they derive, but for the tendency to tranquillisation and sleep they find it produces; in other words, it allays nervous irritability and diminishes the desire to energise. It has been stated that under its influence the heart's action becomes stronger. This is undoubtedly the case, but how is it explained? I think by the temporary disturbance of innervation by its action on the cardiac branches of the vagus. Three or four pipes of Cavendish tobacco would produce in me the irregular bounding of "tobacco heart," and cause me to wake up with a terrific nightmare. Here is increased action with irregularity of rhythm, but with depression the following morning. It has also been said to promote digestion. The after-dinner or luncheon pipe, so commonly taken, shows that it does so—but how? I think by tending to cause, by its effect on the controlling nervous influence, a more copious and immediate flow of gastric juice, and probably increasing the movements of the stomach, as undoubtedly it does that of the intestines, for thousands of men will tell you that a pipe after breakfast helps them in this respect without fail. Smokers to excess generally become of pale or sallow complexion, and occasionally of a slightly jaundiced hue; they are lethargic often in mind as well as body. This points to permanently lowered heart power, and as an example of its more immediate depressing influence following quickly on the transient period of "increased force," I may quote the case of an innkeeper, aged eighty-one, who was in the habit of beginning his evening smoke about 6 in the evening. During the year 1879 I was hastily summoned to him about 9 at night at least half a dozen times in consequence of his having fallen off his chair in a fainting fit. On each occasion he had quite recovered before I got to him. I found the cause clearly to be the effect of tobacco, and I persuaded the old man to puff at an empty pipe, which he did, and had no more syncope. To sum up, I am certain that the toxic effect of tobacco is to lower the nervous power, and, as a consequence, impair the circulation. It also tends to produce heavy lethargic sleep, which is followed by a disinclination to rise, and a feeling of weariness and low spirits, which the usual cold sponging tends to remove. The conflicting views held regarding its influence and effects are due, I feel sure, to the diverse symptoms it produces in different diatheses and temperaments and at different ages. I have met numerous cases, and am an instance myself, that in middle life men begin to feel that they cannot smoke as they formerly did, and they begin to limit themselves. Why is this? I think it is because as age advances we lose that large reserve of nervous power which in youth enables us to do much that we cannot do with impunity in middle life, and thus the depressing effect of tobacco is unfeeling in the days of exuberant and rapidly restored nerve power. I am speaking throughout, be it remembered, of strictly moderate smoking, for no one doubts the evil effects of excess.

If further proof be needed of the depressing effect of tobacco on the nervous centres, witness the almost immediate result when a half-drunken man smokes. It rapidly renders him helpless and more incoherent. Here I believe the nervous centres, already to a great extent paralysed by the alcohol, are very susceptible of the influence of tobacco. It has often occurred to me that the desire to drink stimulants, which undoubtedly accompanies the use of tobacco, is due as much to the nervous depression giving rise unconsciously to the feeling of need for stimulation as to the dryness or irritation of the mouth and fauces produced by the deposit of oil from the smoke. In this respect I regard tobacco as undoubtedly productive of much harm, as when using it the provocation to drink beer or spirits is certainly increased.

I remain, Sir, yours obediently,

October, 1882.

DELTA, M.D.

## NEW SYSTEM OF DROP-MEASURING.

A NOVELTY in pharmaceutical appliances has been patented by H. Lamprecht, of Marlenhütte (Hanover), in the shape of a drop-measuring bottle, which is specially constructed for that purpose. A leading German paper connected with the glass trade remarks that experiments made show that even with different ways of sloping the bottle, the drops are almost exactly equivalent in quantity.

*L.R.C.P. Lond.*—Some time ago it was stated that the German Chancellor had caused the announcement to be made that Duke Theodore of Bavaria, who had then taken the degree of Doctor of Medicine at a German University, had received a certificate enabling him to practise as a surgeon without being required to undergo the additional examination to which intending practitioners are ordinarily liable under the German law.

## TRICYCLES.

To the Editor of THE LANCET.

SIR,—Now that tricycles are happily coming so much into use, I will endeavour, through the medium of your valuable journal, to convey to my brother practitioners the result of my experience, which has extended over a period of upwards of ten years. Having made affections of the nervous system my pet study for many years, I have had much opportunity of testing the value of the tricycle, and I can confidently say if practitioners would give the subject their consideration, they will agree with me in regarding the machine as a remedial agent of great value. Cases are continually coming under our notice which require, in addition to medical treatment, exercise in the pure, fresh air, by which the brain and nervous system become invigorated, and the sufferer is relieved from that irritable feeling which can only be understood by those who suffer from it; and need I also say by this means the general muscular system is strengthened, including a vast number of muscles which are not called into action by the ordinary walking exercise. This fact is borne out by tricycle riders, who declare they can walk much better than they could before they took to tricycle riding. Of course I am fully aware walking exercise is exceedingly good—quite in accordance with nature's laws in a vast number of cases, but I have generally found those of my patients who try to walk frequently complain of much weariness and exhaustion, which is no doubt attributable in a great measure to the fact of the mind not being diverted, as in the case of horse or tricycle-riding. Some time since one of your correspondents called attention to the tendency in those who use this kind of locomotion to contraction of the chest by leaning forward on the handles of the machine. This is chiefly confined to timid and inexperienced riders; nevertheless it should be remedied, and this can easily be done by having the handles of the tricycle put farther back. The effect of this modification may be easily tested by sitting in one's chair in the same position as on the tricycle, placing the hands under the seat and drawing them back, which will bring the body into an erect posture, and throw the shoulders back and the chest forward. I propose to bring this point under the notice of the makers, with suggestions how to effect the improvements indicated. As to the question of the advisability of females riding tricycles, though at first I entertained serious doubts on the matter, I have from experience come to the conviction that females need have no fear; on the contrary, some who have long suffered from internal troubles have derived much benefit from this mode of exercise, especially in the class of cases where the system has fallen below par by long continued confinement. Again, with regard to the tendency of tricycle-riding to produce hernia, in no instance has it done so under my observation. Indeed, a gentleman who for many years had suffered from very large double inguinal hernia tells me he owes his present good health to this form of exercise, and does not feel the least inconvenience from his affliction, and has upon advanced in life he continues his daily rides, wet or fine, and has up to the present time ridden very considerably above 50,000 miles. Riders should not attempt too much at once, but steadily continue the daily use of the machine, and by degrees, as the muscles develop themselves and the nerves get tone, they will find all difficulties pass away. In concluding, I would advise intending riders to try various machines before purchasing, and judge for themselves.

Oct. 1882.

I am, Sir, yours, &c.,

ONE WHO ADVOCATES EXERCISE IN  
THE PURE AIR.

*Bookworm.*—1. Walshe (Lungs and Heart), Hayden (Heart), or Balfour (Heart).—2. W. Roberts, Dickinson, or Grainger Stewart.—3. Hammond, Buzzard, or Althaus.

## TEMPERATURE AT SAN REMO.

To the Editor of THE LANCET.

SIR,—I enclose a report of the weather and temperature here for the week just finished, which may be interesting to some of your readers.

I am, Sir, yours faithfully

L. E. KAY SHUTTLEWORTH.

Villa Calcagno, San Remo, Italy, Oct. 22nd, 1882.

	Maximum.	Minimum.	Difference.	Temp.
				8.30 A.M.
Mean for the week ..	65°	52°	13°	57°
Highest on any day ..	68°	55°	13°	59°
Lowest on any day ..	63°	49°	14°	55°

Two days cloudless, four bright sun and light clouds, two marked almost cloudless, one cloudy. No rain fell this week, and the wind was very light—sometimes none could be felt.

## SWISS FACTORY LEGISLATION.

ACCORDING to the report of the Swiss factory inspectors, the cantonal authorities of Glarus issued directions last year to the factories within their jurisdiction, that all accidents which cause more than six days' absence from work on the part of the person injured should in future be notified to the authorities. The object of this regulation is stated to be the frustration of attempts which are sometimes made to keep accidents from the knowledge of the officials, whose duty it would be to make an investigation into the circumstances.

*Mr. W. J. Masson.*—In almost every number of THE LANCET during the last two years some observation has been recorded of the association of acute specific diseases with organisms, but the causal relation has been proved in very few instances, although probably, by analogy, in all. It has not yet been proved in the case of scarlet fever.

## TRIAL BY JURY.

To the Editor of THE LANCET.

SIR,—May I ask you to give publicity to the following case, in the interest of the unfortunate victim.

Mrs. Dodsworth was arraigned at the Winchester Sessions, held on the 17th inst., on a charge of having taken poison at Bournemouth, on July 25th, with intent to injure herself. There was no defence, the defendant, who is an old woman over seventy, never asking a question. The case was clearly proven, and the magistrate, in summing up, concluded:—"You have now to determine whether this poor woman took the poison with the intent of doing herself grievous bodily harm," or words to that effect. After a few minutes' consultation, the foreman declared that they had come to an opinion, but they would like to add a rider. They were told to give their verdict first. Verdict was accordingly given, "Guilty." Now for the rider: "But we think she did not know what she was doing." The magistrate here remarked that if that was their opinion they should have given a verdict of not guilty, "but," he added, "there has been no evidence whatever brought to show you that she was of unsound mind; however, the doctor is in court, would you like to ask him any questions?" "Oh, I come from Bournemouth!" exclaimed a juror, and this appears to have been convincing, for, without more ado, a verdict of "Not Guilty, on the ground of insanity," was returned. The prisoner was, therefore, informed that she would be detained during Her Majesty's pleasure, and was removed in tears.

Now, the facts of the case are briefly these:—Mrs. Dodsworth has been living in Bournemouth for some months, having been placed by friends under the care of a woman who rents a house in a poor neighbourhood. She is, I think, over seventy years old, and has been in very good circumstances, rich and well connected. Of this I am assured by people who have known her friends in York. She has been much weighed down by the change in her affairs, has become peevish, and, it is said, addicted more or less to drinking. These things, added to her habit of dwelling on her former circumstances, and her eccentric costume of faded finery, have no doubt led to the opinion held by the poor people among whom she lived, and subsequently by the jury, that she was of unsound mind. But such I am sure is not the case, for I have attended her here and at her house for some time, and though I have seen that she is of weak intellect, yet she has always been quite mistress of her deeds, and always able to go about and collect recommendation-tickets to ensure her attendance, &c. At the time she attempted her life she had been depressed by having to leave her lodgings and other circumstances, but her subsequent conduct was perfectly rational. She submitted readily to treatment, merely saying in excuse, "I wanted to go to Heaven."

What I wish to point out is that in the mistaken idea that they would be doing a kindness, the jury have condemned this poor old woman to pass the remainder of her life in a lunatic asylum, whereas had they returned a verdict of guilty, the magistrate, taking into consideration that she had been already kept in prison nearly three months, would probably have let her off with a short additional term of imprisonment. Trusting that, by thus giving the case publicity, something may yet be done to alleviate her fate.

I remain, Sir, yours sincerely,

G. S. MAHOMED.

Bournemouth Dispensary and Cottage Hospital,  
Oct. 23rd, 1882.

*Freshman* should apply to the Secretary of the College for the details. The regulations are in force.

*Dr. Newham.*—We congratulate our correspondent on the dénouement.

## "BELLADONNA POISONING."

To the Editor of THE LANCET.

SIR,—Let me add a case of the above, not the result of accident however. When I was a resident physician's assistant at the hospital, we had a very intractable case of sciatica, and the physician in charge determined to try the subcutaneous injection of atropia sulph. The amount given was one-eighth of a grain, a friend of my physician stating that he had on several occasions administered that amount, with no ill-consequences, and with uniform success. Our patient's symptoms consisted of dilated pupils, thirst, dryness of fauces, frequent desire to pass water, with a lively delirium. These all passed off without treatment in about eight hours, leaving the patient cured of his sciatica. We all resolved to try a little less atropia next time.

I am, Sir, yours truly,

Oct. 22nd, 1882.

G. G.

## THE DERIVATION OF THE WORD "DRUGGIST."

A GERMAN CONTEMPORARY calls attention to the fact that this word can be traced to the root "trocken," which signifies in German "dry." The same derivation is ascribed to the equivalents of the word in various European languages.

*Enquirer.*—Dr. William Woods Bradshawe was an old member of the College of Surgeons. He was subsequently elected a Fellow of the College, and, we believe, was Mayor of Reading. His widow left £1000 each to the Royal Colleges of Physicians and Surgeons, and Sir James Paget is the first appointed Bradshawe Lecturer at the College of Surgeons.

*Forceps.*—Never is practically for all time, and A would "never" be justified in practising in the town or neighbourhood without B's consent.

## POISONING BY SHELL FISH.

To the Editor of THE LANCET.

SIR,—I enclose the notes of a case which recently occurred in my practice, and which may be of interest to some of your readers.

On Monday evening I received an urgent message to attend at once on a family in this village who had been taken seriously ill after having tea. The messenger informed me that they had all (herself included) partaken freely of crab, and had been taken with similar symptoms, which only varied in intensity. On arrival I found four sufferers, three of whom were ghastly pale, the fourth being the mother, who was fast recovering. Two daughters and the son were suffering most severely, the symptoms presented being great pain at the epigastrium, and violent vomiting, which was at first incessant, consisting of frothy mucus and particles of the fish and other contents of the stomach. The skin was cold and clammy, pulse very feeble, and in the son scarcely perceptible, as well as in the oldest daughter. The face was covered with a cold sweat, and the two latter cases seemed quite exhausted. Purgings was not present. The other daughter did not seem so much affected, although she vomited freely. The treatment I adopted was the giving of carbonate of ammonia in ten grain doses, hot-water bottle to the epigastrium and to the feet, with a mustard-plaster to the calf of the legs, and enveloping in blankets and putting them all to bed. The vomiting only recurred twice afterwards in the son and once in the oldest girl; not at all in the other cases. They slept fairly during the night. Next morning, with the exception of feeling weak, they did not seem any the worse. The patients being adults, it struck me whether the case would have ended so satisfactorily in children.

I am, Sir, your obedient servant,  
Great Ayton, Yorkshire, Oct. 17th, 1882. P. A. R., L.S.A. Lond.

*L. D. S.*—The examination for the Licence in Dental Surgery has just concluded. The calendar of the College of Surgeons contains the names of 510 licentiates in dental surgery.

*Minimo Minor.*—We fear our correspondent has no legal claim to a pension.

*Mr. Aston Ayres and An Old Practitioner.*—The matter shall have attention.

## THE INTRA-VENOUS INJECTION OF FLUID IN SEVERE HEMORRHAGE.

To the Editor of THE LANCET.

SIR,—In reply to Mr. Jennings I beg to state that I do not use the obstetric syringe for any of the purposes named in his letter. The perchloride of iron may be applied at least as effectively with a sponge, and, consequently, had not the idea of its having been so used in my mind. Water, salt, and brandy would, I believe, answer quite as well as Mr. Jennings's formula, and these things possess the great advantage of being always at hand. By care the entrance of air might be prevented, and the uniformity of the current insured. If however, the syringe has been so used, and unprovided with another, an ordinary glass one, which could be obtained at any druggist's, would do quite well. It is highly desirable that the appliances of our art should not be unnecessarily multiplied, and that the mind should be furnished with ready methods for emergencies.

I am, Sir, yours faithfully,  
Leeds, Oct. 23rd, 1882. PHILIP FOSTER.

*D. S. J.*—The Hunterian Oration will be delivered in February next, by Mr. Spencer Wells, the President of the College. Dr. Matthew Ballie, one of the executors of John Hunter, died Sept. 23rd, 1823.

*Psychologist.*—By reference to the general index of Boswell's Life of Johnson, it will be found that Dr. Thomas Arnold wrote on Insanity.

*A Puzzled Practitioner and F. C.*—No card enclosed.

## INUNCTION IN SCARLATINA.

To the Editor of THE LANCET.

SIR,—For a considerable time I have used free rubbing-in of camphorated oil in every case of scarlatina which I have treated, during the eruptive stage as well as during peeling. I was congratulating myself on the results, when a medical friend of considerable experience expressed to me his opinion that this use of oil has a bad effect upon the kidneys. If you, or any of your readers, can throw any light upon the question thus raised it will confer a favour, which will be much valued.

I am, Sir, yours faithfully,  
October 25th, 1882. CUTIS.

## A COLONIAL SURGICAL APPOINTMENT.

WE are asked to state that the office of resident surgeon of the Provincial Hospital at Port Elizabeth, Cape Colony, has been filled up by the appointment of a colonist.

*Students (Galway).*—The International Scientific Treatises of Messrs. King and Co., London, would probably include some that would suit our correspondent. Any bookseller would procure a list for him from Messrs. King and Co. (Rex and Co.), Gracechurch-street, London.

## SURGICAL CURIOSITY.

To the Editor of THE LANCET.

SIR,—An interesting case came under my notice about five weeks back. While examining the out-patients at the Stanley Hospital, a youth of twelve appeared with a tumour the size of a small marble, situated in his auricular lobule, just below the antitragus. I took it to be an ordinary cyst, despite the unusual site, and at once proceeded to remove it. This was easily accomplished, and on making an incision into it afterwards I discovered, in addition to some albuminous fluid, a grain of corn firmly embedded in a second cyst, which was attached to the internal aspect of the first. Five years previously the lad cut his ear on the site of the tumour. It healed in the usual way, and until two years back nothing disturbed it. From that time he noticed a small, pea-like body in the lobule, which thence described the usual symptoms accompanying the growth of a cyst. This case is interesting as a surgical curiosity, being I believe unique.

I am, Sir, yours sincerely,  
ROBERT JONES, M.R.C.S. Eng.  
Nelson-street, Great George-square, Liverpool,  
Oct. 20th, 1882.

*Mr. Matthew Hunter.*—Thanks. Our arrangements in the matter are, however, for the present complete.

*Student.*—The instrument is, and we should think must always be, untrustworthy.

*R. W. W.*—It would have no effect as regards its physiological action.

## DEFORMITY OF THE FOOT.

To the Editor of THE LANCET.

SIR,—The particulars of the following case may be interesting, as it is, I believe, an unusual deformity, and serves to illustrate, perhaps, our origin from a lower scale.

I was called to see a female child, born the previous day; on examining the child I found the right leg was about an inch and a quarter shorter than the left, the shortening being more marked in the tibia than the femur. The two outer toes were absent, as well as the metatarsal bones and, I believe, the cuboid; there was no external malleolus, but there appeared to be a head to the fibula, and the fibula then seemed to taper downwards until it was lost by, I believe, ankylosis in the tibia. The tibia was raised up and generally thickened at about the junction of the middle with the lower third, like a badly-united fracture, and the skin at this point was puckered in, as though there had been a compound fracture. The foot was turned outwards, the malleolus projecting very much, giving the foot the appearance of flat foot. I could obtain no family history of deformity, or of any fright during pregnancy. The child was otherwise healthy.—I am, Sir, yours &c.,

D'ARCY SUGDEN, L.R.C.P. Lond.,  
Resident Surgeon, Maryborough Hospital, Queensland.  
Oct. 25th, 1882.

*W. W.*—We are not acquainted with a work specially devoted to the subject. It has, however, been discussed from time to time in our columns, and will probably be referred to again in our next issue.

*Rev. J. W. Elliott.*—We recollect no later deliverance on the subject than that of Dr. Poore in the Bradshawe lecture in September last year.

*Mr. J. P. Pye.*—We regret that we have not space for more letters on the subject.

## HAMMAMELIS VIRGINICA.

To the Editor of THE LANCET.

SIR,—Can you or any of your readers inform me if there is any formula for the preparation of the tincture of hammamelis virginica; also, if they have tried the tincture as an injection for piles, if it is painful or successful.

I am, Sir, yours truly,  
October 25th, 1882. C.

\* Several letters respecting this drug appeared in THE LANCET of August 30th, 1879.—ED. L.

*Alumnus* should write to the Secretary of the College for the regulations concerning the prize. Only members, however, can compete.

*Mr. Aubrey Wicks.*—There does not appear to be any novelty in the suggestion.

## POSTAL MICROSCOPICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—I should be glad if any of your readers could inform me through the medium of your columns whether the above named society is still in existence. If it is, I should be glad to join it.

I am, Sir, yours &c.,  
October 25th, 1882. HISTOLOGIST.



## POPULATION OF EUROPEAN CITIES.

ACCORDING to a comprehensive statistical return lately published in Germany, there are in Europe 92 cities with more than 100,000 inhabitants, out of which four capitals show each over a million population, as follows:—London, 3,832,440; Paris, 2,225,910; Berlin, 1,122,500; Vienna, 1,103,110. Out of the 92 cities and towns alluded to, England claims 26, Germany 16, Italy 11, France 10, and Russia 8. The others are divided amongst the smaller states.

ERRATUM.—In our article of the 7th inst. on the treatment of the sick and wounded in Egypt, the name of Mr. Harrison, Surgeon of the Grenadier Guards, was erroneously given as Gardner.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Acland, Oxford; Mr. Campbell, London; Dr. Spencer Thomson; Mr. Hawkins-Ambler, Leeds; Mr. Hunter; Mr. Neville Stephen, Marseilles; Mr. Duncan Miller, London; Mr. Farren, Carnarvon; Dr. Philip Foster, Leeds; Mrs. Wilcox, London; Mr. Shuttleworth, San Remo; Mr. Mason, Herne-hill; Mr. W. Thomson, Melbourne; Mr. Courtenay, Victoria; Mr. Wheeler; Brigade-Surgeon MacDowall, Deesa; Mr. Charles Mills, London; Dr. Ross; Mr. Isaac Williams, London; Mr. Deane; Dr. H. Rayner; Mr. J. C. Lucas, Ahmedabad; Mr. H. Rogers-Tillstone, Brighton; Mr. Walter Rivington, London; Mr. Peach, Bath; Mr. Brown, New Wandsworth; Mr. Luke, Calcutta; Mr. Hall; Mr. Unsworth, Liverpool; Messrs. Evans and Co., Liverpool; Mr. Tomlins, Rugeley; Messrs. Woolley and Co., Manchester; Mr. Roper, Croydon; Mr. Kirkpatrick, Woodbridge; Mr. Quinton, Norwich; Mr. Storey, Cheltenham; Dr. Brodie, Wickham Market; Mr. Horne, Scarborough; Mrs. Chatty, Dawlish; Mr. Maddox, London; Dr. Percy Boulton, London; Dr. Mackintosh, Chesterfield; Dr. Henderson, London; Mr. W. G. Balfour, Walton; Mr. T. Dolan, Halifax; Mr. Dacre Fox, Manchester; Dr. Herbert Stowers, London; Mr. Symonds, Oxford; Dr. Wortabel, Beyrout; Mr. Ayres, Brighton; Dr. Pye, Galway; H.; Medicus, Shrewsbury; R. W. W.; Forceps; Kent; Delta; Studens; Bookworm; L.R.C.P. Ed.; Theta, Dundee; An Old Practitioner; Glasgow; G. G.; W. W.; D. M., Manchester; Catis; C.; Minimo Minor; &c. &c.

LETTERS, each with enclosure, are also acknowledged from—Mr. Smith, Ealing; Mr. Woodcock, Bradford; Messrs. Ward and Son, Brompton; Dr. Williams, London; Dr. Tomkins, Monsall; Mr. North, York; Mr. Lovegrove, Wallerton; Mr. Mayland, Glasgow; Mr. Townsend, Exeter; Mr. Byfield; Mr. White, Bayswater; Messrs. Millikin and Down; Mrs. Took, Great Berkhamstead; Messrs. Barker and Co., Huddersfield; Mr. Rouse, Bayswater; Mr. Pope, Pinner; Mr. Gee, Southwell; Mr. Whitley, Halifax; Mr. Lask, Hingham; Dr. Powell, Newcastle-on-Tyne; Mr. Edmunds, Chesterfield; Dr. Thomas, Christchurch, New Zealand; Dr. Foote, Rotherham; Dr. Miller, Reading; Dr. C. Hewett, London; Mr. Pile, Salisbury; Dr. Allen, Grimsby; X.; Surgeon-Major, Dublin; M. P. D., Liverpool; J. G., Bloomsbury; Assistant, Liverpool; Medicus, Dartmouth park; Tenax, London; Principal, Seaford; Perilas, Exeter; L. C.; Beta, Manchester; C.; M. Z.; Home; Miss H., Oldham; Medical, Castleford; A. B.; J. R., Fence Houses; Albus, Holborn; E. F.; Medicus, Nottingham; G., Manchester; Principal, Seaford; Tenax Propositi; W.; A. B.; D. T., St. Helens; Alpha, Farringdon; C. R., Wandsworth; A. G. K., St. John's-wood; X. Y. Z., London; Medicus, Margate; C. J. A.; K. A., Clapham; F.R.C.S., Leeds; A. B. C., Paddington; H. F. D.; Medicus, Liverpool; Medicus, Birmingham; Medicus, Milford Haven; &c. &c.

Parkstone Reminder, Carnarvon and Denbigh Herald, St. Pancras Gazette, &c., have been received.

## Medical Diary for the ensuing Week.

## Monday, Oct. 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.  
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.  
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.  
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. C. Theodore Williams, "On a Case of Paracentesis Pulmonia."—Dr. Leonard W. Sedgwick will communicate a paper by Dr. Richard Schmitz (Neuenahr), "On 600 Cases of Diabetes Mellitus."

## Tuesday, Oct. 31.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.  
WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
WEST LONDON HOSPITAL.—Operations, 3 P.M.

## Wednesday, Nov. 1.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
MIDDLESEX HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.  
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.  
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.  
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.  
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Dr. Norman Chevers, "On the Sanitary Defects of the Site of London and its Suburbs."  
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Mr. Alban Doran and others.—Dr. Champneys, "On a Description of a Kyphotic Pelvis, with remarks on Breisky's Description."—Dr. Matthews Duncan, "On Puerperal Diabetes."—Dr. Chahbazian, "On the Treatment of Post-partum Hemorrhage by Subcutaneous Injection of Ergotinine."

## Thursday, Nov. 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.  
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.  
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.  
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.  
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.  
HARVEIAN SOCIETY.—8.30 P.M. Mr. Malcolm Morris, "On Chronic Ringworm."—Dr. Broadbent, "On some Points relating to the Sounds of the Heart."

## Friday, Nov. 3.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.  
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.  
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

## Saturday, Nov. 4.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.  
ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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# Introductory Lecture TO THE COURSE OF SURGERY IN THE UNIVERSITY OF EDINBURGH.

*Delivered Oct. 24th, 1882.*

By JOHN CHIENE, M.D. EDIN.,  
PROFESSOR OF SURGERY IN THE UNIVERSITY.

(Continued from p. 698.)

I WOULD now direct your attention to a paper by Joseph Lister, in THE LANCET, March 16th, 1867. The paper is entitled, "A New Method of Treating Compound Fractures; Abscesses, &c." Lister, in this his first paper, on the subject, gives us the keynote to the position which he then took up, and to which he has ever since strictly adhered. In that paper, after pointing out that the decomposition which occurs in a compound fracture is due to the access of the atmosphere, he says, "We find that a flood of light has been thrown upon this most important subject by the philosophic researches of M. Pasteur, who has demonstrated, by thoroughly convincing evidence, that it is not to its oxygen, or to any of its gaseous constituents, but to minute particles suspended in it, long regarded as merely accidental concomitants of putrescence, but now shown by Pasteur to be its essential cause." He then adds, "All that is requisite is to dress the wound with some material capable of killing these septic germs." Here, then, it will be noted that Lister from the first adopted Pasteur's law as the basis of his practice, and having adopted this law, he then searched out a substance by which he hoped to attain his object. He tells us that in 1864 he was much struck by the advantages obtained by mixing carbolic acid with the sewage of the town of Carlisle. This knowledge encouraged him to try carbolic acid. It is not my intention to dwell upon the gradual development of the practical details. In March, 1865, Lister made his first attempt to form an antiseptic crust, using lint soaked in carbolic acid. This was a failure. After many anxieties and by learning a good deal more from his mistakes than from his successes, always steadfastly holding to the primary doctrine, he experimented first in Glasgow and then in Edinburgh, until in 1871 he elaborated that dressing which is now associated with his name. During all these years Lister was doing a double work; he was trying to perfect the practical details, while he was at the same time working at the germ theory, and doing very much to strengthen the scientific basis of his practice. Many are now working at the practical details. The theory has now become a law. New antiseptics are being daily introduced, and when a more reliable one than carbolic acid for general use has been discovered, no one will more gladly use it than Lister. Much harm has been done by calling his method of treatment the "carbolic acid method," the sole object which he has always had in view being not the use of any special antiseptic or any special plan of treatment, but a method which will enable the surgeon to keep his wound aseptic, from the time it is inflicted until healing has taken place.

It will perhaps be as well here to tell you that in the treatment of wounds their asepticity is only one part of the problem which the practical surgeon has to consider. Lister found that the silk ligature was a source of irritation, and hence arose the reintroduction by him of the catgut ligature. The presence of pus in an aseptic wound directed his attention to suppuration caused by tension—altogether apart from putrefaction—hence the application of free drainage to all wounds and the avoidance of suppuration from tension. The catgut ligature and free drainage directly were the outcome of a study of aseptic wounds. Do not be led into the too common error that Lister's reputation rests only on his application of Pasteur's law to surgery. His work is threefold in its strength. Do not imagine that a surgeon, in accepting Lister's teaching regarding antiseptics, thereby necessarily forgets the words of John Hunter: "The first and great requisite to the restoration of an injured part is rest." Many of the most valuable improvements that have benefited

No. 3088.

mankind have been the result of years of patient and prolonged investigation. These investigations have followed two great lines; the practical man, working by experience and observation, and gradually arriving at some idea of what should be, thinking little of the why; the scientific man, with Bacon as his model, experiment as his mistress, working little by little without any idea of the practical value of his investigations, wading like the practical mind through errors and mistakes, correcting them himself, or having them corrected for him by a future worker, until at last a time is reached when the lines of thought approach one another; then a master-mind, necessarily with both practical and scientific knowledge, able to estimate at their proper worth the value of the sum total of both lines of workers, grasps the double work, and although at first seeing dimly, he steadfastly perseveres until at last he is enabled to establish some great law which will in the future enable the practical mind to work more intelligently, the scientific mind gaining at the same time encouragement to work on, with the knowledge that each little portion of truthful scientific work will in the future bring forth practical fruit. We have a good example of this in the history of the science of astronomy. After Copernicus had shown that the sun is the centre of our universe, Kepler, by a series of calculations demonstrated the elliptical pathway of the planet Mars. A hundred years after, Newton demonstrated the reason why the planet Mars could only move in an ellipse, and showed how all the other planets necessarily followed the same law. It is well known how Adams and Leverrier, using Newton's laws, and working in their studies, told the practical astronomer that if on a certain night he would look in a certain part of the heavens he would see a new planet, which we now call Neptune. While Jenner, by acute observation, discovered vaccination, so we now find Greenfield and Pasteur working on the basis of Pasteur's law of fermentation, and demonstrating by experiment that the bacillus anthracis, which is the cause of splenic fever, can, if modified by cultivation, be inoculated into healthy animals, and give rise in them to a condition which may strictly be likened to the vaccine fever, and which prevents in them the fatal splenic fever, just as the vaccine fever prevents the fatal small-pox.

If such results have been already obtained by careful experiment, is it not legitimate to expect that before long some general law may be discovered by which the poison germs of other scourges, more nearly allied to ourselves, may be modified so as to enable us to limit in no small degree the dire effects of scarlet fever, typhus, cholera, &c.? Pasteur's law, in consequence of Lister's application, has had a revolutionary influence on surgery, there is now good evidence before us that it is doing the same for obstetrics and medicine. Do we not, as citizens, learn from what I have said to-day that it is our duty and our interest to encourage scientific work? I can imagine a visit to Pasteur's laboratory about the year 1860 by a hard-headed successful man of business, who, judging by immediate results—a rapid turn over being the essence of successful trade—would certainly ask himself the question, What possible practical good can ever come to me or to my children from this investigation? As certainly do I feel that, in this utilitarian and practical age, he would leave that laboratory impressed with the waste of energy displayed, while he would assuredly admire the patience and perseverance of the investigator. I ask this same man to go with me at the present day into an operating theatre, and he will undoubtedly, in all that he sees, be carried back to that former visit, and he will be the first to acknowledge that his former estimate was essentially short-sighted and hasty. If our countrymen could only be persuaded of the great immunity from pain, and the comparative freedom from danger which they can now command, and if it has been demonstrated that these results are directly due to scientific work, based upon experiment, then they would most certainly do everything in their power to aid in fostering the work and encouraging the worker. It must be a law that every truth will in the future bear good fruit. Let each one present remember that "we are all working together for one end, some with knowledge and design, and others without knowing what they do."

What lesson do we learn as workers from what I have said to-day? Let some time be given to the culture of the reasoning faculties, devote a certain portion of each day to self-instruction, self-questioning. Let each of us do a little piece of truthful individual work. Make a start; begin at once; get into the way of doing some special work, and like

any habit—good as well as bad—it will grow upon you. If of a practical turn, you will work by experience and observation; if of a scientific turn, you will work by experiment. Both have their value; and even if you only take up the rôle of an overturner of false doctrine, or even a critic of true doctrine, you will all have your use, as Marcus Aurelius says: "Men co-operate after different fashions, and even those co-operate abundantly who find fault with what happens, and those who try to oppose it and to hinder it, for the universe hath need even of such men as these."

One word of warning. The simple treatment of a wound with water dressing was, we now know, imperfect; still the majority were satisfied. Accidents, local and constitutional, were smoothed off and excused by the too common phrase, We had done our best. Let us take care that we do not fall into this error with regard to our present work. As you work, be sure to fight against any temptation which may encourage you to suppose that our knowledge is now perfect. Perfection is not of this world. Is it too much to ask for encouragement for individual work? Some years ago I tried to show that our extra-mural school—a most important factor in our system of medical education—owes very much of its success to the encouragement which is given to the individuality of its teachers, everyone of whom has chosen that subject to which he has devoted special attention. May I now say a word for the individuality of the taught? May I plead toleration and assistance for the man who desires to develop his mental individuality, who desires to concentrate his mind on some special piece of work? There is need for someone to speak out, to "use plain discourse," and to say, that if the public are to require of every candidate for any public duty a universal knowledge, the acquiring of which needs all his energies, then any power which he may originally have had of doing some special work—his individuality, his physical and mental personality—will be crushed out of him. Even our schoolboys are nowadays required to pass a certain standard, the examination system is in full force even in our infant schools. Would we not have more "lucidity" if the growth of our intellects was less fettered, simply directed, rather than pruned and trimmed, ordered to do this, forbidden to do that? Any unnecessary interference with the taught at once tells on the usefulness of the teacher. What opportunity have our schoolmasters to develop any special talent in their pupil when their energies are fully occupied in polishing all their material—good, bad, and indifferent—to one standard? The schoolmaster seems now to have little pleasure in life, he is a mill-horse working round a pivot, a mill-wheel supplied with water to do one thing—namely, polish boys. Let the public see that they take care that those to whom they entrust the education of the medical practitioner are allowed some scope for their imagination, some opportunity to develop the individuality of their students. The essentially evil feature of centralisation is its want of personality. Our medical schools still possess some personality; it will be a bad day when that is interfered with. This school to which we happily belong, will lose much of its brightness, will be hampered in its usefulness, if its teachers are compelled to degenerate into polishing machines. May I ever have before me, as an important part of my duty, the encouragement of the individuality of my students. May I be enabled ever to remember that I am dealing with men, each one of whom has some special ability, every one of whom has some special work. May I endeavour, as far as in me lies, to search out that special ability, to encourage and to direct that special work. Give me your help in the future as you have always done in the past; without your confidence I can do little, with it I will endeavour, by devotion to my duties as your teacher, to maintain the reputation of this school for honest work. Working together, let us day by day feel that something has been attempted, something has been done, and at the end of the session we will be able to look back with an inward feeling that, while far from what it should have been, some advance has been made, some problem has been solved. Remember that to everyone present a talent has been given. Let him look to it that he uses that talent aright.

A FEVER-STRICKEN CREW. — Lloyd's agent at Norfolk, Va., telegraphs that the *Marie Anne*, French brig from St. Domingo to Havre, had been towed into Norfolk, Va., by the Spanish steamer *Bellver*, with only three men on board, all the others, including the captain, having died of yellow fever.

## ON THE ACTION OF THE SALTS OF SODIUM, AMMONIUM, AND POTASSIUM.

By SYDNEY RINGER, M.D.,

AND

HARRINGTON SAINSBURY, M.D.

THE difficulties attending the observation of the action of drugs clinically result obviously from the complexity of the phenomena presented; in like manner, the pharmacologist, so long as his investigations relate to the animal organism in its entirety, has essentially to deal with the complex. Inference under these circumstances is correspondingly difficult. If to avoid this source of error our observations be restricted to a portion of the organism, it is clear that our inferences gain in exactitude in exact proportion to the simplification effected. The difficulty now lies in the applicability of inferences so gained when we pass to conditions no longer simple. It was with this difficulty clearly in view that the experiments, the results of which will now be shortly discussed, were undertaken.

The ventricle of the frog's heart was the test tissue selected. Through such ventricle of a heart isolated from the body an artificial circulation was maintained, whilst by means of a suitable apparatus (Roy's tonometer) the contractions were registered on a revolving blackened cylinder. The particular drug used was added to the circulating fluid. We were thus able to compare the working of the drugged and undrugged ventricle under conditions, artificial it is true, but definite and under control.

The structure and function of the tissue so selected are essentially twofold: ganglionic structures and muscular fibres on the one side; rhythmic contractility on the other—i.e., rhythm and contractility. The nervous nature of rhythm may be debatable; but that contractility is muscular is certain.

On such rhythmically contracting heart the action of the salts of potassium, sodium, and ammonium is briefly as follows:—

All three arrest the ventricle in diastole; they contrast, however, in the mode of arrest. Thus, as to their action on rhythm: Potassium salts tend markedly to arrest or suspend the spontaneous contractions, whilst yet the heart may be proved to be contractile by suitable excitation. Ammonium salts show no such tendency; the heart beats, often with an increased frequency, up to the very end—i.e., as long as contractility persists. Sodium salts fit in between, but come very much nearer ammonium than potassium salts; their action on rhythm being very slight.

As to their action on contractility, we have, on the one hand, potassium and ammonium salts acting with almost equal intensity; on the other hand, a wide gap intervening, sodium salts showing but feeble action.

One other point of contrast may be mentioned, it refers to the effect of continuous faradisation. This rapidly loses its power to excite the ventricle to contraction when a potassium salt is used; not so for the other bases, and the very slight and somewhat inconstant effect for ammonium and sodium salts contrasts strongly with the uniform and marked effect of potassium salts.

Restricting ourselves to these broad lines of contrast, some important points come out:—

First, an important fact—namely, that throughout the salts of potassium, sodium, ammonium, the potassium, sodium, and ammonium elements are traceable. Indeed, in these experiments they appeared to rule the effect. (Quite recently, in a leading article, reference is made to experiments on unstripped muscular tissue by Nothnagel; the same result was observed here, the potassium and sodium action appearing to be independent of the combination of these bases. These experiments, then, on isolated tissues would be confirmatory of the older statement by Guttman with reference to potassium salts—namely, that they are all exactly alike in the character and intensity of their action.<sup>1</sup> The results, however,

<sup>1</sup> For further details consult papers by the authors in the *Medico-Chirurgical Transactions* (vol. lxxv.), and in the *Practitioner* (Aug. 1882).

<sup>2</sup> THE LANCET, July, 1882.

<sup>3</sup> Wood's Therapeutics, third edition, p. 484.

probably represent but a partial truth. The completer statement probably should be that elements and groups of elements retain more or less of their individuality throughout their combinations, and this would surely apply to either side of a salt—the base and the acid. The value of such statement would be as a help towards classification.

Next, that under these simple conditions specified, a certain relation between potassium, sodium, and ammonium salts is manifest. Potassium standing first as most poisonous and threatening in two directions; ammonium coming next, its action being restricted to destruction of contractility; sodium coming last and ranking as but very slightly poisonous comparatively with either. These experiments, indeed, would make potassium salts some fourteen or fifteen times as poisonous as sodium salts. Is the conclusion not warranted that in their action on the muscular tissue of the ventricle, and on its intrinsic nervous apparatus, these salts will maintain a *like* relation, even though the conditions be the more complex and indefinite ones of the organism in its entirety? It is not that one would exclude action on the nerve centres, *vagus*, &c., from the effect witnessed on the entire organism, but that one would specify *one* from among the many factors in the equation. This relation of the salts of potassium, sodium, and ammonium has however been tested on other tissues, and found to hold—e.g., on the nervous system.<sup>4</sup> The results also with the entire organism show that whilst potassium salts are very poisonous, sodium salts can scarcely be made to kill.

Insistence has already been made in various quarters on the use of sodium and ammonium salts in preference to potassium salts; more especially has this been urged for the bromides.<sup>5</sup> (The bromide of sodium has been rather largely used in America.) Clinical evidence must obviously give the final judgment; but have we not here clear indication as to the lines on which clinical investigation should be pursued?—the suggestion being that salts of sodium should throughout be substituted for those of potassium and ammonium, till clinical evidence decide that the action of one or other of these bases is required in the particular case under treatment? This suggestion, then, is based not only on the results of experiments with the entire organism, but also on these more definite results gained from experiments on isolated tissues.

It may be added that both at the Children's Hospital, Great Ormond-street, through the kindness of Dr. Barlow, and at the Western General Dispensary, Marylebone, we have had the opportunity of trying the chlorate of sodium<sup>6</sup> in cases of stomatitis, with ulceration along the edges of the gums, but few cases up to the present have been collected. So far, however, the evidence in its favour is every bit as unequivocal as it is for potassium chlorate, which might be said to be one of the show drugs in therapeutics. Two of the cases gave the best kind of evidence obtainable; they were, namely, cases of relapse, and were cured by pushing the drug.

## NOTE ON THE CLINICAL CHARACTERS OF TUBERCLE IN BONE.

BY WM. SCOVELL SAVORY, F.R.S.,

SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

It is curious on reflection to see how many striking points of analogy there are between the progress and effects of tubercle in lung and in bone. In the first place the cancellous texture of bone, which is the seat of tubercle, resembles broadly in physical characters the parenchyma of lung. A section of cancellous bone and a section of dried lung have to the naked eye a very general resemblance. The structure of both is aptly described as sponge-like, and this resemblance is drawn more closely when a mass of yellow tubercle occupies the substance of each. In both cases the

spongy texture appears to be filled up and rendered solid by the infiltration of the caseous deposit. Then, too, the resemblance further appears in the halo of inflammation or increased vascularity of varying width which so often surrounds the mass. Still further is the likeness shown in the mode in which the tubercle degenerates. The included tissue is broken down and destroyed until, either by the escape or disappearance of the tubercle, a cavity is left in the cancellous bone corresponding very remarkably to a vomica in the lung. Furthermore, the likeness is extended by the relation of cancellous bone to a neighbouring joint and the relation of lung substance to the pleura. Just as pleurisy is so often set up by the disturbance of tubercle in the lung, so synovitis is often provoked by the disturbance of tubercle in adjacent bone; and just as empyema is sometimes produced by the perforation of the lung-wall and the escape of matter into the pleural cavity, so suppuration in a joint, which is too often destructive, is due to the perforation of the articular wall of bone and the escape of matter into the synovial cavity. In either case urgent symptoms are apt to supervene suddenly on comparatively latent mischief.

Then, I think, the variable progress and effect of tubercle in the lung are oftentimes repeated with singular resemblance in bone. This first struck me many years ago in studying the graphic picture which Dr. Latham drew of the various forms of phthisis in his masterly Lectures on Clinical Medicine, which, by the way, have been happily reproduced by the Sydenham Society under the editorship of Dr. Martin. Just as in lung, so in bone; the history of tubercle is sometimes that of a single formation, which passes steadily, with more or less rapidity, to destruction; sometimes that of several smaller ones simultaneously; sometimes, though this more rarely, that of a number of successive formations which pass through their stages one after another, leading in this way to a gradually extending destruction of osseous tissue. So, again, and in this I think the resemblance is most marked of all, there are in tubercle in bone phenomena very exactly corresponding to what Dr. Latham in the lung, and in the cervical glands as a more obvious illustration, has described as cases of mixed and unmixed phthisis. In one class, during the changes which tubercle, after its formation, is prone to undergo, there is only what may be called a necessary amount of inflammation excited in the surrounding texture, such as is just sufficient to accomplish the result of softening and expulsion, and which subsides as soon as that is effected. This Dr. Latham called the specific limit of the disease. In another class the inflammation provoked spreads widely and deeply beyond this, and becomes much more severe and extensive than is needful for the mere elimination of the tuberculous matter. In short, Dr. Latham's sketch might have been drawn from a study of tubercle in the head of the femur or tibia or in the tarsus or vertebra.

Within the whole range of pathology I know no better illustration of the value of extended study, or rather of the great loss from limited views which must come of too special observation. For the study of tubercle, if the difficulty would be adequately grasped, must be carried on not only throughout the whole fields of medicine and of surgery, but here, at all events, there can and ought to be no boundary between them. For the largest purpose, the land to be explored must be common to both.

Brook-street, W.

## ANOTHER NEW TEST FOR ALBUMEN.

BY GEORGE JOHNSON, M.D., F.R.S.,

PROFESSOR OF CLINICAL MEDICINE AND SENIOR PHYSICIAN TO KING'S COLLEGE HOSPITAL.

My son, G. Stillmest Johnson, in a paper published in the *Journal of the Chemical Society* (August, 1874) describes some compounds of albumen with the mineral acids, and gives a table showing the action of various chemical reagents in causing coagulation in solutions of these albumen compounds. He found that only two reagents besides the mineral acids cause the coagulation of albumen in solutions of all its acid compounds—namely, baric chloride and picric acid,—and he suggested to me that the latter of these two substances might be found a useful test for albumen in the urine; for while the baric chloride could not be added to normal urine without being precipitated by many of its

<sup>4</sup> Ringer and Murrell: *Journal of Anatomy*, vol. xii., p. 71. For further reference see also Wood's *Therapeutics*; articles Potassium Salts; also *Phys. Action of Sodium and Ammonium Bromides*. Third edition, 1881.

<sup>5</sup> See Wood's *Therapeutics*, Bromide of Sodium. Also paper on *Epilepsy with Cardio-Complications*, by W. A. Hollis, M.D., *Practitioner*, vol. xxii., p. 81.

<sup>6</sup> Through the kindness of Mr. Martindale we were provided with a pure specimen of this salt.

normal constituents—sulphates, carbonates, and phosphates—picric acid causes no precipitate in normal urine.

Acting upon my son's suggestion, I have for some months used a saturated solution of picric acid as a test for albuminous urine, with results which may be briefly stated as follows: In normal urine it has never given a precipitate or produced any other change than the slight yellow tinge due to the colour of the solution, the mixture remaining quite transparent. When heat and nitric acid, applied with the usual well-known precautions, have shown the presence of albumen, the picric acid solution has invariably caused coagulation in proportion to the amount of albumen.

Most clinical observers are agreed that one of the most delicate tests for a minute quantity of albumen consists in the addition of nitric acid to the cold urine, when a cloud appears at the junction of the two liquids. In applying this test the urine may be poured upon the acid which has been previously placed in the test tube, or the urine having been poured into the test tube, a few drops of the acid are allowed to flow down the side of the tube while held in a sloping position. It sometimes happens that when the amount of albumen is very small an interval of some minutes elapses before any change occurs at the junction of the two liquids. Now, in such cases I have found that a mixture of equal volumes of the urine and the picric acid solution has immediately become turbid with coagulated albumen. In this speedy and decided action of the test upon urine which is only slightly impregnated with albumen, the picric acid solution is superior to nitric acid. In applying this test it should be borne in mind that the picric acid saturated solution is but little heavier than distilled water, its specific gravity being about 1003; so that, unlike the heavy nitric acid, it tends when slowly poured into the tube to float on the surface of the urine, where a film of coagulated albumen forms at the junction of the two liquids. This floating film with the picric acid solution forms a pretty contrast with the film near the bottom of the test tube when nitric acid is the reagent employed. The coagulum formed with the picric acid solution in cold urine requires a very large excess of water for its solution; in fact it is about as insoluble as the coagulum produced by nitric acid. The picric acid coagulum is readily soluble in caustic potash and ammonia; if, therefore, albuminous urine be alkaline it will require to be neutralised or acidulated before applying the picric acid test; but in all my numerous testings with the picric acid I have not once found it necessary to acidulate the urine. One result, then, of my industrious son's purely scientific work at these compounds of albumen has been to supply us with a really valuable addition to our tests for albumen in the urine.

Then it has lately occurred to me, what is obvious enough when once attention is directed to it, that for a saturated solution of picric acid the crystals or the powder may sometimes be substituted with advantage. A small crystal added to the albuminous urine quickly dissolves and as quickly coagulates the albumen. The crystals are permanent in the air, and may be kept for any length of time without undergoing change; and I venture to predict that a few of these crystals in a small bottle will speedily take the place of nitric acid, whether in sealed tubes or in bottles, in all urinary test cases which are made for carrying in the pocket. With picric acid powder or crystals in one bottle, and Cooper and Fehling's test pellets in another, the most complete urinary test case need contain no other liquid than the spirit in a small tubular spirit lamp. I have for some years carried in my case nitric acid in a well-stoppered and capped bottle, and then enclosed in a boxwood box; but I now with a sense of relief replace the destructive liquid acid for the entirely harmless solid.

Since the preceding was written I have met with two specimens of urine suspected to be albuminous, in which picric acid caused a decided opalescence, while nitric acid only darkened the colour of the urine. I am therefore confident that in some cases picric acid will prove to be a more delicate test for a mere trace of albumen than nitric acid. In the solid form the powdered picric acid has this advantage over the crystals, that it dissolves more rapidly.

Savile-row, W.

DR. SEDGWICK SAUNDERS, the Medical Officer of Health for the City, in his report last week, stated that of 302 houses, thirteen required sanitary improvement.

DR. J. C. NUNAN has been elected chairman of the Kinsale Town Commissioners.

## RUPTURE OF THE URINARY BLADDER.

By WALTER RIVINGTON, F.R.C.S. ENG.,  
SURGEON TO THE LONDON HOSPITAL.

### PART III.

#### REPORTED CASES OF RECOVERY AND TREATMENT.

THE reported cases of recovery after rupture of the urinary bladder with which I am acquainted are twenty-six in number, and may be arranged as follows:—

1. Partial or subperitoneal ruptures. One case under Mr. Keal.

2. Extra-peritoneal ruptures. (a) Rupture into the vagina. Three cases under Wilkinson, Earle,<sup>1</sup> and a friend of Dr. Blundell's<sup>2</sup> respectively. (b) Rupture into the rectum. Two cases under Ward<sup>3</sup> and Call<sup>4</sup> respectively. (c) Perforations by splinters of bone. Four cases under Astier, Eve, Townsend, and Thompson respectively, to be found in Dr. Max Bartels' paper. (d) Ruptures into the perivesical connective tissue. Eight cases under Syme,<sup>5</sup> Porter,<sup>6</sup> Walker,<sup>7</sup> Padley,<sup>8</sup> Rose,<sup>9</sup> Max Bartels,<sup>10</sup> Berner,<sup>11</sup> and Jeanmaire<sup>12</sup> respectively; and to these I might add a case which came under my own observation.

3. Intra-peritoneal ruptures. Eight cases reported respectively by Walter,<sup>13</sup> Le Gros Clark,<sup>14</sup> Erskine Mason,<sup>15</sup> Thorp,<sup>16</sup> McDougall<sup>17</sup> (two cases), Morris,<sup>18</sup> and Chaldecott.<sup>19</sup>

Partial or subperitoneal ruptures may be more common than is generally supposed, and Mr. Keal's case requires no comment.

In the examples of rupture into the vagina, distended and neglected bladders gave way in consequence of the accession of labour and the use of instruments. The rents were in a most favourable situation, and in this class of cases there is nothing to militate against recovery.

Of the rectal cases, one (Ward's) was secondary from sloughing, and the other (Call's) appears to me to have been probably a rupture of the membranous urethra into the rectum. Such communications are sometimes met with in cases of stricture.

The cases of perforation of the bladder by fragments of bone are only included because they appear in Max Bartels' list. Splinters from fractures of the pelvis pierced the bladder. In one case a splinter came from the urethra; in the others the splinters became encrusted with phosphates, and were removed by lithotomy after the lapse of months or years.

Six of the extra-peritoneal ruptures (Syme, Porter, Rose, Max Bartels, Berner, and Jeanmaire) are undoubtedly genuine instances of recovery after traumatic effusion of urine into the perivesical connective tissue, and require no comment. Mr. Padley's case was not traumatic. The patient had a tight stricture, and urine appears to have escaped from the bladder in consequence of a syphilitic ulcer perforating the wall of the viscus. Of the genuineness of Dr. Walker's case I am far from convinced, and the second-hand report of the case to which I have alone had access is so brief that I reserve a final judgment. A man, twenty-three years of age, had been crushed between an engine and a car. His bladder is said to have been distended. A tumour appeared anteriorly, which subsided when the catheter was used. A rupture of the anterior wall of the bladder was diagnosed, and lateral cystotomy was performed with subsidence of the freshly accumulated tumour, and tenderness. Improvement and rapid convalescence followed, and in fifty-five days the patient resumed his occupation. In the absence of clear

<sup>1</sup> THE LANCET, June 27th, 1829.

<sup>2</sup> Lectures, THE LANCET, Feb. 28th, 1829, p. 677.

<sup>3</sup> New York Lancet, vol. i., 1842. <sup>4</sup> THE LANCET, Dec. 10th, 1881.

<sup>5</sup> Contributions to the Pathology and Practice of Surgery, p. 832.

<sup>6</sup> Rynd on Strictures, p. 43.

<sup>7</sup> Med. Com. Massachusetts Med. Soc., art. iv., case 6, vol. viii., 1845, quoted in Erskine Mason's paper. The original is not accessible.

<sup>8</sup> THE LANCET, March 4th, 1882.

<sup>9</sup> 10, 11, 12 See Max Bartels' paper, op. cit.

<sup>13</sup> Ranking's Abstract, 1862, vol. ii.; and Philadelphia Medical and Surgical Reporter. I have only been able to refer to Ranking's Abstract.

<sup>14</sup> Op. cit. <sup>15</sup> New York Medical Journal, 1872.

<sup>16</sup> Dublin Quarterly Journal, vol. xlv., p. 306.

<sup>17</sup> Edinburgh Medical Journal, Jan. 1877.

<sup>18</sup> Medical Times and Gazette, Nov. 1879.

<sup>19</sup> Provincial Medical and Surgical Journal, 1846.



evidence that the bladder was distended at the time of the accident this case is open to grave doubt. If urine had escaped from the bladder into the perivesical connective tissue, immunity from suppuration and sloughing could not be expected, nor could lateral cystotomy have removed the collection of urine. The fact that both catheterism and lateral cystotomy removed the tumour is a strong argument in favour of that tumour having been really caused by the bladder itself.

My own case was that of a woman, twenty-three years of age, who came under my care at the London Hospital for supposed hip disease. Eighteen months previously she had fallen down whilst pregnant, and three weeks after the accident she gave birth to a dead foetus seven months and a half old. Parturition was favourable, but she was ill directly afterwards, and suffered from a constant pain in the side. Suddenly the pain removed to the right groin, and abscesses formed, leaving discharging sinuses. One day urine was found issuing from these sinuses by my dresser, Mr. Needham. Ultimately, after she had left the hospital, she made a complete recovery, and has since borne children.

Out of the eight cases of reported recovery after intra-peritoneal rupture, abstracts of six will be found in Max Bartels' list—viz., those reported by Walter, Erskine Mason, Thorp, McDougall (2), and Chaldecott, and only one (Walter's) is admitted by that laborious and careful author as a genuine case of recovery after intra-peritoneal rupture. He disposes of four—viz., the cases of Thorp, Erskine Mason, and McDougall—by regarding them either as errors of observation or as cases of subperitoneal or extra-peritoneal rupture mistaken for intra-peritoneal. Chaldecott's case is passed over in silence. Dr. Walter's patient was a man aged twenty-six, who had received a blow on the lower part of the belly. Abdominal section was performed ten hours after the accident. A sponge introduced mopped up nearly a pint of urine and extravasated blood. A rent was observed in the base (?) of the bladder, two inches long. This rent was left to itself. That the foregoing is a genuine case of recovery can scarcely be questioned, unless it is possible for an observer to mistake serous fluid and blood for urine and blood, and by an optical illusion to fancy that he sees a rent where none exists. Mr. Heath demonstrated the rupture in his case by passing a catheter into the bladder and through the rent, and it would have been as well if some precaution of the kind had been adopted by Dr. Walter, so as to leave no room for scepticism. As to Thorp's case has been elevated into a fiction, and changed by the imprimatur of Mr. Heath. The patient, a man, thirty years of age, who was thrown from a horse whilst intoxicated, and was found lying by the roadside. Dr. Thorp made the diagnosis, before he had introduced the catheter, from the bent posture of the patient, the rigidity of the abdominal muscles, and the urgent and constant desire to pass water; and the diagnosis was "placed beyond the possibility of doubt" by the empty state of the bladder and the change in the direction of the catheter. The most expedient means to obtain urine. No examination of the bladder at the time of the accident was obtained, and several prominent symptoms were absent. Dr. Thorp's treatment was what he considered to be the best, and the peritoneal cavity by means of a catheter was washed with an indiarubber bag. Tepid water, to the amount of three gallons, was injected through the instrument, and a bagful of about eight ounces was injected, and the same quantity removed, showing positively and finally that the fluid had indeed entered the circumferential cavity of the unruptured bladder.

In neither of Dr. McDougall's cases is there any satisfactory evidence of distension of the bladder at the time of the accident, and some of the most characteristic primary symptoms of rupture were conspicuously absent. Few surgeons would have any hesitation in setting aside the first case related. The second case rests mainly on the inability to micturate, the presence of blood in the urine, the small quantity of urine drawn off by the catheter, and the removal after an interval of a few hours of twenty-one ounces of fluid by means of the aspirator. Dr. Max Bartels carefully excludes the case from the category of intra-peritoneal ruptures, but seems willing to admit that it may have been an extra-peritoneal rupture; but even this view is attended with difficulties, to my mind insuperable. I believe that there was some unusual condition interfering with the withdrawal of the urine by the catheter, and that the aspirator entered the bladder itself. Dr. Erskine Mason's case has been freely criticised by Mr. Willett, who had no difficulty in rejecting it as an

intra-peritoneal rupture, although he concedes an extra-peritoneal rent, and allows Dr. Mason the credit of having saved the life of the patient by lateral cystotomy. Curiously enough, Mr. Willett did not see that the absence of evidence of a distended bladder, and of direct injury to the hypogastric region, as well as the other details of the case, militate equally against an extra-peritoneal rent behind the prostate; and, as I read the case, Dr. Mason himself proved by digital examination that there was no effusion of urine between the rectum and prostate or anteriorly to the latter organ, and inasmuch as a collection of urine in a cavity behind the prostate and on the left side would not have been reached by a lateral lithotomy performed like Dr. Erskine Mason's operation *secundum artem*, by a limited incision, and inasmuch as bloody urine escaped in quantity when the apex of the prostate was only notched, before the finger even was introduced, it follows that the fluctuating tumour felt behind the prostate was the bladder itself, and that the catheter had never fairly reached the urine collected in the vicus.

Mr. Morris's case reads to me like one of severe contusion of the abdomen of the pelvic fascia and peritoneum, and of the bladder itself. The evidence of distension of the bladder is defective, as the man had passed water about an hour before the injury. According to the patient himself, he passed by his own efforts three-quarters of a pint of urine in the first thirty-six hours, and very likely the quantity was greater. On admission to the hospital the catheter removed three or four ounces of clear urine, and failed to detect any rent in the bladder, although moved about for the purpose. Plenty of urine was drawn off daily through an elastic catheter fixed in the bladder.

In Mr. Chaldecott's celebrated case it is a most unfortunate circumstance that no evidence is adduced to prove the fullness of the bladder at the time the patient ran against a post, beyond the mere fact that the patient himself felt a strong desire to make water, and hastily crossed the road for the purpose. To describe the bladder as full or distended on this evidence is a *petitio principii*. We are asked to believe that urine was poured into the peritoneal cavity, and was rapidly absorbed, taking in a few days the form of gout; that peritonitis at the same time was set up, and began to subside in twenty-two hours after the accident, on the administration of two scruples of sedative solution of opium. It is true that Mr. Aston Key saw the patient, and thought that the bladder was ruptured; but Mr. Aston Key did nothing to demonstrate the rent by passing the catheter into the peritoneal cavity, through the rent in the bladder. Is it not far more probable that the case was really one of suppression of urine complicated with the effects of the accident, due to latent gout, and passing off under warmth and opium, than that the bladder was ruptured, and that urine poured into the peritoneal cavity was rapidly absorbed and converted into gout? I cannot see that the difficulties of the case are diminished in the least by regarding it as one of sub-peritoneal, or extra-peritoneal rupture, and the theory of suppression has not yet been disposed of satisfactorily.<sup>20</sup>

(To be concluded.)

## CASE OF CYSTIC BRONCHOCELE.

IMPENDING ASPHYXIA; ASPIRATION; RELIEF; EARLY RE-ENLARGEMENT; ATTEMPT AT RADICAL CURE; TRAUMATIC FEVER; DEATH.

By HERBERT A. SMITH, M.R.C.S., L.R.C.P. ED.

IN common with many localities in which goitre is especially endemic, North Wiltshire might be included in the list of districts where the disease is very prevalent. The chalky character of the soil and the glaring white appearance of the hilly "cuttings" are particularly noteworthy to the stranger; the permeation of watercourses through these, and their impregnation with lime salts, are therefore but natural phenomena. Malarial diseases proper are, however, rare, and thus goitre, deprived of a malarial element, is

<sup>20</sup> Dr. Eben. Watson advanced the view of suppression in the Edinburgh Monthly Journal, Oct. 1848 and 1849, p. 561. A controversy took place between him and Dr. Gillespie in the Edinburgh Medical Journal, March, 1850, p. 811, and the Glasgow Medical Journal, 1850. Dr. Gillespie combated Dr. Watson's arguments with some success, but the theory of suppression was by no means disproved.

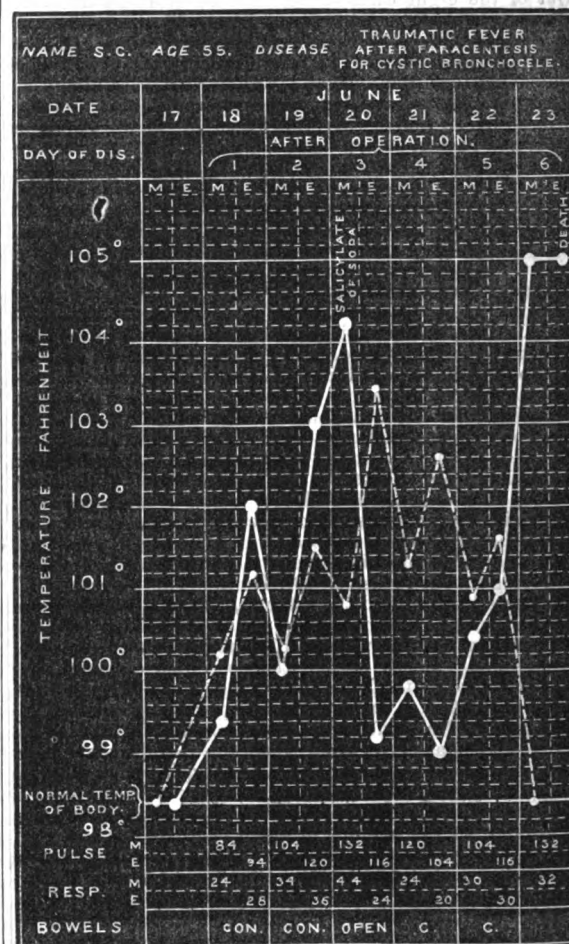
generally an innocent and slow-growing formation. Two views might be advanced respecting the pathology of the cystic variety: (1) that the lining membrane of the vesicles of the thyroid gland proper, already enlarged by the same agency, has a special affinity for the lime salts, and, appropriating them, undergoes progressive development, and so general coalescence; or (2) that the elaborate vascular supply of the gland finds in these vesicles a harbour of refuge for the superfluous salts of the blood, which effect their hypertrophy. We find that water-drinkers—e.g., women and teetotallers—mostly suffer from the disease, and that change of locality and habits of life are alone fruitful in staying its further development. The stationary character of the disease already developed, without the local exciting cause, certainly supports this view. Conversely, I find that rickets is an almost unknown disease in this locality.

S. C.—, aged fifty-five, a well-developed, temperate, somewhat stout woman, of anæmic appearance, who has generally had good health, the mother of sixteen children, was born and has always lived at her present home (Mere). She states that she first noticed a fulness in her neck after the birth of her last child (sixteen years ago), and that gradually enlarging the right became larger than the left side, and that proportionate development of each lobe continued until recently. Semi-spherical in shape, the left lobe partakes of a prominent globular form in front. Each is smooth, elastic, tense, and fluctuating, the gland as a whole being non-adherent above and below. The transverse measurement of both lobes is  $11\frac{1}{2}$  in., the vertical measurement of the right lobe being  $5\frac{1}{2}$  in., that of the left  $5\frac{1}{2}$  in. The lateral boundary of the right is one inch beyond the outer edge of the sterno-mastoid muscle, that of the left half an inch beyond the outline of the fellow muscle, the inner boundary of the same lobe slightly encroaches on the right side, obscuring above the pomum Adami (prominence) the gland extends inferiorly half an inch below the sternal notch; the outline of the right lobe is regular, the surface of each mottled with prominent veins and dilated capillaries; no tenderness or redness; there has been an absence of reflex symptoms, save when she has had "a cold." Deglutition has been hitherto painless (ordinary diet), utterance thick, dyspnoea urgent only in the recumbent position, when compression of the two lobes greatly lessens her breathing power; exertion, excitement, and lying down have, since her last bronchial attack, however, caused urgent dyspnoea, dysphagia, and a noisy stridor is manifest in her respiration and speech; the expression, moreover, is anxious and pallid. Compression of the gland below is slight, the lower portion being supra-sternal. She has sought advice from many medical men, chemists, and, lastly, homœopaths, who equally rung the changes between paints, unguents, and specifics, externally and internally, but all of no avail in the appreciable reduction of the tumour. A few days after consulting me she had symptoms of impending asphyxia, from a bronchial catarrh superadded to a compressed trachea; dyspnoea was extreme, respiration feeble and rapid, face livid and extremely anxious. There was every indication for surgical relief. Finding the growth cystic and fluctuation distinct, I decided on aspiration on the left side, using the largest trocar. This done, a dark coffee-coloured partly flocculent, partly ropy-looking fluid mixed with a brickdust sediment came with a rush into the bottle, in all seven ounces and a half, when, relief being obtained, the trocar (already blocked) was withdrawn, as the patient showed signs of syncope, and the further evacuation of the cyst (which the trocar freely explored) was left for a second sitting. On examining the fluid it was found highly albuminous (one-third), inodorous and alkaline, sediment in colour, consistence, and character like liquid tomato sauce, holding in suspension white shining lenticular pseudo-crystals of varying size; these were probably the broken down debris of the concretions (arranged in strata) of the lining membrane.

May 14th: Wound of puncture healed. Passed a good night, sleeping five hours; some tenderness. Tumour rapidly gaining its original size. The bandage (to support intracystic vessels) to be loosened. Ordered a stimulant draught every four hours. Deglutition followed by movement of the left lobe upwards and to the left; the same lobe bulges half an inch beyond the middle line; general condition good; little local discomfort.—19th: Pain during speech and deglutition in the right side, mostly over the large vessels. Nerve irritation over the upper border of left lobe (intra-cystic distension); "feels dazed often, and I has

visions of foreign bodies, with dragging of the cords of the eye." Aconite liniment was applied.—20th: One week after date the measurements were—transverse measurement of gland,  $10\frac{1}{2}$  in.; vertical measurement of right lobe,  $6\frac{1}{2}$  in.; vertical measurement of left lobe,  $6\frac{1}{2}$  in.—24th: Some pain, and stridor, which is noisy; speech thick. There is now bilateral fluctuation. General health good.—27th: Having suspected more fluid remaining at last aspiration, and tumour having refilled, I decided, with full wish of patient, to repeat the process, and during this sitting removed fourteen ounces of fluid, thinner and brighter (sediment one-fourth), reducing the neck to nearly its normal dimensions. Although the patient bore this well, and support to the neck was given, the following day the measurements were: Transverse measurement of gland, 9 in.; vertical measurement of each lobe,  $4\frac{1}{2}$  in.; circumference of neck, 20 in. No subsequent bad symptoms supervened, but refilling of cyst is manifest again.

June 17th: Urgency again marked from re-enlargement of gland, noisy stridor, dyspnoea, lividity, and anxiety of



The dotted line records the temperature without salicylate treatment. The thick line shows the body-heat during the employment of that treatment.

countenance. Measurements: Transverse,  $9\frac{1}{2}$  in.; vertical of right lobe,  $6\frac{1}{2}$  in.; vertical of left lobe,  $6\frac{1}{2}$  in. At the patient's wish that something "more lasting" might be done, with the idea, as suggested by Dr. M. Mackenzie (Clin. Soc. Trans., vol. ii., page 15) of destroying the secreting power of the lining membrane and promoting suppuration, I offered and performed paracentesis, subsequently injecting the cavity (through the cannula) with a solution of iron tincture (two drachms to the ounce); of this, one drachm was retained after evacuation, which gave thirteen ounces and a half of dark, bloody serum. Prior to injection it was found necessary to free the cannula as it became blocked. The probe exploring fully eight inches of the monocyst transversely, it gave no pain. Antiseptics were not used, but

all instruments after cleansing thoroughly were steeped the previous night in a carbolic solution (one in forty). After injection the cannula was retained *in situ*, and plugged with carbolised tow, and a support to the collapsed tumour given by strapping (broad strips) placed transversely half-way across the neck.—18th: Temperature 99.4°; respiration 24; pulse 84. She is languid, feverish, and complains of constriction of the strapping; on being loosened, instant relief followed, although anterior bulging of the tumour (now tender) shows that inflammatory swelling has set in. Support by means of a soft handkerchief and a stimulating draught ordered, also a compound senna draught. The same evening a rigor, followed by sweating, occurred. Temperature 102°; respiration 36; pulse 120; effusion, pain, and swelling increasing.—19th: Temperature 103°; respiration 36; pulse 120. To have compound citrate of potash draught, and diffusible stimulants.—20th: Temperature 104°; respiration 44; pulse 132. Early rigor (6.30 A.M.); pulse small; tongue foul; face flushed; skin hot, pungent; conscious. Ordered fifteen grains of salicylic acid every two hours; removal of cannula, substitution of a rubber drainage-tube, and a poultice to bring on early suppuration. Evening temperature 99.2°; respiration 24; pulse 116; free sweating (clammy); respiration tranquil; face still flushed; escape of fetid fluid from the drainage-tube; neck suppurating.—21st: Rigor (6.45 A.M.); temperature 99.8°; respiration 24; pulse 120; bowels open twice. To continue the salicylic draught every four hours, and to take champagne.—Evening temperature 99°; respiration 20; pulse 104. Escape of half a teacupful of fetid serum and relief; face still flushed; clammy sweat. To anticipate rigor to take a full dose of salicylic draught in the morning.—22nd: Temperature 100.4°; respiration 30; pulse 104, full, regular. Complaints of noises in the head (draught) and cramps in the leg; conscious; no rigor. Evening temperature 101°; respiration 30; pulse 112. Semi-conscious; discharge from neck, though less; tongue foul; has gastro-umbilical pain (solar plexus). To have an enema.—23rd: Temperature 105°; respiration 32; pulse 132. Sighing, high-pitched respiration; muttering, restless delirium since early morning; *alae nasi* working; pallor of face; extremities cold, left leg especially, but dorsalis pedis found pulsating; pupils contracted, insensible. Some rhonchus on the right side; tumour tense, much enlarged, pungently hot, and dusky; office of wound choked with coagulum; right lobe refilled and fluctuating; left lobe tense, tender, and fluctuating in upper, dull and solid in the lower, meridian. Treatment: Removal of clots; renewal of fomentation; to continue salicylic draught and champagne; hot bottles to the feet. 4 P.M.: Continuation of delirium. Death from coma. Shortly after death the cyst ruptured, discharging per ora half a pint of fetid pus; tumour extending from chin to sternum; gangrenous. No post-mortem allowed.

*Remarks.*—The coma was induced by the compression of the large cervical vessels, the previously high temperature being unattended with unconsciousness. A rigor thirty-one hours after the operation foretold the onset of the traumatic state; the departure of the temperature, of which a chart is annexed, from the normal is explained by the salicylate treatment, which brought it down five degrees on the third day; the morning rise on the fifth was recorded after a rigor; of these three were marked, and a fourth (unnoticed) preceded the rise to 105° in my opinion. The mechanism of effusion in this case was interesting. Twenty-four hours after the operation by either method the tumour had enlarged to within 1½ in. of the transverse and 1 in. of the vertical measurement, giving roughly an average of half an ounce secreted per hour, not allowing for that absorbed; after this, compression of effused contents allowed but little if any further secretion. The early enlargement of the cyst is due evidently to the power of effusion the lining membrane possesses, its stationary character to the process of absorption in the absence of a serous membrane being at zero. Had the one kept pace with the other, putrefaction would not have occurred; there would have been a limit to the tension. The question now arises, Did the cause of the high inflammatory action set up rest in the introduction from without of invisible germs that rendered the fluid infective? It is admitted that the exudation of serum is not infective as alike are organisms without; could then a chemical change in the exudation products leading to genuine suppuration take place as readily with antiseptics as without? Could it occur at all without the presence of micro-organisms? Occurring in an isolated country cottage,

a model of cleanliness, it would seem that there was not sufficient chance of the air containing septic matter even in a diffused form to prove effective in blood serum to make it necessary to raise the question at all. Again, if as an irritant the injection of iron, as in rodents (Wegner), is always infective, and the exudation products are thereby septic, and if the aim of our treatment, suppuration, is invariably attended with the presence of septic organisms, it seems to me that antiseptics are not indicated; if, on the other hand, the inflammatory changes that accompany the use of antiseptics are of limited extent and duration (Sanderson), our course is obvious. Yet my treatment is counselled by a great authority. The presence of septic organisms generated from without in common with the bacilli of tubercle (Baumgarten) must first be proved by some well-known and simple test before the danger signal is upheld against our surgical resources divested of an antiseptic element; if, on the other hand, we are to be guided by Professor Hueter, we must invariably use antiseptics in our practice, taking our sprays suspended to our pack-saddles, even into remote country districts, in carrying out the theory that "organisms exist everywhere, ready, whenever access is offered to them, to enter the body and to fulfil their morbid function."

Ealing.

## SUCCESSFUL EXTIRPATION OF THE LARYNX.

By WALTER WHITEHEAD, F.R.C.S.E., F.R.S. EDIN.,  
SURGEON TO THE MANCHESTER ROYAL INFIRMARY.

LARYNGEAL SURGERY has of late attracted considerable attention, and as the profession is somewhat divided in opinion on the respective merits of extra- and intra-laryngeal operations in dealing with laryngeal growths, I wish to place on record the particulars of a case favourable to the former procedure.

W. G—, aged forty-six, blacksmith, was admitted into the Manchester Royal Infirmary on April 28th, 1882, on the recommendation of a medical friend, who suggested the desirability of removing a growth which he had discovered attached to the right vocal cord. The patient had suffered from extreme hoarseness, difficulty in breathing, distressing cough, and occasional paroxysms of dyspnoea, for three months before coming under observation. Laryngoscopic examination afforded a conjectural diagnosis that the growth, which overspread the right vocal cord, was of an epitheliomatous nature. The disease could only be inferred to extend beyond the range of vision by the knowledge that malignant neoplasms in that locality usually extend below the cords. Tracheotomy was performed as a preliminary measure on April 30th, the operation giving immediate, but only temporary, relief to the more pressing symptoms. A recurrence of ominous dyspnoea, which was afterwards discovered to have been produced by the imperfect manner in which the cannula had been reintroduced after having been removed for cleaning, hastened the decision to remove the disease.

On May 27th the thyroid cartilage was slit from below upwards, and the two halves held apart, when it was seen that the new formation not only implicated the vocal cord, but extended, as was conjectured, downwards, and involved the upper part of the trachea. Before proceeding to excise the diseased structures, Trendelenburg's tampon was substituted for the tracheotomy cannula, and the insufficient protective influence of the tampon against blood finding its way down the air-passages was guarded against by packing the trachea above with a small sponge. The whole of the disease, the thyroid and cricoid cartilages, and the two upper rings of the trachea, were then removed by means of scissors. The epiglottis was left intact. The skin was brought together by a few silk sutures, and the wound dressed with dry lint.

On the following day Trendelenburg's tampon was replaced by a soft rubber tube which still remains *in situ*. A microscopic examination of the growth confirmed the diagnosis as to its being an epithelioma. The patient's voice was not immediately lost; for several weeks after the operation he could express himself in monotone and could be distinctly heard at a distance of six feet; gradually the sound faded and eventually disappeared altogether. It can still be demonstrated, by means of a flame in front of the mouth,

that air finds a channel in the track of the original air passages. The patient now breathes quite freely, takes his food without inconvenience, and enjoys life as fairly as can be expected under the circumstances. The absence of any local glandular enlargement or evidence of any recurrence of the disease affords a reasonable prospect that the patient may derive prolonged benefit from the operation. The idea of introducing the artificial vocal apparatus of either Gussenbauer or Foulis was entertained, but abandoned on the grounds that no real advantage had yet been established in favour of these instruments. The preference for thyrotomy was based on the opportunity it affords for a complete inspection of the entire larynx, and the facility it gives for extending or restricting the extent of the operation to any limit necessitated by the amount of the disease. The only difficulty met with during the operation was the separation of the deeper attachments.

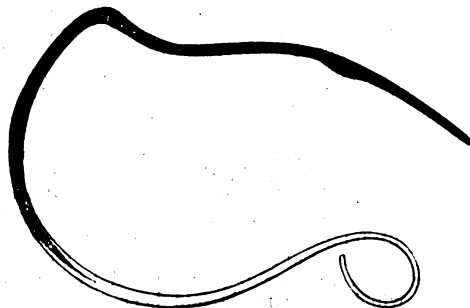
Manchester.

## CASE OF PARASITIC AFFECTION OF THE MOUSTACHE.

By GEORGE THIN, M.D.

THE following interesting case which occurred in my practice is worthy of record for several reasons.

In April, 1876, a gentleman, aged about thirty, consulted me on account of loss of hair in one part of the moustache, a little to the right of the nose. He had recently returned from residence abroad, but was in good health, and very careful of his person. His strong black and handsome moustache was disfigured by a bald strip about a quarter of an inch broad, which passed from its upper to its lower border. The hairs on both sides of the bald strip were split at the ends, and were bent and withered-looking. On examining these altered hairs under the microscope, they were found to contain spores similar in size and appearance to those of *trichophyton tonsurans*. The disease of the hairs had



Hair from moustache affected with fungus growth (*confidia*), macerated in solution of potash, and mounted in glycerine. The dark part shows the portion of the hair in which the spores were present. Magnified five diameters.

existed, he told me, for five months. I directed him to brush his moustache twice daily with the following preparation:—Carbolic acid, one drachm; olive oil, two ounces and a half; lavender oil, six drops. In less than a month the disease had disappeared, and the bald part became again covered with healthy hairs. But the singular part of the history is to come. The disease was first observed in November, 1875. It reappeared in November, 1876, and every succeeding November until 1880 inclusive. Last November, for the first time since it commenced, it did not reappear. During the successive outbreaks the nature of the disease was verified by microscopic observation. In the attacks subsequent to the first the carbolic oil was used four times stronger than I originally prescribed it, and always with the speedy cessation of the loss of hair. The skin from which the hairs fell off remained healthy in appearance, showing no redness or scaling, or any signs characteristic of *tinea circinata* or *tonsurans* or of parasitic *tycosis*.

The two points that have led me to consider the case as remarkable are, first, the position of the fungus in the hair;

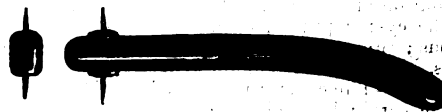
and, secondly, the reappearance of the disease in November for five successive years. In regard to the position of the fungus, the direction of the growth is different from that which I have observed in *tinea tonsurans*. In that disease the fungus grows into the hair-follicle between the hair-shaft and the internal root sheath, enters the shaft near the papilla, and grows outwards in the centre of the shaft. In this case the fungus attacked the free extremity of the hair, and grew downwards towards the skin. This is shown in the accompanying woodcut, which represents a drawing of an affected hair slightly magnified. In the woodcut the dark end is the free extremity of the hair, and represents the portion of the shaft affected with the fungus. The tapering extremity of the dark band in the centre of the hair accurately represents the manner in which the growth is found penetrating the shaft. Why this disease should have recurred each successive November can only be guessed. We must, I imagine, assume that some spores remained from each year to the following year, and that in November they found the conditions of growth. The parts of the hairs in which they grew were completely removed from the fluids of the body. Did they find in November the conditions of temperature and moisture suitable to their growth? The patient during these years enjoyed good health, lived in London, and led an active professional life.

Queen Anne-street, W.

## A NEW INTRA-UTERINE STEM, COMBINED WITH AN INSTRUMENT FOR KEEPING SEPARATE THE LIPS OF THE CERVIX AFTER INCISION.

By J. BERESFORD RYLEY, M.D.

It will, I think, be admitted without question that dysmenorrhœa and its wide-spreading effects solicit the attention of the profession more frequently than all the other diseases of the uterus put together. Any new mechanism therefore that has for its object the further alleviation of a malady so distressing, on account of its physical, physiological, and psychological consequences, will, I feel sure, be received with that consideration which its importance deserves. The idea of making the cervix uteri the *point d'appui* or fulcrum for an intra-uterine stem,



instead of the vagina or a point outside the body as has hitherto been the case, had been present to my mind in an indefinite shape for a long time, and is only the extension of another which had for its object a contrivance for keeping separate the lips of the cervix after incision. Those who have been called upon to perform this operation and all who have written on the subject are aware and assert that a successful issue depends altogether upon the tedious after-treatment and is but little affected by the mode of operating. Dr. Atthill of Dublin, than whom no one has written more practically upon this point, says in his "Diseases of Women," "Passing the uterine sound daily for at least two or three weeks subsequent to the operation and at intervals for some time longer, I find to be usually sufficient to prevent the divided surfaces from uniting." If one will but pause for a moment to consider the almost unbearable distress to the patient and the humiliating tedium to the practitioner involved in such a proceeding, it will not be wondered at that so many should have pronounced this operation to be most unsatisfactory. I have examined the cervix uteri after operation by most of the well-known gynaecologists in London and elsewhere, and have usually found that after a time its canal and outlet had contracted back to their originally abnormal conditions, and that the history of the majority of the patients was that they had had more or less relief for a few months after operation, but that the pre-existing symptoms had returned as severely as ever. Again, those who have had any experience in the application of the various forms of uterine pessaries must very often have



felt extremely disappointed with their general results, and will, I think, agree with me that not one-tenth of the patients for whom they are used obtain any marked benefit therefrom. Intra-uterine pessaries undoubtedly give much better results, but their mechanism hitherto has been so complicated and imperfect as to render their introduction and retention both difficult and distressing. I hope, however, that the instruments that I now submit to the profession will be found to obviate all the difficulties and distresses that I have enumerated. Their mode of application is so easy and the principle on which they are based so simple, that a glance at the diagram will be sufficient to indicate this without any tedious details on my part. It may be objected that an intra-uterine stem as applied in this manner will not alter any abnormal axis of the uterus; but I do not think that this is a matter of any great consequence, because the chief objects, I think, to attain by this mode of treatment are to straighten the organ in question and keep its canal pervious. It also may be thought that the metal pins on which the instruments are based might set up irritation at the points of puncture and easily tear through the structures, but I can answer from experience that neither of these objections will be found to be realised in practice, and that they can be worn for months without inconvenience. I hope that those who, like myself, make a special study of the diseases of women will give these instruments, which are made for me by Messrs. Krohne and Sesemann of Duke-street, Manchester-square, a fair trial, and kindly acquaint me with the results of their experience.

Finsbury-square, E.C.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tam aliorum tum proprias collectas habere, et inter se comparare.*—MORAGANI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### SEAMEN'S HOSPITAL, GREENWICH.

**RUPTURE OF LIVER; THROMBOSIS OF HEPATIC VEINS;  
EMBOLISM OF A BRANCH OF LEFT PULMONARY  
ARTERY; PLEURISY; DEATH; NECROPSY;  
REMARKS.**

(Under the care of Mr. G. H. MAKINS.)

THE following case came under Mr. Makins' care while doing duty for Mr. W. Johnson Smith.

On Sept. 30th, at 3.30 P.M., J. R.—, aged twenty-four, a labourer, while in a state of intoxication, was run over in the street by an empty cart, and taken at once to the hospital. The wheel, it was said, had passed over the abdomen.

On admission he was in a state of collapse, and could not be got to answer any question; the countenance and lips were extremely pallid, the pupils dilated, the extremities very cold, and the pulse almost imperceptible. He was put to bed, hot bottles were applied, and a hypodermic injection of brandy (twenty minims) was given. At 8 P.M. he was much improved in appearance, answered questions rationally, but in an excited manner; smelled strongly of spirits; lay on right side. He complained of great pain and tenderness in the epigastrium, but was able to turn in bed without much suffering; no abnormal abdominal dulness; had been sick twice since admission; respiration 30; abdominal wall moving freely; no sign of fractured ribs; temperature 97°; extremities still very cold; pulse 130, small, but quite perceptible. Hypodermic injection of one-third of a grain of morphia. The bowels were moved some time after admission. The patient had a quiet night, but slept little, and next morning he complained of much pain in the epigastrium. The abdomen was slightly swollen and tympanitic; no abnormal dulness in flanks; temperature 98.4°; skin still pale, and hands felt cold; pulse 150, small; respiration 32, chiefly thoracic, but abdominal wall still moved; tongue furred, but moist; no further vomiting. One teaspoonful of

brandy was given every half hour; milk diet; ice; one grain of opium pill was given, to be repeated in half-grain doses every four hours. At 8 P.M. the opium had relieved pain; still pallor; temperature 97°; hands very cold; pulse 150, very small; respiration 44, entirely thoracic and extremely shallow.

On Oct. 2nd he had slept fairly; lay on his back, sometimes with knees raised, sometimes down; slight pain and tenderness chiefly in epigastrium; abdomen as yesterday; respiration 38, thoracic, but much less shallow than last night; temperature 98°; skin moist; pulse 138, stronger and better volume; tongue moist, covered with white fur. Took plenty of milk. On the 3rd he had slept the greater part of the night, but in the morning he complained of pain on the left side of the chest; abdominal wall hard; abdomen slightly tympanitic, but no marked swelling; no tenderness anteriorly, and no abnormal dulness; respiration 30, entirely thoracic; pulse 120, steadier and stronger; temperature 99°; skin moist; tongue furred, moist; no sickness; bowels confined. 8 P.M.: Pain in left side very severe; respiration 40, very jerky and shallow; temperature 101.5°; pulse 140; chest somewhat hyper-resonant anteriorly; breath-sounds exaggerated, and some moist râles; patient not in a condition to be lifted to examine back. On the 4th he complained much of pain in the left side; face looked pinched; no cough nor expectoration; respiration 82, very shallow; pulse 182, stronger than last evening; temperature 101°. The breathing became rapidly more impeded, and the patient died in the afternoon.

**Necropsy.**—Abdominal cavity contained about a pint of fluid blood, one or two coils of small intestine slightly granular on surface, and the whole somewhat distended by flatus, but no further signs of peritonitis. At the right extremity of posterior border of the liver a laceration existed, a bruised portion of tissue occupying an area about the size of a small orange extending into the substance of right lobe; this was of an ochre-yellow colour, and internal to it were several fissures in the apparently healthy hepatic tissue containing blood-clot; externally it formed one of the boundaries of an incomplete cavity, the walls of which were made up in addition by the anterior fold of the coronary ligament, the diaphragm and the right supra-renal capsule, together with some recently effused lymph. This cavity contained fluid blood and debris, and the walls were deeply bile-stained. The hepatic veins leading from and traversing the bruised area were occupied by firm dark blood-clot, and this condition was found to extend back as far as their entrance into the inferior cava, the lining membrane of the veins being roughened and vascularised. On microscopical examination the yellow area of hepatic substance was found to be in the condition known as "coagulation necrosis," and the walls of the hepatic veins and the tissue surrounding them largely infiltrated with small-celled inflammatory new growth. The other abdominal organs were normal. Lungs: The lower lobes on either side were much collapsed, and at the extreme base completely void of air, sinking in water. In the upper part of the lower lobe on the left side was an infarct, about the size of a small orange, wedge-shaped, with the base abutting on the surface, and in the main branch of the pulmonary artery to lower lobe was an embolus about three-quarters of an inch in length, decolourised, not attached to the arterial wall, and when incised disclosing a central cavity containing softened matter; this embolus apparently having its origin in the thrombosis of the hepatic veins. The left pleural cavity contained a considerable effusion of blood-stained fluid, while recent lymph covered the pleural surface of the infarct, also united the lower part of the fissure and covered the entire base of the lung, which was adherent to the diaphragm. Right pleura, heart, and pericardium were normal.

**Remarks by Mr. MAKINS.**—The above case is recorded as affording an example of a termination to a rupture of the liver not often described, and of which mention is omitted in most of the text-books, although the arrangement of the veins would seem particularly favourable to its occurrence. The patient had escaped the primary dangers of shock, hæmorrhage, acute septicæmia, or severe peritonitis; and although still liable to the supervision of the two latter, yet, in the absence of the pulmonary complication dependent on the thrombosis and subsequent embolism, he undoubtedly stood a chance of recovery; the more so since reparative processes preparatory to the localisation of the damage had already commenced at the seat of injury.



## BRISTOL ROYAL INFIRMARY.

NOTES OF A SEVERE CASE OF STRAMONIUM POISONING;  
SUBCUTANEOUS INJECTION OF MORPHIA; RECOVERY;  
REMARKS.

FOR the following interesting notes and remarks we are indebted to Dr. Alfred Lendon, house-surgeon.

On August 10th, 1882, Rosina J—, aged seven, whilst at play with two sisters in a suburb of Bristol discovered some green berries, of which the three partook freely. Rosina, however, eating more than the other children. She returned home shortly after, and was noticed to be strange in her manner. Soon she became slightly, and finally very, delirious. On learning that she had eaten something, her parents gave her an emetic of mustard, and then took her to a surgeon, who administered another of sulphate of zinc, neither of which acted. She was admitted into the Royal Infirmary, under Dr. Shingleton Smith, four hours after the occurrence, and her friends produced some leaves supposed to belong to the plant the berries of which she had eaten, this was recognised to be stramonium (*datura stramonium*, or thorn apple). Her symptoms were those of acute deliriant poisoning. The child was unable to answer questions, was extremely restless, rolling her head from side to side, and throwing her limbs about, so that she could scarcely be restrained in bed; she was talking incessantly and incoherently, and did not seem to recognise her friends, but evidently had spectral illusions. She was constantly picking the bedclothes and pawing the air. Her pulse was very rapid, her face flushed, and her eyes were frequently squinting, but not in any definite direction; the pupils were widely dilated. Her breathing was rapid, but not laboured; its rate, and that of the pulse, could not, however, be counted, as she was so restless. An emetic powder, containing ipecacuanha and antimony, was administered in water, but failed to act, whereupon one-twenty-fourth of a grain of apomorphia was injected under the skin, which had almost immediately the desired effect. In the vomit at least 100 stramonium seeds were found, together with portions of the seed capsule, mixed with partially digested food. As her symptoms showed no signs of abating, and were very alarming, one-sixth of a grain of acetate of morphia was injected hypodermically after about twenty minutes' interval. This had the effect of quieting her in a few minutes; she soon slept; the pupils became of moderate diameter, though not contracted; the strabismus, however, continuing for four hours. When seen next morning she was much better, having passed a quiet night; there was no delirium, the strabismus had ceased, but the pupils were again widely dilated. The temperature, pulse, and respiration were normal, and also the urine; the skin throughout had been dry, in spite of her exertions, but no rash was seen, and the child did not complain of dryness of the throat. On the 11th she was sick twice after taking purgative medicine, more seeds being brought up, and when purged later on in the day, the stools also were found to contain seeds. On the 12th she was sick again, and seeds were still found. Subsequently nothing worthy of note occurred, and the patient was discharged on the 18th.

When shown a thorn apple the child recognised it, and stated that she had eaten the contents of ten. Her two sisters were also ill and rather light-headed during the night, but they recovered without any special treatment beyond emetics administered by their mother.

*Remarks by Dr. LENDON.*—The recorded cases of poisoning by stramonium are very rare, and I am unable to look up the particulars of two instances reported in 1837 and 1872, which are mentioned in Dr. Neale's "Digest." All that seems to be known is that while the symptoms closely resemble those of poisoning by belladonna and hyoscyamus, they commence sooner, are more severe, and terminate fatally in a shorter time. The only symptom which appears not to have been noticed usually in poisoning by these drugs is strabismus; on the other hand, no erythematous rash was seen, and no dryness of the throat or thirst was complained of. With regard to the quantity of the poison taken, the child's statement probably cannot be relied upon, nor have we any means of ascertaining whether it was even a fatal dose, but that the quantity was very considerable must be assumed from the alarming severity of the symptoms;

moreover, as the seeds were not altered in appearance, and presumably had not been acted upon much by the gastric juice, it is probable that only a small amount of the active principle which was actually present in the stomach had been absorbed into the system. The chief points of interest in the case, however, are the decided antagonism manifested by morphia to stramonium, both as regards the delirium and the condition of the pupil, and the speedy and complete relief afforded by this moderate dose of morphia. It may be objected that as the other children recovered without any special treatment, so, too, this child might have recovered; on the other hand, it must be remembered that they were not considered bad enough by their parents to be brought up for advice. It is also worthy of note that seeds were vomited as long as forty hours after the poisoning, the patient having been sick on three previous occasions, so that implicit reliance could not be placed on emetics only. I am unable to ascertain whether morphia has been previously used as an antidote either in human beings or in experiments upon animals. In the fourth edition of Guy and Ferrier's "Forensic Medicine" it merely says that the use of morphia is worthy of trial.

## WEST BROMWICH DISTRICT HOSPITAL

CASE OF EARLY PERFORATION IN TYPHOID; REMARKS.

(Under the care of Mr. LANGLEY BROWNE.)

FOR the following notes we are indebted to Mr. F. F. German, resident medical officer:—

T. G—, aged eighteen years, presented himself in the out-patient department on the morning of September 27th. He had journeyed between two and three miles, having walked a considerable portion of it. He was suffering intense pain, which he referred to the region of the abdomen, the walls of which were flaccid; his face was vacant of expression, pulse weak; he walked with difficulty, and had been ill ten days. The bowels had been moved daily, but the evacuations were "frothy, sometimes streaked with blood." He was admitted to the wards and four minims of the official solution of morphia were injected hypodermically. This gave him great relief. Examination revealed nothing further; there was no increase of temperature, no other history than above obtainable, and the diagnosis was consequently a matter of some doubt. In the evening the pain referred to the whole surface of the abdomen again became very severe, and marked tympanites ensued. Between two and three ounces of clear high-coloured urine, containing one-eighth albumen, were drawn off. The patient expressed relief, and subsequently conversed freely. About 9 P.M. he was observed to put a finger of each hand in his mouth, as though to widely extend it, and was writhing in great pain. This modified, but he rapidly sank, and died at 10.30 P.M. the same night.

*Necropsy, the following afternoon.*—In the thorax were extensive pleuritic adhesions on the left side, and the cavity of the heart were nearly empty. On opening into the abdomen a large quantity of chylous fluid escaped; the peritoneum was sticky and slightly adherent, and the small intestines were distended to nearly size of large. The ileum was much congested, and on its inner surface were several small typical ulcers, one of which, about three and a half feet from ileo-caecal valve, perforated the bowel and was still patent. The other organs were healthy.

*Remarks.*—Perforation has been estimated to occur in from 1 to 2 per cent. of the entire number of sufferers from typhoid, and of the fatal cases has been variously stated to have occurred in from 8 to 12 per cent. As to the time of occurrence and situation of this accident, there are but few reliable statistics. In those tabulated by Hoffmann, 9 per cent. only occurred at the end of the second week, while 27 per cent. happened between the eighteenth and twenty-first days, a similar number at the end of the fifth week, and the remainder subsequently. In 77 per cent. of these same cases, the perforation occurred at a spot not exceeding twenty inches above the ileo-caecal valve, and in about 11 per cent. only at the same distance as in this case. I would add, that twelve days previously the boy had been at work, and during his illness, though at times in considerable pain, was not confined to bed. Was it the typhoidous ambulations of some authors?

## BEDFORD GENERAL INFIRMARY.

A FISH-HOOK IN THE OESOPHAGUS; EXTRACTION;  
RECOVERY.

(Under the care of Dr. GOLDSMITH.)

FOR the following notes we are indebted to Mr. E. A. Laurent, M.B., resident surgeon.

F. P., aged ten, of Great Brickhill, Beds, whilst engaged in fishing held in his mouth a fish-hook attached to a piece of gut, and accidentally swallowed it. He was admitted to the infirmary eleven hours after the accident, under the care of Dr. Goldsmith, senior surgeon to the institution.

The only subjective symptom on admission was pain over the episternal notch. Half an inch of gut was seen protruding from his mouth, and on following the gut backwards with the finger, the notion conveyed to the touch was that the hook lay somewhere in the windpipe, but the boy had no cough, no dyspnoea, and his voice was perfectly clear. On applying gentle traction to the extremity of the gut, great resistance was felt. This was consequently discontinued and chloroform administered. A piece of silk ligature was tied to the end of the gut, and to the extremity of the silk a fine wire was attached. A traveller fourteen inches long was then passed along the twisted chain of iron wire, silk, and, lastly, gut down the oesophagus. It, however, proved to be too short to reach the hook; it was therefore withdrawn and a full-sized oesophageal bougie substituted for it. This passed with perfect ease until it reached the bend of the hook; here slight resistance was felt, which was easily overcome by pressure. During this part of the operation the bougie touched the cardiac end of the stomach and vomiting was induced, although the insensibility was nearly complete. The bougie was kept in position and the wire tightened; both bougie and hook fixed at its extremity were carefully withdrawn without any further trouble. The hook proved to be a No. 6 perch, and the gut was nine inches and a half long.

## Reviews and Notices of Books.

*The Diseases of the Spinal Cord.* By BYROM BRAMWELL, M.D., F.R.C.P. Edin. Pp. 300. Edinburgh: MacLachlan and Stewart. 1882.

THIS work consists of four chapters. In Chapter I. the author introduces us to the "anatomy and physiology of the spinal segment." "The spinal cord," Dr. Bramwell writes, "may be said to consist of a series of segments placed one above another. Each segment comprises the portion of cord to which a pair of spinal nerves is attached, and each segment may be viewed as a distinct spinal unit, or, to speak somewhat figuratively, as a distinct spinal cord for a definite area of the body—viz., that portion of muscle (muscular area) to which its anterior roots proceed, and that portion of skin, tendon, muscle, mucous membrane, viscus, &c. (sensitive area), to which the fibres of its posterior nerve-root are distributed." The mode in which the author thus introduces us to the anatomy, and proceeds in the same way to the physiology and pathology of the spinal cord through the medium of a single segment of it, is philosophical, and tends much to clearness of explanation. Once let us obtain a good idea of the structure and relations of a single segment, and but little more than an act of multiplication is requisite to fill the mind with true notions regarding the cord as a whole. The spinal cord lends itself remarkably well to this mode of examination and description, which would be far less easy, if not impossible, in the case of the brain. The various intra-medullary and extra-medullary lesions having been considered from an anatomical and physiological point of view, Dr. Bramwell enters very fully and with much lucidity of description upon the important subject of case-taking. The method of examination which he advocates is clear and to the point. We quite agree with his remark that "a methodical plan of

case-taking is essential for scientific purposes, and it would be most advantageous if physicians could agree upon a uniform system." Under the "clinical examination of the spinal cord" a concise account is given of the various symptoms which are met with, and their significance; the distribution and the amount of paralysis; practical directions as to the mode of applying electricity in the diagnosis; remarks upon the mechanical irritability and tonicity of the muscles; the condition of the reflex movements, including a very clear account of the vesical reflex and the disturbances to which the action of the bladder is liable; the rectal and sexual reflexes. The sensory functions of the spinal segment are next considered, and the various disturbances of these described. A couple of pages are well devoted to the subject of "path referred to the spinal column," a point which we believe is constantly giving rise to mistakes. The question of the diagnosis in diseases of the spinal cord receives, as it deserves, full attention, and many valuable hints are contained in the portion of the work relating to this subject. Some good remarks also occur in reference to prognosis, a subject upon which, unfortunately, in the nature of things, there is not very much to be said of a satisfactory character. The same remark may perhaps be applied to the question of treatment. What little there is to be said upon this matter is sensibly put, and exaggerated estimates of the power of therapeutics in chronic disease of the nervous substance are properly avoided.

The fourth chapter contains a tabular classification of the diseases of the spinal cord arranged after the plan, though differing very considerably in its details from that, introduced by Grasset of Montpellier. We notice here a reference to what the author calls "indiscriminate lesions" of the anterior cornu. The following remarks on this subject appear to us very pertinent: "The anterior cornu may, like any other part of the transverse section, be affected by indiscriminate lesions. Other parts of the transverse section are usually involved; the symptoms are then compound, being partly due to the lesion of the anterior cornu, partly to the lesion of the other parts which happen to be affected." From want of remembrance of these facts cases of disseminated sclerosis are very frequently misunderstood. For instance, a patch of sclerosis involving the anterior cornu at a certain level will give rise to muscular atrophy in the district to which the motor roots arising in that particular segment are distributed. The observer, perhaps, makes a diagnosis of progressive muscular atrophy, and this because he fails to notice that there is anæsthesia at some other part of the body, arising from a patch of sclerosis involving the sensory side of the cord at another point. The tabular classification is followed by a short description of the individual organic affections, differential diagnosis being especially dwelt upon.

Dr. Bramwell's book is profusely illustrated. Believing that one great secret of all successful teaching is to instruct by the eye as well as by the ear, the author is in the habit of copiously illustrating his lectures by diagrams, drawings, and microscopical illustrations. The diagrams and drawings which are here introduced into the text by means of woodcuts, and the microscopical sections which are represented in colours, are excellent specimens of art. The sections of the cord are very true to nature, and we are especially pleased with the sketch diagrams, which are very numerous and effective. These are of great help in the elucidation of a subject which is often of so difficult a kind as to need all the aid which can be given by graphic illustration. The sketch diagrams and the concise tables of differential diagnosis constitute a special and acceptable feature of this book. No doubt the work is not exhaustive as a treatise upon diseases of the spinal cord—indeed, for this would not many volumes be required!—but by a sort of rough analogy we may liken it to an excellent guide-book amply furnished with

charts and tables of ready reference, and sketch maps of the routes by the aid of which the traveller, be he ever so little acquainted with the country, will find his journey immensely facilitated, and will readily learn in what directions he may best concentrate his attention and powers of observation.

*Report of the Scientific Results of the Voyage of H.M.S. Challenger (Captains Nares and Thomson) during the years 1873-76.* Prepared under the superintendence of the late Sir C. WYVILLE THOMSON, and now of JOHN MURRAY. Narrative, vol. ii. Pp. 744, and 29 with one plate. Longmans, 1882.

THIS, the second volume of the general narrative of the voyage of the *Challenger*, has been first published because it had been nearly completed by Sir C. Wyville Thomson before his lamented death, the present editor, Dr. Murray, thinking it was better not to postpone the publication of the scientific results it contains. The subjects treated of in the present volume are—1. A memorandum on the magnetical observations made during the voyage by Sir Frederic Evans. 2. Magnetical instructions. 3. Abstract of magnetical observations during the voyage. 4. Abstract of magnetical observations made at land stations, prefaced with descriptive references to the positions (observation spots) of the instruments. 5. Abstract of variations of the compass observed at sea. 6. Abstract of observations with Fox circles. 7. Memorandum on the meteorological observations made during the voyage by Staff-Commander Tizard, R.N. 8. Abstract of meteorological observations. There are also two appendices—one by Professor Tait on the pressure errors of the *Challenger* thermometers, and a second by Professor Renard on the petrology of St. Paul's Rocks.

In view of the exceptionally good opportunities afforded by the voyage for taking magnetical observations, the ship was elaborately fitted with instruments rendered practically free from error at Kew, and the influence of the ironwork of the ship on which was carefully estimated before starting. At each land station touched at, the absolute declination, inclination, and horizontal intensity of the magnetic force were determined, and at sea observations of the three elements were taken daily. About 74 of the former and upwards of 600 of the latter observations were taken. The magnetical instruments supplied to the ship were a portable unifilar magnetometer for determining the absolute horizontal intensity and the declination on land; a Barrow's circle with two reversible needles for determining the inclination on land; a Kater's azimuth compass, with levelling table, for determining the declination on land; Fox's apparatus or circle, for observing the magnetic inclination, and force at sea primarily; a gimballed table complete, adapted for Fox's circle, as to be used at sea; a compass bowl and standard cup, and a small vibrating needle for determining independently the ship's mean horizontal force to the north.

No less than 724 pages of this volume are occupied with the records of the observations made with these instruments, and are a wonderful example of continuous and careful work. They will prove of immense value to all who are interested in the great problems of magnetism.

Professor Tait's memoir on the pressure errors of the *Challenger* observations is very interesting, and, as he remarks, his inquiries have led to many curious offshoots: as, for example, the determination of the amount of heat developed in different substances by exposure to very high pressure under different circumstances; the cause of the breaking of a piece of glass or other fragile body under hydrostatic pressure; the accurate measurement of pressures greater than can readily be compared with the weight of a tall column of mercury. Amagat has, it appears, successfully worked with a column of mercury 1000 feet high, corresponding to a pressure of about three tons weight per

square inch; but Professor Tait describes an apparatus which is capable of giving results of considerable accuracy up to pressures of twelve tons weight per square inch.

Professor Tait points out various defects in the instruments and corrections employed in the determination of the temperature at great depths. He calculates that the internal capacity of a glass tube with thick walls and small bore is reduced by about 1-1000th part for each ton weight per square inch of pressure applied from without, the ends being closed; and his calculation was verified by experiment, a result that considerably modifies the corrections for pressure that were made on board the *Challenger*.

The report on the petrology of the barren rocks of St. Paul in the Atlantic, by the Rev. A. Renard, is interesting. Darwin gives an account of them in his "Voyage of a Naturalist," and in his geological observations describes them as rocks which rise very perpendicularly from the sea. The *Challenger* observations show that they have a vast plain on their eastern side, the depth of water on which varies from 2500 fathoms to 1425 fathoms. Darwin comments on the peculiar structure of these rocks, and is indisposed to regard them as volcanic. The Rev. A. Renard, however, arrives at the conclusion that the rocks, though presenting many peculiarities, are really of igneous origin.

*Therapeutical Remembrancer.* Presenting in detail all Medicaments accredited by the British Pharmacopœia; with copious Supplementary Tables, offering or recalling suggestions of resource from the "Materia Medica," interspace being provided for private notanda, &c. By J. MAYNE, M.D., L.R.C.S.E., L.S.A. Second edition, revised. London: J. & A. Churchill. 1882.

THE information contained in this work is of a most peculiar description, and we much fear that any student who adopted the "suggestions" of the author would find himself in trouble. Under the head of "Alteratives and Deobstruents," we find bromine recommended for internal administration in *eighty-grain doses*, and we are told that it is to be given in solution. This is very startling, and we were in hope that the author had temporarily confounded bromine with bromide of potassium or bromide of ammonium; but this is not the case, for the dose of these salts is correctly given on the same page. The author's views on therapeutics are certainly original; at all events, they are not shared by the majority of the profession. We have judged his book by a not very high standard, and have found it wanting. Even in the most elementary work on therapeutics we should expect to find some reference to the use of quinine in ague, and of sulphur in the treatment of scabies; but on these subjects the author is strangely silent. The therapeutic action of sulphate of quinine is summed up in the statement that it is used "in an infinity of cases where restorative energy is urgently necessitated." We are told that it may be given "in solution," but we are not told what solvent should be employed. Surely it would be better for a student to know that sulphur is used to cure the itch than that "it was an esteemed medicine among the Greeks, Arabs, and Hindoos." Nuxvomica, we find, is used in "gout, rheumatism, dyspeptic complaints as a nervine stimulant." Strychnia, too, is used in gout, although the author advises the "utmost consideration in its employment." Belladonna rubbed over the eyebrow or lid "expands the pupil;" whilst atropia is an active poison "intended only for external use." These are a few examples taken quite at random. We are sorry to have to speak thus of the book, but it is quite unreliable.

THE Sevenoaks Local Board has applied to the Local Government Board for permission to borrow £3000 to be expended on sewerage works.

# DR. RICHARDSON'S REPORT ON THE SANITARY CONDITION OF THE BOROUGH OF BRIGHTON.

To the Mayor and Corporation of Brighton.

Royal York Hotel, Brighton, Sept. 1882.

MR. MAYOR AND GENTLEMEN,—In compliance with the request conveyed to me by his Worship the Mayor, on July the 4th, I proceeded immediately to make a complete and independent Sanitary Inspection of the town of Brighton.

I have been enabled to make this inspection the more searching and complete from the circumstance that this is the second time in which I have had occasion to carry out the same duty. In the year 1864, at the request of my late friend, your distinguished townsman, Sir J. Cordy Burrows, I included Brighton in the list of towns upon which I was then reporting for my series of reports on the "Medical History of England," and in that year, 1864, I published at length the "Medical History of Brighton" in the *Medical Times and Gazette* for June 11th, 18th, and 25th.

This previous labour, while it familiarised me with the localities I have recently inspected on your instruction, has enabled me to make some very important comparisons bearing on the condition of Brighton as it was eighteen years ago and as it is at this present time.

The comparisons will appear, incidentally, as I proceed with this report, but I may state at once, generally, that in a sanitary point of view, the improvements which have been carried out in Brighton during the period which has elapsed since my last inspection, have been of the most satisfactory character. The authorities have evidently been incessant in their efforts to better the sanitation, and in the greater part of their efforts they have been signally successful. In cases where they have failed to carry out all that they have wished, the failure has arisen from no want of care or desire on their part, but from the fact that they have been working at a time when the details of sanitary science—details new to the world at large—have been undergoing development by what may be called the experimental attempt at success, a process of training which carries with it the necessity of getting at practical truth by the steady exclusion of practical error.

I, who during the whole period named have been daily engaged in sanitary work and progress, may venture, as safely as anyone living, to state that such experience in such work and progress was inevitable. I foresaw it, in 1864, as applied to Brighton, respecting which I then wrote: "The sanitary condition of Brighton, like that of most other large towns of the present day, is progressive, each step having to be determined by experiment before its adoption."

Coming back now to observe what has been done, I am surprised to find how much has been successfully done. At that time the water-supply was very good, but it has been so perfected that no town in the world can boast a freer, a more distinct, or a purer supply. In that day I found eleven miles of streets supplied with sewers, now sixty miles of streets are supplied. In that day cesspools abounded everywhere, now they are quite exceptional, and, where they exist, have no connexion with the water-supply. Thus in some of the most important of sanitary details there have been great and effective advances.

In proceeding with the present inquiry as to the health of Brighton at this time and in the recent past, I have devoted several weeks of research on the spot, taking nothing at second-hand, but making every inquiry personally. This report, therefore, may be accepted as based on direct observation.

In carrying out this research it occurred to me that the

most complete course would be to ascertain the following facts:—

1. What is the state of health in Brighton at the present time, including the schools (public and private), institutions, and hotels?
2. What has been the state of health in the recent past?
3. What is the present condition of the water-supply of the town?
4. What is the condition of the drainage and sewerage?
5. What is the state of the paving and roadways of the town?
6. What is the condition of the slaughter-houses, cow-sheds, and bakeries?
7. What is the condition of the common lodging-houses of the town?
8. What are the facts bearing on the rate of mortality of Brighton, and what causes have influenced and continue to influence that rate?
9. What improvements in sanitation are suggested by the research?

## HEALTH OF BRIGHTON AT THE PRESENT TIME.

As bearing upon the first subject of these inquiries—namely, the present health of Brighton,—I proceeded to make a direct investigation of the conditions of health that were manifested in the schools and other public institutions. I put myself into communication with the heads of schools, with the medical officers of the different medical institutions, with the superintendents of the charitable and other institutions, with the parochial medical officers, and with medical men who, by their relation to particular questions which were brought out by my investigations, were most able to afford me the necessary information.

The schools naturally called earliest for attention. They are the grand tests of sanitation in every place. If the sanitary condition of a place be fundamentally bad, the fact will, of a certainty, be declared in the young who are present in the schools.

I made known therefore a request, through the mayor, on the day of my arrival, that I should like, at once, to visit the leading educational establishments, and in a few hours I had so many requests for inspection that several days were demanded for the school inspection alone, and after all I fear that some schools to which I was invited were from pressure of time omitted.

In a letter addressed to the mayor, at his request, I stated what the result of this inspection had been up to the date of July 13th. I reported that I had found a condition of good health that was most remarkable; that the educational institutions of Brighton exhibited a freedom from contagious and indeed from all disease that was quite exceptional in my experience; and that the attention paid to sanitary details and supervision by the heads of the scholastic establishments I had visited was admirable and deserving of the warmest commendation.

The further and much extended investigation on this subject which I have been enabled to carry out since July 13th, fully confirms the statement given.

Of the private schools to which I had admission, I visited no less than forty of the largest, arranging my visits so as to include every district of the town in which such schools are situated. In the course of these inquiries I had the opportunity of ascertaining the sanitary condition of schools in which over eighteen hundred scholars—the young of both sexes being about equally divided in them—are undergoing education. Throughout the whole of the investigation I met with but one instance of disease of any kind. In one school, singularly healthy in every respect and provided with excellent sanitary details, a pupil who had been out of town on a visit had contracted chicken-pox, in a mild form. Beyond this, I could trace out no case of epidemic disease nor of any other kind. I need not comment on this evidence, because it speaks for itself. I doubt whether in the present state of sanitary science it would be possible to find anywhere a more striking proof of healthy life. I should further remark that the scholars in every instance bore the appearance of excellent health.

From the private schools I passed to the inspection of the Board Schools, and the larger of the Voluntary Schools. The Board Schools, ten in number, all of which were visited, hold a total school population at the present time of seven thousand four hundred (if all on the roll be included), with an average daily attendance of six thousand. In my visits I

had the opportunity of seeing the children in all the departments, boys, girls, and infants.

In the Circus-street Board School I found 100 girls in attendance, and 119 infants, with no sickness in anyone belonging to the school. The children of this school are very poor, their parents being, as a rule, of the poorest working class; they were consequently not so well clothed and fed as in some of the other establishments of the same kind, but they were, in point of healthy appearance, of fair average when compared with the same classes of school children in other towns. The school arrangements are good. The water-closets,—constructed on Macfarlane's system, in which a large body of water in the receiving part of the closet is regularly carried off twice daily,—are exceedingly clean and free from odour; the school-rooms are clean and well ventilated, and the arrangements altogether satisfactory.

The Finsbury-road School, the newest of the Board Schools in the town, was found with an attendance of 230 boys, 292 girls, and 364 infants. There had been a recent outbreak of measles in the homes of some of the children attending at this school, but it had subsided. I visited the children in their playgrounds, and it would be difficult to find anywhere a body of children of the same class who presented a better or healthier appearance. The arrangements of the school are excellent in every particular.

The same observations apply to the Middle-street School, in which I found 260 boys, 210 girls, and 180 infants in attendance; to the Pelham-street School, in which were 250 boys, 200 girls, and 300 infants; to the Lewes-road School, in which there were 198 boys, 150 girls, and 247 infants; and to the Preston-road School, in which there were present 267 boys, 150 girls, and 190 infants. The exercises of the children in musical drill at the Preston-road Schools were of the most striking character, and indicative of distinctively good conditions of physical health.

The Hanover-terrace Board School, presenting an attendance of 270 boys, 126 girls, and 173 infants; the Puget Schools, presenting an attendance of 200 boys, and 160 girls; the Richmond-street and Sussex-street Schools, in which there were 267 boys, 200 girls, and 250 infants; the St. John's School, in which there were 272 boys, 212 girls, and 214 infants, were all schools in which, as in the Circus-street School, the children were of a poorer class. These schools were, nevertheless, at the time of my visit, free from disease, and the sanitary condition was good. With the exception of one room in the St. John's School, in which the ventilation seemed less perfect than in the other rooms, and in which, in reply to the question, I was told that both masters and scholars sometimes suffered from headache, I have no fault to find; indeed, I was struck by the skill with which some of the changes in old buildings, which really ought to come down, have been carried out.

The Central National School, a voluntary Church school, under the direction of the Rev. J. J. Hannah, in which there were 276 boys, 140 girls, and 90 infants, was in an exceedingly healthy condition. The rooms are spacious, light, and well-ventilated, and the appearance of the scholars is quite satisfactory. The same observation applies to St. Margaret's School, in which there were 80 boys and 100 girls, and to St. Martin's, in which there were 154 boys, 200 girls, and 180 infants.

At the St. Mary and Mary Magdalene Sunday Schools in Broad-street I found everything plain but perfectly clean and healthy. In the scholars attending them there was no disease, and I ascertained that amongst them there had been no fatal case for four years past, and then only one, the cause of death being pulmonary consumption.

Passing from the schools to other public institutions in which the young are located and educated, I inspected the following and add the results:—

In St. Mary's Hall, Kemp-town, 100 clergymen's daughters are received and educated. At my visit to this admirably conducted institution the scholars were away for their vacation, but I learned that since the year 1874 they had been free from any outbreak of contagious disease. In the spring of the present year some of them had suffered from headache, with lassitude and failure of appetite, without fever, eruption, or any symptom of acute febrile disease. The illness was for some days pretty general, and some of the scholars were slow in resuming their natural aptitude for study, although none of them were at any time in danger. The house is situated on a fine elevation, and the utmost care has been taken to make the sanitary condition perfect. The exit drains from the house have been separated from the dwell-

ing, the soil pipes are ventilated, and the water from the baths and offices is discharged into the open air before entering the drains. The rooms, dormitories, and lavatories are excellently fitted, and there is a commodious and isolated ward for the sick.

In the Blind School, in which thirty-one children (sixteen girls and fifteen boys) are brought up, I found that there was entire freedom from disease, and that for two years and a half past there had been uninterrupted good health. At the time of my visit the children were away for their holiday, and I had not the advantage of seeing them personally; but all the arrangements of the school were excellent.

In the Deaf and Dumb Institution the pupils were having their annual holiday at the time of my visit; but I learned that for the past forty years there had not been a single instance of an outbreak of epidemic disease commencing within the school itself. It has occasionally happened that contagious disease has been directly introduced into the school. Measles has entered, and scarlet fever was recently introduced in this way. Under these circumstances the sick have been immediately isolated and removed from the house, by which the further spread of the disease has been prevented.

Taking them as a whole, the educational establishments of Brighton afford unmistakable evidence of a present state of good health that could not be surpassed. My inspection included observations in institutions in which certainly not fewer than ten to eleven thousand of the population, or a tenth of the whole resident population, receive daily educational training, and in that whole I did not find one case of serious disease. Further, of those who were absent from illnesses of all kinds, I was only able to trace nine altogether, or less than one in the thousand.

From the schools and educational establishments I carried my inquiries to those establishments in which persons of both sexes are provided for during convalescence or disease, or while being trained to some industrial or useful art. These institutions are excellent tests of the health of the place in which they are situated. The persons who are resident in them are often feeble from want of comforts and ease in early life. Some are sick. All, in a certain degree, are more than ordinarily liable to disease.

In St. John's House, a convalescent home for children, I found twenty-eight little boys and girls, nearly equally divided, in various stages of recovery from lingering illnesses. These children are sent to Brighton from different parts of the kingdom for the sake of the change, the treatment, and the sea air. They were all sickly children, as is implied by the nature of their residence here, but the greater number were improving in health, and were enjoying, with much relish, their seaside walks. There was no case of contagious disease, and there had been none for a period of three years. Three years ago a case of scarlet fever was imported from London, but under immediate isolation the spreading of the disease was prevented.

In the Home for Invalid Children (70, Montpelier-road), I found twenty-one children, all of whom were subjects of some form of chronic constitutional disease. There were representatives of both sexes in the institution and all were entirely free from infection. There had not been an outbreak of infectious disease in the place since its foundation, twenty-five years ago.

In the Home for Orphan Boys (46 and 49, Buckingham-place), I found forty boys who were housed and taught. There was no disease, and, except that a case of gastric derangement assumed symptoms of modified typhoid, twelve months ago, there has not been a case of zymotic affection in the institution. The house is beautifully clean, every bedroom is specially ventilated, the water-closets, offices, and bath-rooms are in excellent order, and the drains are entirely cut off from the house. There is a special sick-room, away from the dormitories, which is set apart to receive at once any child that is taken unwell. This admirable plan is common. I may observe, in all the educational establishments where scholars are in residence.

In St. Mary's Hospital, Queen-square, I found what may be called a religious house, something like the houses that were maintained by the religious of the Middle Ages for the feeble in mind, body, and estate. It is, I was given to understand, one of the Rev. A. D. Wagner's High Church Charitable Institutions. It consists of one side of a street of houses, ascending from a low to a high level, the houses being made to communicate with each other. Considering



that this hospital has, so to say, been improvised, it is remarkably well and skilfully arranged. Every part of it was thrown open, unreservedly, for my inspection. I found the hospital containing 230 inmates. Fifty of these were fatherless, motherless, or poor children; fifty were aged women; fifty were women who had been rescued from unfortunate lives; fifty were persons in training for domestic or other service, or for needlework or some useful occupation; and the remainder were attendants, superintendents, or training scholars not included in the classes named above. I found the most admirable order everywhere prevailing in this establishment, and the greatest care taken in respect to the sanitary details. The living rooms and bedrooms, though small, were free from unnecessary furniture, neatly and tastefully furnished, and exquisitely pure and clean. The lavatories, closets, and offices were well arranged, and the laundry, which is on a large scale, was fitted with every contrivance for securing effective and wholesome cleanliness. It is, in fact, a public laundry on a very good principle, and if it were provided with a separate apartment in which clothing, coming from houses in which there is infectious disease, was subjected to a disinfecting degree of heat before it went to the laundry proper, the place would be a model public laundry. As it is I wonder that it is not in demand beyond any requirement it could at this moment fulfil.

The inmates of St. Mary's Hospital were entirely free from disease at my visit, and had been free in an exemplary manner for long past. They had never suffered from any outbreak of an infectious character, and they bore the appearance, generally, of persons in as good health as they could be under the conditions in which their lives had been cast, the young especially.

The lady superior keeps a careful registry of what befalls the inmates under her care, and at my request she was kind enough to take it down and let me calculate the deaths that had occurred during the past ten years—namely, from July 19th, 1872, to July 4th, 1882. The deaths were at the rate of four a year, ten of which, at ages ranging from sixty-three to eighty-seven, including three octogenarians, sank from the paralysis of senile decay, finding in fact in the hospital a refuge for their declining days. The hospital presents, through these facts, a striking illustration of healthiness. Its inmates come from those who are worst provided for. It is not at all favoured by position; it is close to the large disused burial-ground of the old church, and being constructed out of a number of small houses it has had no special advantages of an architectural kind. It, nevertheless, has represented a low general mortality, and an infant mortality, in children under five, of seven deaths in ten years. It has been visited by no epidemic whatever.

The Percy Almshouses, which receive twelve inmates, all women, and chiefly those of advanced life, are most healthy and in good condition, clean, neat, and wholesome. They were entirely free from any contagious disease, and had been for a period as long as I could trace back—namely, twelve years.

The Home for Training Neglected Girls in Warleigh-road I found containing twenty-two inmates, young girls who are learning the duties belonging to domestic service and other useful occupations. The house was exquisitely clean and comfortable. It is well and scientifically drained, and it has good sleeping accommodation. There has never been any epidemic in it, and the girls under training, who were introduced to me, were in excellent health.

St. Andrew's Home, in Egremont-place, is a residence provided for eight youths who have no home of their own. The house is small, but very clean. It is an ordinary house, and for the purpose which it serves the most that could be made of the accommodation has been made. In my opinion there is barely sufficient space, and I find that a better and more convenient house will soon be secured. There has been no disease of an epidemic character, nor any other of a serious character in the house. The inmates were all very healthy and seemed to be, truly, in a place where they enjoyed the privileges of home.

The Needlewomen's Home, in the Dyke-road, receives nine inmates, all of whom are suffering from some bodily deformity, and most of whom are, necessarily, very feeble. The house is a model of cleanliness and comfort, and the sanitary arrangements are good throughout. There has been no case of infectious disease for many years, at least, and probably none from the commencement of the institution. An unusually good condition of health prevailed at the time of my visit.

Albion Hill Home, called commonly Mrs. Vicar's Home—after the name of the generous and noble-hearted lady who has been from the first its mainstay—receives young girls who are reclaimed from degradation and poverty. It consists of a home, in which there are sixty-two dormitories, a sewing room, and a large public laundry, with other rooms attached; a probationers' cottage, containing nine dormitories and rooms, in which the needlework and laundry work of the establishment are done; of the Princess Alice Memorial Cottage, where public needle and machine work are carried out, and in which there are fifteen dormitories; of the London Cottage, for inmates from London, containing fourteen dormitories and rooms, in which hopeless and helpless girls can be taken in at a moment's notice, and cared for until they can be received into a home permanently; and of the servants' home, in which the man servant of the home and his wife reside, and the upper part of which is occupied by young servants, who, being out of place, are seeking for new situations. The objects of this most useful and beneficent institution are carried out admirably, and if the occasion were befitting I should speak of it as I feel for the object's sake. As it is, I can only report that I found at my visit universal good health, that I could trace no instance in it at any time of epidemic disease, and that the sanitary arrangements and details are of the most praiseworthy character.

The summary of the evidence derived from the inspection of the above benevolent institutions confirms the evidence afforded by the schools. The inspection revealed an unusually healthy condition, an unusual freedom from spreading and infectious disease, and a sanitary supervision everywhere which is on a level in all instances with, and in many instances superior to, that which is common in other English towns. No mind, free from bias, could draw from these institutions any other deduction than that they betoken the possession of every advantage for general health and marked freedom from exceptional outbreaks of disease.

From the public institutions above noticed my attention was next directed to the medical institutions where the actual sick receive treatment for their diseases. In these institutions we find always sound information respecting the health of the localities in which they are situated, while their museums, though they contain only the dead evidences, speak the nature of the prevailing diseases. I made, therefore, special inquiries relatively to the evidence that could be gathered from these sources of information.

The Sussex County Hospital, situated at Kemp-town, contains thirteen wards for medical and surgical cases, and a male and female fever ward. In my report on the hospital in 1864 I expressed an opinion that the mortality of this institution was rather in excess of some other provincial hospitals that had at that time been renowned for their low mortality, and I particularly cited that of Norwich in comparison. In the ten years previous to 1864 the number of patients admitted into the Sussex County Hospital had been 1165 annually, and the annual death-rate had been seventy-five. This yielded a death-rate of 6 per cent., or 2 per cent. above what had been represented at Norwich. Afterwards the position of the two hospitals changed in favour of Brighton, and the Brighton hospital fairly holds its own in comparison with other similar provincial institutions. In the report of 1864 I dealt on the comparative freedom of the hospital from cases of epidemic and contagious disease, and I still find that it enjoys a similar freedom. At the time of my present visit there were no causes whatever that added to the ordinary sickness or mortality in any department; on the contrary, the number of cases of serious disease were unusually small, and there was almost entire freedom from diseases of the zymotic or contagious class. Mr. Scott, the resident surgeon, who was good enough to look up for me the number of zymotic cases, reported to me that since the beginning of the present year there had been, from January 1st to July 15th (twenty-eight weeks), 23 cases of scarlet fever, 3 of measles, 10 of typhoid, and 1 of erysipelas. Compared with the average number of cases occurring in periods of time of the same length during the preceding five years, these returns show the rate of zymotic disease in the present year to July 15th to have been in the proportion of 37 to an average of 36.2 in the preceding periods. The very rare occurrence of typhus fever, diphtheria, erysipelas, and pyæmia or surgical fever are the best indications that the hospital is well provided with pure air. The record before me for the past six years shows only 1 case of surgical fever, 1 of typhus, 5 of diphtheria, and 13 of erysipelas, the

last-named being in every instance examples of erysipelas of the face, a form of disease to which many persons are specially predisposed.

The mortality of the cases of zymotic disease in the hospital is a further study which deserves attention. In the five years and twenty-eight weeks—viz., from January, 1877, to July 15th, 1882,—the cases of zymotic disease which are on the record before me, include typhus, 1; pyæmia or surgical fever, 1; scarlet fever, 230; measles, 33; typhoid, 87; erysipelas, 13; rûtheln, 4; diphtheria, 5. Total, 374. The number of fatal cases of this total was 30, yielding a rate of 8 per cent. An analysis of these general results is also deserving of study. The one case of typhus died. The one case of pyæmia died. Of the 230 cases of scarlet fever, 218 recovered; 12, or 5·2 per cent., died. Of the 33 cases of measles, 31 recovered; and 2, or 6 per cent., died. Of the 87 cases of typhoid, 73 recovered; and 14, or 16 per cent., died. Of the 13 cases of erysipelas, all recovered. Of the 4 cases of rûtheln, all recovered. And of the 5 cases of diphtheria, all recovered. I need not point out to sanitarians that such results as these could not possibly have been obtained, under the pressure of such dangerous and fatal diseases, in other than an air pure and exceptionally favourable to life.

The Royal Alexandra Hospital for Sick Children was the next of the medical institutions to which my inspection extended. This is a newly built hospital, on a site admirably selected. The house stands so high that it is visible from almost all parts of the districts surrounding the town and from the sea along the whole line facing the town. The building has been fitted up with every consideration for health, and may be accepted for the present time as a model institution. The ventilation, the warming, the arrangement of the waterclosets and offices, and the modes of cleansing leave nothing to be practically desired, while the walls of the wards, lined with artificial marble, can be cleaned like porcelain. I found no case of infectious disease in the institution on the occasion of my visit, and the record of cases during the twelve months in which the hospital has been opened showed that two forms of epidemic disease alone had occurred in it. There had been eight cases of measles, attended by one death, and two cases of mumps, both of which had recovered.

The Lying-in Charity of Brighton, situated in West-street, was included in my inspection, because the condition of health of those who go through the great "pain and peril" is always an index of the good or bad sanitary state of the place in which the process of childbearing takes place. It is now well-known that childbed women, even amongst the classes of women most cared for, are singularly susceptible to diseases of a serious type, such as scarlet fever, erysipelas, puerperal fever, milk fever, and peritonitis. Here, then, is an institution well worth careful study, a test institution of salubrity or insalubrity. The institution affords gratuitous attendance and assistance to poor married women in their own homes, advice and assistance to women suffering from uterine diseases, and to infants suffering from any form of disease. It also admits within its walls a limited number, not exceeding five, of poor women during their confinement. The greater part of the special attendance on the women is by midwives, who, in emergency, summon the assistance of one of the members of the medical staff.

At the time of my report upon this institution in 1864 I found that, since its establishment by the late Dr. Lyons, in 1830, the number of 13,309 women had been attended during delivery, a rate of 391 per year. The number in 1863 was 740, and the numbers that have been attended since the foundation amount to about 27,000. They reach now about 900 annually, the patients residing in the poorest parts of the town and being all too poor to obtain their own paid attendant. In the institution itself I found good wards and all necessary conditions for health. For many years past there had been no contagious form of disease. On inquiry into results of attendances outside the hospital I ascertained that they also had been remarkably good. In 1882, as in 1864, I could find no evidence of the occurrence of an outbreak of any kind of contagious disease amongst the patients who had been confined at their own homes since the opening of the institution. Mr. Goode, the resident surgeon, reports to me that, during the past two years with which he has been connected with the institution, he has not had a single case of scarlatina, small-pox, or erysipelas, and only one of peritonitis amongst the patients attended at their own homes.

The Dispensary, in Queen's-road, was another medical institution to which I directed my researches. The dispensary does not receive patients within its walls as in-patients, but it issues annually letters for treatment in its out-patient and visiting department, to the number of from eight to nine thousand, to persons in the various districts—northern, central, southern, and eastern—of the town. The returns of the dispensary afford therefore a most important index of the health of, and of the diseases prevailing amongst, the poorer classes. The difficulty in utilising the information thus rendered is considerable, owing to the circumstance that one patient may have his or her letter renewed several times during one illness, as letters have to be renewed every month, but I am indebted to the resident surgeon, C. B. Richardson, M.B., for an able statement, in which this difficulty is, as far as possible, avoided.

At my visit in July the number of persons under treatment at the dispensary was very small, and the presence of infectious disease was reduced to a low figure. I found, however, that during the early part of this and the closing part of last year there had been a considerable increase in the cases of certain of the epidemic diseases, so that in the present year the number of letters issued had more than doubled. The fact, for reasons which will be explained in another part of this report, led to an inquiry further back, when it transpired, from an analysis of the cases treated in the past five years, that the increase of sickness was due to four epidemic diseases—scarlet fever, measles, whooping-cough, and typhoid. In preceding years the number of these diseases had been exceedingly low. From July, 1878, to June, 1879, there were only 55 cases of scarlet fever, 168 of measles, 174 of whooping-cough, and 35 of typhoid; total, 432 cases. From July, 1879, to June, 1880, there was an increase in the number of all these diseases except typhoid, which had fallen to 7, the total being 655. From July, 1880, to June, 1881, there was a decrease in the numbers, the total being 460. But in the latter part of 1881 there was an outbreak of them all of a very extended character, which culminated in the first six months of 1882, so that in this last-named period there were 305 cases of scarlet fever, 574 of measles, 370 of whooping-cough, and 86 of typhoid, yielding a total of 1335. Fifty-five of the typhoid cases were in the northern district, in which the disease was distributed.

Of the other epidemic diseases treated in the dispensary the numbers have been moderate, and very small in respect to some of great moment. For three years, 1877-80, small-pox was absent altogether. In 1880-81 there were 9 cases; in 1882, up to the end of June, 1 case, average, 2 per year. Of diphtheria and croup, the numbers from 1877 to 1882 averaged 6·6 per year; of erysipelas, 27; of pyæmia, 1; of typhus, 0·2, or one case only in the five years. Considering that the practice of the dispensary represents practice amongst the poorest of the poor; that it is carried on in the homes of the poor, in which there is no accommodation for separation of the sick, even when the disease is of the most contagious type; that medical skill is scarcely sustained at all by competent nursing; and that proper food and the proper means of cooking what food there is in an efficient and cleanly manner can rarely, if ever, be supplied, I do not consider that the dispensary represents anything peculiar in regard to the kind of disease to which it administers relief, or to the number of cases of epidemic disease. I shall deal with this subject in another section, but, speaking in this section of the present health of Brighton, the evidence taken at the dispensary shows, generally, a healthy condition of the town in all the poorer districts.

The Sanatorium, which has recently been erected at Bear-hill, comprises two houses for the reception of patients who are suffering from contagious diseases, and is constructed on excellent principles. One of the houses is smaller and older than the other. The newest building, which I carefully inspected, is fitted to take in fifty patients on each side. The wards are spacious, giving from two to three thousand cubic feet of space to each bed. The ventilation is free, and the principle of warming promises well. The position of the Sanatorium, on an elevation which exposes it to the air from the open country as well as from the sea, is well chosen in respect to purity of air, the only difficulty connected with it being the transit of the sick from the town to it. This is met by an ambulance, which is fitted with all modern contrivances. There are in the institution good facilities for the disinfection and cleansing of clothing and bedding, and owing to its surroundings the place cannot be approached, within a

considerable distance, by houses or other buildings. The new Sanatorium is constructed of iron on its outside, lined inside with wood inner felted, and, very wisely, is so framed that it could be taken down altogether and rebuilt at any time at a small expense. It would be perfect in construction if the inner walls were lined with flat galvanised iron, so as to admit of being regularly cleaned by a fire brush. I anticipate that the Sanatorium will greatly relieve Brighton of infection amongst its poor. There were no cases of disease in the new Sanatorium at the time of my visit, the building being incomplete. The older and adjacent building, which contains two wards, each capable of holding twenty beds, is built of wood; there were sixteen cases of infectious disease, chiefly of scarlet fever, in its wards on the day I was there.

The summary of results from the inspection of the medical institutions of Brighton, like that derived from the schools and public charities, is to the effect that the health of Brighton is at this time exceptionally good.

In 1864 I found in Brighton a workhouse situated on Church-hill, in the western portion of the town. The house had been erected in 1820. I was not sparing of it. I described it as "crowded, squalid, dark, worse than a prison," and my advice then tendered was "down with it! For the sake of Brighton as an advanced town, down with it at once. That is the only remedy." The remedy has been applied, and now on the summit of Elm-grove stands a really model workhouse, with its infirmaries and all other necessary accessories. I inspected the workhouse throughout, and have no observation to make upon it, except that its sanitary condition is up to the standard of modern requirements in all respects. There was not a case of infectious disease of any kind within it, and the inmates, old and young, bore as healthy an appearance as ever obtains in a workhouse population. There had been, I learned, a few cases of measles in the infirmary, before last Easter, but since the erection of the building the occurrence of epidemic affections of every kind has been altogether exceptional.

The Parochial Industrial Schools, situated across the Downs, about three miles from Brighton, and containing the children from the workhouse, were also inspected. I found these schools in the best sanitary condition, and, indeed, I remember nowhere to have seen anything of the kind so good in every detail. The children bear evidence of rude health, and the boys, who have a splendid band amongst themselves, excel in musical art. There was not a case of sickness either amongst the boys or girls, at the time of my visit, nor has there at any time been any prevailing epidemic.

Extending my inquiry in relation to the diseases present in those who are under parochial relief, I received reports from the parochial medical officers of the cases under treatment by them in their respective districts. All the districts were free from any spreading or prevailing epidemic. Mr. Leigh, of the central district or parish of Brighton, was good enough to look up his register of cases for me, and reported that from January 1st, 1881, to June 30th, 1882, he had had no case of diphtheria, 7 of typhoid—4 doubtful—38 of measles, 18 of scarlatina—4 doubtful—and 13 of small-pox. Amongst his private patients he had had no case of diphtheria or small-pox, and few of typhoid, but a good many of scarlatina.

The summary of the results of inquiries into parochial medical practice entirely confirms the view indicated from the other institutions, that the present health of Brighton is good, and that there is no prevailing disease of an extensive or serious character.

I turned from the inmates of the parochial institutions to the Police Force, in order to ascertain if there were indications of diseases of an epidemic and serious nature amongst its members. The health of the Police Force affords a fair test of the salubrity or insalubrity of the district or locality in which it is placed. The men constituting the Force are on duty in their respective stations, whether the stations be exposed to the influence of infection or not. They are in like manner exposed to whatever emanations may be given out in the streets, alleys, and houses they guard. They are exposed to these dangers by night as well as by day, and they are, at the same time, exposed to all the vicissitudes of season. In Brighton the Force, numbering from 115 to 130 men, are, most of any persons, exposed, therefore, to such local dangers as may be present. At my visit I found from Mr. Rogers, the surgeon to the police, that he had not an instance of epidemic disease on his list, and that he had

never had such during the period of years in which he had held office. I failed also to obtain evidence that there ever had been such an occurrence since the establishment of the present Force, twenty-eight years ago.

The results of the inquiry and inspection as to the health of the Police Force confirm, in the most signal manner, the previous results.

In the course of making the inspections particularly named in the above passages, I lost no opportunity that offered of prosecuting general inquiries into the health of the inmates of hotels, boarding-houses, lodging-houses, and private houses, and, as will appear in a future page, I made a special inspection of the common lodging-houses. I consulted also many of my medical brethren in large practice in the town as to its present state of healthiness. I met, throughout, with but one statement—namely, that there was no special prevailing disease, and that the amount of disease altogether was so small there was, according to the medical expression, "nothing doing."

In this inquiry, nevertheless, I heard of some instances of serious contagious disease which ought to be noticed. I was informed of a case of diphtheria, but, on looking into it, I discovered that the sufferer had been brought to Brighton, with the disease, in the hope that the sea air would give the only chance of cure. I was informed of two cases of scarlet fever, both of which had been sent to Brighton, with the affection to pass through it there. I was informed of another case where a patient who was recovering from scarlet fever, had come to Brighton, as soon as he could be removed, for the sake of quick recovery. These examples were interruptions to the general statement of the freedom from contagious maladies; but they did not affect the town on the question of its own salubrity. On the whole the investigation yielded the same results as those rendered in the preceding summaries.

As throwing still further light on the subject now in hand, I obtained from Miss Clements, the superintendent, an account of the nurses supplied, under her direction, by the London and Brighton Nurses' Association, situated in Middle-street, King's-road. In the past year and a half this Association has supplied 270 nurses to visitors and families, chiefly to visitors. Of these 15 were employed for infectious cases, measles, scarlet fever, one case of small-pox at Shoreham, one of diphtheria, and one of typhoid. The rest, Miss Clements reports, "were purely medical and surgical cases, mostly invalids sent to Brighton as a last hope."

In reciting the existing conditions of health in the private and public schools; in the large and small charitable institutions for the relief of the sick; in the centres for parochial relief, with the districts through which parochial medical relief is distributed; in the police force; in the common lodging-houses; and in the town generally, I have exhausted all the available, and, as far as I can see, all the possible sources of information. The conclusions I have therefrom arrived at, as to the present state of Brighton, are as follow:—

1. That there is no specially prevailing epidemic or contagious disease in the town or district.
2. That there is nothing whatever to point to any extant local cause as producing such diseases.
3. That the health of the town, considering its size, the special dangers to which it is exposed as the convalescent resort and sanatorium of London, and its position as a refuge from London of vast numbers of unhealthy poor itinerants, who come to minister to the service and amusement of visitors, is unusually good.

#### HEALTH OF BRIGHTON IN THE RECENT PAST.

The present health of Brighton may be accepted as extremely good, and, so far, my inquiries have borne the most satisfactory fruit. I have now to enter on a new field, and to ask, Has the same condition been maintained in the recent past? It is presumed by some that this has not been the case. I have therefore taken the utmost pains to ascertain the precise facts.

The question before us resolves itself immediately into one relating to the presence or absence of the zymotic or contagious diseases. There is no suspicion that the healthiness of Brighton has in any way failed in regard to its climatic healthiness. It is not assumed for a moment that there has been an increase of bad health from what are known as constitutional or diathetic affections. It is not assumed that those diseases which arise from strictly malarious causes, diseases of the type of ague, which were once so

prevalent in Brighton, have revisited Brighton. On the contrary, it is well understood that ague, which I still found lingering in the place in 1864, has now disappeared altogether, unless it be imported.

But it has been assumed that the zymotic or contagious affections have been on the increase, and that they have taken permanent hold owing to the existence of certain sanitary defects on which they are supposed to thrive. To the investigation into the truth of this allegation I have specially directed my inquiries.

My first efforts in this line of research were made to determine how matters really stood on the official tables of mortality. Putting aside all mere general reports and rumours, I went to the prime source of information, the records of the Registrar-General, and that the facts made put forward in all their truthfulness I introduce them as they have been supplied from the Registrar-General himself, first to Mr. J. R. Hollond, M.P., for the Mayor, and through him to me.

"General Register Office, Somerset House.

"In the ten years 1871-80 the mortality from what are ordinarily called the seven zymotic diseases was lower in Brighton than in any other one of the twenty towns, of which weekly statistics are published by this office.

"The mean annual rates of mortality per 1000 from those diseases, collectively and singly, were as follows:—

TABLE A.

	1871-80.		1881.	
	20 Towns.	Brighton.	20 Towns.	Brighton.
Small-pox . . . .	0.42	0.09	0.32	0.08
Measles . . . . .	0.51	0.27	0.55	0.19
Scarlet fever . . .	0.80	0.39	0.66	0.70
Diphtheria . . . .	0.11	0.08	0.15	0.06
Whooping-cough . .	0.76	0.45	0.57	0.31
Typhoid fever . . .	0.50	0.24	0.31	0.40
Diarrhoea . . . . .	1.22	1.00	0.80	0.45
The seven above-mentioned diseases }	4.32	2.52	3.36	2.18
All causes . . . .	21.8	20.4	21.7	19.0

"In 1881 the zymotic death-rate, as a whole, was also much lower in Brighton than in the twenty towns collectively; but in one of the seven diseases—namely, fever, and in this one alone—the mortality in Brighton was above the general average of the twenty towns (see Table A).

"In 1882 the state of things has been very different. In the first and second quarters of this year the zymotic death-rate has been almost twice as high in Brighton as in the twenty-eight greatest towns, taken collectively, owing to the excessive mortality from measles, scarlet fever, and whooping-cough (see Table B).

TABLE B.

	FIRST QUARTER, 1882.		SECOND QUARTER, 1882.	
	28 Towns.	Brighton.	28 Towns.	Brighton.
Small-pox . . . .	0.13	0.15	0.10	0.00
Measles . . . . .	0.85	3.04	0.36	2.01
Scarlet fever . . .	0.56	1.76	0.44	1.10
Diphtheria . . . .	0.18	0.07	0.15	0.15
Whooping-cough . .	1.47	2.89	1.13	1.25
Fever . . . . .	0.33	0.15	0.29	0.15
Diarrhoea . . . . .	0.24	0.11	0.34	0.21
The seven above-mentioned diseases }	3.76	8.17	3.31	4.87
All causes . . . .	24.7	29.2	20.9	21.8

The study of this instructive table affords a complete exposition of all that can be said to the detriment of Brighton, and if the facts I have put forward in respect to the prevalence of disease in the public and medical institutions of Brighton be re-read by the side of this table, they will be found to tally with it, the total of the result being, that at the close of last year, and in the first two quarters

of this year, the town was visited by epidemics of four diseases of fatal character, from which, for many years past, it was comparatively exempt when placed in comparison with the average mortalities of twenty towns containing, like itself, a large population. On referring to the table A, it will be seen that for ten years Brighton stood as 0.27 instead of 0.51 in relation to measles; as 0.39 instead of 0.80, less than half, in relation to scarlet fever; as 0.45 instead of 0.76 in relation to whooping-cough; and as 0.24 instead of 0.50 in relation to fever, when compared with the average collected from twenty towns. On summing up the totals from these four diseases it will be seen that Brighton stood as yielding from them a mortality of 1.35 as against 2.57.

In respect to the three other zymotic diseases Brighton retained for the whole period a first position—namely, 1.17 as against 1.75.

In 1881 this same favourable position was held, with the exception of one disease—namely, typhoid fever.

In 1881 the mortality from typhoid took an exceptional rise in Brighton from an average of 0.24 for the preceding ten years to 0.40. In this respect the town compared unfavourably with the nineteen other towns for that year (1881), in which towns the average mortality had, strangely enough, fallen to 0.31, but it still remained favourably placed in regard to this particular disease in the same twenty towns for the ten previous years, the mortality from typhoid in them averaging, collectively, 0.50. In a word, in 1881, the typhoid mortality rose in Brighton from 0.24 to 0.40, while it fell in the other towns from 0.50 to 0.31.

The change here mentioned would have been too small to have affected the question of the past health of Brighton at all, but for the sudden phenomenon of a rapid rise of mortality in the first months of the present year from the three other diseases already named—measles, scarlet fever, and whooping-cough. In the first quarter the mortality from measles was 3.04, and in the second quarter 2.01; scarlet fever was 1.76 in the first, and 1.10 in the second quarter; whooping-cough was 2.89 in the first, and 1.25 in the second quarter; while fever (typhoid) fell to 0.15 in the first, and remained at 0.15 in the second quarter.

I have now stated the facts which have been observed. Condensed, they stand for data as follows:

Brighton, during the years 1871-80, showed a mortality below the collective average mortality of twenty large towns in England, all causes of death being included, in the proportion of 20.4 to 21.8.

Brighton during the same period showed an average of deaths from the principal zymotic diseases of 2.52, in comparison with an average of 4.32 in twenty large towns taken collectively, and the same continued throughout 1881, except in reference to one disease, fever (typhoid), of which in the collective average of the other towns there was a great reduction of mortality, with an increase in Brighton.

In the first half of the present year there was a great increase of mortality in Brighton from three zymotic diseases—namely, measles, scarlet fever, and whooping-cough.

In the first half of the present year the mortality in Brighton from five zymotic diseases—namely, small-pox, diphtheria, croup, diarrhoea and typhoid—was below the average of that in twenty-eight towns taken, collectively, with which it was compared.

With the close of the second quarter of the year 1882 the mortality from the three diseases which had raised the mortality in Brighton began to decline and to approach the former average.

Taking these as the reliable data, let me now explain the reasons for the remarkable change of rate of mortality which has been stated as pertaining to 1881-82 in Brighton.

The primary truth that comes out, and to which all the evidence points, is that the phenomena of disease and mortality, on which stress is laid, occurred from four diseases—namely, typhoid, measles, scarlet fever, and whooping-cough. This is demonstrative, and two views are open for explaining why these diseases should suddenly have broken out with so much intensity.

The first view is an hypothesis. It supposes that the diseases broke out and proved so fatal as to change the rate of mortality in consequence of local causes of insalubrity and impurity of air.

If this hypothesis were true, there must have been discoverable some great local change in the condition of Brighton; some climatic change; some change in regard to the mode of life of the inhabitants; some change by which

the public works of the town were modified or perverted. There has been nothing of the kind discoverable. There has been no unnatural severity of climate; no particular change of life or habit; no change in water-supply; and for eight years no change in the system of removing the sewage.

If this hypothesis were true, the diseases in question ought to have spread through all classes of the community as from a common cause affecting all. The diseases did not spread in that general way; they spread, as I shall show, from special origins and amongst special classes of the population.

If this hypothesis were true, the other zymotic diseases ought to have been equally influenced by the common insalubrity. Small-pox, diphtheria, diarrhoea, ought to have been prevalent beyond the extent of their prevalence in other towns. They were in fact less prevalent.

If this hypothesis were true, five other spreading diseases, not as yet named, ought to have had a prominent place in the mortality returns. I refer to croup, erysipelas, child-bed fever, surgical fever, and typhus. These diseases, as essentially diseases of impure air as the diseases which were present, are conspicuous by their absence. They add so little to the mortality that they are not noticed in the official record.

If this hypothesis were true, it ought to be supported by an easy exposition of the mode in which the persons who suffered were affected by the insalubrious air. It ought to be demonstrated from what particular polluted source of water, or food, or air, the measles, the scarlet fever, the whooping-cough, the typhoid sprang. There is no attempt at such an exposition.

On all these grounds the hypothesis fails to afford the faintest reasonable explanation of the phenomena. It resolves itself into a mere term. It speculates on a common cause for which there is no common reason. It names this cause as sewer gas, while it makes no analysis of such gas to show that the poisons of the particular diseases were in it; offers no shadow of proof that the persons affected were influenced by such gas, and does not indicate why other persons escaped, nor why other poisons of disease were not also in the gas. It does not venture to assume that sewer gas produced any of the diseases named. It does not dare to prove that such gas can produce even one of the diseases, or to specify one so produced.

The second explanation of the phenomena of disease which we have discovered as leading to the change in the mortality of Brighton in the recent past, is based on clear and simple principles. It does not enter into hypothesis, but deals with well-known and obvious facts. It may be stated in the plainest manner, so that anyone who reads it can understand it.

The four diseases, together with the other of their class, called zymotic, demand for their development three conditions:—(1) A person in a state of body that renders it susceptible to, or liable to become affected with, the diseases. (2) The presence of an exciting organic particle that is capable of causing the disease in the susceptible person. (3) Contact of the susceptible person with the exciting organic particle.

There is a dispute amongst the learned regarding the nature of the exciting organic particle, as to whether it be living or dead, and, whether it come from without or from man himself, into which dispute I need not enter here. It is sufficient for our present practical purpose to know that the particle is necessary as a factor in an epidemic outbreak; that, as a rule, to which there are few exceptions, it passes from affected persons; and that, in those who are susceptible to it, it produces disease if it reaches them. The particle is absorbed by the susceptible; it is, as it were, planted in them; and, after a certain definite period, called the period of incubation, it causes in them phenomena or symptoms which are the same as were presented in the person from whom it was derived.

In every town there is a population that is susceptible to the action of these disease-producing particles; but all persons are not equally susceptible, because those who have once been subjected to them are, to a large extent, prevented thereby from becoming affected a second time.

Hence it happens, clearly enough, that young children who have never been subjected to any of the zymotic diseases, but who with very few exceptions are born susceptible to them all, are most liable to take them when infection is carried to them; and hence the facts, so well

known, that the spread and mortality of the diseases of the zymotic type are largely amongst the young.

As a further rule it follows that if in any town a long interval elapses in which the zymotic diseases are absent, time is allowed for the birth and growth of a very large population susceptible to the diseases, in whom an outbreak, if it begin, will spread, and will include unusually large numbers in one epidemical attack.

This is exactly what occurred recently in Brighton. For a long period, extending over eleven years, the town had been free, beyond what is usual, from the diseases which recently were introduced. Its very healthiness, in this respect, was therefore a cause of its susceptibility to an extended outbreak, if an outbreak were once lighted, and this in relation to more than one disease of serious importance.

It happened, unfortunately, that amongst a large and susceptible population four of these diseases broke out in quick succession, three of them almost at the same moment.

I use the word unfortunately in describing these facts, but I might with equal correctness use the word exceptionally, for it is one of the rarest events I know of, in epidemiological records, that these zymotic affections should be introduced, and should extend with almost equal intensity, in the same place and at the same time. The event is a proof in itself of the freedom of the town from the diseases for a long period of time before.

The epidemics, nevertheless, might have occurred in the same simultaneous manner, and never have been commented on, but for an additional influence which was also unfortunately present. The epidemics took place at a time when all the seasonal influences were unfavourable to recovery from the diseases, and so their presence was shown by large but not under the circumstances extraordinarily large mortalities.

It was laid down by the distinguished scholar and physician, Arbuthnot, that every season has its special diseases. The saying is in some measure true, and the prevalences of diseases and of the mortality arising from them may be considered as well marked. In 1853 I made the question of the seasons in relation to diseases and mortality the subject of a special and prolonged study from the Registrar-General's returns, including in the inquiry a minute analysis of 139,318 deaths occurring between 1838 and 1853 from small-pox, measles, scarlet fever, whooping-cough, croup, diarrhoea, dysentery, cholera, influenza, ague, remittent fever, typhus, erysipelas, quinsy, bronchitis, jaundice, and carbuncle. The districts in which the diseases and deaths took place were London, Devon, and Cornwall.

Out of the 139,318 cases thus chronicled as occurring from the above named diseases, the percentage of mortality in the different quarters of the year, estimating the gross mortality according to the season, without reference to particular years, ran as follows:—In January, February, and March, 25 per cent.; in April, May, and June, 21 per cent.; in July, August, and September, 24 per cent.; in October, November, and December, 28 per cent.

Having learned thus much, I set about ascertaining, on the same large scale, whether the fatal diseases were in any way special to the seasons. The answer to the inquiry was to this effect: Whooping-cough, croup, small-pox, and bronchitis are most common in the first quarter; in the second quarter quinsy only stands ahead; in the third quarter, diarrhoea, dysentery, and jaundice take the lead, and in this third quarter also, Asiatic cholera, when epidemic, assumes a greater mortality and prevalence; in the fourth quarter, influenza, ague, remittent fever, typhus, scarlet fever, measles, erysipelas, and carbuncle take the lead.

The tables from which these facts were drawn were published in the *Journal of Public Health* for December, 1855, and they have since been often referred to and confirmed.

The most extensive and latest review of this same subject is by Messrs. Buchan and Mitchell, of the Scottish Meteorological Society, who, in the journal of that Society for 1875, published the results of thirty years' observation on the influence of weather on mortality in this country. Their analysis includes the returns of mortality of England and Wales from 1838 to 1874. From their tables we learn that the four diseases and their complications, which specially concern us at present, have the following history of season and mortality:—

Typhoid shows its maximum death-rate in October and November, extending, with gradual diminution, into Decem-



ber, but not falling below its average until the last week in February. Measles shows its maximum in November, December, and January, while bronchitis, the common follower of measles, attains its maximum in the second week of January, continuing to fall slowly, till the end of March. Scarlet fever has its maximum from the beginning of September until the end of the year, with, for ten years out of the thirty, a high death-rate continued into the year immediately following. Whooping-cough is above the average, in respect to death-rate, from the middle of December until the beginning of June, the maximum being reached in February, March, and first half of April.

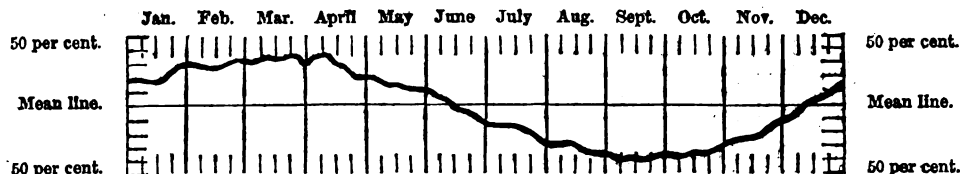
The high mortality from these diseases in Brighton, in the latter part of 1881 and first half of 1882, is all in natural

keeping with the facts above stated. The epidemic of typhoid took place at the moment when its mortality is naturally highest. Measles, and the subsequent bronchitis which I found was the chief cause of death, followed the same law. Scarlet fever, which began to rise in the last months of 1881, extended through the first months of 1882 before it declined. Whooping-cough, in steady observance of law, attained its usual maximum in the first four months, and then began to decline in the natural order.

Messrs. Buchan and Mitchell describe these seasonal variations of mortality from disease by what they call a curve, of which I give one illustration, selecting the curve of whooping-cough as that of a disease which is unusually free from variation.

#### CURVE OF MORTALITY OF WHOOPING-COUGH FOR ALL AGES AND BOTH SEXES.

Derived from calculations of thirty-four years.



I would, in passing, suggest that it would be well in Brighton to register, in future, the mortalities from all diseases on a system of curves of this kind. The precise influence of weather on the mortality would thus be retained and would prove of sterling value to the sanitary staff.

The explanation of the increased mortality of Brighton during the time to which reference is now made, is easily and clearly understandable. The diseases causing the mortality came and went away. They did not depend, obviously, on any general cause located specially in the town. They were produced by contact of the susceptible unaffected with some who were affected.

All towns, all houses even, are open to the risk of receiving infection, and amongst the most healthily regulated towns and households some contagious diseases will spread if the residents be susceptible to the action of the contagion. Scarlet fever, measles, and whooping-cough are diseases particularly easy of distribution from person to person in a susceptible population, and Brighton is inoculated, from without, by these diseases from without many times year. It would be ever under their spell if it had a population always on hand that was unprotected by previous attacks. Sometimes it will have such an unprotected population, and then, as it is no more invulnerable than other places, it will be subject to an epidemic.

All towns are exposed to epidemics from what may be called accident in the mode of distribution of the agent which lights up the spreading disease, and this particularly when the agent can be conveyed or carried wholesale in articles of food or clothing. From this accident Brighton is no more exempt than the rest of the towns of the United Kingdom, and to this last-named cause it has been subjected, as well as to the former causes to which I have adverted.

The disease called typhoid fever is one of those affections which can be conveyed extensively by food and drink, in any community, after the accident of its introduction and during ignorance of danger. The organic exciting particle or poison of typhoid is usually, and as many think always, conveyed by fluids taken into the body as drink. The poison may, possibly, be conveyed for a short distance by the air, but so little is this event feared that in some hospitals for the sick typhoid patients are allowed to remain in the general wards separated from the other patients by the mere distance of one bed from another. If, by accident, the excretions from the typhoid patient were to find their way into the water or milk or other uncooked food or drink supplied to the other patients, the outbreak of typhoid would be certain and general, however pure and good might be the surrounding air. But under less exposure to danger no evil need accrue.

The town of Brighton, then, like other towns, is liable to these two risks. It may be infected with some spreading diseases by the communication of the exciting causes of these diseases from person to person; or by the accidental distribution of the cause to many persons through substances

passing as foods or drinks, after being exposed to contamination. It was in these two distinct ways that Brighton in the recent past was subjected to the four diseases which led for a brief period to an exceptional increase of mortality.

The epidemics of measles, scarlet fever, and whooping-cough were so obviously the result of spreading by personal contact that no one on the spot who watched their progress doubted the fact for a moment. It was the young children in the poorer neighbourhoods who suffered most severely. It was by a case brought into a school or a family that the mischief was introduced. The schools and families that were most isolated from the infected escaped. The epidemic of measles was not itself malignant, but it caused in many instances severe bronchitis. The epidemic of scarlet fever was not generally of the malignant type, but in densely populated parts it spread rapidly from one child to another. The epidemic of whooping-cough was similarly disseminated, and I heard of instances in which the three diseases—measles, scarlet fever, whooping-cough—followed each other in the same family. In a number of cases children just recovered from measles contracted whooping-cough. The mortality was chiefly amongst the poor, and, indeed, hardly reached any other class. The children of the Circus-street Board School for girls and infants—a school where the parents of the children are very poor—were affected by the three diseases almost in instant succession, and yielded no less than eighteen deaths. In this there is no reason for surprise, for in many cases three or four families of the infected lived in one house. They were badly clad, and some actually had no bed. I saw one of these children who, during the epidemic season, suffered, with his brothers and sisters, from measles. Their father was an industrious man but disabled, partly, from work; their mother had to go out to work. They were accustomed to come to the school scantily clothed and fed. One of them caught measles from another child, and the rest followed in turn. A lady who visited them at their home, and who was my informant of the facts, found four of them huddled together in a large chair, and in that position one died.

In the Richmond-street Schools measles, scarlet fever, and whooping-cough spread in the same way, by personal contagion, and at one time 100 children were away from school, fourteen, under the age of five, dying from these illnesses. These were mostly children badly housed, clothed, and fed, their poor parents not having means sufficient to provide the care and attention demanded. One boy sickening with scarlet fever in the school could not be taken home for a long time because the mother was out at work at a distance. In the end a little sister, who had not had the disease, fetched him home, and became herself another victim. In the St. John's and Hanover-terrace Schools the epidemics spread in like manner, St. John's yielding twelve and Hanover-terrace four deaths from amongst their scholars.

It is unnecessary to enter into further details in respect to the mortality from the late epidemics of measles, scarlet

fever, and whooping-cough. They were dependent in no way on any special agent, like sewer gas, or other cause of a general kind, affecting the air of Brighton. They depended on the natural development, in a susceptible community, of three contagious diseases, occurring in poor and overcrowded localities, at a period of the year when these diseases are always most fatal. They depended for their unusual diffusion on the unusual coincidence that these diseases had for a long time been in abeyance, and were accidentally lighted up all at one time. In any town in the kingdom the same results would occur under the same circumstances, according to our present knowledge, and they will continue to occur until the day arrives when there shall be no poverty and no exposure of the young to those who have contracted contagious diseases; a time, that is to say, when the poorest children of Brighton shall be as well placed as those other school children also there, who, as I have shown in the first section of this report, escaped so remarkably.

The outbreak of typhoid fever in the latter part of last year was accidental in respect to distribution. All the evidence obtainable points in that direction, and is as near to proof as such evidence can be, while there is no other evidence of any kind to explain the outbreak. The facts, in short, are these. In the third week of September last there was a case of typhoid in the Lewes-road, which was quickly followed by other cases. Very soon the suggestion was made that the attacked were persons who had partaken of milk from a certain dairy supply in the Lewes-road. The suspicion was not at all surprising, because it originated from facts of common observation. One gentleman, who lost a child from the epidemic, gives me, for instance, the following report. His son and four of his daughters being in Lewes-road in the third week of September, went into the dairy or milk shop referred to, where the son and three of the daughters drank of the milk supplied. All those who partook of the milk began to sicken towards the close of the following week, and were found by Dr. Stephens to have typhoid fever, from which one died. The one who did not partake of the milk did not suffer. Here there were five evidences in proof of the source of infection—(1) That four persons who were subjected to the same possible source of infection were all affected. (2) That the affected fell ill at the same time, proving exposure at the same time to the same producing cause. (3) That the first appearance of symptoms ending in typhoid, calculated by the natural period of incubation of typhoid, from nine to twelve days, points to the date when the milk was taken as the date of infection. (4) That the one who was not subjected to the possible source of infection was not affected. (5) That there was at the time, in the house at which the milk was drunk, a case of typhoid. Since the period when the outbreak of cholera in London was traced so circumstantially to the water of the pump in Broad-street, Golden-square, there has been no more conclusive evidence given of a local source of infection of a spreading disease.

The theory of the origin of the outbreak from the centre I have named was soon under the observation of your medical officer of health, Dr. Taaffe, and of your analyst, Mr. Moore, who added to facts similar to those I have just recorded further valuable evidence, which was reported by Dr. Taaffe to the Sanitary Committee, and which I may here summarise under four short heads—

1. That milk taken from the dairy in question on Sept. 28th had in it 20 per cent. of water that had been added to it, and that such water was foul or contaminated, the milk being of bad odour, undergoing rapid lactic acid fermentation, and yielding a cream which at 80° F. developed fungoid growths; a milk evidently unfitted for consumption.

2. That there was a source or sources on the premises of the suspected shop from which the contaminated water could have been obtained, the water of the premises being held in two cisterns, each over a water-closet, and that the water from one of these was contaminated, showing '08 of free ammonia per million, '23 of albuminoid ammonia, a deposit of wheat starch, confervoid aggregated corpuscular bodies, and some monads.

3. That of 91 families who drank of milk supplied from this source, 26, or 1 in 3·5, were attacked by typhoid, all the persons falling ill about the same date.

4. That of 696 families in the neighbourhood supplied from other dairies, only 27 (1 in 25·7) were attacked, and

that all these cases, with two exceptions, which occurred about the 22nd to the 24th of September, happened subsequently to the end of September.

Putting all these facts together, and coupling with them the further fact that the carekeeper of the suspected house in Lewes-road was suffering from typhoid on September 22nd, from which date the epidemic dates, Dr. Taaffe reported to the Sanitary Committee his opinion that this epidemic of typhoid was due to a local cause—namely, to water contaminated from a closet or from closets of a house from which milk was supplied, and with which such water had been admixed.

I confirm this conclusion on every point. Without the least strain it explains all the mystery, and while it relieves the town, as a corporate body, from responsibility, it is an intimation to all individuals who supply vital public wants of the responsibilities which rest upon them if they fail, from any cause, to avail themselves of the advantages of a sanitary kind which are placed at their disposal, or evade the rules which are laid down by the common consent of elected authorities for the common good.

The municipality of Brighton can no more than that of any other town be held responsible for individual error in respect to distribution of disease. It might as justly be held responsible for the distribution of fire. It can concert general measures and offer counsels against the origination and spread of disease and of fire; it can appoint inspectors to see to the state of buildings; it can provide a skilled sanitary officer or captain to stamp out disease or fire; it can provide an ambulance or a fire escape; it can provide a hospital for those who are injured by disease or by fire. But it can no more be expected to look after every man's water-closet and water-cistern than after the turning out of his gas at night or the safety of his lucifer match-box.

Taking all the facts into consideration, I have to report that, with the exceptional occurrence of four fatal contagious diseases occurring between the 22nd of September last and the close of the second half of the present year, the health of Brighton for many years past has been unusually good and free from epidemic disease. I have further to report that the mortality from four diseases in the epidemic period defined was due to accidental and social, as distinguished from any general causes affecting the town altogether, and that the town has been singularly favoured in respect to the prevalence of the other diseases of the contagious and epidemic type.

#### THE WATER-SUPPLY OF BRIGHTON.

In 1864 the water-supply of Brighton was reported on by me as "unlimited and pure." I have nothing to add to that statement, and nothing to take away.

There are two sources of supply: one from the Goldstone, the other from the Lewes-road Works. I have had the opportunity at the Goldstone Works of descending to the sources of supply, and of seeing the water as it is laid up in the huge reservoirs in the chalk from which it is pumped and supplied to the town. The Lewes-road supply differs little in character from the Goldstone, and both are excellent. The waters were reported upon by Professor Frankland in March last; but, in order to make this report complete up to the latest time, I took specimens of both waters from the supplies on Saturday, July 8th, and submitted them for analysis to Mr. Wynter Blyth, the author of the admirable practical work on "Foods, their Composition and Analysis."

Mr. Blyth's report is herewith subjoined.

"Department of Medical Officer of Health,  
Court House, St. Marylebone, W.,  
July 15th, 1882.

"I beg to submit a report of the result of my analysis of the Brighton water. The values of the analyses, conducted on the usual principles, are thrown into the annexed table, so that they may be compared with the analyses made by Dr. Frankland in March, 1882.

#### No. 1. Main pipe, Goldstone Works.

"This water was perfectly bright, clear, and palatable; no sediment was deposited on standing, and a microscopical examination indicated entire freedom from any impurity detectable by the microscope. The chemical data show that there is an entire absence of free ammonia; low values for carbon and nitrogen; and just sufficient hardness to give a

pleasant taste. The saline matters in the Goldstone water may be expressed in grains per gallon, as follows:—

Carbonate of lime	12·880
Carbonate of magnesia, with some nitrate and a minute quantity of sulphate	5·087
Chloride of sodium	3·290
	21·257

"The amount of carbonates of lime and magnesia that the water holds in solution depends mainly on its content of carbonic acid gas, and therefore varies at different times of the year; nevertheless, the "hardness" and the total solids in the March analysis very fairly agree with the figures in the July analysis. The value of such a supply of water of a constant composition is great.

"No. 2. Lewes-road.

"This water was found equally clear and palatable. The difference in composition between the two waters is unimportant.

A gallon of No. 2 contains the following saline constituents:—

	Gr.
Carbonate of lime	13·44
Carbonate of magnesia, with some nitrate and a trace of sulphate	5·46
Chloride of sodium	3·62
	22·52

"No 2, like No. 1, is free from any impurity.

As a whole the water-supply of Brighton is of a first-class character, and it is one of the purest waters of its kind I have ever examined.

*Result of Analysis of Brighton Waters expressed in parts per 100,000, by Mr. Wynter Blyth.*

A.D. 1882.	Total Solid Matters.	Organic Carbon.	Organic Nitrogen.	Ammonia.	Nitrogen as Nitrates & Nitrites.	Total Combined Nitrogen.	Previous Sewage Contamination.	Chlorine.	Hardness.		
									Temporary.	Permanent.	Total.
No. 1.—Goldstone, July .....	27·57	150	050	...	500	650	...	2·8	12·1	7·3	19·4
Ditto, March (Dr. Frankland's Anal.)	24·80	148	054	...	450	504	...	2·8	12·4	7·0	19·4
No. 2.—Lewes-road, July .....	32·4	170	080	...	445	484	...	3·1	14·7	7·7	22·4
Ditto, March (Dr. Frankland's Anal.)	27·00	126	030	...	435	474	...	3·0	12·8	7·5	20·3

(Signed) A. WYNTER BLYTH."

The report of Mr. Blyth sufficiently describes the state of the Brighton water at this time, and as there is no prime source from which the water can be contaminated, it may be accepted as one of the purest supplies, as well as one of the most unlimited.

Like all waters derived from the chalk it is naturally a hard water, but, as the mayor pointed out in his paper at the late Health Congress, it can be softened by a very simple domestic process. From the nature of the supply it is only from the most culpable negligence that the Brighton water can be made a medium for the conveyance of disease.

In every house the water can be laid on in constant supply, and there is no occasion for an intermittent supply anywhere. Gradually, throughout the town the constant supply is being laid on, and, when that is universal, such an accident as the spread of typhoid through milk charged with water from an impure cistern will be practically impossible.

The system of hydrants possessed by the town by which water, used for extinguishing fire, can be carried to any required height without an engine, is much to be commended. No town in the kingdom is, I think, so well provided for in this respect as Brighton.

#### THE SEWERAGE AND DRAINAGE OF BRIGHTON.

I come now to one of the most important parts of my report, the sewerage and the drainage of the town of

Brighton. In approaching this subject I desire to make two distinct statements.

1. All through my career as a sanitarian I have been a consistent advocate of the separate system of drainage and sewerage; I have contended, and, far from altering my opinion, I am the more inclined to contend for it every day, that for a town to be scientifically and perfectly drained two conditions are necessary: (a) That the sewage from the houses be conveyed away by its own separate system, with a sufficiency of water to carry it equally on all occasions, and perfect flow at all times to ensure its delivery, whatever may be its ultimate destination, to the land or the sea. (b) That the rain or storm water should be separately disposed of. In Brighton this system is not carried out, and if I had had a voice in the system that was adopted prior to 1871, I should have been the most strenuous of those who would have declared for it. Mr. Edwin Chadwick, who has been so devoted to the advocacy of this separate system, would not have been more earnest than I should have been in its favour.

2. But while stating this position, in the strongest manner, as the one I personally take, I am bound in honesty to admit that I can discover in Brighton no evidence of disease as originating from the system which has been adopted, and which lets the storm water and the sewage commingle and escape by a common intercepting canal and outlet. On the contrary, I am forced to the conclusion, from the weight of the evidence before me, that the facts derivable from an unprejudiced study of the records of disease and the causes, are as favourable to the present system, so far, as I could have expected from that which I should always advise and prefer.

The dangers presumed to be attendant on the present system are that the large sewers which are necessary to carry the two supplies, sewage water and storm water, have to be freely ventilated so as to allow the gases which emanate from the sewage to escape into the air. If this be not done, it is assumed that the sewer gas will escape back into the houses and contaminate them.

Again, it is assumed that when the sewers are ventilated in their main lines, the ventilators being in the roads beneath which the sewers are laid, there is an escape of sewer gas into the streets; and that when the streets run in ascents, as at Brighton, the gas rises to the higher levels and finds escape there with special freedom, and this particularly when the main exit for the sewer is tidelocked and there is an accumulation of sewage in the intercepting canal.

The hypothesis, if it be true in a physical sense, is not sustained by the results of disease as they are manifested at Brighton.

The precise relations of sewer gas to disease are as yet indifferently understood, very few observations having been on the subject. The late Dr. Barker, of Bedford, who made one of the best researches that has ever been conducted on the effects of sewer air, concluded that cesspool and sewer emanations, when they are steadily inhaled, are poisonous, the symptoms of disease induced being those of intestinal derangement, followed by prostration, increased temperature of the body, distaste for food, and those general signs which mark the milder forms of continued fever common to the dirty, ill-ventilated homes of the lower classes of the community.

It has been more recently indicated, from experience, that the fever which follows childbirth is sometimes induced by sewer air. It has also been indicated that typhus, surgical fever, erysipelas, and diphtheria may be produced by the inhalation of sewer gas.

If these inferences be true, then Brighton is singularly free from the effects of sewer air. Typhus is practically unknown in Brighton; that continued fever which Dr. Barker describes is in no return that I can find, and if it be in any I have not seen it must be extremely rare; childbed fever is also most uncommon; and surgical fever is equally so; erysipelas is comparatively rare.

Diphtheria, which some have assumed to occur from sewer gas, is very rare. From 1871 to 1881 the mortality from it was lower in Brighton than in nineteen other large towns on the average computation. In the first quarter of this year the mortality from it in Brighton was 0·07 to 0·18 in the other towns. In the second quarter of this year only has it come up to the average, and in respect to three of the cases that helped to raise the mortality from it in the second quarter the facts are specially peculiar. In one case the child was brought into the town with the affection from

London, in the hope that the sea air might cure it. In the second case, as I found from the report of the physician in attendance, the child sickened on the second day after arrival in the town, which, giving only seventy-two hours for incubation, excludes Brighton as the centre of infection, or, at least, renders it very improbable. The third case was one which, if of local origin, was so complicated in respect to origin that no clear evidence of an explanatory kind could be obtained. The patient, in wet clothes, sat in a crowded miscellaneous assembly at the Aquarium before being seized with the disease. She was believed to have been exposed to a bad odour from the ventilator of a sewer, but I found the most contradictory statements as to the character of the odour, and even as to the existence or non-existence of an odour or emanation of any kind. Further, although I was informed that five cases of sore-throat had occurred some weeks before in the same house, and recovered, I could trace no other case of diphtheria in any other house near to the ventilator, though some were nearer to it than the house in which the case occurred. Lastly, I could get really no satisfactory proof that the affected child had been exposed to any emanations from the ventilator. I have seen so many cases of diphtheria, in children predisposed to the disease, coming on from cold, after exposure to fatigue and wet, without any suspicion of exposure to sewer air, that I dare not, for my part, accept in this case the hypothesis of contraction of the disease from inhaling sewer gas, unless I was sure of these primary facts. Firstly, that the child did inhale sewer air. Secondly, that the contents of the sewer air had been charged from another case with the specific poisonous organic particle. Thirdly, that the period of incubation of the disease was in accordance with the period of inhalation of the poison. Fourthly, that other persons equally exposed were also affected. In the case in question, not one of these facts was forthcoming or obtainable.

I repeat, then, that while the system of disposal of sewage at Brighton is not the one I should have suggested, I have found no evidence whatever that the sewage has proved a source of zymotic disease. On the contrary, I am forced to the conclusion that the zymotic diseases which might be attributed to sewer gas have been less fatal in Brighton than in the other towns of equal size for many years past, and singularly so during the time that the present system has been in operation.

On the question of the condition of the sewers and drainage system of Brighton, as it is at present, I have used every endeavour to become thoroughly and practically acquainted.

I entered the main or intercepting sewer of the town at every available part. I traversed it for several hundred yards. I noted its outfall, its construction, and the points where it received its tributaries. I also made observation on the force of the air that passes through it. I inspected, as far as possible, the main sewers leading into the intercepting sewer, the sewers leading from the streets into the mains, the drains leading into the street sewers, the manholes leading down into the sewers, and the sewer ventilators. I went at various times of the day, and late into the night, to the ventilators in different parts of the town, to notice if there were emanations from them; and, accompanied by Mr. Lockwood and his staff, I took part in the process of flushing the sewers with water through the manholes, in several parts of the town.

My inspection of the intercepting sewer commenced at the outfall at Portobello, four miles to the east of Kemp Town, at a time when, the tide being low, the contents of the sewer were being discharged into the sea. The outflow gave abundant evidence of discharge of recent sewage from the town, and the penstocks and gates at the outfall were all in good working order. Proceeding towards the town on the sea side, in the line of the sewer, I entered it again at Roedean, where I found valves placed across it which opened in the direction of Portobello, to let sewage and air pass on, but which prevented them from passing back towards the town. The valves were in efficient working order. I found here also a furnace and shaft, which had the effect of drawing off, from the part of the sewer which lies towards the town, some seven thousand cubic feet of air per minute. The air passes over the flames of the large furnace and escapes afterwards by the tall shaft. I next followed the sewer from Black Rock to the Steyne, where I entered it to inspect the discharges of the main from the northern and Marine Parade sewers and the catchpit in the Steyne valley. I took readings here again of the air currents, and I walked through

the sewer back to the Chain Pier. I next followed the sewer to its commencement at the western end of Hove and entered it again there.

From Hove to the Steyne the sewer is five to six feet in diameter, gradually increasing in size to seven feet at the Steyne, and retaining that size during the further part of its course. It is well built, and cannot, I think, permit leakage. Mr. Lockwood supplied me with the measurements, with the height of the invert at Hove, one foot six inches above high water at spring tide, and of the invert at Portobello—viz., the low level of low water at spring tide. He also gave me the measurements of the fall—namely, three feet per mile; and the rate of flow—namely, one and one-third to one and a half miles per hour. In the length of Hove the sewer receives thirty house drains directly, and eleven or twelve sewers. From the Aquarium there are three outfalls into the sewer; they are flapped on the sewer side, and the flaps are in very good order. At the Steyne the main valley sewer joins the intercepting sewer, and there is a large storm overflow at this point. The sewage of the part of the town lying to the east of the County Hospital enters at Black Rock, and there is another storm overflow at that point.

The air of the intercepting sewer is much less offensive than would be expected. At the time of my inspection the odour of paraffin prevailed over everything, and I learned from the men that this was usually the case. The insoluble paraffin, residue of lamps, passes into the sewer, floats on the surface of the sewage, and gives out its characteristic smell. The sewage was from fifteen to eighteen inches deep in the sewer at the point where I traversed it, between the Steyne and the Chain Pier. It decreased towards the west, and at Hove was not more than from nine to twelve inches in depth. There was very little solid matter under foot. At one place, a little distance from the catchpit in the valley of the Steyne, there was a little accumulation of silt, which had been carried from the catchpit probably before the emptying of the pit in the morning. The masonry of the sewer is of brick, well laid, and seemed to be good in every part. I ascertained from Mr. Lockwood, in respect to the proportion of storm and town water to sewage, that the sewage in dry weather varies from 6 in. to 15 in. in depth, or from about 200 to 500 cubic feet per minute; and that the sewer, when fully charged with rain-water, discharges 8000 cubic feet per minute. About thirty gallons of water per head of the population of Brighton and Hove finds its way into the sewer, or 600,000 cubic feet, equalling 3,750,000 gallons per day of twenty-four hours; but in dry seasons this is increased by special flushing. During the time of my inspection in July nearly 100 tons, or about 23,000 gallons, of water were passed into the sewers in a day for flushing them. Twice in the twenty-four hours of each day the sewage of the town is locked up in the intercepting sewer in consequence of the rising of the tide, the time during which this locking occurs being rather more than half the full day. It is calculated that the capacity of the intercepting sewer is such that it would hold, during the periods when it is tidelocked, more than twice the amount which it receives from the town in dry weather.

I should add to this account of the intercepting sewer that I experienced no ill effects from being so long in it while making my inspection, and that since it has been in use none of the surveyors or inspectors have ever suffered from inhaling the air within it.

During the period of my inquiries I received many communications respecting the emanations of bad odours from the ventilators in the streets. This led me to visit the reported places at different hours. I found, in the same way as is found in London, that sometimes there was a sewer smell, never intense and not always present. In the supposed worst cases of which I was informed the evil turned out to be due entirely to different causes. In the most offensive instance of all the cause of the stench proved to be an escape of gas into the earth in a narrow street; the ventilator was quite free of odour. In another instance the offence attributed to a ventilator was from dead animal matter cast into a heap near the ventilator. In a third instance it was from dead sea-weed. In some other instances the cause seemed to me to be different, and to be due to neglect on the part of householders to connect their drains satisfactorily with the sewers. In these instances the smell is not from the ventilators nor from the sewers, but from the houses themselves or the areas. From neglect of another

kind the houses in Brighton, as in London, are made often abominably odorous by the nuisance of dust-bins into which decomposing animal and vegetable refuse is thrown. There is no proof that the odours evoked from the dust-bin produce any form of specific disease, but they give the place where they are detected a bad name, and in time of anxiety a far worse name than it may deserve.

Altogether I found the working of the sewerage and drainage of Brighton entirely different from what I had been led to expect. I found no sewage deposit in the sewers; no leakage in the intercepting sewer; no special indications of escape of sewer air into houses; and as little of emanation from the ventilators as in London. I found, in short, nothing whatever that would lead me to believe in the occurrence of any special disease or mortality from bad drainage.

Connected with the sewers in the streets I found at convenient distances a series of manholes, leading down to the sewer, by which the men can descend by iron holds or steps. The sewers can be closed by a large wooden plug at the bottom of each shaft, and the shaft itself can then be charged with from two to three tons of water for flushing. These manholes or shafts in some cases are used as ventilators, the opening to them being covered with an iron grating; in other cases the grating is closed in with a covering of cement and stone. The covering is removable by the use of a key and lever. In addition, for the purpose of the ventilation of the sewers there are inserted in the lines of the sewers a series of open ventilators.

The rain and storm water is let into the sewers by trapped drains in the streets and by trapped drains from the houses. In many of the houses the water of the house that does not pass through the waterclosets, the water from the roofs and from the baths, is made to flow into an open air space in a back yard before it flows into the drain.

The soil-pipe connected with the houses is usually placed at the outside of the house, and in all new houses is systematically so placed. It is usually an iron pipe. In a large number of houses I found a ventilating tube, open at the top, carried from the top of the soil-pipe to a point above the parapet of the house. The pipe varies in size in different houses, from three inches in diameter to less than an inch—a ridiculous smallness. In the large majority of houses I found the watercloset system adopted, but there were some in which the old closet system, without water, is continued. The old pan watercloset is still in general use, but in many houses the better and safer closets by Underhay, Jennings, Bostel, and others are introduced.

It is correct for me to report that in the schools and in nearly all the institutions where numbers of the young are congregated, I discovered the utmost anxiety to have everything done that could effectively be done for the perfection of the drainage of the house, separation from the sewers and removal of offensive odours. In these efforts there has been great success, and I was unable to detect in any house I visited the bad smell which indicates a communication with the sewers.

#### THE ROADWAYS AND PAVING OF BRIGHTON.

The roadways and side paving of Brighton are on the whole exceedingly good. In some of the streets where the ascents are very steep and where the surface of chalk has not been overlaid by firmer material, there are considerable inequality and roughness with indifferent sideways, and in these situations there is, I am informed, the utmost difficulty in maintaining an equal roadway and sidewalk. During storms the water comes down in a deluge, and, when the street is narrow, sweeps all before it, rendering the firmest paving and road loose and insecure after a short time, although every possible provision be made for conveying away the water by the gully holes into the sewers. This carrying down of detritus from the steep streets into the main lines of thoroughfare is, I should assume, a cause of unusual trouble to the authorities, for I found, on going into some of the thoroughfares in the early morning after a wet night, a large accumulation of road sand and detritus into them, which must call for a great outlay of labour to secure removal. It must be removed, and the authorities, however active they may be in meeting this serious difficulty, are not always able to cope with it when there is a prolonged fall of rain. The main thoroughfares are kept in good repair, and the sidewalks are, as a general fact, sound and dry.

Recently along the Marine Parade an asphalt walking path is being laid down, which will prove extremely convenient to foot passengers.

#### THE SLAUGHTER-HOUSES, COWSHEDS, AND BAKERIES OF BRIGHTON.

In the course of my inspection I visited, in company with Dr. Taaffe and his chief inspector, Mr. Hawes, the slaughter-houses in Brighton, and in nearly every instance was present at the time when the men in the houses were at their work. The number I inspected, in actual occupation and work, was sixty-two.

The requirements of a perfect slaughter-house are—1. A good and efficient entrance and exit. 2. Good lairs in which the animals about to be slaughtered may be comfortably and cleanly housed, away from the slaughter-house itself, yet convenient to it. 3. A good clean slaughter-house, well drained, well floored, well lighted, well supplied with water, well furnished with all kinds of necessary implements and machinery, well provided with a place for slaughtering, with a distinct place for dressing the carcasses, and with good arrangements for removing the offal. 4. A wholesome place apart from the slaughter-house for storing the carcasses after they are dressed. 5. An outer place for collecting the refuse in such manner that it can be cleared off the premises as soon as the work of each day is done. 6. A staff of slaughterers and dressers who are rapid, humane, and efficient in the execution of their task, and who study to keep themselves and the place in which they work tidy and scrupulously clean. 7. Lavatories for the men, where they can rinse and wash their hands in basins set apart, and not in the pails in which the water for washing the carcasses is held, and, where they can dry their hands on towels specially supplied for that purpose.

I regret to say I cannot report any general adoption of these rules for Brighton. There is no public abattoir, and the private registered slaughter-houses are no better, as a rule, than those of London. With very few exceptions they are extemporised or imperfectly constructed buildings, arranged on no system whatever, and only kept commonly decent by the incessant watchfulness of the inspectors. It is just to report that I found one or two remarkable exceptions to this statement. In these exceptional houses, and in one of them especially, there were such excellent arrangements that were all like it nothing would be left to be desired. Unfortunately, these good specimens of slaughter-houses, in which the arrangements I have outlined above were systematically carried out, were but contrasts to very bad ones. In many instances the lairs were dark, dirty, and inconvenient; in other instances, though the lairs were better, the slaughter-houses were very bad. Generally where the lairs were dirty and close, the men at work were slovenly and dirty. In too many instances the lairage, the slaughter-house, the slaughtering were all equally at fault. There were, however, throughout, two saving clauses. The houses and lairs were connected with an open yard, so that ventilation was more efficient than could be expected at first sight, and the water-supply was abundant and good. Recently, good drainage has been enforced, and whitewashing of the walls of the inside of the building, by which offensive odours from the slaughter depôts are much prevented.

It was my intention to have reported on the slaughter-houses in greater detail, and to have named certain of them for which there is but one remedy—namely, to sweep them quite away. But inasmuch as I shall have to offer a recommendation before I conclude, which will have reference to a new and completely revised system, it is sufficient for me in this place to observe on the general conditions that were presented to my notice.

I inspected, with Dr. Taaffe and Mr. Hawes, the cowsheds of the town, to the number of forty, all of which are registered and under regular sanitary inspection. In these I found the greatest diversity. In some every attention was paid to cleanliness, to the admission of light, to the supply of room to the animals, to the purification of the stalls, to the drainage, and to the cleansing of the utensils. In others the commonest rules for the maintenance of cleanliness and of health were only maintained by incessant inspection from the officers appointed by the authorities, the directions issued from the department of the medical officer of health, and the attention of the veterinary surgeon to the health of the animals. The common faults were deficient space, closeness of air, inattention to cleanliness, partial cleansing of walls, in some cases, a perfect roofing of cobwebs on the ceiling, bad arrangements for storage of forage and food, imperfect arrangements for cleansing of utensils, and sometimes sad want of cleanliness in the attendants.



These faults in Brighton, as in almost all other large towns, were conspicuous. It is a bad and unwholesome practice enough to keep cows shut up in one place for months together, merely to yield milk for the population. It is very bad for the population, for the cows themselves, and for the profits of the owners of them, when the animals so imprisoned are deprived of the first essentials to health, pure air, clean bedding, clean food, and sufficient space in which to move and rest. I shall venture to recommend an improvement in relation to the cowsheds at the conclusion of this report.

I made an inspection of the bakeries of the town, and in one instance was exceedingly gratified with the practical and excellent arrangements which everywhere prevailed. The bakery in this instance was very large. In the smaller bakeries there was less convenience and order, but, compared with what may be seen in London and in many other large towns, Brighton stands out uncommonly well in the bakery department. I met with no cellar bakeries; I met with none that could be called uncleanly; in some of the smallest there was a strict attention to cleanliness, and, in brief, I did not see one from which I should have objected to eat of the bread prepared in it.

In summing up this part of the report, I should say that the slaughter-houses are as a whole no better and no worse than in other large towns where private slaughter-houses remain; that the cowsheds, generally, are neither better nor worse than in other towns; and that the bakeries are, comparatively, good.

#### THE COMMON LODGING-HOUSES OF BRIGHTON.

The common lodging-houses of all our large and populous towns are very liable to become centres of contagious diseases. These houses are, by the nature of their service, daily open to infection, since they receive new occupants every night, who come from different parts of the kingdom, wayfarers, the poorest of the poor. The houses are, as a rule, situated in poor localities, and are limited as to space. Brighton is no exception to these disadvantages, but, indeed, is rather a special sufferer from them. It has to supply eleven of these common lodging-houses, and they are placed in the north-eastern district, in Egmont-street, Derby-place, Chesterfield-street, and Cumberland-street. Accompanied by Dr. Tassie and Mr. Hawes, I visited every one of these houses and every room in them.

The houses are in an old and bad quarter of the town, many of them are in a dilapidated condition, and the rooms are low and small. The beds and beddings are poor, but in all cases clean. The staircases, the floors of the rooms, and the windows of the rooms, are kept very clean. The kitchens, where the lodgers cook their own food, are fitted with fair cooking appliances, are well supplied with water, and are clean and free from bad odours.

The yards at the back of these houses are open freely to the air and are fairly drained, but badly paved. In them are open closets, which are clean, but to which the water is not laid on. The closets are kept clean by the process of carrying water to them in pails. They empty into the sewer and the drains leading from them are trapped.

It will be seen from this statement, which I have endeavoured to make as precise and brief as possible, that these common lodging-houses are not of a kind to which the sanitarian would append any word of commendation. At the same time I must, in truth, admit that I discovered no disease present in them, except in one man, who had just returned from South America, and who was suffering from a remittent or intermittent attack, to which he had been subject, at intervals, for many months previously. He was lying in his clothes on one of the beds, but had been out in the day and had visited the out-patient department of the Sussex Hospital. The houses were fully occupied, and the beds, which I counted as over a hundred in number, were considered to be too few for the wandering applicants from all parts who were likely to require them. But there was no record of disease beyond what I have named, and I could not trace that the houses had been visited at any time by any class of epidemic affection.

I shall append a recommendation as to these common lodging-houses in the last part of my report.

#### MORTALITY OF BRIGHTON.

I have now to bring under consideration the important question of the mortality of Brighton, about which so much has recently been said and written. I have to inquire

whether there is anything that is exceptionally wrong in regard to the rate of mortality of this town; and, if there be, what are the causes of the error, and what steps should be taken to remove it.

In order to arrive at a clear understanding of this question I have availed myself of every reliable source of information. I have studied all the mortality returns for the past twenty-five years; the reports of the learned medical officer of health since the commencement of his labours, and the reports of the various medical and other charitable institutions. I have also had extracted from the local records of mortality the deaths of visitors occurring in Brighton during the past five years, in order to determine if visitors were subjected to any special risks from the contagious diseases or from other diseases that might be considered peculiar to the place.

Before I notice the details which I have been able to collect, it is necessary for me to treat briefly on the subject of mortalities in different localities and in the country at large. With my distinguished friends, Mr. Edwin Chadwick, C.B., and Dr. Wm. Farr, F.R.S., I have for many years past seized every fitting occasion for placing before the people the facts relating to these mortalities and the means of reducing the mortalities of our communities to what we consider a natural and model figure. At one time we were criticised as putting forward extreme views and as holding out hopes for the reduction of death-rates which were never likely to be fulfilled in our day. When we began to treat on this subject a mortality of 25 to 30 in the 1000 living was not considered remarkable, and when, therefore, we spoke of this as being more than twice above the natural average and twice what the natural average would be under proper sanitary regulations, it was no wonder that the assumed reduced estimate was considered as Utopian.

We have lived to see the day when the results have fully justified our expectations, which were, in fact, never too high; and we have lived, I am happy to say, to see the day when the public mind has not only become indoctrinated with our views, but so fastidious in relation to them that the death-rate of a town, in which residence is contemplated for a long or short time, is looked upon with as much care and attention as position in regard to railway accommodation, and the other conveniences and necessities which make life enjoyable.

At the present moment there are varying death-rates in English towns from the model low to the unnatural or excessively high. These may be divided in groups as follows:—

Group 1. Death-rate from 8 to 12 in the 1000			
" 2.	"	" 12 to 16	" "
" 3.	"	" 16 to 20	" "
" 4.	"	" 20 to 24	" "
" 5.	"	" 24 to 28	" "
" 6.	"	" 28 to 32	" "

There are very few towns as yet which have attained to the perfection shown in the first of these groups, perhaps none that through a series of years have attained to it. A few towns especially favoured in respect to population, situation, and wealth have attained to the position of the second group.

Brighton may be placed in the third group. The country altogether may be placed in the fourth.

It must not be considered that those towns which belong to the best of these groups are always favoured by having mortalities which lie within the figures stated above. In group 2 the mortality does not always come under 16 nor above 12. It sometimes runs over the one and under the other, owing to the effects of one or two interfering causes: (a) extreme reduction of temperature; (b) an outbreak of one or more of the diseases of the so-called zymotic type.

The first of these interfering causes occurs usually towards the close of winter, when great increase of cold succeeds upon a long interval of wintry weather. Then the feeble aged and the feeble young, together with those suffering from exhausting diseases like consumption of the lungs, die in great numbers and swell the mortality tables. The mortality from these causes is somewhat regular in its character. It is less in certain years than it is in others, because the seasons of some years are milder than of others; but it is always under certain rule, and can be calculated upon so as to be considered a fixed quantity, if a sufficient number of years to produce an average be taken into the calculation.

The second of these interfering causes is less certain in the order of its manifestation, and is most difficult to predicate upon, although the causes are, no doubt, under the direction of some simple, but as yet undefined, natural law. The general results over a large tract of country are calculable, and the general results in any particular time are also calculable when a sufficient number of years are given, through which to allow the seven to ten diseases that produce the mortality to take their course. But there is sufficient variability to cause at particular seasons the most deceptive appearances. Sometimes an unusual credit is given to a place owing to apparent freedom of mortality from the zymotic affections. At other times panic is excited in the same place because the zymotic diseases are so rife and fatal.

Two circumstances lead to these marked fluctuations in the mortalities from the zymotic affections. One is that the diseases themselves ordinarily attack every person once in life, but having once attacked, leave the person in whom they have been developed free from subsequent attacks. There are exceptions to this rule. Some persons escape the diseases, or certain of them, altogether. Other persons are susceptible to them all, or to certain of them more than once. But these exceptions do not materially affect our argument. In the large majority of instances, everyone born is liable to the diseases if exposed to the poisonous particles which lead to their development. There is, consequently, always growing up a population ready to become affected, which population, after it has passed through the ordeal of bearing the diseases, is acquitted of further evil from them. It happens then, sometimes even in large populations, that the diseases enter a susceptible community, scourge the members extensively, and then, the susceptible being either killed or protected by the attack, the place is left free from further pestilence until a new and susceptible generation has grown up in it, and a poisonous inoculation from without has affected those ready for its action.

In a previous page I have shown that Brighton has recently been subject to this serious invasion of disease after a long period of comparative immunity. I have shown that not one but three of the most fatal of the spreading diseases—viz., scarlet fever, measles, and whooping-cough—were present at one and the same time, and in the period of the year during which those diseases are most destructive to life.

It is necessary to keep all these facts in mind in estimating mortalities, because they account for the accidental variations. In the June quarter of the year 1881 the mortality of Brighton was 16.6, being as low on two weeks in the said quarter as 12.6. In the same quarter in 1882 it was 21.8, and in some weeks of the same quarter in 1882 almost double what it had been in the corresponding weeks of the previous year. Within those two periods the sanitary state of the town had not varied, but during and before the time a susceptible population was growing up ready for the invasion of the zymotic diseases which broke out in 1882.

The mortality of Brighton may be taken for the five years ending with 1881, as at the rate of 19.6 per 1000. In the first quarter of the present year it ran up to the rate of 29.2 owing to the epidemics so often referred to. In the second quarter of this year it fell back to 21.8 in the 1000, and in the present quarter it has continued to decline towards the usual rate of 19.6. If the death-rate in the present and coming quarter should correspond with the rate of the same two quarters of last year, the mortality of the five years ending 1882 will be 20.3 to the 1000, which may still be expected to be under the average of London, of twenty large towns, and of the kingdom at large during the same period.

From a theoretical point of view, resting possibly on the known laws of mortality in relation to population, these facts of the mean mortality of Brighton are what would be looked for. The relationships of population and mortality are so close, where a large mass of population exists in one town, that the fluctuations may, largely, be estimated by the population, and Brighton within the third range is in the place where it would be expected to be found when all the facts relating to it are considered.

It is urged, however, that Brighton from its position on the sea and from its being a health resort and place of pleasure ought to present a lower mortality than other towns of the same size that are less favourably placed. No one assumes that it could be expected to rival small seaside resorts of five to six thousand persons, where almost every

house stands in a garden, where there are comparatively no poor, where isolation from infection is perfectly easy, where there are no large hospitals, charitable institutions, nor workhouses, where the inhabitants are of steady number, and where the visitors come in much smaller numbers to enjoy themselves or seek for health.

But if Brighton cannot compete with such places in which the mortality is usually in the second range or even just within the first, it ought, it is said, to come within the second range as a general fact. Occasionally it comes near to the first range. It did so in the weeks ending May 7th and June 4th, 1881, when it showed a mortality of 12.6. Why is not this possible result more frequently repeated so as to give altogether a lower average?

The question is a reasonable one, and I am quite sure that nobody wants to shirk it, because to bring Brighton permanently into group two of mortality, in which it sometimes stands exceptionally, would be to make it all but a modern Hygieopolis in health as well as in beauty.

The causes which lie in the way to prevent this result are difficult to remove. They are mainly social in character. To understand them is the first step towards reducing them.

I. The first and most important reason why Brighton does not at all times present a mortality within the first and second groups are the density and rapid growth of the population. One hundred years ago the population of Brighton was about 3320. Fifty years later, in 1831, the population had risen to 40,634, and fifty years later still—namely, in 1881, it reached 107,953. From 1781 to 1831, the increase of population was at the rate of 66 per annum. From 1871 to 1881, it was at the rate of 1344 per annum. Meanwhile there has been no commensurate increase of habitation for the resident working population. An immense number of houses have been erected for the accommodation of visitors, but until recently the houses of the industrial people have remained much the same in regard to accommodation, but often doubly and trebly crowded, floors, in fact, being practically turned into dwellings, and sometimes one or two rooms fulfilling the purpose for which the whole house was originally designed. In this way multitudes have been massed together in confined space, and, moderately free from disease so long as there was no zymotic infection amongst them, have fallen rapidly under the infliction of such infection when ripe for it and subjected to it. It was amongst these classes that the large mortality of the present year was manifested.

II. Connected with the question of population is that of occupation. In the year 1794 the inhabitants of the town were carefully enumerated preparatory to a general inoculation of the place with small-pox. There were then 5669 persons in the town, and a large majority of these were engaged either as fishermen, low town or coast men, or as agriculturists, high or upper town people, who tilled the land. Now all these conditions have changed. In 1864 I found that the fishermen were only 240 in number, and that but one professed fisherwoman was extant. The agriculturists were also very few. At this day we may consider that 6 per cent. of the population is professional; 42 per cent. engaged in domestic work, taking care, for visitors largely, of houses, hotels, and institutions; 5 per cent. commercial; 3 per cent. agricultural; 35 per cent. industrial; and 9 per cent. indefinite and non-productive. The industrial, the domestic and indefinite classes are those who make the bulk of the population, 86 per cent. of it, and they especially are the persons exposed to danger from the spreading diseases. The industrial classes are the closely confined, the badly housed, and often badly fed and clothed. The domestic classes, in order to accommodate the visitors who support them, are closely packed, and suffer great trials from their dependence on good seasons for their maintenance. To these must be added a population of visitors, who would average 10 per cent. more, and who are present for health or pleasure, or both.

III. From these commanding causes of a higher rate of mortality than are likely to occur in less crowded towns, Brighton has another disadvantage. She is a town of schools. The delicate children of well-to-do and wealthy families are sent to Brighton because they are delicate. The children of numbers of families who are not well-to-do are sent to Brighton for the same reason, under the idea, by no means incorrect, that the proceeding is to the advantage of the health of the children, and is at the same time an economy in the long run. Hence every arrangement exists in Brighton for the education of children according to

the power of the parents to meet expenses. The end, as a rule, justifies the means, and anyone who, like myself, has visited the schools and learned how many hundreds of feeble children gain good health there as well as education would rejoice to recognise the benefits realised from such a centre of educational work. But the strain on Brighton is not to be forgotten. The fact that it is made the nursery of many delicate and feeble children, because they are so, is always to be considered in relation to the normal mortality. No town can possibly attain the first place for a low mortality so long as it is subjected to this risk; and the wonder is that the school mortality of Brighton is so inconsiderable as it is in the private schools. The fact speaks volumes for the air of the place and for the skill and thoughtfulness of the heads of its educational establishments.

IV. To crowded population, to large industrial and domestic in-door population, and to school population of the kind named, must be added as a disadvantage to the health of Brighton the constant influx of persons from the metropolis and other parts of the country who are suffering from disease, or are, if not themselves suffering from disease, in some dangerous way associated with it. Other towns are, no doubt, liable to the same infliction, but none like Brighton. Brighton can accommodate forty thousand visitors, and it is known to be a place where accommodation is certain whatever may be the emergency. Brighton is so familiar to everybody, it is one of the first places thought of when change of air is considered, and the change to it is so frequently attended with benefit that its reputation is universal; indeed, it labours here again under another risk—namely, that cases of illness are very often sent there, without discrimination, at seasons when they would be better elsewhere. But the great danger to Brighton under this head is its closeness to London, and its approach to London in the matter of conveniences and habits of life. A Londoner soon becomes accustomed to certain modes of metropolitan life which are essentially of London and of no other place. To him Brighton is a suburb of London. I remarked in my report in 1864 "that the business of the town is conducted so like that of London it is only necessary for the Londoner to forget the town he is in when at Brighton to feel that he is still in London. So Brighton becomes, in fact, the sanatorium of London. In illness people who can be removed fly to it for change of air; after bereavements families go to Brighton for change of scene, not unfrequently carrying with them particles of infection; during convalescence from acute diseases, especially from infectious diseases, the convalescents go down for a few days to complete their recovery."

V. It has occurred to several minds that as large numbers of persons come to Brighton in various stages of disease, and die there, the mortality of the town is increased from that cause alone. In order to arrive at the truth on this point I had the deaths of visitors in the town extracted from the general deaths for the five years 1877-81, together with the causes of death. The results may be epitomised as follows:—

In the five years 1877-81 the rate of mortality for the whole population, residents and visitors included, estimated on the mean of the population for that period, was 19·6 in the thousand.

In the said five years the rate of mortality in the resident population was 17·9 in the thousand.

In the said five years the rate of mortality of the non-resident population was 1·7 in the thousand.

On comparing the rate of mortality of the *resident* population in Brighton during the said period with other returns, I find that the 17·9 of that population stands to 20·1 for the united kingdom, 22·0 for London, and 24·2 for the nineteen large towns with which Brighton is classified in the Registrar-General's returns.

These facts being ascertained, it was necessary in the next place to determine the causes of the mortality of the *non-resident* population itself. Were these causes most dependent on infection or other influences connected with impurity of the air and local defects, or were they most dependent on constitutional causes under which those who succumbed were suffering before they came to Brighton?

To this question the answer is very definite.

The number of deaths amongst the non-resident population in the five years 1877-1881 was on the average 172·4 per year, of which 14·8 occurred from eight infectious diseases—namely, scarlet fever, 0·8; measles, 1·4; septicaemia, 0·6; erysipelas, 0·4; diarrhoea, 6·6; typhoid, 2; diphtheria, 0·4; whooping-cough, 2·6. There was no fatal

case among the non-residents from typhus, quinsy, croup, puerperal fever, carbuncle, influenza, dysentery, ague, glanders, or hydrophobia.

The deaths from the zymotic diseases which did occur amongst the non-resident population were mainly in the poor and crowded parts of the town, as the sub-district of St. Peter's. Out of 74 such deaths in the five years 7 only occurred in the Kemp Town sub-district; 9 only in the Palace sub-district; 5 only in the Preston sub-district. In 1877-78-79 and in 1881 there was not one death from zymotic affections in the Kemp Town division; in 1881 there was not one death from them in the Palace division; in 1877-79-80 and in 1881 there was not one death from them in the Preston division. In the St. Peter's division the average was over 10 each year—viz., 53 in the five years. The mortality was, clearly, amongst the poorest visitors, amongst those who were obliged to find a temporary home in the low and densely populated parts of the town. In the favoured districts the mortality from infectious diseases amongst the visiting population was but 4 per annum.

It is necessary to mention another point which comes out of a close analysis of the so-called zymotic causes of death. We have seen that zymotic cases amongst visitors yielded, annually, a mortality of 14·8 a year from 1877 to 1881, and that they included eight kinds of zymotic disease—scarlet fever, septicaemia, erysipelas, diarrhoea, typhoid, diphtheria, whooping-cough, and measles. But when we come to the study of each of the seventy-four deaths in detail it turns out that certain of the zymotic diseases were complicated with other diseases. One of the cases of erysipelas was in a person who was suffering from disease of the heart. One of the cases of diarrhoea was in a person who was sinking from senile decay. A second case of diarrhoea was complicated with marasmus—long continued wasting; a third with colic and congestion of the brain; a fourth with chronic mesenteric disease. One of the cases called typhoid commenced with muscular rheumatism, followed by acute meningitis. These six cases were not strictly zymotic, and ought to be removed from the list, by which removal the mortality from infectious disorders would be reduced from 14·8 per annum to 13·6. Twenty-two of the deaths from diarrhoea were in children under ten months old, and were most probably instances of that common kind of diarrhoea which is induced exclusively from bad feeding, and not from contagion or infection, a reduction from the list perceptibly justifiable, and which brings down the mortality of non-residents from contagious disease to 9·2 per annum. Finally, we have to recall the certain fact that some of these fatal cases of zymotic affection amongst the non-residents were cases of persons taken into Brighton while actually suffering from, or just after suffering from, the acute disease; so that we may fairly conclude that the mortality of visitors in Brighton from infectious disease in the five years last past has been under one per thousand per annum, taking the visiting population as averaging from 9000 to 10,000.

It will be inferred from these facts that the mortality amongst the non-residents in Brighton was due mainly to causes of a general or constitutional kind, from which those who came were suffering before they came, and for which the town was in no sense responsible. The deaths thus attached to the town amounted to a fraction over 157 per annum, and by a study of their causes the inference quoted is fully sustained. The record of causes shows that the persons who died were fatally stricken when they paid their visit to the town, and many of them, without any doubt, came as a last resource to regain health. Of the diseases ending thus fatally, pulmonary consumption takes the first place; next to it is bronchitis; after that, diseases of the brain and nervous system; diseases of the heart; cancer; senile decay; disease of kidney; disease of liver; diabetes; deaths by accident; sudden deaths; and one or two by suicide.

VI. One more cause of mortality in Brighton, much less definite than the above, but still not unimportant, is included in the fact that a very large number of persons who have accumulated a moderate income retire to this favourite place late in life, become residents there, and die there. If I dared hazard anything that was speculative into a report such as this, I might state, without much risk of departure from the strict record, many very important general facts bearing upon this question. I shall venture, however, no further than convey what I feel is within the bounds of simple justice—namely, that, no town in the kingdom is so

subject to residence of persons of advanced and worn-out lives; and that it is fair to assume an increase of at least 1 per 1000 to the annual mortality from this social cause alone.

#### SUGGESTED IMPROVEMENTS IN SANITATION IN BRIGHTON.

I come now to the last section of my report, in which I shall have to suggest such improvements as would, in my opinion, tend rapidly to bring down the mortality of Brighton to within at least the second of the groups of mortality described in the early part of the section immediately preceding.

In writing what follows I lay aside all knowledge of the possibility or impossibility of carrying out what is suggested by virtue of present legal powers vested in the Corporation. I shall suggest what seems to me essential, leaving it with the Corporation to apply for such powers as may be needed for these and other purposes, under the direction of their legal advisers.

I also lay aside all knowledge of what may or may not, for the moment, appear to be acceptable, in order to state, simply and plainly, what I, according to my best judgment, should carry out if responsible for the practical effort of making Brighton, as far as it can be made, a model health town.

1. I should as speedily as it can be done carry out the recommendation which the medical officer of health, Dr. Taaffe, reported to the Corporation on April 26th, 1877, for the improvement of the eastern portion of the town, under the clauses of the Artisans' Dwellings Act, 1875. This one improvement would, in my opinion, reduce the mortality at least 2 in the 1000 annually.

2. I should instruct the medical officer to make a similar report in respect to all parts of the town in which he detects, from time to time, an unusually high death-rate, or in which he observes that the death-rate is usually above 20 in the 1000, with a zymotic death-rate above 2.5. In all such places I should steadily endeavour to carry out the same improvements. By extending these improvements such exceptional death-rates as have occurred in the present year would be impossible.

3. I should carry out the medical officer's suggestion to establish in the eastern and western parts of the town a mortuary, so that the dead in the smaller and crowded tenements of the living may be immediately removed. Connected with these mortuaries I should build a courtroom for the service of the coroner in his judicial investigations.

4. In four different parts of the town I should erect a series of workmen's workrooms, in which no family should be allowed to live, but in which any person engaged in in-door work, such as tailoring, shoemaking, and the like, should be able, under proper supervision, to hire a workroom for a small sum per week. By this means the dissemination of disease by clothes and other articles made in rooms where the sick, dying, and dead are lying would be prevented.

5. The present public baths, established some years ago on the recommendation of Mr. Councillor Wood, are performing a most important service, and, as I found on inspection, are admirably carried out, and are doing an excellent business. They are, however, altogether inadequate for the wants of the town. I should extend these fourfold at least. The temptation they offer for personal cleansing extends to cleanliness all round—in clothing, in cooking utensils, in the house, in the mind. I am quite certain that this one further improvement would reduce the annual mortality another 1 in the 1000 in Brighton.

6. In connexion with the baths I should build washhouses and public laundries. The present system of laundry work in Brighton is not so bad as it is in many towns, for, as described in a preceding page, there are two good semi-public laundries. At the Grand Hotel there is also a model laundry in which an inquirer, if he be as favoured as I was by the managers there, may see the perfection of rapid washing, drying, ironing, mangling, and folding of every variety of clothing. This would be the model of the public laundries; and if they were erected another source of danger always imminent—namely, the conveyance of the poisons of disease by infected clothing would be prevented. In each of these establishments a heat disinfecting chamber for the reception of dangerous clothing would readily find its place and would be of persistent usefulness.

7. I should second most earnestly the recommendation of Dr. Taaffe for the erection in the town, in such portions as he would know to be best, of small public lavatories and watercloset conveniences for passengers of both sexes on what is known as the chalet principle. These conveniences would be essentially healthful, and would more than pay for their own cost and maintenance.

8. The erection of model lodging-houses to replace the present common lodging-houses is another improvement I should strongly urge. I do not say that the erection of such houses would be attended with less introduction of disease of a contagious nature than has occurred in the present houses; for, bad as they are, I must be just to them and re-state that I failed to trace any disease in them or from them. But it is common sense that they, as they exist, are a source of danger, and that new houses constructed on sound modern principles would be much the best in every way, morally, socially, healthily. Moreover, such houses managed by the direct authority of the Corporation would be kept under permanent and instant inspectorship and supervision.

9. The slaughter-houses in the town to which I have referred in a previous page, call for immediate attention. These are too numerous and extend over too large an area to be under efficient daily control, and although, as I have shown, one or two of them are excellent, the greater part are anything but excellent. I should, without a moment's hesitation, remove them one and all, and carry out Dr. Taaffe's recommendation for the establishment of a public abattoir, with efficient and cleanly lairs, proper killing places, proper dressing-rooms, with lavatories, waterclosets and other necessary accommodation for the workmen, and with cold storage rooms for the storage of carcases and joints. The claims of humanity and morality, as well as of health, demand this improvement. But health demands it specially. Connected with the proposed public abattoir, which would at all times be open to the public eye, I should recommend the appointment of one or two meat inspectors, who, like the present Jewish inspectors, should see that no carcase went into the market for human food that was not free from disease. Visitors coming to Brighton would then be assured that they had there an advantage which has for so many centuries been of such important service to the Jewish people; an assurance which, alone, would be a great attraction.

10. The public markets in the town call for improvement. All of them, meat market, vegetable market, and fish market, have become too small for the requirements of the town. They should be made model places of their kind.

11. There should also be added what, I am sure, would be an immense attraction to visitors and a great encouragement to health and good taste, a special flower market, where the poor who cultivate window gardens, as well as the horticulturists, could have flower stalls.

12. I have already referred to the cowsheds in the town. They are too numerous and widespread to be under constant efficient supervision. At best it is a most unwholesome thing to coop up cows for the sole purpose of making them turn vegetable food into milk. When this is done in the midst of a human population, in improvised sheds, in wrecks of sheds, in partial darkness and unavoidable dirt, in close air, and without the provision for the instant and complete separation of the unhealthy from the healthy animals, the business becomes more than a mere nuisance. It is a source of perpetual danger to health. I should recommend the removal of all the cowsheds from the town itself, and until they can be replaced by model farm dairies, should reduce them largely in number, place them outside the town, and have them so convenient for inspection that they can be under constant surveillance. In all the milk stores I should also insist that the constant water-supply was laid on. That a reduction in mortality would follow these improvements in the town of Brighton is absolutely certain. The typhoid milk epidemic of last year is a sufficient intimation of itself on this matter. It is not in the least a sanguine view to estimate that another saving of 1 life in the 1000 annually would reward this important change in the present system, besides giving the assurance to the world at large that in Brighton, a town of schools, the young who go there would have in the purest form the most common and important food for the springtime of life.

13. I should recommend very earnestly the erection of a larger number of drinking fountains in various parts of the town. These might be made objects of artistic beauty as

well as means of health, and the outflow from them could be usefully applied for flushing purposes.

14. The great ashpit, to the working of which I paid considerable attention, is not, I think, conducive to the health and welfare of Brighton. It ought, in my opinion, to be done away with altogether, and replaced by an arrangement by which the refuse of the town would be regularly removed each day altogether from it. If it were impossible to contract with any contractor to carry out this work, then I should suggest that after daily sorting of refuse, in order to retain what was useful, the residue should each morning be put on a steam barge, carried out a few miles to sea, and buried in the sea.

I would further strongly insist on an earlier and more regular removal of the refuse of the town. I saw several times dust-carts loaded with offensive refuse parading the streets of the town when they were filled with passengers, and emptying dust from houses at the time when the butcher, baker, and other vendors of food were distributing their produce. This is most unwholesome and utterly unnecessary. The general complaint of bad smells in the town will never be removed until this reform is carried out.

Bearing on this same subject the authorities might well enforce on all householders that everyone should have a movable dust-bin, so placed that the dustman can take it up at once, empty its contents into the cart, and replace it cleanly ready for the day's use.

15. The next suggestion I have to make is, in some respects, the most important of any. In many of the private schools of Brighton great benefit has been found to attach to the possession of a separate house, into which each scholar who is seen to be ailing is conveyed, and retained until the nature of the illness is declared. By this means the spread of infection is prevented in a very efficient way. I should urge the public adoption of this plan, with special reference to those great possible centres of infection, the board and voluntary schools. A few small houses for the temporary reception and isolation of the poor children of these schools when they are falling into infectious disease, would be the wisest means for stopping those calamities which have lately caused so much public clamour, and which are so detrimental to the town, and so severe upon the suffering population. By this plan 1 in the 1000 less of mortality would each year easily be saved to Brighton.

16. I come finally to what some would think the all-important question, the drainage and removal of sewage from Brighton. It will be gathered from what I have stated two or three times already, that I do not consider the present sewerage system in Brighton responsible for the outbreaks of zymotic disease which, during the present and latter part of last year, caused the exceptional death-rates. I should, nevertheless, in order to prevent in future the suggestion of such cause, recommend certain modifications in the present system, giving to them at the same time a direction towards the separate system, and towards the ready utilisation of the sewage whenever a practical and profitable plan for so important a purpose has been discovered.

I place my suggestions under four heads:—

a. I should increase enormously the present surface ventilation. This, in my opinion, is much more efficient ventilation than shaft ventilation, and I should extend it as follows:—

I should instruct Mr. Lockwood, in at least twenty parts of the town, and in such portions as he should see best, to open a communication with the sewer between one manhole and another, each as wide as the manhole itself, and well walled in on each side. I should cover over the entire length of each opening with grating, movable at certain parts, so that the sewer men may be able to descend to the open surface of the sewer beneath. At each end of these larger openings I should have doors that would close up the space or chamber, and, when necessary, I should fill all that space with water for flushing. The town might thus be speedily and regularly flushed from a limited number of points, at which a special water service could be laid on for flushing freely and effectually by a weight of water which could be made many numbers of proportions greater than is now possible.

b. To prevent all risk of the high town ever receiving sewer air from the low town I should adapt the suggestion of Mr. Lloyd Roberts, of Denbigh, for disconnecting one district from another. I should effect this by the introduction of large traps between one district and another, just as we trap a house from a sewer, only on a proportionately larger scale. By means of the large chambers I have sug-

gested above this separation could most readily be carried out.

c. In order to prevent the arrest of the flow of sewage in the intercepting sewer during the rising of the tide, I should utilise still further the furnace at Roedean. I should make that furnace work a steam pumping engine, the pump of which should be connected by a pipe from the Brighton side of the sewer beyond the flap which is used for shutting off the back sewer air from Portobello. I should make the engine, so soon as ever the tide began to rise, empty the sewer from the Brighton side, and pump the sewage, during the whole rising of the tide and until the fall, into the sea, by a channel provided with a series of valves, which being closed, one by one, as the tide rises, would still at the highest tide leave an escape above the water surface. In this way the intercepting sewer between Brighton and Roedean need never be locked at all, while its ventilation would be most effectively continued when the engine was in play.

d. In addition to these works the authorities should, I think, more earnestly insist than they have yet done on the importance to every householder, that he should separate his house from the sewer by an open grating; that he should most distinctly connect his house with the sewer by a good trap; that the soil pipe of his house should be freely open above the house; and that the present effete pan-closet should be replaced by the valve or syphon system.

It would, I think, also be worth while to indicate to the public the importance of catching, storing, and filtering the rain water which falls on the houses, and is now permitted to flow into the sewers. By payment of a very small rate all this soft water might be collected, purified, and applied to laundry and other purposes with the greatest advantage and economy.

In concluding this Report, Mr. Mayor and Gentlemen, I have to express my deep obligations to your learned and excellent Medical Officer of Health, Dr. Taaffe; to Mr. Lockwood; to the Resident Surgeons of the Medical Institutions, Messrs. Scott, Richardson, and Goode; to the Chairman and Secretary of the School Board; and to Mr. Hawes, the Chief Inspector of Nuisances, for the ready and efficient aid they have rendered me in my inquiries.

You requested me to report "completely and independently" on your beautiful town. I have endeavoured to the best of my ability to respond to that request, and

Have the honour to be, Mr. Mayor and Gentlemen,

Your faithful Servant,

BENJAMIN WARD RICHARDSON, M.D., F.R.S.

### THE TYPHOID EPIDEMIC AT PARIS.

THE rapid extension of the epidemic of typhoid fever in Paris is exciting considerable consternation, and well may do so. The mortality has increased fivefold in the course of three weeks: from 57 in one week to 134 in the next, and 250 in the third. The number of admissions into hospital has exhibited a corresponding increase, being 213 in the first, 536 in the second, and 1001 in the third, while on Oct. 19th the various hospitals contained no less than 2136 cases. Since then a slight fall in the number of fresh cases has occurred, which, it is hoped, indicates the commencing decline in the epidemic. The epidemic is most severe in the northern quarters of Paris, the mortality at La Villette being five times as high as at Montrouge. Of the 250 deaths in the last week, 42 were between the ages of five and fifteen, and 167 were between fifteen and twenty-five. It is conjectured that the extension of the disease may be connected with the return to Paris of many families, especially students and others, who have, during a holiday spent in the country, lost some of their acclimatisation; but, on the other hand, it must be remembered that the present season of the year is that in which typhoid most frequently assumes an epidemic form. The circumstances of the outbreak, however, unquestionably deserve the most careful study, since its extent threatens to render it one of terrible proportions. It is remarkable as occurring in a season of much and persistent rain, in which the chance of the contamination of drinking-water is usually regarded as small. But the household sanitary arrangements at Paris are notoriously of the most defective description—at any rate, if judged by English standards,—and the authorities may well direct their attention to this subject. In other respects the public arrangements seem to be ill-calculated to cope with so formidable an epidemic, for we learn that but two hospitals possess an apparatus for disinfection.



# THE LANCET.

LONDON: SATURDAY, NOVEMBER 4, 1862.

WE publish this week the exhaustive Report on the Sanitary Condition of the Borough of Brighton prepared by Dr. B. W. RICHARDSON on the instruction of the Mayor and Corporation of that town. This course has suggested itself as the fairest, at once to the Corporation of Brighton and to ourselves. Dr. RICHARDSON'S Report will command attention not only in Brighton, but also in every town and health-resort in the kingdom. The author is well known to have made sanitation a special study, and we cordially commend many of his suggestions for the improvement of Brighton and other towns. We may, without vanity, take the credit of initiating his inquiry, as well as that of Sir JOSEPH BAZALGETTE. Through them much good has already been accomplished, and more must follow. By our criticisms and comments Brighton has more than once been beneficially influenced, at the same time that nearly every other health-resort in England and on the Continent has been induced to look at home and "put its house in order." We claim the right to discuss the conditions affecting the public health of any town, well knowing that by this means reforms are inaugurated, defects remedied, and abuses checked. One instance may be cited as regards Brighton.

In the year 1862 Dr. WAKLEY, the Editor of this journal, while on a visit to Brighton noticed a black mass drifting in the sea opposite the town, and on which flocks of birds were feeding. Having ascertained that this was sewage matter discharged into the sea in front of the town by three separate outfalls, Dr. WAKLEY forthwith appointed a Sanitary Commission to investigate the matter and report thereon. Their memorable report appeared in THE LANCET on Oct. 11th and 18th, 1862. It set forth the principal causes of the evil state of things, and gave diagrams of the microscopical organisms and other sewage particles collected from the seawater immediately in front of the town. The sensation created by the publication of this report amounted almost to a panic, and at length led to an extension of the sewerage system, and the carrying of the sewage further into the sea by means of an iron pipe to a distance of one-third of a mile from the shore. This new system came into operation in the year 1864, and, bad as it was, robbed the sea of its grosser impurities, and effected some improvement in the sanitary condition of the town. With the increase of the population the evil of the plan became more and more obvious. In 1868 THE LANCET instituted another Sanitary Commission, whose report on the Drainage of Brighton appeared on Sept. 19th, 1868. Ten thousand cesspools were at that time still in operation, and though only four thousand houses were in communication with the sewers, the sea was polluted in the neighbourhood of the outlets and for a considerable distance around them. After a somewhat violent manifestation of temper the Corporation of Brighton set themselves seriously to work, and at length adopted the present sewerage system at an estimated cost of £150,000. When the new drains

were completed there was much we were able to approve, though we were compelled to point out that the sewage was carried eastward and emptied into the sea, instead of being taken westward to some distance beyond Cliftonville, and applied, partly by gravitation and partly by pumping, to the soil. We also pointed out the nuisance and danger of the open ventilators. The position we took then we still maintain. We wish, however, to repeat that our attitude towards Brighton and its corporation has always been friendly. We have had no interest to serve except that of the public health. As with other towns, we have exposed some of the defects of the drainage of Brighton and have endeavoured to enforce remedies. This constitutes one of the special functions of THE LANCET, and this function we shall continue fully, freely, and fearlessly to discharge. The Corporation of Brighton have been unnecessarily and unwisely irritated at some of our strictures and have committed indiscretions in holding public indignation meetings. More recently, however, — we record it with pleasure — wiser counsels seem to have prevailed, and many of the members of the Corporation have shown a genuine desire to ameliorate the sanitary condition of the town committed to their charge. There are good reasons for believing that, when they are unfettered by their disagreement with the Hove Commissioners, they will undertake radical alterations in their system of drainage and effectually improve it. For this consummation none are more devoutly wishful than ourselves.

DR. RICHARDSON'S observations on the sewerage and drainage of Brighton, and his suggested modification of the existing arrangements, are valuable. They are also remarkable for their coincidence with the views of Mr. BAILEY-DENTON, the well-known sanitary engineer, whose opinion we sought early in the present controversy, and whose Report was published in THE LANCET on the 5th of August last. It is due to this gentleman as well as to ourselves to repeat the following words which appeared in the Report referred to:—"I do not understand that it is either the duty or the intention of THE LANCET to point out how existing evils may be removed; how, in fact, a constant flow and discharge of the sewage may be effected, and the detention of foul matters to give off sewer gases avoided; how the separation of surface waters from the sewage may be secured; or how the sewers may be economically ventilated and the escape of deleterious gases and bad smells prevented." Mr. BAILEY-DENTON did, however, venture to point out that the authorities of Brighton and Hove might secure a constant discharge by the application of steam power to lift the outflow when it was impounded by the rise of the tide, observing that that desideratum could be effected by supplementing the furnace arrangements at Roedean with the necessary engine power. Dr. RICHARDSON proposes precisely the same thing when he suggests "the further utilisation of the furnace at Roedean by making it work a pumping engine for raising the sewage on the Brighton side during the period of the rising of the tide." At Brighton, where the intercepting sewer forms at each tide an enormous cesspool at the foot of the principal residential portions of Brighton and Hove, it really becomes a *sine qua non*, if the present evils are to be removed, that the constant outflow of sewage in-

dependent of tidal influences should be secured. There is no other town in England resorted to for health and pleasure where the same length of tide-locked sewer, subject to the sudden influx of storm waters, occupies a position so prejudicial to sanitary economy.

Upon the advantage of separating surface waters from sewage Dr. RICHARDSON and Mr. BAILEY-DENTON also agree. The doctor states: "I have been a consistent advocate of the separate system of drainage and sewerage all through my career,"—that the sewage from the houses should have "a perfect flow at all times, to ensure its delivery to whatever may be its ultimate destination," and "that the rain or storm water should be separately disposed of," adding that "in Brighton this system is not carried out." This negative statement of Dr. RICHARDSON'S is expressed by Mr. BAILEY-DENTON in these words: "The whole of the rainfall from the surface is admitted into the sewers and mixes with the sewage," the effect of which, he adds, is that when any large quantity of sewage has accumulated in the outfall sewer, when tide-locked, a sudden influx of rainfall necessarily expels the air still remaining in it and drives it by untrapped branch sewers or through faulty traps into dwellings.

Upon the question of leakage, Mr. BAILEY-DENTON gives figures showing that the quantity of diluted sewage collected during dry weather in the intercepting sewer each tide alone—i.e., in twelve hours—amounts to more than the whole daily water-supply—i.e., of twenty-four hours—of Brighton and Hove, an estimate which if only approximately correct, distinctly proves the influx of subsoil water. Yet Dr. RICHARDSON says the intercepting sewer is "well built, and cannot," *he thinks*, "permit leakage." As this point is much more important than appears at first sight—inasmuch as the collection of subsoil water in the sewer lessens the space for surface water—we recommend that the Brighton Town Council should refer the question to some independent engineer.

Dr. RICHARDSON presses upon the Council an increase of surface ventilation and the disconnection, by traps, of the sewers of the higher portions of the town from the lower, in the same way as all dwellings should be disconnected from common sewers. As regards the first of these objects sanitarians appear to be agreed that ventilation ought to be increased rather than diminished wherever it can be done without positive nuisance, and so long as the present system of things exist at Brighton increased ventilation in some shape or other must be adopted. No mode of ventilating or trapping of sewers, however, will be safe so long as the mouth of the outfall sewer is closed for thirteen hours out of every twenty-four, and the outfall sewer itself is subject to sudden influxes of storm waters; or so long as the houses in the town, to use a technical phrase, are not thoroughly "disconnected from the public sewers."

THIS is, in a special sense, the epoch of restraints, denials, and abstinences in the discipline of self and the policy of domestic life. Such progress as we are making is marked by a more or less philosophic abandonment of pursuits, pleasures, and habits, and the disuse of certain drinks, foods, and creature comforts which are, or are supposed to be, needless or harmful. It is impossible not to feel proud of the self-denying spirit that pervades society and the com-

munity at large, especially in the British isles, albeit, as KANT has most conclusively demonstrated, no genuine self-denial is practicable because the dominant desire or impulse at the moment of seeming to deny self is one of self-sacrifice. In a moral and mental way it is obviously possible to debilitate, instead of strengthening, the will by too much "swearing off" and protesting. It is expedient that a suggestion of this danger should be allowed to mingle with the counsels in favour of abstinences, which are just now so fashionable, and of which many "authorities" are perhaps a little too lavish. Abstinence from the use of tobacco is one of the forms of abstaining which are being pressed on the public with the energy of an active and full-blown fanaticism. We do not share the strong prejudice which finds its expression in this new counterblast. We have condemned, and shall continue to denounce, the abuse of tobacco, by its excessive, untimely, or inappropriate use. Many smokers smoke too much and take in too much of the smoke they make, others abuse tobacco by using it at wrong times and seasons, while to a third class, comprising the young and persons with special susceptibilities, tobacco is injurious in any form or quantity, and at all times, because, owing to the stage of development or some idiosyncrasy of the organism, the nicotine—which it is impossible to prevent passing off with the smoke—is in all doses hurtful and even poisonous. We cannot, however, join in the outcry against tobacco in its moderate and appropriate use. Our reasons for maintaining this position in a controversy, which would seem to be recurrent, will be most readily made evident by a short review of the physiological effects of tobacco, as that commodity is known to the smoker.

It is needless to summarise the properties which have been and still are attributed to tobacco in the text books. These are perfectly well known to the profession and have been repeatedly popularised for the public. It is with the vegetable product burnt in pipes, in the form of cigars or cigarettes, we have to deal. Practically this may be described as the dried leaves of the plant, either finely shredded or rolled nearly intact, in the former case burning very rapidly, in the latter being reduced to ashes perhaps somewhat less speedily, but with little delay. When tobacco is burnt in a clean pipe perhaps half the total quantity of the smoke given off is taken into the smoker's mouth. If an unclean pipe be used the same quantity of smoke is taken, but in the act of passing from bowl to stem the smoke probably takes up some of the old oil which has accumulated in the pipe. In the case of a cigar the smoke derived from the burning extremity of the roll of leaves is drawn between the layers of the latter with the result that probably a cigar is equivalent to a clean pipe until it has been burnt to the extent of two-thirds of its length, when it must be considered in the light of an often-used or foul pipe, because the heat and friction of the smoke have caused even the proximal portion of the burning leaves to begin to give off their oil. A cigarette is to all appearance, and perhaps, in fact generally speaking, a particularly mild form of pipe; but it must be remembered that the tobacco in a cigarette being very finely shredded and only loosely pressed together, burns more rapidly than the tobacco in the bowl of a well-loaded pipe, and that it is placed much nearer the mouth than in any pipe, except it

be the very short one used by navvies. It is therefore likely to happen that the habitual and almost continuous smoker of cigarettes—the man who seldom has one out of his mouth except at meals, and even then can scarcely refrain from a whiff—may in the course of the day consume a very large quantity of tobacco without perhaps being conscious of excess. The form of the “smoke” has, therefore, evidently a bearing on the amount of tobacco consumed. The mode of taking in the smoke is also important. Some smokers simply take the smoke between their lips, and, scarcely allowing it to enter the mouth, blow it out again; while others hold the smoke in the mouth, even carrying it back to the fauces, and occasionally ejecting it through the nose. The smoker who draws the greatest amount of smoke and keeps it longest in contact with the lining membrane of the air-passages undoubtedly takes the largest dose of the oil.

There are three points to consider—first, the local effects of the oily vapour from the burning leaves; second, the immediately contingent effects of the tobacco; and, third, its remote, or secondary effects. Each of these would call for special study in an exhaustive investigation of the subject. We cannot, on the present occasion, do more than suggest the line of inquiry to be pursued. As regards the local effects, it is especially desirable to be observant. There can be no question that the influence exerted on the mucous membrane of the lips, mouth, tongue, palate, epiglottis, larynx, and fauces, by smoking is important. There is first dryness, then hyperæmia of the membrane itself, next comes excitation of the nervous filaments distributed throughout the region, with direct irritation of the centres, and reflex stimulation of the glands. In consequence of this last mentioned set of effects, we get either increased secretion or very prompt emptying of the salivary glands, and either waste of the saliva, or the passage of that fluid into the stomach—probably at the time empty. The saliva is, moreover, to some extent impregnated with the oil derived from the smoke of the tobacco. It is easy to see how local disturbances, such as epithelial growths, innocuous or malignant indurations, and the like, may be induced by smoking; how the nervous centres connected with the various nerves distributed to the mouth, tongue, and fauces may be affected, how the salivary glands may be over-stimulated and exhausted, and how the stomach may be disordered. The passage of salivary fluid into an empty stomach may help to appease the appetite, but it can scarcely improve the digestion. Other local effects might be mentioned, but they will suggest themselves. Next come the immediately contingent effects of smoking. These may be either stimulating, sedative, or toxic, as the quantity of the nicotine actually introduced to the system—a very difficult point to settle—varies or the idiosyncrasy of the smoker may determine. The sum of the investigations that have been made in connexion with this phase of the subject would seem to show that nothing short of direct experiment in any particular case can supply the requisite data for determining how the smoking of tobacco is likely to affect an individual. And the deduction which may be hastily drawn from a few experiments will need to be qualified by the further consideration that the susceptibility of the organism for the influence of tobacco-smoking varies in a very special degree with those changes of state to which all systems, and specially those of the class of persons

who require or desire the use of tobacco, are subject. One man can smoke with the best results when he is hot, another when he is cold; one needs to have a full stomach, while another enjoys his smoke most in the early morning, or when he is hungry; one will take his pipe or cigar when he has to think, another must be idle to profit by it; and so on. With every change of mind, nerve-state, and condition of health, the susceptibility to tobacco varies. It is useless to try to lay down any precise law as regards its action. The use of the “weed” is in every case experimental, and its immediately contingent effects are incapable of prediction. As a rule, however, we believe they are, in the moderate use of tobacco, according to the individual taste, good instead of evil; but the patient, rather than the doctor, is the judge of results, and it is policy on the part of the latter to refrain from dogmatizing on the subject in any special case. The remote or secondary effects of tobacco-smoking are certainly not *cumulative*. There is not a particle of evidence which can be legitimately pressed into the service of the assumption—sometimes recklessly and unscientifically made—that they are so. A man may exhaust the strength of his nervous system and thus lower its tone, or he may impair his digestion, by habitual excess in smoking, but these results are in no sense cumulative, nor has the agent by which they have been produced been cumulative in its energy. The disastrous effects of tobacco-smoking—when too much is smoked or the tobacco is too strong—are those of persistency in the use of an injurious article, not a piling up of its effects. This is especially indicated by the state of the pulse in habitual smokers to excess. The sphygmograph shows a depressed state of the vessels while the smoking continues, and for a short time after a pipe, but the effect generally passes off when the use of the drug is abandoned for a few hours. So with the disturbance of digestion produced by excess in tobacco-smoking, and with its other “evil consequences,” which have been much exaggerated.

There is very little, if anything, to be said against the moderate use of tobacco in an average state of the organism. Those who are unfavourably affected by it should abstain, and it is wholly inadmissible in youth. We would go so far as to say that no young man should smoke before he has attained his majority, and it would be well if he deferred the use of tobacco altogether and in every form, until the extreme limit of development, which may be placed at the age of twenty-six. It is impossible to give any precept as to the time and mode of smoking. Personal sensibilities differ so widely that no common premiss can be laid down. Speaking generally, the points of caution should be to avoid—irritation of the mucous membrane of the mouth and fauces, loss of the salivary secretion, and super-excitement of the nerves and nerve-centres. Cigars are better than pipes, and far better than cigarettes; but no cigar should be smoked for more than three-fourths of its length, even with a mouth-piece. The smoke should be taken into the front of the mouth and ejected as rapidly as possible. Properly and moderately employed, tobacco-smoking is not a baneful habit, but one that may be reasonably enjoyed.

It is remarkable that two of the London Medical Societies have already discussed the value of operations for cancerous disease of the mouth. At the first meeting of the Clinical

Society Mr. GOLDING BIRD and Mr. CLEMENT LUCAS related cases of malignant disease of the tonsil and neighbouring parts, for which they had performed severe operations aiming at the entire removal of the diseased tissues. These cases afforded evidence of the boldness and skill of the operators, but will hardly encourage other surgeons to adopt a similar line of practice. At the Medical Society of London Mr. BRYANT and Mr. JONATHAN HUTCHINSON have spoken of the excellent results they have obtained in many cases of excision of the organ for cancerous disease, and expressed their conviction that the general estimate of the value of this procedure would have to undergo a considerable change, as the facts of more recent experience become fully known. It is very encouraging to hear two such trustworthy surgeons speak of patients being altogether free from recurrence of the disease for periods to be measured by years rather than months, and it is impossible to doubt that in such cases the operation has been eminently successful in prolonging life. In many of these cases the disease ultimately recurred, not in the mouth, but in the lymphatic glands, where it is not attended by the many distressing symptoms that render cancer of the tongue so particularly painful. And in this fact we can trace another distinct advantage from the operation. This fact, however, suggests important questions. Can it be that the disease which becomes obvious in lymphatic glands many months after the removal of the primary growth has actually started afresh in the glands? Or is it that some minute infected focus of the gland has remained quiescent for all that time, and then after a long interval has taken on its malignant activity? The prevailing belief is that these growths in the lymphatic glands are infective in their nature and truly secondary. And the mass of evidence in favour of this view is so great that it is almost impossible to reject it, although such cases as those alluded to by Mr. BRYANT require the supposition of a long period of latency in the infected glands. If this be so, the subject to which Mr. PEARCE GOULD has drawn attention, of the desirability of removing the lymphatic glands which receive their lymph directly from cancerous tissues, at the same time as the primary growth is excised, even although they show at the time no obvious signs of being affected, acquires great practical importance. It is impossible to avoid the question, Would these cases of Mr. BRYANT'S have been freed from cancer altogether if at the time of his operation he had removed the glands which ultimately became the obvious seats of the disease? Those who, like Mr. BRYANT, hold that cancer is at first a purely local affection, only defend operations when by them the entire local disease is removed.

At the Clinical Society Mr. HEATH and others spoke of the wisdom of removing cancerous glands. How much better might the results be expected to be if the glands were removed when they contain only the earliest germs of the disease, or possibly are quite healthy. It has been clearly established that a successful operation will often remove the primary affection, and the patient live for years without local recurrence, the operation failing only in preventing a secondary growth in the glands. But there is nothing in the nature of cancer of lymphatic glands by which it differs from primary cancer that should make surgeons look less hopefully upon early operations on one than on the other. Moreover, while glands can often be

removed before the disease has become advanced in them, they mostly lie quite superficial and readily accessible, and their excision is not an operation of great danger. In this direction, then, we may fairly look for further success in the operative treatment of cancer.

There is, however, another point of view from which these cases become of great interest. They are analogous to cases in which there is a true local recurrence of the cancerous affection long after an operation. In each alike some disease-germ is believed to be left behind, which after a period of latency suddenly or gradually—and often very rapidly—takes on active growth. This is the theory of the “localists,” unless they assert that a new fresh growth of cancer arises under the influence of the same local causes as induced the first. Is this period of latency due to some unfavourable constitutional condition, or is it a peculiarity of the local growth? We meet with cases illustrating all possible grades of rapidity of recurrence. After operations apparently equally complete and thorough, in some the disease reappears before the wound is healed, in others the recurrence is noticed after weeks only, in others after months, and in yet others after years. Is this variability due to local or constitutional causes? In other words, is cancer the purely local disease that it is often asserted to be? Without attempting to give a definite answer to this question, we must also ask whether there is any sure way of telling whether any given cancer will recur rapidly or tardily after its removal. The answer to this question depends upon the answer to the former one, and yet possibly this order will be inverted. For surgeons of large experience in these cases may be able to observe signs by which they can foresee a rapid or a delayed recurrence of a cancer, and by which, according to the character of those signs, they may be able to decide as to the purely local or partly constitutional nature of this malignant disease. An answer to this question would be of great service; for while many cases in which operation has been attended with success can be adduced, there are many others in which the result has been disappointing and grievous in the extreme; in which not only has the operation failed to do good, but in which it has, if possible, aggravated the patient's condition; in other cases, again, life has been subjected to serious peril with a minimum of benefit. Happily, in a large proportion of cases of cancer—when it attacks the breast, scrotum, lip or anterior part of the tongue—its removal is not attended with grave danger, and the risk to the patient's life is not such as to weigh for much either for or against operation. But in other situations—the rectum and the pharynx—the success of an operation for the removal of the disease is largely dependent upon the skill of the operator, and is necessarily attended with considerable danger to life. The question of how far it is justifiable to expose a patient to this risk when the most that can be hoped for is but a brief respite, is one that deserves the most careful consideration of surgeons, and a knowledge of any peculiarities in either the individual or the cancerous growth, which may be taken as signs of very slow recurrence, would here be of great value.

THE tendency to magnify the value of peculiar cases in medical teaching is one which, when carried to excess, is damaging to the interests of the ordinary student; and

nowadays, chiefly from a fear of appearing trivial by offering the simpler details of medical work, teachers and authors alike show a pleasure in dealing with the cope-stones of medical or surgical knowledge before they are assured that the foundations are securely laid. Whether we consult the regular text-books, special monographs, or the lectures of clinical teachers, a disproportionate amount of space will be found devoted to a record of cases valuable as much for their rarity, or perhaps as evidence of the brilliant results of treatment, as on account of their instructive worth to the reader. To the student or young practitioner these are but sorry guides in the labyrinth he is bound to tread; but, in reality, the evil is much in the nature of things, as the literature which deals with the ordinary diseases of ordinary people is apt to be voted trivial and dull, each one believing himself to be acquainted with such equally with his would-be instructor. And yet it is not unlikely that treatment is frequently based on an instinctive or rough application of general laws, with but little thought or modification for particular cases. It may be safe to tell the exact and well-informed practitioner to treat on general principles, and possibly the work in which little detailed attention is given to treatment may be useful to such; but for the average man more than this is required, and, left to himself, it is just possible that his patients may suffer while he gropes about attempting to find a safe course. In general practice, so much is needed in the way of attention to detail, such a constant necessity to adapt the treatment to the varying aspects of the disease, and we are so frequently consulted regarding points which, if too trivial to mention in print, are so difficult to deal with in practice, that a full exposition of these would often prove of inestimable advantage to the practitioner, especially to one of little experience. The same over-elaboration of unusual cases is noticeable in the teaching at our various hospitals and schools, as is evidenced by the large share of attention given to work in the wards as contrasted with that bestowed on out-door patients, even though the latter suffer from the diseases which in after-life the family physician will most commonly be called upon to treat. An obscure, rare, or sensational case is looked upon as a godsend to a ward, and students are called upon to devote a large portion of their time to the observation of diseases which they are not likely to find in their after-experience, and which, if found, they immediately hand over to the care of the special or hospital physician or surgeon. Were it possible that the whole of medical knowledge could be obtained or assimilated during the too brief period of study, such study would form a necessary part of hospital work, but under present circumstances this time is largely wasted in casual glimpses at imperfectly understood phenomena. The whole natural history of diseases, such as aortic aneurism or mephitic abscess, requiring perhaps surgical interference which they will feel unequal to, is known to many students who have no intelligent conception of the various forms of dropsy, who have perhaps had no opportunity afforded of following throughout a typical case of scarlet or typhoid fever, and who would feel extremely nervous if suddenly called upon to amputate a finger or satisfactorily introduce a Hodge's pessary. Of the chameleon-like phases of dyspepsia they know little, but are perfectly acquainted with the modern

operation of gastrotomy. Leaders and experts in the profession must necessarily devote both study and daring in pushing forward the limits of our knowledge, and without such men it is needless to say that our present proud position could not have been gained. Specially rare and interesting cases must continue to occupy a large portion of professional and more especially periodic literature, and in later periods of study all intelligent men will interest themselves in such; but the fuller consideration of the more common and happily less serious ailments, both in our text-books and our hospitals, would be an incalculable boon to the general practitioner suddenly required to meet all the emergencies of ordinary practice, and to depend solely on his own resources.

## Annotations.

"Ne quid nims."

### THE ARMY MEDICAL SERVICE IN EGYPT.

THE apathy and indifference with which the claims of the medical officers to a fair share of the rewards bestowed for service in the field have hitherto been too generally treated, and the grudging recognition which has been accorded them, has been the subject of comment after almost every war. But when a question of supposed neglect of duty, of inefficient arrangements, or inadequate preparation for the contingencies of a campaign is started, there is an immediate change of scene: apathy is replaced by fervid zeal, and there is no lack of persons eager to take part in the attack upon the doctors. Of this not very chivalrous course we have again had an instance in the Egyptian campaign. When a vote of thanks for the great services performed by the army and navy was moved in Parliament no one had a word to say regarding the omission of the medical officers, though the head of that branch was of sufficient rank to have entitled him, had he been one of the lucky combatants, to have been included among the officers named in the vote. But when the subject of an alleged breakdown was brought forward there was no want of honourable members to put questions which implied at least a belief in the charges against the department, many of which had already been proved to be groundless. The same thing occurred after the Zulu war, questions having been put which Colonel Stanley characterised as the "unfounded, he had almost said the foul, aspersion." Mr. Childers, on Monday last, repeated the information he had previously given that he had appointed a committee to inquire into the allegations which have been made as to the inefficiency of the service, and he defended the composition of the committee as a "strong one calculated to act fairly to all concerned." He has since then added to it the name of Sir R. Lloyd Lindsay. In reply to subsequent questions on the subject he stated that while he would not pledge himself to lay on the table the report of the committee and the evidence taken before it, he could not see any reason to the contrary, and as at present advised it would be done. The form in which the question was put by Mr. Carington, coupled with a remark of Mr. Childers "that strong pressure from different directions had been put upon himself," appears to bear out the opinion we recently expressed that these charges against the medical officers seemed to be brought mainly with a view to discredit the present organisation of the department. We are satisfied to take Mr. Childers' description of the committee, which we believe will make a thorough, honest, and searching investigation into the working of the medical service. That



individual instances of shortcoming may be found we can readily believe, but we have full confidence that the result will be to show that the medical officers as a body did their work fearlessly, skilfully, and zealously, and that any deficiencies in the medical arrangements of the late campaign were the result of circumstances which, so far as the department was concerned, could not have been foreseen and which it was quite out of its power to control.

### SEWER GAS AND ITS DANGERS.

THE injurious effects produced by the escape into dwelling-houses of emanations from sewers have been so thoroughly ascertained and are so generally admitted, that probably no one would venture directly to deny them. Nevertheless, we often see in practice arrangements accepted in the drainage both of separate houses and of districts which must necessarily lead to evil results, showing that the danger, if not formally denied, is often regarded as of little moment. It is still sometimes asserted that sewer gas in itself is incapable of doing any harm. It is therefore necessary from time to time to point out to the public the real nature of the danger which is thus incurred. In the first place, there are in the emanations from sewers the chemical products of the decomposition of animal matters, as sulphuretted hydrogen, ammonia, &c., to which the offensive smell is due. Now, these gases in themselves, though disagreeable and doubtless prejudicial to the health, are incapable unless highly concentrated, when they act as rapid poisons, of causing serious disease, and when diluted are chiefly important as indicating the fact of sewage emanation, and consequently the presence of the really injurious elements, which are themselves inodorous and imperceptible to our senses. These elements are probably the microzymes which germinate in sewage, especially when pent up and stagnating. These microzymes are of various kinds and properties. Firstly, the microzymes of putrefaction and the septic processes, which differ greatly in their virulence according to the conditions under which they are generated. To these may be ascribed the low sore-throat, the diarrhoea, and the many non-specific diseases which sewage emanations so often give rise to. The presence of these germs will also often convert any simple inflammation into a spreading or erysipelatous one. Next, in sewage gases the microzymes of various specific diseases, especially typhoid fever and diphtheria, are liable to occur. These, no doubt, are not always present, and we often see instances of pro-longed sewage contamination both of the air and drinking-water of houses without these affections showing themselves; then, perhaps, the poison gets introduced and an outbreak takes place. But there is probably no town of any magnitude in England, and certainly no health-resort frequented by convalescents, where these poisons are not certain, sooner or later, to be introduced; and, given the conditions necessary for their germination and dissemination, we shall find these diseases endemic with occasional epidemic outbreaks. The conditions which especially favour the development of these poisons are stagnation of sewage and want of free ventilation; indeed, many high authorities believe, as did the late Dr. Murchison, that under these conditions the poison of typhoid fever may be generated *de novo*; and recent researches on the microzymes of disease would give support to this view, as they show that these organisms are capable of being extraordinarily modified by the conditions under which they germinate, so that it is possible to conceive that microzymes generally harmless may, under favouring circumstances, develop into the germs of specific disease. Any system of drainage which causes the sewage to stagnate, or be pent up for however short a time, or under which the sewage gas is liable to be forced

back into the houses, must be regarded as essentially faulty, and tolerably sure, sooner or later, to give rise to the most injurious consequences.

### SUPRA-CLAVICULAR PSEUDO-LIPOMA.

A FEW months ago M. Verneuil described, in the *Gazette Hebdomadaire*, an affection to which he gave the above name. It is characterised by a swelling in the supra-clavicular region; which transforms the usual depression to a prominence, two or three centimetres above the level of the adjacent parts. It occupies the space left free between the clavicle, the sterno-mastoid, and the trapezius. The swelling is elastic, not tender, nor is there any change in the colour of the skin. The subject has been lately studied by M. Potain, who has read a paper on it in support of his candidature to a place in the Académie de Médecine. He has observed twenty instances of this condition during the last three years, and confirms Verneuil's description, pointing out, however, that a slight prominence in this situation is common in stout persons, and may be regarded as physiological. Four of the cases were men, and sixteen women; almost all, like those of Verneuil, were rheumatic subjects, and presented unmistakable manifestations of their diathesis in vague pains about the joints and muscles, and not infrequently evidence of slight arthritic changes, amounting in the majority to distinct painful swelling of many joints, especially the knees, wrists, fingers, and tibio-tarsal articulation. The urine in many cases presented deposits of uric acid. Three of the patients were diabetic, and all had a fair amount of subcutaneous fat. In some cases the swelling exceeded the limits mentioned above, and similar swellings are sometimes met with in other situations, at the sides of the patellar tendon and of the tendo Achillis, in the neighbourhood of the malleoli, less commonly below the occipital bone, in the temporal, parotid, and submaxillary regions—in short, in various situations in which the loose cellular tissue, which habitually contains a good deal of fat, is susceptible of the deposit of an excessive quantity of fat or of serosity. A similar condition is sometimes seen in slighter degree at the backs of the hands. Distinct oedema of the cellular tissue is often associated with these pseudo-lipomata without the coexistence of any of the usual causes of oedema. It was present in eight of the cases, and is often to be found, M. Potain believes, in cases of the rheumatic diathesis, whether the more definite rheumatic symptoms be acute, subacute, or chronic. He suggests that both the oedema and the overgrowth of fat are the result of the same morbid tendency.

### CANADIAN AND AMERICAN HOTELS.

IT is time the travelling public were warned of the dangers attending a lengthened stay in an American or a Canadian hotel. With few exceptions, these hotels have fixed wash-basins, with hot and cold water laid on, in the majority of the bedrooms, and very frequently a bath and other convenience in addition. In the private houses of wealthy Americans, who are favourable to luxurious living, this same system is almost universal. An examination of many of these basins and of the plumbing arrangements has brought to light the fact that they are frequently untrapped, and that when traps are used, they are of a bad pattern, and calculated to create danger to the health of the occupant of any room or house where they are placed. A few weeks ago, a correspondent of THE LANCET was placed in a bedroom where there was a fixed basin which communicated directly with the sewer without any intervening trap. He was made seriously ill by sleeping one night in this room with the windows wide open; and although he placed the plug in the basin and filled it with water, the whole of the water was sucked out through the waste-pipe during the night, and the

room filled with sewer gas. At the end of September another visitor was equally poisoned, and he found the waiters in the dining-room engaged in making a careful search for an escape of sewer gas, which was painfully apparent in that apartment. Remonstrance at the office of the hotel elicited the remark from the clerk in charge that he feared the sewage must have bubbled over again, but he was unaware that the basin was untrapped. Inquiry showed it was the common report that in some cases the sewage had forced its way into the basins in the bedrooms. It is not too much to say that it is dangerous for any adult to reside in an hotel with such imperfect sanitary arrangements, and that the air of the room would not improbably cause death to a delicate child. In very many hotels in America and Canada bottle or cesspool traps are used under the basins, in which the sewage ferments, and so sewer gas is liable to be generated in every room which has a fixed basin. We must warn travellers to be careful before retiring to bed or remaining for any length of time in an hotel where the arrangements are as we have described. It would be a public service for one of our contemporaries in America to fearlessly expose this great danger to the public health.

#### EGYPT AND THE MECCA PILGRIMAGE.

THE Egyptian campaign, by reducing the number of pilgrims to Mecca, would, we anticipated, have the advantage of lessening the probabilities of an epidemic. Indeed, this consideration more than compensated the slight risk of cholera involved by the importation of Indian troops into Egypt, which so much alarmed our French neighbours, that, under the direction of Dr. Fauvel, Inspector-General of the Sanitary Services of France, official remonstrance was addressed to the English Government. The early termination, however, of the campaign has enabled a far larger concourse of Egyptian pilgrims to gather round the sacred shrine; and though as yet no epidemic has broken out, we cannot but feel that while our troops are still in Egypt, the risk is to us a matter of great concern. The sanitary services must have been considerably disturbed by the war. Will they be satisfactorily re-organised before the return of the pilgrims? The pre-occupations arising from military and political matters must not be allowed to take precedence over these all-important health questions. Our neighbours, in any case, are fully alive to the danger. Cholera in Egypt, it is felt, would mean an epidemic spreading throughout the entire basin of the Mediterranean. From all sides we receive protests and warnings. Dr. Bradel, of Bulgaria, writes that he is alarmed because the 5000 or 6000 Turks living in Bulgaria still send pilgrims to Mecca, who return *via* Varna in a filthy condition, with boxes containing clothes which have become so foul during the journey that last year no one could be persuaded to open or to move them. Professor Felix, of Bucharest, has been urging the Austro-Hungarian Government to appoint a permanent scientific commission, while Dr. de Csatory, of Buda-Pest, is agitating in favour of an international convention between all nations who have equal laws relating to public health. As, however, we are not acquainted with any two nations that have equal laws on such a subject, it would obviously be most disastrous if countries like England, which have gone far in advance of other European nations in sanitary legislation, should be brought back to their low level. But when Dr. Csatory further proposes that the contracting nations should abolish all impediments to free intercommunication and commerce, he shows himself more in harmony with the feelings and interests of the age in which we live. To these somewhat elaborate schemes Dr. Raymondau, of Limoges, adds a more practical suggestion. He proposes to organise an ambulance service in a manner similar to that of the Red Cross Society, but

whose mission it would be to follow in the wake not of wars, but of epidemics. Finally, Dr. F. Ovillo, of the Spanish army, and late medical officer to the Sanitary Council of Morocco, has published a pamphlet insisting that in Morocco everything existed that could favour the development of disease, especially cholera. This state of affairs is a perpetual menace to Europe, and cholera in Egypt would become infinitely more dangerous by the prospect of its spreading to Morocco. He therefore maintains that the European powers should bring special pressure to bear against Morocco, and establish a sanitary bureau in that country, with power to act independently of the local native authorities. Further, it is urged that no ship should be allowed to convey the "Hadjis" from Mecca to Morocco without undergoing the strictest sanitary supervision. Altogether, therefore, if mischief results from this year's pilgrimage, it will not be for want of warning; but we trust we shall add to the triumphs already achieved in Egypt that of successfully protecting Europe against the danger now causing so much anxiety.

#### THE PARKES MUSEUM.

THE first general meeting of the Parkes Museum was held, in accordance with the Act of Incorporation, at the new premises in Margaret-street, W., on October 28th, at 3.15 P.M. Among those present we noticed T. Twining, Esq., George Godwin, F.R.S., Professor De Chaumont, Captain Douglas Galton, Dr. W. Wood, Professor John Marshall, Miss Davenport Hill, L.S.B., Professor Corfield, and many others interested in sanitary progress. The Secretary, Mr. Judge, having read the notice convening the meeting, it was proposed by Mr. Twining and seconded by Mr. Geo. Godwin that H.R.H. Prince Leopold, Duke of Albany, be elected President of the Museum. This having been carried *nem. con.*, the following were unanimously elected Vice-Presidents: The Duke of Northumberland, the Duke of Westminster, K.G., the Earl of Derby, K.G., Earl Fortescue, the Right Hon. Sir R. A. Cross, G.C.B., the Baroness Burdett-Coutts, Sir Joseph Fayer, K.C.S.I., Edwin Chadwick, Esq., C.B., Professor T. H. Huxley, Professor John Tyndall, R. Rawlinson, Esq., C.B., and Miss Florence Nightingale. The following were then elected to form the first Council of the institution: Captain Douglas Galton (Chairman), Dr. Poore (Vice-Chairman), Mr. Charles Parkes, Mr. A. Waterhouse, A.R.A., Mr. Twining, Mr. Rogers Field, C.E., Mr. E. C. Robins, F.R.I.B.A., Professor Hayter Lewis, Professor Corfield, Mr. Geo. Godwin, F.R.S., Professor John Marshall, F.R.S., Dr. Sieveking, Dr. Russell Reynolds, F.R.S., Dr. Steele (Guy's Hospital), Dr. Gowers, Mr. Berkeley Hill (Treasurer), and Dr. Dawson Williams (Hon. Secretary). A vote of thanks to the Chairman was next proposed by Professor De Chaumont, and Captain Galton, in responding, reminded his audience that the Parkes Museum had now entered upon a new phase of existence; it had reached an independent position, and for the first time had a building of its own, to which all who desired to use it either for purposes of teaching or learning would be welcome. They commenced their new life under the special protection of a distinguished member of the Royal Family, and with the co-operation of twelve Vice-Presidents, each of whom was well known for his philanthropic or scientific labours. They had every reason to believe that the Museum would meet a great public want, and that the assistance of the public and of the scientific professions would not be withheld from it. The Council would endeavour to make their new home as nearly perfect, hygienically, as possible. The drainage arrangements had been carefully planned by Professor Corfield and Mr. Rogers Field, and it was intended that they should be so constructed as to be available for teaching purposes. He was pleased to

announce that Mr. Rogers Field had made the handsome offer not only to supervise the construction of these arrangements, but also to bear the whole expense of them. The lighting, warming, and ventilating of the Museum were being carefully considered by a special committee, and every endeavour would be made to make each of these arrangements a model worthy of imitation. Their friend Mr. Twining, to whom the Museum was deeply indebted, had undertaken at his own cost the supervision and arrangement of the food collection. The whole collection would be carefully weeded and rearranged, and it was hoped that the active work of the Museum would begin again soon after Christmas. These remarks brought the proceedings to a close.

#### THE LATE MR. ARTHUR, M.B.

MR. JOHN FINDLAY ARTHUR, M.B., C.M., of Aberdeen University, whose melancholy death has aroused the sympathy of the whole country, was a son of the Rev. D. F. Arthur, minister of the Free Church at Banchory-Devenick, near Aberdeen, and graduated in 1873. Leaving St. Pancras, London, by the 9.15 P.M. train on Saturday, he occupied a berth in the rear-most part of a Pullman car, and all went well till after leaving Normanton. After leaving this station, and while the train was proceeding at a very rapid rate, the cry of fire was raised by the attendant, who, along with other three occupants, rushed madly about the carriage, and endeavoured to communicate with the driver. It does not appear that Mr. Arthur ever left his berth, and it is only certain that when the train was ultimately brought to a stand and the flames extinguished the unfortunate gentleman was found dead, and the body fearfully charred and almost unrecognisable. It is not decided whether the fire was occasioned by the overheating of the stove, or by a spark from the cigar of Mr. Arthur himself. His brother, who is in practice at Cultra, near Aberdeen, had received a telegram, asking him to meet Mr. Arthur at Aberdeen station on Sunday, and the shock to the family on receipt of the sad intelligence was very great indeed. Both as a student, and among those who knew him since, Mr. Arthur was much admired for his genial disposition, his high talents, and commanding appearance, being a man of fine physique. As a student he distinguished himself in several classes, and after graduating he proceeded to Ceylon, where he received a Government appointment as district medical officer at Dimbooka, and soon gained for himself an excellent position. About two years ago, while riding to attend a patient in a distant part of his district, he met with an accident which necessitated his coming home for professional advice, but after seeing some friends in Aberdeen, he returned to Ceylon for a short time, and five weeks ago left there again for home. Mr. Arthur, who was about thirty-three years of age, has two brothers who graduated at Aberdeen in 1880: one is in practice as above-mentioned, and the other, we believe, is medical officer at Ben Rhydding Hydro-pathic Establishment. We would assure the near relatives of Mr. Arthur of the deep sympathy of the profession.

#### THE PREVENTION OF INJURY TO HEALTH.

IN connexion with an effort to improve the navigation of the river at Lymington, an accumulation of mud deposited in its bed, and containing sewage matter, is being heaped up in one of the marshes in front of houses in the Bath-road, and in view of the opinion of the medical officer of health to the effect that danger to health might be anticipated from it, the Local Board of Health passed a resolution to serve a notice on the contractor carrying out the works, requiring the abatement of the nuisance and the removal of the mud within four days. No action was taken on this

notice, and within a few days the Local Board met again, and by a majority of three rescinded their resolution, determining to take no notice of the mud accumulation for the present, and this notwithstanding the protest of the medical officer of health, who again called attention to the danger incurred, and of another medical practitioner, who reminded the authority of the serious results which, as we recently pointed out in connexion with Dr. Airy's official reports on diphtheria, had followed a similar proceeding at King's Lynn. The grounds for this reversal of a previous decision were several, but one which was strongly pressed deserves notice. It was that persons had lived near the locality for a long period without being injuriously affected by the sewage mud. In using such an argument—and we regret to say that it is by no means unusual—sanitary authorities seem to forget that one of their principal duties is the prevention of injury to health, and that it is no part of their functions to await the production of the very condition which their preventive measures ought to render impossible.

#### ERYSIPELATOUS ORGANISMS.

IN several patients suffering from erysipelas Fehleison has found micrococci to be constantly present in the lymphatic vessels of the skin in the parts invaded by the inflammation. He has endeavoured to ascertain whether these organisms can be regarded as the veritable cause of the disease. The method of his proceeding (according to an abstract which has appeared in the *Gazette Médicale de Paris*) was to excise minute fragments of skin, having first washed the surface with ether and with a solution of corrosive sublimate. These fragments were afterwards placed in gelatine prepared after the method of Koch. The micrococci rapidly grew, forming an abundant vegetation around the small fragments. By means of a platinum needle the mould was transplanted from one spot to another on the surface of the gelatine, and a thin membrane formed around each point of inoculation. The colonies of micrococci grew slowly, and at the usual temperature of the air their development soon became arrested. The organisms appeared identical in appearance with those seen in the fresh preparations, except that in the gelatine the micro-organisms formed longer chains. Fehleison tested the virulence of the fourth generation of these organisms by an operation which most of our readers will probably agree with us in considering wholly unjustifiable. He inoculated the germs in the skin of the gluteal region of a woman, aged fifty-eight, suffering from multiple fibrosarcomata of the skin. The inoculation was made by five punctures with a lancet. Up to that time the temperature of the patient was normal. On the evening of the inoculation the temperature was 37.7° C., but the next day the woman had a slight rigor, headache came on in the course of the day, and in the evening the temperature was 38.8° (101° F.). On the morning of the third day it was 37.2°, and in the evening 37.8°. On the fourth day another rigor occurred, and there was found on the left buttock an erythematous patch, prominent and circumscribed, having all the characteristics of erysipelas, and during the day it spread considerably in extent. The temperature was 40.4° (104.7° F.) in the morning, and 40.6° in the evening. On the fifth and sixth days the temperature was 41° C. (105.8° F.), and on the latter the woman fell into a state of collapse, from which she was roused by a subcutaneous injection of ether. On the seventh day the erysipelas occupied an area of a square foot. It remained stationary during the next three days, the temperature oscillating between 39.2° (102.6° F.) and 40.6° (105° F.); then the erythematous patch began to subside, but the temperature continued raised, and even on the thirteenth day was 40.0° (104° F.), but after the fifteenth day it was normal. As a consequence the infiltrations of the skin

seemed to have slightly lessened. The author remarks that erysipelas can readily be communicated to rabbits, especially if the inoculation is made upon the ear. We echo the hope expressed by the editor of the *Gazette Médicale*, that those who endeavour to corroborate the observation, if rabbits do not suffice for their needs, will have the courage to operate on themselves.

#### NEW ZEALAND LUNATIC ASYLUM REPORTS FOR 1881.

THE post of inspector of asylums being vacant by the death of Dr. Skae, the reports have been furnished by the deputy inspectors and superintendents. These state that at the end of 1881 there were 769 males and 406 females in the seven asylums of the colony, being an increase of 40 men and 16 women on the previous year. The relations which these figures bear to the sexes in the whole population are not stated. The disproportion between the two sexes seems very large, even in a colonial population, while the rate of increase might be assumed to be not in excess of the increase of inhabitants. The statistical tables are founded on those of the Medico-Psychological Association, and give the satisfactory result of 44·01 of recoveries on the admissions, the deaths being only 5·55 on the number under care. The re-admissions—87 in a total of 359 admitted in the year—point to a wholesome freedom in the discharge of patients. The table of the nationality of the insane shows that of the 1175 insane persons only 71 were born in New Zealand, while 346 were natives of Ireland, and 402 of England. Here, again, a comparison with the statistics of the general population would be of interest. The ascribed causes of insanity correspond very closely to those found in English asylums. In the causes of death, 27 out of 63 are ascribed to general paralysis, a larger proportion than the home statistics yield. Only one suicide is reported, and one fatal casualty. The Colonial Legislature seems to be actively alive to the importance of preventing the importation of insane persons, having passed an Imbecile Passengers Act, to deal with such cases. Might not the Home Legislature, with advantage to the community, take a hint from this? From the general tenor of the various reports, the conclusion may be drawn that the medical officers are striving actively in the direction of employment and amusement for the insane, and improvement in the quality of their attendants, the views expressed invariably advocating increased liberty and comfort for the patients.

#### THE FERMENTATION OF NITRATES.

THE researches of Schloesing and Muntz have shown that the formation of nitrates in the soil and in organic liquids is due to the development of aerobic organisms. Certain facts recorded by Boussingault, Schloesing, and others have suggested to MM. Gayon and Dupetit that the opposite process, the reduction of nitrates, may also take place in a similar manner. The results of an investigation which they have made has been communicated by them to the Académie des Sciences of Paris. To street drain water nitrate of potash was added in the proportion of ·02 gramme per litre, and then some decomposed urine. The nitrate disappeared gradually, and the liquid became filled with microscopic organisms. Successive cultures of these enabled the experimenters to effect the reduction of one and even two decigrammes of nitrate of potash per litre. By employing decoction of chicken as the basis they were enabled to decompose as much nitrate as amounted to 5 per cent. of the liquid. That the organisms which developed under these circumstances were really the cause of the denitrification was proved by sterilising the liquid by heat, or by the addition of chloroform, or sulphate of copper, when the nitrate of potash under-

went no alteration. The organisms concerned seem to be anaerobic; if they were cultivated in a large surface, and in contact with air, either they did not produce the effect at all, or their action was considerably lessened. The temperature most favourable to the process was found to be between 35° and 40° C. The presence of organic matters is absolutely necessary, but all organic substances are not equally suitable. Of those which have been tried, olive oil, and oil of sweet almonds, glycerine, glycol, sugar, alcohols of the fatty series, tartrates, &c., the best results were given by sugar, ordinary alcohol, and propylic alcohol. For instance, three or four drops of the latter, added to a liquid in which the denitrification was suspended, at once renewed the process. The oils became rapidly saponified. Considerable interest attaches to the action of two substances, carbolic acid and salicylic acid. Employed in the proportions usually considered to be antiseptic, and even in still larger quantities, they not only did not interfere with the growth and activity of the organisms, but were themselves destroyed with the nitrate, just as sugar or propylic alcohol would be. The destruction of carbolic acid by organisms has been already observed by Muntz, even when it amounts to several grammes per litre. Thus under favourable circumstances the process of the destruction of nitrates presents all the characters of an energetic fermentation. It is accompanied by a rapid growth of organisms, and an abundant liberation of gas. This gas consists of pure nitrogen, and represents a considerable proportion of that contained in the nitrate. The rest probably forms ammonia. The oxygen forms carbonic acid, which remains combined in the liquid. The influence of the organic matter is thus to cause the products of the fermentation of the nitrate to enter into new combinations. Other nitrates behave in the same manner as the nitrate of potash.

#### ALCOHOL IN THE ST. PANCRAS WORKHOUSE.

DR. DUNLOP, medical officer to the St. Pancras workhouse, has had his attention called by a resolution of the guardians "to the present large consumption of beer, wine, and spirits in the workhouse, and to the question whether so large a consumption is necessary for medical purposes." He replies in an able letter, which is at present under the consideration of the Board. There is no doubt he takes a large view of the medical uses of alcohol—probably rather a larger one than is at present generally held. His therapeutical estimate of alcohol reminds us more of what we used to read in Dr. Todd's lectures twenty years ago than of the guarded and stinted admissions as to its occasional indispensableness which characterise the expression of present medical doctrine. He admits the deplorable mischief done by alcohol and says, "Alcoholic liquors are a most prolific source of pauperism, disease, and crime"; but with what seems a sort of homoeopathic tendency, he thinks that a little alcohol is good for almost all sorts and conditions of paupers. It affords the greatest relief to the aged suffering from chronic disease; it is invaluable in lying-in wards; it is of the greatest service in the natural and artificial feeding of the insane; it is equally useful in the collapsed and in the convalescent stages of acute disease, especially pneumonia; in the case of scrofulous children port wine is a valuable agent; and in the diarrhoea and sickness of such children iced brandy will often avail when nothing else will. "As regards the prescription of porter, I look upon it both as an article of diet and as a fillip to the appetites of the aged sick and poor, to whom it is alone prescribed." This is undoubtedly hard doctrine for teetotal guardians. We will admit that it implies an estimate of the use of alcohol at all ages of pauperism, which in a workhouse infirmary, where any reasonable nourishment can be obtained—we think open to criticism alike from the scientific, the moral, and the ratepaying point of view. But Dr. Dunlop's letter is that of an earnest and intelligent

medical officer, and the guardians will find it best to do no more than raise the question to such an officer and leave him to grapple with it as he can.

### REDUCTION OF DISLOCATIONS OF THE SHOULDER.

THE number of modes of reducing dislocations of the shoulder shows that the best plan is yet generally unknown. A valuable paper on this subject was read by M. Kocher at the meeting of the International Congress in London. Referring only to the subcoracoid form of dislocation, he asserts that the aim of the surgeon should be to open out the rent in the capsule, and to relax the parts of the capsule which are untorn but tightly stretched by the false position of the head of the humerus. The rent in the capsule is on the inner side of it; the most tense part is the upper portion where it is thickened by the coraco-humeral band; the lower part of the capsule is also tense. Kocher asserts that by rotating the arm outwards the top of the capsule is itself rotated out and the rent rendered patent. If now the arm be advanced in the vertical median plane, the upper part of the capsule is relaxed, and the head of the bone, being prevented passing forwards by the lower fibres of the capsule, enters the glenoid fossa. He accordingly directs that for the reduction of this dislocation the following manipulation should be practised. The patient should be seated, with the surgeon on his left hand. The elbow-joint is first to be flexed to a right angle, and the joint firmly pressed against the side of the chest; then while holding the elbow in contact with the body the arm is to be slowly, gently, and steadily rotated out until firm resistance is encountered; then maintaining this rotation the arm is to be raised forwards and a little in, and lastly to be rotated in and the hand brought towards the opposite shoulder. It is stated that there is no need for anaesthetics when this manipulation is employed. This method, which has great advantages over those in common use in this country, is stated by M. Ceppi (*Revue de Chirurgie*) to be especially valuable in old dislocations, enabling them to be reduced often without any force and without anaesthetics. M. Kocher has succeeded in twelve cases of dislocations, varying from three weeks to four months old. In one case, where the bone had been displaced for eight weeks, he fractured the shaft of the humerus in attempting the reduction, and six weeks later, when the bone was united, failed again. This patient was seventy years of age. We believe that this method of reduction is worthy of far more attention than it has yet received.

### PROVIDENT DISPENSARIES AND AID FROM WITHOUT.

MR. VACHER, in speaking with satisfaction of the progress of the West Cheshire Provident Dispensary, said they were still to some extent dependent on aid from without. His words are worthy of attention when provident dispensaries are so lauded as the schools of providence and self-help. He said:—"I have referred to the portion of the income contributed by provident members rather than to the whole income, as the only right way of gauging success. I cannot, of course, say that we are independent of aid from without; nor can I hold out a hope that in course of time we shall be. Our experience has taught us that if the doctors are paid half the working men's subscriptions, the portion they are entitled to by the rules, the remaining half is just about sufficient to provide first-class drugs, the dispenser's salary, and our rent. Other incidental expenses, so far as we now see, must always be provided for in some other way. I may say that our experience is not exceptional. The committees of provident dispensaries all over the country have come to

the same conclusion—namely, that help of some sort over and above the working-men's contributions is needed. However, many good friends have come forward to help us in the past, and I do not doubt will again." Such a representation of the system of provident dispensaries shows that they are not by any means perfect institutions, either from an economic or professional point of view. They pay their medical officers very inadequately—less than many good clubs do; and, secondly, they are dependent on charitable assistance. The families of working men who are fairly well employed should have no difficulty in paying a medical man two guineas a year, in monthly or quarterly instalments. This is much less than they spend on beer, and much less than many men who love their families, and appreciate their doctor, spend for medical services. We fear that the provident dispensaries are being so used as to lower the public sense of the value of medical service.

### THE DEATH OF MR. BENJAMIN FIELD.

IT ought to be understood by patients who suffer from heart disease, and by their friends, that it is unsafe for them to make any special exertion, particularly of such a nature as to excite the heart to unusual activity. It is not necessary that those who are affected with cardiac maladies should have their lives embittered by continuous apprehensions, but they would do wisely to be warned that certain procedures are perilous, and to avoid them, without reference to feelings and inclinations. The dangers attendant on organic disease of the heart are physical, it may be said mechanical, and therefore they are, in a sense, almost always avoidable. The cracked pitcher will go for years to the well, and serve all legitimate purposes, if only it be borne in mind that it is cracked, and it is neither subjected to a special strain nor roughly handled. Possibly this might be more clearly understood by the public than it would seem to be, judging from the deaths from mismanagement, which are unhappily many and inexpressibly sad.

### CROWDING ON THE UNDERGROUND RAILWAY.

THE crowding on the metropolitan and suburban lines of railway is simply disgraceful. Can nothing be done to put a stop to this practice? It is vain to expect the Companies to mend matters. They are chiefly intent on keeping down their expenses and raising their dividends. Unless the Board of Trade or some other authority can see its way to the appointment of a few travelling inspectors, who shall not wear uniform and shall take tickets as ordinary passengers, no reform can be anticipated. The matter is clearly one that requires attention. The overcrowding of railway carriages—to the extent sometimes of crowding twenty into the space intended for ten—is not simply an annoyance; it involves very serious peril to public health, and obviously more than doubles the risk to life and limb to which each passenger will be exposed in the event of an accident occurring to a train thus crowded.

### EXTRAS FOR FRACTURE UNDER THE POOR LAW.

THE County Court judgment in the case of *Grubb v. the Chesterton Board of Guardians* will be read with satisfaction. The Board disputed the payment of £3 for the treatment of a fractured leg by Mr. Grubb on grounds set forth in the report in another column. Dr. Rogers was subpoenaed as representing the Poor Law Medical Officers' Association. Not only was the verdict strongly in favour of the surgeon claiming the ordinary fee, but the expenses of witnesses were allowed. We cannot but think that it would be well if the parsimoniousness of boards of guardians in the matter of medical fees were thus exposed a little more frequently.



## THE MIDLAND RAILWAY TRAGEDY.

THE painful feeling general throughout the country regarding the new danger to railway travellers, revealed by the sad calamity of Sunday morning, will be intensified to the profession from the fact that the first victim is taken from our ranks. Hitherto such stories have come from the far West, the natural home of the sensational and of new horrors; but even there it would be difficult to find a similar sad scene to that enacted on our most luxurious railway route, as in America the construction of the carriages is such as to allow of free intercourse between all parts of the train, while we have but copied the travelling palaces, and placed them in isolated positions, with only an imperfect signalling arrangement. It is impossible to conceive a more tragic situation than that in which the occupants of the doomed Pullman found themselves placed when roused by the attendant; and on an occasion like this, unless the communication with the engine-driver can be effected simply and rapidly, it might as well be non-existent. Time after time the method now in use has been complained of as inefficient, and the present sad fatality may arouse the directors of the various railways to the necessity of better arrangements. The Midland Railway Company has always been governed by men who were in every way willing to ensure the safety and comfort of travellers by their route, and the public will look to them to adopt such means as may minimise the danger should the startling cry of fire be again raised in any of their carriages.

## SIR THOMAS WATSON, BART.

THE chief change in Sir Thomas Watson's condition during the past week has been a gradually increasing weakness, with little or no alteration in the paralytic symptom. Since Thursday, the 26th ult., he has been confined to bed. The utmost amount of nourishment that he can be induced to take does not exceed a pint of milk in the twenty-four hours. He is in full possession of his mental faculties, and happily suffers no pain.

## CYSTICERCI AND TAPEWORM.

THE coexistence of cysticerci and *tæniæ* in the same subject at the same time has been very rarely noted. An instance was described by MM. Rathery and Sevestre at a recent meeting of the Société Médicale des Hôpitaux. The existence of the tapeworm (*tænia solium*) was not suspected until it was found post mortem in the small intestine. The patient died from heart disease. Fifteen or sixteen cysts were found in different parts of the body. All were situated in the substance of the muscles. The existence of heart disease, and of hæmaturia shortly before death, had led to a suspicion that some of the cysticerci might be located in the kidneys or heart, but the autopsy showed that all the viscera were free.

## THE PECULIAR PEOPLE.

ANOTHER little victim of the fanatical prejudice of the Peculiar People is reported in the *Chelmsford Chronicle* of October 27th—a child at Southend burnt by the flames of a petroleum lamp. The mother and father were "peculiar" in their religious and medical views, and, instead of calling in a doctor, called in an old woman who applied oil, and the elders of the church who "prayed over the child and anointed it with oil." Notwithstanding, it died a week after the burn. The coroner remarked on the impropriety of neglecting to seek medical aid, and pointed out that people had been tried for manslaughter in such cases. Mr. Jones gave it as his opinion that life might have been saved or prolonged by medical attention, but the jury contented

themselves with a verdict of accidental death. It is more easy to complain of this verdict than to see how any amount of punishment or imprisonment would help children who have the misfortune to have such "peculiar" parents.

## THE LATE MR. GEORGE CRITCHETT.

WE regret to have to announce the death of Mr. Critchett, the oculist, on Wednesday last, at his residence in Harley-street. Though Mr. Critchett had been seriously ill and confined to his rooms for some weeks, his medical advisers were not without hope of his recovery until Sunday last. His powers from that time steadily failed. We hope next week to give a fuller notice of Mr. Critchett's work.

## GLASGOW DRAFT POLICE BILL.

THE Faculty of Physicians and Surgeons met on Monday last to discuss this measure, with the result of bringing out an entire unanimity of feeling in opposition to the compulsory notification clauses of the Bill, in so far as they lay on the medical attendant the onus of reporting infectious diseases to the sanitary authorities; and a resolution was unanimously adopted recommending rather that the medical attendant should be asked to certify the case to the householder or guardian of the patient, and that this guardian should be bound to report to the authorities. A committee was appointed to draw up a memorial to the Town Council urging this view of the matter.

MOST neurological workers on this side of the Atlantic are familiar with the name and writings of Dr. Seguin of New York, and will learn with almost personal sorrow the terrible calamity which has befallen him—an event not often equalled in the horrors of insane homicide, and probably altogether without parallel in its signally pathetic circumstances. On Wednesday last Mrs. Seguin tied the hands of her three young children behind their backs, blindfolded them, and then shot them through the head, apparently while playing "blind man's buff" in an empty room in the top of the house. She then shot herself also through the head. Mother and children were all dead when the deed was discovered. Three pistols were found in the room. She had been depressed for several days. The case is a terrible illustration of the insidious manner in which homicidal and suicidal tendencies come on in melancholia, since an experienced specialist like Dr. Seguin cannot have suspected their existence even in the person most near to him.

IN a brochure just published, Mr. Chas. J. Hancock describes the condition of *anæmia*, followed by general dropsy, so prevalent among natives of tropical countries. His handbook deals solely with the disease as seen among coolies, and contains much that is of practical value in the treatment of the sick. Originally addressed in the form of a letter to certain proprietors and managers of tea estates, it is now reproduced in a pamphlet form, and should prove useful to practitioners in the colonies, where coolie labour is much employed.

ADVICES from Cape Town, dated Oct. 11th, state the epidemic of small-pox is still steadily declining, and the Mayor, at the last meeting of the Town Council, said that two medical men would be sufficient to attend to the cases now existing in Cape Town. At Durban, Natal, the Government is building a small-pox hospital on the Bluff. It is thought that about thirty beds will be sufficient. The hospital is being built only in case the disease should break out in the town.

THE London Memorial Brass Committee have decided to hand over the surplus money subscribed to Mr. Landon's Memorial to the Fund now being raised for a Memorial to the Officers of the Army Medical Department who fell in the recent campaigns in Afghanistan and South Africa. His Memorial will, of course, include the name of Mr. Landon.

THE yellow fever epidemic in Florida still rages with unabated virulence, and is spreading northwards and westwards. At Pensacola the total number of cases reported up to October 16th was 1677. Many of the medical attendants have themselves been attacked, and one of them, Dr. S. C. Lacintyre, has succumbed to the disease.

JAMES ANDERSON, M.D., C.M., M.R.C.P. Lond., Assistant-Physician to the Victoria Park Chest Hospital, Junior Demonstrator of Anatomy in the London Hospital, has been appointed Examiner in Anatomy at the Royal College of Physicians of London.

PROFESSOR NOTHNAGEL was warmly welcomed by the students on the occasion of his first clinical lecture since his appointment to the Vienna chair. He prefaced his lecture by a short address, in which he alluded to his predecessors Duchek and Skoda, and spoke of the methods of clinical study.

M. LELOIR, relating in last week's *Progrès Médical* his experience of the system of continuous baths in the treatment of skin disease as carried out in Vienna, reports very favourably on the procedure, and advocates its introduction into the St. Louis Hospital at Paris.

It is announced that Major-General Sir Evelyn Wood, V.C., K.C.B., has been selected to serve as a member of the Committee appointed to inquire into the alleged shortcomings of the Army Medical Service in Egypt. The Committee met on Wednesday at the War Office.

THE Bangor fever outbreak has virtually subsided. Nearly all the existing cases are in a convalescent state, and the use of the hospital tents in the Bishop's Park is to be discontinued.

THE fever epidemic which has been prevalent in Johnstone, N.B., for the past six weeks is still exciting considerable alarm. There is some uncertainty as to whether the fever is even yet showing any signs of abatement.

DR. J. I. BANKS has been elected a representative of the Royal University of Ireland on the General Medical Council for three years from January next.

THE Dictionary of Medicine, by various writers, under the editorship of Dr. Quain, has just been issued by Messrs. Longman and Co.

SIR JAMES PAGET, Bart., has fixed Wednesday, the 13th of December, for the delivery of the first Bradshawe Lecture at the Royal College of Surgeons.

WE regret to learn from the *Daily Telegraph and Deccan Herald* of Oct. 5th that Surgeon-General Beatty, of the Bombay Army, has sustained a severe fracture of the leg.

DR. ROBERT BARNES has been elected an Honorary Fellow of the Obstetrical Society of Edinburgh.

## Medical Societies.

### CLINICAL SOCIETY OF LONDON.

*Bullet Wound of Lower Jaw.—Hæmorrhage after Scarlatina, Ligation of Common Carotid Artery.—Bilharzia hæmatobia.*

AN ordinary meeting of the Clinical Society of London was held on Friday, Oct. 27th, J. Lister, Esq., F.R.S., in the chair. Mr. Lister stated that he had received a letter from M. Ollier of Lyons, expressing his high sense of the honour conferred upon him in electing him an honorary member of the Society. The three communications read were all of them of considerable interest, and that of Dr. Mahomed and Mr. Pepper gave rise to a lively discussion.

MR. W. J. WALSHAM narrated a case of Gunshot Injury of the Lower Jaw. H. W—, a woman twenty years of age, was admitted into the Metropolitan Free Hospital, under Mr. Walsham's care, on July 16th, having been shot with a revolver. The wound was situated about an inch above the angle of the jaw, and passed in a direction backwards, inwards, and upwards. The wound was enlarged, and the jaw was found perforated; the finger could be passed in as far as the first interphalangeal joint, but neither with it nor with a probe could the bullet be felt. On examining the mouth a slight fulness above the right tonsil was seen, but there was no wound nor definite indication of the bullet. Considering the importance of the structures among which the bullet was evidently imbedded it was not deemed prudent to endeavour to extract it. The patient was quieted by opiates, and water dressing was applied to the wound. Considerable swelling about the angle of the jaw in the region of the tonsil supervened, accompanied by a constant dribbling of saliva from the mouth. On July 25th a spiculum of bone, accompanied by a small part of the crown of the wisdom tooth, and on the 26th the bullet with the remainder of the wisdom tooth imbedded in it, were discharged. The patient progressed satisfactorily, and left the hospital on Aug. 16th with the wound nearly healed. Mr. Walsham remarked that the chief point of interest, in addition to others, lay in the question of treatment. Three distinct courses presented themselves: to attempt the extraction of the bullet through the external wound; to cut down upon it, and remove it through the mouth; or to leave it, in the hope that it might escape spontaneously or become encysted. The objections to the first were that a large portion of the jaw would have to be cut away to obtain room for the necessary manipulations, that the exact situation of the bullet was not known, and that there would have been considerable risk of wounding some of the large vessels and nerves between which the bullet had evidently passed. Against the plan of removing it through the mouth the fulness about the tonsil did not seem to point sufficiently clearly to that being the situation of the bullet to justify an incision in such a dangerous region. The course pursued in face of these considerations was to leave the bullet to come away spontaneously.—MR. LISTER said the case was interesting as an example of perforation of the lower jaw without fracture, which was remarkable in a bone of such density. He quite agreed that it was right to have left the bullet alone. The bullet itself was not so much a source of evil—not so mischievous as attempts to remove it. But as there was no evidence of communication with the mouth, the case admitted of strict antiseptic treatment, and he thought it would have been wise to have tried to keep the wound aseptic; if this attempt had succeeded all danger of secondary hæmorrhage and deep suppuration would have been avoided. Happily, however, these did not occur.—MR. WALSHAM replied that he had thought of this line of treatment, but that as the bullet had carried in septic materials, he considered it would have been difficult to render the wound aseptic, especially as he did not know the course of the bullet.

DR. MAHOMED and MR. PEPPER read notes of a case on which Mr. A. J. Pepper had successfully tied the common carotid artery for severe bleeding from the throat after an attack of scarlet fever. C. W—, aged thirty, was admitted into the Fever Hospital, under the care of Dr. Mahomed, on Jan. 2nd, 1882, suffering from scarlet fever, which ran a simple course with ordinary convalescence until

Feb. 22nd, when the patient shivered and complained of sore-throat; temperature 101.2° F. On the next morning the uvula was large and translucent, and there were redness and swelling of the palate. On the 24th he complained of great difficulty in swallowing and throbbing of the left side of the throat. Two hæmorrhagic patches had appeared at the junction of the hard and soft palates with a large gelatinous bleb on the left side. Three hours later the throat, especially the left side, became rapidly swollen, accompanied by a feeling of suffocation; soon after the patient brought up a considerable quantity of blood; the swelling and difficulty of breathing subsided, at the same time the hoarseness passed quite suddenly into complete aphonia, which persisted. The alternate enlargement of the neck, hæmorrhage, and subsidence of the swelling were repeated several times until the morning of the 27th, when the patient's condition became critical, he having lost forty ounces of blood in all, and there was no sign of arrest of the hæmorrhage; there was a considerable bulging of the left side of the neck, marked dyspnoea, and aphonia. At a consultation between Dr. Mahomed and Mr. Pepper it was decided to ligature the left common carotid artery, as it was thought dangerous to cut into the post-pharyngeal abscess. The patient was put under chloroform and the artery tied by Mr. Pepper at the upper border of the omo-hyoid muscle. Considerable difficulty was caused by the greatly distended state of the veins; carbolic catgut was used, and the operation performed antiseptically. For a time respiration threatened to fail, but the man rallied in three or four hours. Soon after the operation he brought up six ounces of pus, and there was a corresponding diminution of the swelling. The temperature at once became normal, and the wound healed rapidly.—April 7th: Numbness of skin corresponding to distribution of superficial cervical nerve; partial aphonia; fixation of left vocal cord; general health good.—Dr. MAHOMED remarked that secondary sore-throat after scarlatina was not uncommon, having occurred fifty-seven times out of 3957 consecutive cases treated during the last ten years at the Fever Hospital. It resembled the condition of the throat seen in the primary attack. He considered it to be a modified second attack of the disease dependent upon concentration of the poison, for it was most frequent when the wards were overcrowded and badly ventilated. It had never been fatal at the hospital. Complete second attacks, with rash, sore-throat, and fever, occurred in twenty-nine cases out of 3957; all recovered save one, who died from other complications. Hæmorrhage from the throat was a rare but very dangerous complication. It might occur during the primary or secondary throat affection. It resulted either from sloughing of the soft palate, or, as in this case, from opening of a vessel into an abscess. There had been six cases at the Fever Hospital in ten years, and all the severe ones, except this case, had been fatal. The ligature of the artery appeared to exert a very beneficial action over the inflammation, which recovered most rapidly and completely.—Mr. HOWARD MARSH said that at St. Bartholomew's Hospital there had been within the last few years several cases of abscesses ulcerating into large arteries. One of these was a case of unopened psoas abscess, which suddenly became very distended, and post mortem it was found that the aorta had given way into the abscess. Another case was one in which Mr. Marrant Baker tied the common iliac artery for hæmorrhage which occurred on opening a gluteal abscess, and afterwards a free opening of the gluteal artery into the abscess was found. In another case of an open ischio-rectal abscess free hæmorrhage occurred from the internal pudic artery; and, in yet another, hæmorrhage occurred into a perineal abscess; both these latter were successfully treated by pressure. In a case of abscess in the neck in which hæmorrhage occurred, ligature of the common carotid artery did not control the bleeding. He referred to a case in St. George's Hospital where, for a wound of a large artery high up in the neck, the common carotid was successfully tied lower down.—Dr. DYCE DUCKWORTH thought this case unique; in his experience all cases of such hæmorrhage had been fatal, the rush of blood had been sudden and profuse.—Mr. CRIPPS referred to his paper read at the Medico-Chirurgical Society on the treatment of hæmorrhage from punctured wounds in the throat and neck. He thought that ligature of the common carotid artery was a very fatal operation—56 per cent. of deaths,—and was more fatal when performed from hæmorrhage than from aneurism. In 28 per cent. of the deaths the fatal result occurred from brain symptoms, and in 28 per cent. from re-

current hæmorrhage. In these cases he thought the external carotid artery was the one to be tied, as then the brain was not deprived of blood. Recurrent hæmorrhage occurred owing to the free anastomoses of the vessels, and especially owing to blood coming from the circle of Willis, and passing over the bifurcation of the common carotid into the external carotid. With extreme rarity had the bleeding artery been shown to be the internal carotid in these cases, but in nearly all dissected cases a branch of the external carotid artery was wounded, and to tie this latter vessel was the right line of practice. This operation was not liable to be followed by secondary hæmorrhage, less liable than the ligature of any other deep artery, and the artery was easily found. If the blood actually came from the internal carotid artery, he thought there would be no time for any operation at all.—Mr. RICKMAN GODLEE spoke of a very chronic case of psoas abscess with disease of dorsal vertebra. When dilating two sinuses in the groin, the external iliac artery was felt between them, and a few days ago fatal hæmorrhage occurred from the common iliac artery.—Mr. JAMES BLACK referred to a case of quinsy in St. Thomas's Hospital, in which severe hæmorrhage occurred; Mr. Pitts tied the common carotid artery, the bleeding recurred two days later, and was then fatal, and at the autopsy the internal carotid artery was seen to be opened by ulceration.—Mr. A. BARKER asked if the bleeding spot in the throat was seen.—Mr. PEPPER: No.—Mr. LISTER said the case was one of great interest. Where possible it was best to treat the bleeding point rather than the main arterial trunk. Here to get at the bleeding point was impossible. From the result he thought the bleeding artery must have been small, if the blood did not actually come from the walls of the abscess cavity from tension. He had seen cases of abscess in which hæmorrhage occurred from the disturbance produced by tension; and in this case he thought the hæmorrhage might possibly have been stopped by a free incision into the abscess. He agreed with Mr. Cripps that in these cases it must be a branch of the external carotid that was wounded, as a wound of the internal carotid would certainly be rapidly fatal.—Mr. HOWARD MARSH's cases were very interesting, for in the majority of cases of abscesses ulcerating into large arteries the artery gives way after the abscess had been opened, and in support of this he referred to Liston's celebrated case and to the fact that at that time surgeons would scarcely admit the possibility of an artery being opened up by an unopened abscess.—Mr. PEPPER thought that the blood in such cases of abscess near the tonsil probably came from the ascending pharyngeal artery, which arises close to the bifurcation of the common carotid artery, and which would not be affected by ligature of the external carotid. Another reason for his line of action was, that an incision high enough to lay bare the external carotid artery would have opened up the sloughing cavity of the abscess and have prevented the operation being aseptic. He thought the large amount of the hæmorrhage showed that the blood came from a good-sized artery.—Dr. MAHOMED said that the position of the ligature was most carefully considered, and he thought to ligature the external carotid would have been attended with great risk. He remarked upon the great rarity of cases in which hæmorrhage occurred from arteries laid bare by pulmonary abscesses. A short time ago he had under his care for a time a case of splenic leucæmia; there was a large fluctuating swelling over the buttock, which was thought to contain pus. Mr. Symonds opened it, and it proved to be a diffuse hæmorrhage into the cellular tissue, and there was the greatest difficulty in controlling the hæmorrhage, which was only stopped by laying the cavity open very freely and plugging it firmly from the bottom.

Dr. RADCLIFFE CROCKER showed the Ova and Embryo of Bilharzia Hæmatobia, and related a case of hæmaturia produced by that parasite which came under the care of Dr. George Bird at the beginning of the year. The patient was a boy at school, aged thirteen years, who was born in the Orange Free State, but appeared to have caught the disease in Natal, where he passed blood both by the urethra and bowel, and had been treated for dysentery. A few months after his arrival in England hæmaturia recurred in considerable quantity, and produced so much dysuria as to necessitate the use of the catheter, and a small clot of blood which clung to the eye of the catheter having been removed by Dr. Crocker, the characteristic ova of bilharzia hæmatobia were discovered. All troublesome symptoms soon disappeared, and, with the exception of slight anæmia, the boy seemed to

be in good health, nevertheless the parasites are still present, and ova and a little blood were found in all three specimens of urine passed at different times in the day on Oct. 4th. The spine on the ovum was always terminal, as is usually the case in those discharged from the veins of the bladder; and the head of the embryo showed no special preference for the head end of the ovum. As the disease usually gets well spontaneously after puberty, no local treatment for the destruction of the parent distoma had been employed. In blood taken from the finger at night no filariae were discovered.—Mr. PEPPER asked how injecting fluid into the bladder would succeed in killing the parasites.—Dr. CROCKER said that was the treatment adopted by Dr. James Allen of Natal, who says he has met with great success from it. In most cases the parasites are found only in the veins of the bladder, although in other cases, no doubt, they were present higher up the urinary tract. Dr. Allen had spoken favourably also of the internal administration of santonin.

## MEDICAL SOCIETY OF LONDON.

### *Chancre on the Cheek; Cardiac Aneurism; Experience of 600 Cases of Diabetes.*

At the meeting of this Society, held on the 30th ult., F. Mason, Esq., President, in the chair,

Mr. PEARCE GOULD showed a man with a Hunterian Chancre on his Cheek. The patient, a young married man, came to the Westminster Hospital ten days previously. The chancre was as large as a halfpenny piece, defined and moderately indurated, with an abraded surface. There was one enlarged gland over the parotid gland and several below the jaw. There was also an abundant roseolous rash over the trunk, and very slight sore-throat. The chancre had been noticed altogether two months, and was now rapidly improving under mercurial treatment. The only clue to the mode of infection was the fact that he was in the habit of "larking" and taking his meals with a cousin who was suffering at the time from a severe attack of syphilis.—The PRESIDENT mentioned similar cases which he had recorded before the Society and in the St. Thomas's Hospital Reports, and laid stress upon the necessity for accurate diagnosis, as in some cases operations had been undertaken for the removal of chancres of the lip mistaken for cancer.—Mr. ROYES BELL referred to two cases, and Mr. E. OWEN to another, the latter remarking on the size and spongy character of the sore in Mr. Gould's case—similar to the chancres that sometimes occur on the fingers of medical men.—The PRESIDENT remarked upon the comparative rarity with which medical men were inoculated, seeing the risk they constantly ran in examining cases of syphilis.—Mr. GOULD, in reply, said he had seen a similar sore over the malar bone of a young girl communicated by a kiss from an infected person: also another in a girl six years of age. He related a case which he saw last week, where there appeared conclusive evidence of indirect inoculation through a w.c.

Dr. ISAMBARD OWEN showed two specimens of Cardiac Aneurism from the post-mortem room of St. George's Hospital. In both, the thinning of the wall affected the apical half of the left ventricle. Of one only, in which dilatation of the thinned cavity was not very marked, were clinical details available. This patient was aged sixty-one; the symptoms—short breath, cough, palpitation, and pain in the left side, had lasted seven years. The apex beat on the fifth space just inside the nipple line. The cardiac sounds were weak and both reduplicated; the pulse weak and dicrotous. There was no murmur. The lungs were very emphysematous, the aorta very atheromatous, and the kidneys granular. The second patient was seventy years of age, and was brought in dead. The kidneys were granular, and the cerebral and iliac arteries atheromatous.

Dr. SEDGWICK read a paper communicated by Dr. R. Schmitz, of Neuenahr and San Remo, entitled "My Experiences of 600 Cases of Diabetes." Of this number 407 were males, and 193 females; 30 were below twenty years of age, 56 between twenty and thirty years, 80 above sixty, and 434 between thirty and sixty years. The fact that violent emotion, mental anxiety, excess of saccharine diet produce diabetes only in some persons was held to prove that there is a diabetic disposition, which is usually transmissible by heredity, and may be manifested in a family as diabetes, and also as psychoses, and perhaps as tuberculosis. A family tendency to diabetes occurred in 243 cases, to psychoses in

96, and to tuberculosis in 42 out of the 600 cases. A large proportion—viz., 93 cases—occurred in Jews. In 8 cases both husband and wife were suffering from diabetes at the same time. In 183 cases mental disturbance of some kind appeared as the exciting cause, in 45 cases gout, and in 22 the exhaustion consequent on severe disease. The urine was mostly clear, of a pale or light yellow colour, usually very acid, rarely neutral, very seldom alkaline; sp. gr. 1025 to 1030, never above 1042, frequently as low as 1013 to 1015. The average daily amount was 2500 c.c. to 3500 c.c., in one case as much as 9000 c.c. and in 40 as little as 500 c.c. to 800 c.c., but in these latter cases there was profuse sweating. The day urine generally contained most sugar, especially that voided two or three hours after a meal; in some cases the night urine was the most saccharine. Mental exercise or anxiety notably increased the sugar, physical exertion rather diminishing it. The amount of sugar varied from 1 to 3 per cent. of the urine, rarely to 4, still more rarely to 5, very seldom to 6, and in only one case to 8 per cent. In some cases albumen was present to from 0.3 to 0.1 per cent., its amount often varying in inverse ratio to the amount of sugar. The albumen was increased by exhaustion and severe exercise, and after fasting, but decreased after a meal. After the disappearance of sugar there was often a material increase in phosphates, and in some a considerable amount of oxalates; in four cases hippuric acid was present. In two cases there was a substance, probably a modification of uric acid, which reduces copper in the same way as sugar, the practical importance of which was illustrated by the case of a physician who found that the "sugar test" increased when put on anti-diabetic diet. The polariscope and fermentation test eventually solved the problem, and the substance was found to disappear from the urine during the use of a mixed diet, to reappear when flesh was freely eaten. Dryness of the skin goes with increased quantity of urine and emaciation. If the skin acts well there is never extreme emaciation. In 35 cases there was distinct obesity. The weakness and prostration are due to a special pathological process in the muscles; and to this muscular degeneration are owing disorders of visual accommodation, constipation, and many of the cardiac symptoms terminating in sudden death. The weak cardiac muscle caused in many cases an irregular, feeble pulse, and a very indistinct first sound, and in some violent exercise was followed by serious symptoms, as nausea, vomiting, drowsiness, great prostration, sometimes convulsions, temporary paralysis, and loss of consciousness. In these cases it is necessary to forbid the upright posture for some time, and to administer stimulants freely. In four such cases death resulted, and in two others on their way from Neuenahr—one with extreme muscular degeneration, the other from rupture of the heart. Such cases are misnamed "diabetic coma." They are due to an exhausted heart, resulting in arterial anæmia, venous hyperæmia, and the consequent carbonæmia. They may be confounded with those cases of acute poisoning called acetonaemia, of which he had seen six cases, but in these the attack is sudden, and although there is nausea and drowsiness the pulse is regular, rapid, Cheyne-Stokes' respiration, fetid odour of breath, and from the beginning frequent paroxysms of abdominal pain, rousing them up at intervals from their state of somnolence. No sugar is passed during the attack, and free purgation with castor oil, resulting in the passage of dark-coloured offensive motion, was of great service. If not relieved by purgation death occurred in coma mostly; in two cases in convulsions. Whether due to acetone or not, the author is convinced there are cases of acute poisoning from a very noxious substance developed from the decomposition of the sugar in the intestines. There are two forms of hunger—one due to excessive tissue change, the other a true neurosis, accompanied by occipital pain, and relieved by codeia or morphia, with potassium bromide. Some diabetics have an unaccountable desire for sugar. Total loss of appetite is very rare. The thirst is a result of the polyuria, not of the glycosuria. The sour alcoholic smell—termed by some acetone smell—is characteristic, and, except in the cases of acetonaemia, is proportioned to the amount of sugar in the urine. Looseness and falling out of the teeth is an early symptom, often accompanied by a spongy state of the gums; this is much benefited by rubbing the gums several times a day with a slice of lemon and the use of a gargle of sage and cochlearia. Constipation, alternating with diarrhoea, is frequent, depending not on the use of animal food but on atony of the muscular coat of the digestive canal. The diarrhoea, as a rule, begins in the night, after a continu-



ance of constipation, the faeces are fetid, watery and grey in colour, and the attack, invariably followed by great diminution in the amount of sugar, is believed by the author to be due to fermentation of sugar in the small intestine. Castor oil should be given, and failing relief, should be followed by bismuth or tannin; opium being objectionable. Neuroses of various kinds are by no means uncommon. Cramps in the calf of the leg are frequent, and when long-continued are little influenced by local narcotics. Crural neuralgia is common; sciatic and lumbar neuralgia more rare; cervico-occipital neuralgia occasionally, and in one case mastodynia (in a man aged seventy-five). Salicylate of soda and codeia are of most use for the relief of pain. The pruritus pudendi and balanitis may be neurotic, as well as directly caused by the sugar; a lotion of salicylic acid gave most relief. Tuberculosis was developed in the course of the disease in twenty-six cases, and was persisting in fifteen others. Impotence or diminished sexual desire was common, but in twelve patients there was increase of venereal desire. Dimness of vision is partly due to turbidity of lens, partly to loss of accommodation. Three cases of cataract occurred; they were operated on and did well. Boils were very common, caused by the nutritive disturbances of the skin. Several cases occurred in which the sugar permanently disappeared; this and the more common result of treatment—a great diminution in the quantity—are more often met with in those attacked in middle age than in youth, and much more often when the disease is recent than when it was of long standing. Much depends on the patient and his adherence to an anti-diabetic diet. When diabetes follows on disease of the central nervous system, tuberculosis, heart affections, or other organic mischief, the prognosis is bad; less so when grief, anxiety, or mental fatigue has been the cause; and still less unfavourable when excess of saccharine food has produced the malady. But the most favourable prognosis is to be given when goat is the origin of the diabetes, and also in diabetes arising during convalescence from typhus.—Dr. JAGIELSKI distinguished two groups of prominent symptoms—the neurotic and the digestive, and guided his treatment by the respective prominence of these groups. The paper did not state to what extent the use of the Neuenahr water entered into Dr. Schmitz's treatment. He deprecated a too rigid diet, and said that with the koumiss treatment he had been able, after a few weeks, to dispense with the absolute deprivation of starch and saccharine matters. Good results had been obtained also by lactic acid, butter-milk, and skim-milk.—Dr. GREEN thought the paper failed to discriminate the different varieties of diabetes, several distinct conditions being linked together by the one common feature of glycosuria.—Dr. SEDGWICK said it was clear that nearly all Dr. Schmitz's cases were at any rate not cases of temporary glycosuria.

#### MEDICAL OFFICERS OF HEALTH SOCIETY.

THE first meeting of the present session of this Society was held at 1, Adam-street, Adelphi, on Friday, October 20th, Dr. J. W. Tripe, President, in the chair.

The PRESIDENT read a paper entitled "On Some of the Relations of Meteorological Phenomena to Man," of which the following is an abstract. He stated that he did not propose to discuss the effects of all meteorological phenomena on man, as sufficient data were wanting for a complete inquiry, neither should he enter into the effects of climate, for that word included not only all the elements which are classed together under the term weather, but also the physical peculiarities of the locality in question, the nature of the soil, and the extent of forests and other vegetation which modify the climate of a place. He referred briefly to the part played by oceanic currents in making the climate of England temperate and pleasant, as he considered this was insufficiently recognised. The relations existing between man and variations of atmospheric pressure, temperature, and humidity were next discussed, together with their influence upon disease and death. Dr. Tripe said it was only at considerable elevations, such as eight thousand feet above the sea level, that the variations in the atmospheric pressure were appreciable. People were then affected with so-called "mountain sickness," which consisted of malaise, shortness of breath, palpitation of the heart, nausea, with more or less giddiness and noises in the ears. Some persons suffer more than others, but nearly all in time become acclimatised.

Aeronauts suffer from the same symptoms, showing that great muscular exertion is not the chief cause of the attack. Those who live on elevated mountain plateaux are observed to breathe more rapidly than those living at a lower elevation, their pulse increases in rapidity, and there is an increase in the evaporation from their skin and lungs, as well as a diminished secretion of urine. It is believed that all these symptoms are chiefly due to the diminution of oxygen in the air inspired, and consequently in the blood, and also to the imperfect exhalation of carbonic acid from the lungs, which, therefore, accumulates in the blood. The influence on man, and especially on invalids, of diminished atmospheric pressure, and of a lessened amount of oxygen inhaled, has been much considered of late, and while in some cases great benefit has been derived from a residence at high altitudes, in others change of residence has been of little or no use. Dr. Tripe considered that extreme cold also had something to do with the improvement manifested by phthisical patients. With regard to the effects of temperature on man, Dr. Tripe did not believe they depended so much on the mean temperature of the months and year as on the extent of range; for instance, when the day temperature is high and the night temperature comparatively low, the cold at night assists in procuring sleep and restoring the energy of the system which the heat had reduced. Variations in the pressure and temperature of the atmosphere exert a considerable effect on the circulation of air contained in the soil, or ground air, which consists of atmospheric air mixed with carbonic acid, marsh gas, and occasionally sulphuretted hydrogen. Rain also exerts a great influence on the ground water, and causes a rapid escape of air from the interstices of the soil. It is found that when the ground water is only five feet from the surface the locality is unhealthy, and also that a fluctuating level leads to ill-health amongst those residing on the spot. Outbreaks of typhoid fever have frequently occurred after heavy rain succeeding drought, which are believed to have originated from the infectious particles of typhoid excreta being washed into wells used for drinking. Damp soil is thought to be one cause of phthisis, and it has been shown that effective drainage of the land has caused a considerable diminution in the mortality from this disease. Wind influences to a great extent all meteorological phenomena, the humidity as well as the temperature of the air depending partly on the wind. Dr. Tripe pointed out that though much had been written concerning the effects of ozone on man, yet but little was really known about it. It is augmented by violent winds, and is met with chiefly at the seaside or in country places. There is but little doubt that it exercises an active oxidising action on the organic matter contained in the air, and is therefore absent in closely confined places where the air contains excess of organic matter. Dr. Tripe then alluded briefly to some of the individual diseases with which man is affected. He stated that it was only with great difficulty that reliable statistics on this point could be obtained, and that in an inquiry one or more elements must always be uniform and definite. If population be taken as a basis, corrections should be made for increase or decrease, and the condition of the population should also be considered. Care should be taken with regard to the initial periods of the inquiry and the time which should elapse after the occurrence of the weather discussed, and the registration of death. The number of meteorological elements to be embraced in the inquiry should also be decided. Dr. Tripe then referred to some papers already published by him on Medical Meteorology, in which he had stated the conclusions at which he arrived concerning the relations between the mortality from scarlet fever, lung diseases, diarrhoea, and meteorological phenomena. He believed that the periodical occurrence of epidemics did not depend on meteorological phenomena, but on the number of persons liable to the diseases living in the locality. In conclusion, Dr. Tripe made a few observations as to the temperature which induces the growth of bacteria so as to cause endemic or epidemic diseases, and also the influence of light on them, as illustrated by experiments made by Professor Tyndall and others.

On the motion of Dr. Bristowe and Dr. Stevenson a vote of thanks was unanimously accorded to the author of the paper, and the Society adjourned.

MEDICAL MAGISTRATE.—The name of Dr. W. W. Miller has been placed by the Lord Chancellor upon the Commission of the Peace for the County of Suffolk.



REPORT  
OF

## The Lancet Sanitary Commission

ON THE

## ROYAL COURTS OF JUSTICE.

THE erection of a great public building in this sanitary age is a fact of such importance that we feel sure we shall not be accused of stepping beyond our province in devoting a portion of our space this week to a description of that magnificent palace in the Strand which is henceforth to be the headquarters of the legal administration of this country. The first effect of the building upon the non-legal visitor is to awaken him to a sense of the exceeding complexity of the legal machine. The nineteen Courts, and the innumerable offices for officials, who are but little known beyond legal circles, are calculated to impress one with the fact that the Utopia of the philosophic Radical, in which society is to move smoothly under the instinctive guidance of natural laws, untrammelled by the clumsy enactments of man, is in the future immeasurably distant.

What should be the essential features of a building intended for the purpose for which the Royal Courts of Justice have been erected?

1. Simplicity of plan, so that those who have business here may find their way with ease to any desired point.

2. Separation of parts devoted to different purposes sufficient to avoid confusion, without unnecessarily increasing the space to be traversed in going from one part to another.

3. Quiet, so that the mind can think and the voice be heard.

4. Perfect acoustic qualities in the rooms devoted to the public administration of justice.

5. A maximum of light in all the rooms, for they are all devoted to work which involves much writing and much reading of crabbed text, and that often by men who have reached a time of life when eyesight has begun to fail.

6. The most perfect ventilation obtainable, in order that the best work may be got from the brain-cells of the workers with the least damage to health.

7. The building should be of a character to impress the mind with the pomp and majesty of the law.

Now it seems to us that if a result is desired for our public buildings which shall at all attain perfection, the way to proceed would be as follows:—First to ascertain from those who are to work in the building the amount of space required, and the purposes for which it is to be used. This being known and reduced to definite quantities by skilled persons, the second step should be to invite competition for the best plan, the question of style being kept rigidly in abeyance. The plan being selected with reference solely to its suitability and convenience, the third and final step should be a second competition for the most effective building upon the selected plan. With many of our public buildings the all-important point of plan has been entirely subsidiary to the question of style, and the prize has usually fallen to those architects who have furnished the most imposing elevation; and the elevation having been chosen, the building has been made to answer its purpose only in a haphazard way, and often by dint of constructing a puzzling labyrinth of dark passages and inconvenient rooms. There can be no doubt that this inversion of the "natural" order of procedure has been the cause of failure and inconvenience in many of our public buildings. What should we think of a tailor who, instead of making the clothes to fit the man, proposed by dint of sheer force to make his customer suit the clothes? We cannot help thinking that this inverted procedure has governed the erection of the new Law Courts, at least to some extent, for the number of staircases is simply bewildering, and the passages are for the most part (especially in the eastern block) so dark that artificial illumination will have to be resorted to for the greater part of the year even in the daytime. That men

advanced in years should have to mount some seventy or eighty steps in order to reach their official rooms is not creditable.

The artistic effect of the building appears to us to be all that can be desired. It is massive and imposing, and has a certain stern gracefulness which seems to tell of justice tempered by mercy, and this colossal work will be sufficient to place the name of Street quite on a level with the great artistic architects who have preceded him, with Inigo Jones, Wren, Barry, and Gilbert Scott. The style is Gothic, but of no one period, and this serves to give great variety to the outward effect. For solidity of construction it seems to us to equal the great buildings of the Middle Ages, and we trust that, unlike the Houses of Parliament, some generations may elapse before it is disfigured by the scaffoldings of tinkering masons. We are glad to see that an idea has been taken from Continental architects of providing in the original building for the necessity of repairs. The roofs, for instance, are everywhere studded by stout hooks, so that in the event of slates becoming loose it will be an easy matter to refix them, since a fir pole supported by two contiguous hooks will afford ample support for the slater or other workman.

But to come to details. The building is in two grand divisions. The western two-thirds of the building are devoted to the public administration of justice, while the eastern third, running parallel to Bell Yard, and extending from the Strand to Carey-street, is devoted to what we may call the more or less hidden machinery of the law, of which the public, other than litigants, takes little heed. A visit to this eastern part, a legal hive which has been in full work now for some time, is calculated to startle anyone who for the first time wanders among the hundreds of offices here congregated together. In the western part of the Royal Courts of Justice will be heard:—

"The sad-eyed justice, with his curly ham  
Delivering o'er to executors pale  
The lazy yawning drone";

while in the eastern part execution will be done, and the drawing, quartering, and disembowelling of unsuccessful suitors will be methodically carried out. Assuredly in letters of gold, should be written, over the main entrance of this department, the advice which Polonius tendered to his son:—

"Beware of entrance to a quarrel."

Entering from the Strand, through a highly ornamented porch and vestibule, we come into the great central hall, answering to Westminster Hall, and serving as a *Salle des pas perdus*. This hall is 232 feet long, 48 feet wide, and 80 feet high, and encloses rather more than 11,000 square feet of area, or about a quarter of an acre. The enclosing walls of this area are 560 feet in length. The decoration here is magnificent, and all the details, from the mosaic pavement to the elegant groined roof, reflect the artistic mind of the architect. This central hall gives access to the nineteen courts of justice. These courts are most of them approached by a vestibule building, and they are isolated buildings except where they are joined to the central hall on the one hand, and connected at their far ends by a building which affords a variety of accommodation for judges, barristers, juries, witnesses, and others concerned in the trials. This partial isolation of the courts admits of side-lighting as well as top-lighting, and a great deal of natural ventilation may be obtained in the summer by opening the windows. The deep, well-like spaces which are enclosed by contiguous courts are faced with white glazed brick in order that they may reflect as much light as possible. There is a certain similarity between the interiors of the various courts, but no two are precisely alike, and they differ in size and ornamentation, so that the practised eye would soon learn to identify each of them. The judges' bench, the barristers' seats, the strangers' gallery, witness-box, jury-box, &c., are all of oak, and much of the detail is exceedingly effective. The roof is slightly arched (waggon-shaped), and is lighted by a flat semi-opaque skylight. We should imagine that these courts have very good acoustic properties, and that the voice will easily reach all parts without producing any unpleasant echo. We think that the windows in most of them might have been larger with advantage; and it is certain that the pleasantest and most attractive of all the courts is one which has a very large ornamental window facing the judicial bench. The adequate ventilation of the courts has been very carefully considered, and the principle employed closely resembles that in use in the House of Commons. In the

basement at the north end of the central hall is a large cellar in which is a formidable army of steam-boilers and engines. These engines work fans whose function it is to propel air to each of the courts. The points of intake for the air, which are at the bottom of the spaces enclosed by contiguous courts, are carefully guarded from every source of impurity, and arrangements are made by which the air may be either cooled by being passed through a fine spray of cold water, or warmed by traversing a chamber heated by steam coils. The fan drives the air to a space beneath the floor of the court, and beneath every step in the floor (which has necessarily a constantly varying level in order to provide for the numerous raised seats and platforms) is an inlet for the fresh air. The outlet is at the highest point of the wall facing the bench and above the gallery devoted to the public. Through an ornamental grille in this position the foul hot air of the court finds its way into a long corridor, from which rise a series of shafts heated by steam-coils in order to ensure a constant upward stream in the air which passes through them. This machinery for supplying fresh and removing foul air will, as in the House of Commons, be under the care of a special officer, whose duty it will be to regulate the supply according to the demand, and to make the air cool, or warm, dry, or moist, according to the atmospheric conditions which may prevail. The mode of lighting the Courts has not yet been settled. This seems incredible, but we were assured it was a fact. Doubtless the Courts have been erected at a time when the question of lighting, whether by gas or electricity, has been considered in a very unsettled state, but it seems sad to think that the exquisite fittings of the Courts will probably, at no distant date, have to be disarranged in order to allow of the fixing of lights, and the passing of gas pipes or electrical conductors. The ventilation being quite independent of the question of lighting, the choice which may ultimately be made of an illuminating agent will not materially affect the sanitary condition of the Courts; but considering how great is the aid to ventilation afforded by well devised gas-lights, provided with proper flues, and how successfully gas has been used in this way in the Houses of Parliament, we are surprised that in not one of the Courts has such an arrangement been provided for. The gas lights throughout the building are of the crudest, oldest form, flaring extravagantly and fouling the air, but all these fittings are temporary only, and are not to be criticised. Fancy a building of this magnitude being completed in murky London before any comprehensive scheme for its healthy and effectual illumination has been arrived at!

The warming of the corridors and galleries of the building is mainly effected by means of steam coils, furnished with gills. These are placed in all instances against outside walls, and arrangements have been made for allowing fresh air from the outside to pass over the coils. In this way the close feeling which heated coils often give will be avoided.

On the side of the courts furthest removed from the central hall is a building devoted to apartments for persons officially connected with the business of the courts, judges, juries, witnesses (male and female), &c. The private rooms for the judges will, when finished, be very comfortable apartments. The grates in these rooms are modifications of Galton's grates, there being an air-chamber surrounding the fire-box, which communicates on the one hand with the outside air, and on the other with the apartment to be warmed. These grates are none of them smoke-consuming, and anyone who passes the new Law Courts may see volumes of defiling soot issuing from the handsome stone chimneys, which will soon bring Street's magnificent edifice to the grimy level of the rest of the metropolis. One cannot help thinking of Mr. Shaw Lefevre's promise made at the opening ceremony of the Smoke Abatement Exhibition in November last, that in the future our public buildings should be furnished with smoke-consuming grates. Whether it be that the Exhibition failed to furnish a satisfactory pattern, or whether the memories of ministers of State are not very etable, we do not pretend to decide, but certain it is that unless the State shows a determined resolution to diminish the smoke nuisance at all costs, it cannot expect the public to do so, and it can hardly pretend to enforce with any vigour the law which combats this particular form of nuisance. On the occasion alluded to, the First Commissioner of Works said, with regard to the smoke nuisance, that "the whole question was becoming one of very great urgency and importance. That the country would benefit if the greater purity of the air made the cleansing and main-

tenance of the public buildings less expensive was obvious; and it was obvious also that the change would be equally advantageous to the London parks and gardens, and, by consequence, to the health of the inhabitants. It was no easy matter to say what ought to be done, especially as the authors of the mischief were not so much the chimneys of manufactories as the number of private grates, of which as many as 800,000 were lighted in London every morning. He could only hope that for these offenders (*sic*) many of the smokeless grates in the exhibition would be satisfactory and popular substitutes." We recommend this speech to the re-perusal of the right honourable gentleman.

As regards the other sanitary arrangements (*w.c.'s*, urinals, &c.), we may say at once that they are on the whole satisfactory. The bulk of the closets are in the buildings which connect the central hall and the courts. They are tiled throughout with white glazed tiles, and light and air are freely admitted to all of them. The closets are Jennings' plug closets, without traps, and time alone will show whether these will prevent the reflux of sewer air into the building. The soil-pipes are all ventilated by pipes which have only half the diameter of the soil-pipes, and we cannot but think it would have been better to carry the soil-pipe itself to a level with the chimneys, and to have left it open. What is the nature of the connexion of the vertical soil-pipe with the drain, and how the drains of the building are connected with the sewer in the Strand, we were unable to learn. The urinals are of the beaked pattern. The walls of these apartments, we noticed, are finished at the bottom with a wooden plinth. This is clearly a mistake; the plinth should have been of some non-absorbing material, such as slate, and should have been securely cemented to the floor and wall. We were glad to notice in many places that the gas, water, soil, and other pipes were enclosed in a special channel in the wall, made readily accessible by means of a hinged door. Thus the pipes will be able to be repaired without any damage to the building; and what is no less important, the work of that most untrustworthy of creatures, the British plumber, will be constantly open to inspection.

#### ELEVENTH ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD.

THE eleventh annual report of the Local Government Board gives a summary of the work done in all the numerous departments of that office, and these have so increased in number that it will be impossible to do more than glance at the more important of the matters referred to. The various details of Poor-law administration occupy the greater part of the volume. The amount spent in Poor-law relief during 1881 amounted to £8,102,136, being an increase at the rate of 1.1 per cent. on the amount for 1880; but tested by population and rateable value, there was a slight proportionate decrease. The advantages of giving relief to out-door paupers in "kind" rather than in money are forcibly pointed out. Advances in money are referred to as only a means of obtaining relief, a means, too, which the pauper is under a constant temptation to misapply, whereas relief in kind may be considered as the relief itself, the object of a genuine applicant being, not money, but the immediate means of sustenance. Since 1871 there has been a decrease in the ratio of paupers to population of 23.8 per cent., the principal decrease having taken place in the out-door class of poor, whose destitution is seldom subjected to any satisfactory test. Many workhouses have, indeed, been enlarged with a view of receiving a larger number of inmates in order that the amount of out-door relief administered may be effectually curtailed. The number of insane paupers is steadily on the increase, the total number now reaching 63,524. This is, doubtless, to a large extent due to the increased length of life which, under the present humane system, the pauper-lunatic enjoys, and also to the fact that diseased conditions of brain not formerly recognised as insanity are now included under that designation. In connexion with the subject of the isolation of paupers suffering from infectious diseases, the story of the late epidemic of small-pox is once more told, and it includes an account of the proceedings taken against the use of the Fulham Hospital, together with a reference to the establishment of the hospital

ship *Atlas*, and the tent encampment at Darenth, and some summary of the grounds which led to the appointment of the Royal Commission on Infectious Hospitals. The statistics of child-birth in workhouse infirmaries are dealt with at some length, with special reference to the fact that the death-rate from metria continues to be less in such establishments than amongst the entire population. The point has been often adverted to before, and it is somewhat remarkable, considering the number of deliveries amongst the unmarried who have necessarily, in many cases, been subject to the depressing influences of shame and trouble, to find statistics proving that a pauper woman in a workhouse has as good, if not a better, chance of recovery from childbirth than the ordinary poor woman in her own home.

Dealing next with questions of local government and public health, we find that since the institution of the Board in 1871, loans amounting to upwards of twenty-four millions have been sanctioned for sanitary and allied works to urban and rural sanitary authorities, by far the larger portion—namely, nearly twenty millions—having been advanced to urban authorities. The number of medical officers of health who are appointed subject to the regulations of the Local Government Board, and a moiety of whose salaries is repaid out of the Parliamentary grant, is now 1088. Of this number 543 act for urban, 518 for rural, and 27 for port sanitary districts. In several instances the Board has urged rural sanitary authorities to abandon the practice of appointing poor-law medical officers to act as medical officers of health for their respective districts, when one of the Board's medical inspectors has generally been appointed to inquire into the manner in which the duties of the officers in question have been performed, with the almost invariable result of showing that the sanitary needs of the district could be much more efficiently met by some other appointment. Indeed, it has become clear that an individual must not be invariably regarded as capable of filling an office of one sort merely because he already holds one involving other and very different duties. In most instances where the intervention of the Board has been required in this matter new appointments have been made which have met with the approval of the central authority.

Amongst the authorities who have been alleged to have failed in the performance of their duties, and concerning whom complaint has been made with a view to the exercise by the Board of its compulsory powers, are the Wem rural, and the Ely urban authorities in the matter of water-supply; the Cheshunt, Henley, Newquay, and Acton urban, and the Prestwich rural authorities as regards sewerage. In some of these cases the Board has issued a compulsory order under section 299 of the Public Health Act, but in others either no action has been deemed necessary, or further time has been given to the authorities to reconsider the expediency of voluntarily carrying out the needed works. In connexion with the Sale of Food and Drugs Act, it appears that the number of analyses made during 1881 was slightly in excess of those made in the previous year. One-third of the total was, however, made in the metropolis; in sixty-six boroughs none were made at all; and the number in many other districts was so small as to indicate clearly that there exists a great unwillingness on the part of many authorities, and especially on the part of the Town Councils of the smaller boroughs, to entertain any suspicion that their fellow-townsmen are capable of resorting to adulteration. The difficulties attendant upon obtaining convictions for the sale of milk mixed with water have been very considerably increased by the fact that milk from some ill-fed cows is really inferior in quality to much of the adulterated milk, and that science has, as yet, failed to distinguish between milk to which water has been added and that which, though poor, contains only its natural constituents. The fines inflicted when convictions are obtained are, also, far too small; for, as is pointed out in the report, this class of fraud is far too remunerative when persisted in to be stopped by penalties of ten or twenty shillings.

Dealing next with the question of vaccination, it appears that of the total number of children born about five per cent. remain unaccounted for, and the returns published for 1879 show that the metropolis and York have, and indeed continue to retain, the unenviable notoriety of standing worst in the list. In the metropolis the main default is due to the three districts of Camberwell, Lambeth, and Shoreditch, and some is owing to the circumstances that so many mothers leave workhouses and other lying-in institutions before the statutory period when the vaccination of their children

comes due. This latter cause of default is now being dealt with by many guardians who seek to secure the vaccination of children born in workhouses at as early a period as is found practicable. The supply of calf lymph is now fully maintained, and gratuitous vaccination is in progress twice a week at the Calf Station in Lamb's Conduit-street. This and all the more medical questions will be fully dealt with in the next report of the Board's medical officer, but we may here state that in connexion with the notification of infectious diseases, five more boroughs have obtained powers under special Acts, there being at present twenty-three towns where such notification is in operation. The report next deals with such subjects as the working of the Alkali Act, the circumstances of the London water-supply, the reports made to the Board under the Metropolis Water Act, as also by analysts acting independently of that Act, and the question of local taxation and valuation, and it is followed by numerous appendices, amongst which is a special report by Mr. Gordon Smith, the Board's architect, on certain hospitals in Germany and France, which will repay an attentive perusal.

### GLASGOW POLICE BILL.

A MOST interesting document is the draft of the new Police Bill, which the Glasgow municipality propose submitting for the approval of Parliament at an early date. If it becomes law, the Glasgow public will certainly be under paternal government of the strictest and severest type. Some of the general clauses seem harsh enough, more especially that, which is most criticised in Glasgow, giving powers to ordinary constables to enter houses in a summary and somewhat oppressive way. Even the Lord Provost, an advocate, of course, of the draft Bill, as it stands admits that "the powers are very great that are sought, and might be abused." Under this Bill no one may throw a snowball, fly a kite, make or use a slide, or trundle a hoop within the municipal boundaries; hard times, therefore, seem to be in store for the young people. The clause which provides that "any bull or other dangerous animal" must be "sufficiently secured by means of a rope attached to a ring through the nose of such animal or otherwise" may be commended to the consideration of our anti-vivisectionist friends in quest of a new sensation. The powers asked in regard to dealing with rabid dogs, or dogs suspected of rabies, or which have been bitten by rabid dogs, seem reasonable. In respect to noises, this Bill reads too good to be realisable: No one shall shout or use a bell or other noisy instrument—selling coals, &c.; no one shall use any steam whistle; no one shall play an organ or other instrument of music, or sing opposite or near any building after being requested to desist. If these provisions pass, and if the Glasgow authorities would only set seriously about the purification of their atmosphere, their city might soon become a veritable Arcadia.

But it is the increased powers asked by the Sanitary Authorities which will have most interest for medical men. These powers are pretty much like those which prevail already in many parts of England and Ireland; but they seem ample enough in all conscience. The various sanitary officers are entitled, at all hours of day or night, to enter "any land or heritage within the city which they shall suspect to be not in conformity with the provisions of this Act, under this head." Nuisances are brought very thoroughly under control, whether arising from offensive substances in store, such as rags, bones, blood, guano, paraffin oil, &c.; or from trades or businesses which are injurious to health or which cause annoyance to the neighbourhood, from smoke coming from fires or furnaces, from dirty sinks, soil-pipes, water-closets, &c., or from the keeping of cows or swine.

For the prevention and mitigation of disease, proprietors may be required to cleanse and lime-wash their dwelling-houses, factories, offices, &c.; the present hospitals for infectious diseases, the washing-house for the washing and disinfection of infected clothing, bedding, and so on, and the reception-house, provided as a temporary residence for persons removed from an infected house, are all to be maintained, and if necessary enlarged. Mortuaries and carriages suitable for the conveyance of dead bodies are to be provided. The term "Infectious Disease" is defined as including small-pox, cholera, typhus, enteric fever (otherwise called typhoid,

gastric, and infantile remittent fever), continued fever, scarlet fever, relapsing fever, diphtheria, measles, and whooping-cough, and such other diseases as the Board may from time to time, in the manner prescribed, declare to be infectious. A complete system of notification is also contemplated. As soon as any inmate of any house is discovered to be suffering from infectious disease, the occupier or person in charge of that house shall forthwith give notice thereof to the medical officer. Forms for notification are to be supplied gratuitously to medical practitioners. The medical attendant shall, on becoming aware that his patient is suffering from infectious disease, forthwith fill up, sign, and deliver, or send to the medical officer, a certificate stating the name of the patient, situation of building or ship in which the patient is lying, the name of the occupier of the house or the person in charge, and the nature of the infectious disease. For this the attendant shall receive a fee of 2s. 6d.; but no additional fee is to be paid for any certificate given by him in respect of the same infectious disease, occurring in the same house or ship at the same time, or within thirty days of the first certificate. The penalty for each wilful offence against this part of the Bill is forty shillings. Children who have been suffering from infectious disease are not to be sent to school till they can produce a medical certificate that they are free from disease and infection, and that the house and everything therein exposed to infection has been disinfected; both parents and teachers are responsible for offence against this clause—penalty forty shillings. Infected clothing, bedding, &c., are not to be exposed in common washing-houses or washing-greens till they have been disinfected. When infectious disease occurs in any overcrowded house, or any house which cannot be properly cleansed and disinfected while it is inhabited, all the inmates may be removed to the reception-house and boarded there, without interfering with their lawful business, for a period not exceeding fourteen days. The corpse of anyone dying of infectious disease, when it must otherwise lie in an occupied room, may be removed to a mortuary provided for the purpose. Corpses of those dying of infectious disease may not be transported in any public conveyance, except such a one specially reserved for such uses, unless, or until, the medical officer has certified that every precaution necessary for the public safety has been adopted to his satisfaction. "Wakes" become illegal in the case of those who have died of infectious disease.

To facilitate the tracing of an epidemic to its possible cause, cowkeepers, dairymen, &c. are bound to furnish a list of customers, and to produce invoices and furnish information as to those farmers from whom their milk is obtained. The sale of milk from an infected farm or dairy is prohibited.

When the medical officer thinks that in any existing buildings occupied as sleeping apartments an open space should be provided for the ventilation of such buildings, then this space may be provided, the owner being compensated.

Water used for drinking and cooking is not to be supplied from cisterns exposed in any way to contamination.

Proprietors are required to permit the application of the smoke test by the sanitary inspector, when the latter has reason to suspect that the drains are defective.

Comprehensive powers are also asked for the "regulation" of lodging-houses, more especially as regards licensing, registration, and the providing of medical relief for lodgers in case of illness, &c.

Unwholesome and adulterated foods are then dealt with. All dead meat brought into the city is, before sale, to be taken to certain places, and inspected. Unwholesome meats, &c. (various causes of unwholesomeness enumerated), must not be exposed for sale for food, under a ten pound penalty or sixty days' imprisonment. Butchers' shops and provision shops of all kinds are to be kept "clean and in good condition."

The construction and repair of sewers, the erection, alteration, and use of buildings, and the erection and maintenance of public baths and wash-houses, are all provided for. Adequate precautions are also taken against overcrowding, and for the provision of dungstead, ashpit, and privy accommodation. No apartment is to be used for sleeping in unless it has one or more windows. For persons of eight years and upwards 400 cubic feet of space are allowed in small dwelling-houses used for sleeping in; for children under eight 200 cubic feet. The Board have power to mark on such houses their size and the number who may live therein. It is also declared to be unlawful to let as dwelling-houses any buildings having less than a certain fixed

minimum cubic measurement, varying, in houses of only one apartment, from 700 to 1200 cubic feet; in houses of two apartments from 1200 to 2000 cubic feet; and in houses of three apartments from 1800 to 2400 cubic feet.

Already there is springing up in Glasgow a very decided opposition to many of the provisions of this proposed Bill, many of the public regarding its general clauses as too despotic and tyrannical in their scope and possible application; while in the profession certain of the sanitary measures, whose adoption is proposed, are regarded with extreme disfavour—notably that concerning compulsory notification of infectious disease by the medical attendant. It is felt that not only is it unjust that medical men should be compelled, under a penalty, to report their cases of infectious disease, as if they were in any way responsible for the appearance of such diseases; but it is widely held that such a measure would only lead to more widespread concealment of such affections.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5681 births and 3477 deaths were registered during the week ending the 28th ult. The annual death-rate in these towns, which had been equal to 21.7 and 20.5 per 1000 in the two preceding weeks, rose again to 21.4 last week. The lowest death-rates in these towns last week were 16.9 in Bristol, 17.4 in Leicester, 17.6 in Salford, and 18.4 in Wolverhampton. The rates in the other towns ranged upwards to 28.3 in Birkenhead, 29.4 in Oldham, 32.9 in Sunderland, and 34.2 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 485, showing a further decline from the numbers in recent weeks; 120 resulted from scarlet fever, 103 from "fever" (principally enteric), 95 from diarrhoea, 91 from measles, 54 from whooping-cough, 17 from diphtheria, and 5 from small-pox. No death from any of these diseases was recorded in Wolverhampton, whereas they again caused the highest death-rates in Preston and Sunderland. Scarlet fever showed the largest proportional fatality in Leeds and Cardiff; "fever" in Portsmouth, Leeds, and Birkenhead; measles in Sheffield, Cardiff, and Sunderland; and whooping-cough in Preston and Birkenhead. The 17 deaths from diphtheria in the twenty-eight towns included 9 in London, and 2 both in Liverpool and Sheffield. Small-pox caused 3 deaths in London, and 2 in Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which had been 84 and 78 on the two preceding Saturdays, further declined to 72 at the end of last week; 8 new cases of small-pox were admitted to these hospitals during the week, corresponding with the number in the previous week. The Highgate Small-pox Hospital contained 7 patients on Saturday last, one new case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 302 and 290 in the two preceding weeks, rose to 355 last week, but were 12 below the corrected weekly average. The causes of 86, or 2.5 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Norwich, Leicester, Nottingham, Derby, Plymouth, and Huddersfield. The proportions of uncertified deaths were largest in Hull, Leeds, Bradford, and Plymouth.

### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which in the two preceding weeks had been equal to 19.2 and 19.7 per 1000, further rose to 21.4 in the week ending 28th ult.; this rate was identical with those which prevailed last week in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had steadily declined in the four preceding weeks from 117 to 96, further fell to 89 last week. The deaths from these principal zymotic diseases averaged 3.8 per 1000 in the eight towns, and exceeded by 0.8 the rate from the same diseases in the large English towns. The 26 deaths attributed to diarrhoea were within two of the number in the previous week, and were proportionally thrice as numerous as the deaths from the same cause in the English towns. The 19

deaths from diphtheria showed an increase of three upon those in the previous week, and included 12 in Glasgow, 4 in Dundee, and 2 in Edinburgh. The fatal cases both of scarlet fever and whooping-cough, however, showed a further decline from recent weekly numbers; each of these two diseases caused 8 deaths in Glasgow. The 12 deaths referred to "fever" considerably exceeded the numbers in any of the four preceding weeks; 7 occurred in Glasgow, and 2 both in Leith and Perth. The deaths referred to acute diseases of lungs in the eight towns, which had been 100 and 108 in the two preceding weeks, further rose to 113 last week, and exceeded by 14 the number in the corresponding week of last year. No fewer than 88, or nearly 18 per cent., of the causes of the deaths registered in these Scotch towns last week were not certified.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 24.4 and 22.5 per 1000 in the two preceding weeks, was again 22.5 in the week ending the 28th ult. During the first four weeks of the current quarter the death-rate in the city averaged 22.3, against 19.8 in London and 17.3 in Edinburgh. The 150 deaths in Dublin last week corresponded with the number in the previous week, and included 5 which were referred to "fever," 5 to diarrhoea, 3 to whooping-cough, and not one either to small-pox, measles, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had steadily declined in the six preceding weeks from 28 to 8, rose again last week to 13; these were equal to an annual rate of 1.9 per 1000, the rate from the same diseases last week being equal to 2.7 in London and 2.0 in Edinburgh. "Fever," to which no death had been attributed in the previous week, caused 5 deaths last week, a higher number than in any week since the first in September. The 5 deaths from diarrhoea, as well as the 3 from whooping-cough, also showed an increase upon recent weekly numbers. The deaths both of infants and of elderly persons showed a decline from those returned in the previous week, while those of children and adults aged between one and sixty years were more numerous.

#### THE SERVICES.

The Queen has approved of the retirement from the Service of Brigade-Surgeon William Henry Colvill, of the Bombay Army, and Surgeon-Major John Davies, of the Bombay Army.

**BREVET.**—Deputy Surgeon-General William Henry Adley, of the Bengal Army, to be Surgeon-General. Surgeon-Major George Edward Whitton, of the Madras Army, to be Brigade-Surgeon.

**ARTILLERY VOLUNTEERS.**—1st Cornwall (Duke of Cornwall's): Surgeon Henry Grenfell is granted the honorary rank of Surgeon-Major. Thomas St. Patrick Tuckey, Gent., M.B., to be Acting Surgeon.

**RIFLE VOLUNTEERS.**—1st Cheshire: Alexander Craigmille, Gent., M.D., to be Acting Surgeon. 1st Inverness-shire (Inverness Highland): James Murray, Gent., M.D., to be Acting Surgeon. 1st Kent: Charles Boyce, Gent., M.B., to be Acting Surgeon. 1st Midlothian (Leith): Acting Surgeon William Alexander Finlay resigns his appointment.

**ADMIRALTY.**—Fleet Surgeon John Breakey, M.D., has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with seniority of October 27th, 1882.

The following appointments have been made:—Deputy Inspector-General Thomas J. Breen, to the Chatham Division of Royal Marines, vice Bremner; Fleet Surgeon Charles Strickland, to the Lord Warden, vice Robertson; Fleet Surgeon Adam B. Messer, Surgeons Charles C. Gedding and William G. K. Barnes, to the Northampton; Staff Surgeon James Bradley, to the Valorous, vice George B. Beale; Fleet Surgeon James N. J. O'Malley, to the Minotaur, vice Cooper; Fleet Surgeon Astley Cooper, to the Agincourt, vice O'Malley; John B. J. O'Meara, to be Surgeon and Agent at Sutton Bridge and Dove-end, vice Haines; Staff Surgeon Alfred G. Delmage, M.D., to the Britannia, vice Trevan; Staff Surgeon Robert Hay, M.D., to the Constance, vice Delmage; Surgeon Samuel C. Browne, to the Indus, vice Popham; Surgeon Charles H. Wheeler, M.D., to the Indus, additional for temporary service; Surgeon Edward

G. Swan, to the Cambridge, vice Peyton; Surgeon Arthur W. E. B. Barrett, to the Duke of Wellington, additional; Surgeon Charles W. Sharples, to the Asia, vice Bradley; Surgeon Robert W. Anderson, to the Lord Warden; Staff Surgeon John Shields to the Tenedos.

### Correspondence.

"Andi alteram partem."

#### "ON ABSORBENT DRESSINGS, ETC."

To the Editor of THE LANCET.

SIR,—In your issue of October 28th Mr. Rogers-Tillstone has ventured some remarks on my paper on Absorbent Dressings, published in your valuable journal of October 21st. I am sorry to be compelled to trespass on your space with a reply, but, as his criticisms are not strictly accurate, must crave the insertion of a few remarks.

In reference to Case 1, red lotion was not used (dry?) to take the place of dry dressing, but as a stimulant and astringent to the granulating surface. Unfortunately, we do not always get union by first intention when antiseptics are not used. The boracic lint was applied dry when I used it, but in the first instance was applied by the house-surgeon. Undue pressure did not cause the ulcer on the surface of the stump, nor did the want of antiseptic dressings cause the erysipelas. The boy was not removed out of the ward on account of erysipelas. He was discharged with a very small portion unhealed; and on the house-surgeon visiting him at his own house he found it was not properly dressed; he was therefore readmitted into the children's ward, but owing to cleaning, &c., going on in the ward, it had to be closed, and the patients removed. A week after his removal to the other ward erysipelas showed itself in the sound leg, and spread afterwards to the stump; this was treated with a solution of iron. We should never have dreamt of applying antiseptics to the sound limb, in which the erysipelas appeared first; perhaps contact with a stump so treated would have prevented it, no matter what amount of infection might have been present.

Case 3, Mr. Rogers-Tillstone says, "recovered in spite of everything, for the sutures ulcerated out and were replaced by strips of plaster." This is not accurate as to the sutures; perhaps one or two did cut their way through; but the acting house-surgeon, who put on the strips of plaster, informs me he removed most of the sutures, and I know that I took some out myself. No doubt the case did get well, and without antiseptic dressings. I rather fancy, if we had no *vis medicatrix nature*, carbolic acid would avail us little. I find, from notes supplied me, that the patient was operated on on May 18th. On the 22nd, four days after, the evening temperature had risen from 101.6° F. on the previous evening, to 103.8° F. The dressings were changed, and next morning the thermometer registered 98.2° F. morning, and 100.2° F. in the evening. About fourteen days after, I amputated through the hip-joint, and at the same time removed the arm four inches below the shoulder-joint, for a railway smash. I applied absorbent wool to the parts, but the man never rallied from the shock, and died a few hours afterwards. I did not know before reading Mr. Rogers-Tillstone's letter that this dry absorbent dressing had anything to do with the unfortunate result, or I should have reported the case with the others. If the man had lived long enough to have a change in the dressing, I should have included the case. The cases reported were to illustrate the advantages of an absorbent dressing, and not to record the number of operations. If carbolic spray would have enabled this man to rally from the shock, then I am certainly culpable.

With reference to Case 4, I sponged out the abscess cavity and the flaps with carbolic lotion, not for its antiseptic properties or with the idea of destroying germs, but for its astringent effects. It was in the operating theatre ready for use, but any astringent solution would have served my purpose. "From his cases we at least learn (?) what we knew before, and see once more that antiseptic dressings were followed by the best results in these cases. The fact that Mr. Berry only publishes his favourable cases takes materially from the value of his communication." Strange logic this; what a man knew before surely he has



no need to learn (?) again. Has Mr. Rogers-Tillstone unlearned anything by reading the paper? I myself have failed to learn "that the antiseptic dressings were followed by the best results." Case 4 had been treated with abundance of carbolic spray and lotion, yet, after his re-amputation and dry dressings, he recovered without a bad symptom.

I do not know of one case that has turned out unfavourably through the plan of dressings adopted, and if Mr. Rogers-Tillstone will kindly give them I shall be as gratified as any of your readers; but a critic who speaks of "antiseptic breath" should at least see that his own words are aseptic. Mr. Rogers-Tillstone was an assistant to one of the staff (who is a general practitioner), and had abundance of time and opportunities, and often visited our infirmary. It is a pity he did not suggest to his principal, or to the house-surgeons who believe in the antiseptic treatment, the mistakes they were committing. I myself would have been willing to sit at the feet of Gamaliel and been taught.

I did not think it requisite to make any reference to the amount of pressure (firm and equable pressure); I expected any tyro would know this, or, if he did not, would consult Mr. Gamgee's little work on the Treatment of Wounds. The pressure must be something more than a loose bandage for the dressings, and something less than sufficient to cause gangrene in the part.

Mr. Rogers-Tillstone's description of the manner in which Listerism is carried out at our institution may be correct. All I can say is that I have seen some of my colleagues operate in an atmosphere of spray, which I have no desire to imitate. If as good results can be obtained by the plan of treatment I adopted in the cases reported, I shall be satisfied to continue, without interfering with the practice pursued by my colleagues.

Apologising for troubling you at this length,

I remain yours truly,

Wigan, Oct. 29th, 1882.

WM. BERRY.

#### "A SIMPLE OPERATION FOR VARICOCELE."

To the Editor of THE LANCET.

SIR,—If Dr. Campbell Black will refer again to my note which you published last week, he will find that, so far from giving a representation of a "granny" knot (a thing I never have employed), there is no knot whatever drawn. The mode of passing the loops above and below the vein is shown, but the knot is of course intended to be made on each loop in the ordinary way, and cut off short. The plan Dr. Black mentions is that advocated by Ricord, and one long adopted by many surgeons, but it is not practicable as a subcutaneous method, which is the chief point in what I wrote about.—I am, Sir, your obedient servant,

W. DUNNETT SPANTON.

Hahley, Staffordshire, Oct. 30th, 1882.

#### SCOTCH DIPLOMAS.

To the Editor of THE LANCET.

SIR,—The readers of THE LANCET must feel indebted to you for the summary of the Minutes of Evidence taken before the Royal Commission on Medical Acts.

As a Licentiate of the Faculty of Physicians and Surgeons, and therefore one of those gentlemen commiserated in your leaders of October 7th and 14th respectively, I beg to say that I feel happy, notwithstanding all the statements and hints thrown out against the Faculty. Many different factors, beyond the titles after one's name, constitute the attainment of professional success.

When I joined the medical classes, in the year 1857, "medical reform" was in the air, and anticipations of increasing strictness in future examinations were in every student's conversation. Since that time statesmen and medical reformers like Lord Palmerston and Professor Syme have passed away, with the cry for medical reform ringing, so to speak, in their ears. The agitation, *mutatis mutandis*, still continues.

Without endorsing the ideas of Herbert Spencer on free competition in medicine, I think that it is over-exacting to expect candidates to answer minute questions in general

education, chemistry, and botany, which thousands already in the profession could not answer, and even the examiners may know only by revision previous to the examinations. What the public require is not a closet philosopher, but a frank, active practitioner, who can speak and write grammatically, frame a good report, and be posted up in the practical details of his profession. It would be of no importance to a swooning puerperal patient that her medical attendant could square the circle, if he were ignorant of the best method to arrest hæmorrhage from the womb. The "well-educated" surgeon, referred to by the late Dr. John Brown in his essay on Nearness of the Nerve, was of no service, when, attending at a duel, he allowed a wounded officer to die, because he could not even temporarily arrest bleeding from the femoral artery.

Some of the witnesses before the Commission admit that the Faculty examinations are thoroughly practical, and yet the witnesses are not happy. If the Faculty pass a supposed incompetent man it is trumpeted everywhere; if the Faculty reject a large number of candidates—Oh! it is because all the candidates are inferior men. Were the insinuations about the licentiates of the Faculty well founded, or the alleged facts numerous, we might expect a proportion of the sick population to be found, in the language of the æsthetic Miss Tuppins, "murdered in their beds" every year. On the contrary, in cases of medical immorality and mal-praxis during the last twenty years, Faculty licentiates are conspicuous by their absence. The working and results of an institution should be the test of its usefulness. It cannot be denied that the licentiates of the Faculty compete successfully in life with the diplomates of other corporations, and that the ordinary meetings of the Faculty of Physicians and Surgeons, its reading-room, and large consulting and lending library, and the examinations of candidates for its licence, tend to the advancement of medical education, and the continuance of men of light and leading in the West of Scotland. By impoverishing the provinces, centralization may have weak points in medical government, as well as in general politics.

You wax warm on the delicate reference to doctors for country districts; but it will surely be conceded that a general practitioner may be fairly educated for all the usual requirements of these districts, and not be a specialist on the eyes, the ears, or the feet. He may be thankful, moreover, for five shilling fees, where his big city brother, a University professor or infirmary teacher, would look askance at any sum less than a guinea. I am, Sir, yours respectfully,

October 27th, 1882.

#### NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

THE study of natural history has always, I might say, presented attractions for northern minds. I need in confirmation of this only mention the names of some of our local students, whose names are known far and wide, to naturalists—viz., the Hancocks, Alders, Bradys, Abbs, Matthey, and others. Owing to the generosity of Sir William and Lady Armstrong the Natural History Society have been enabled to alter the plans for the new museum here, so as to bring it more in accordance with the original designs of the architect. It was intended that there should be a corridor on the east and west sides of the building as it at present stands, but as this would entail an outlay of about £10,000, the Society were obliged to abandon that portion of the plans. It was felt that something should be done to give the exterior of the building a more attractive appearance, but the Society lacked the necessary funds. A short while ago, however, Sir William and Lady Armstrong made the handsome offer of the money necessary to build a corridor seventeen feet wide down the east side, and also a wing on each side of the south end. The corridor will be provided with large ornamental windows, and it will be a very handsome elevation. This extension will, doubtless, improve the appearance of the building considerably, which promises to be an ornament—in an architectural point of view—to the north end of our city. In the wings to be constructed will be cloak, microscopical, and other rooms. The corridor and two wings will mean an expenditure of over

D, a very handsome gift; but when these are added to the main building, the museum, as originally designed, is not complete, for the corridor on the west elevation remains to be added. The Society will be content to wait a while for this corridor. Their chief difficulty at present is the raising of the £2000 yet required to pay for the erection of what may be called the main building, which will cost £32,000. Adding to this the amount that will be required by Sir William and Lady Armstrong, the building, including to present plans, will cost over £38,000. Mr. Cock's own collection of birds quite fill up the largest room. The main building is expected to be opened in the autumn.

Dr. Embleton has kindly sent me a reprint of his address, delivered to the Northumberland and Durham Medical Society, on "Vivisection and Anti-vivisection," in which he cites numerous authorities from all countries, and almost all ages, showing the necessity for properly conducted experiments on animals, and asks "that the present restrictions on vivisection ought at least to be relaxed, so as not to hinder the study of physiology from the country." Of any reading this masterly address of Dr. Embleton and obtaining an anti-vivisectionist, perhaps the best thing to do is, "Pity the poor blind."

The committee of the Ladies' Ambulance Classes, held in the infirmary last winter, after paying all expenses, have voted a surplus in a way at once grateful to the house authorities and useful to the inmates, by presenting two Berlin chairs for the use of the patients.

It is often said that in the course of building improvements and alterations in the streets of large towns, the poor, however they may ultimately benefit, are at first great sufferers. There is a case in point in our own city at the present time, which should excite some attention. The Hospital of the Holy Jesus is an old foundation for the reception of decayed women, or their widows, and will accommodate about forty inmates; they have, besides comfortable quarters in the hospital, coals and other allowances. It was one of the few pleasant places to look at in the ancient part of the town, with its nice bit of grass in front of the quaint building, and the old people toddling about the colonnade, or sitting in the shade and watching the North trains whirl past near, but not so near to be an annoyance. Now all this, or most of this, is changed. Our authorities decided to make a new street, and as yet it is not very clear where it is to lead to, or that it was wanted at all; but at all events they have run the street through the hospital grounds, right in front of the building, cutting up the grass-plot, and obstructing the light and air of these poor people with a hideously ugly iron viaduct. Suppose this new street—contrary to the rule here with some Corporation improvements—fulfils the purpose for which it is intended, these poor old people will be further annoyed with the traffic and other disturbances of a great thoroughfare, instead of the quiet and rest befitting the aged, and evidently intended for them by the founders of this ancient asylum. The corporation is, I believe, the legal guardian of this hospital, and, if it became necessary to obstruct the light and air by this new street construction, it should have removed the hospital, or provided equivalent quarters suitable for the inmates.

The Gateshead Dispensary has, I am glad to see, received a bequest of £500 under the will of the late Alderman Hewitt of that borough. This institution well deserves any support it receives, as it is one of the best managed medical institutions in the North. Some of its house-surgeons have become our most prominent practitioners. This is not to be wondered at, considering the great scope this charity has for its operations. I was speaking to a gentleman the other day who told me that in his early days the population did not exceed 15,000. I believe that at the present time it will not fall much short of 70,000. Some of our merchant princes prefer to have their villa residences in the suburbs of Gateshead, and this is not to be wondered at by anyone who drives along the Durham-road from Gateshead to the Low Fell. The situation is exceedingly beautiful, with the slope of the Team Valley on one side and the wooded hills of Ravensworth, with its embattled castle, on the other, with the Team and Tyne glistening between.

Yesterday was our Hospital Sunday, and as the weather was all that could be expected, or, indeed, desired for the season, we look forward hopefully to an augmented collection.

Newcastle-on-Tyne, Oct. 30th, 1882.

## SCOTTISH NOTES.

(From our own Correspondent.)

THE appointment of Dr. Alex. Ogston to the chair of Surgery in the Aberdeen University was formally announced a few days ago; but as it had been known for some time that the choice had been virtually made, little curiosity regarding the question remained. Judging from past experience concerning Dr. Ogston, the university may be congratulated on the Home Secretary's choice; and it is sincerely to be hoped that his enthusiasm and success as a teacher may rival the genuine fame he has already secured as a scientific and original surgeon. Perhaps the best evidence afforded of Dr. Ogston's fitness for the office is the fact, for which I can vouch, that two distinguished surgeons, who in other circumstances would have been candidates, declined chiefly because they would not compete with Dr. Ogston. Dr. Alex. Ogston is son of the venerable professor of Medical Jurisprudence at Aberdeen, and his brother is assistant-professor of the same subject.

Dr. William McIntosh, F.R.S., was on Saturday last formally installed as Professor of Natural History at St. Andrews. Principal Shairp presided. Professor McIntosh was cordially received by the other professors.

In the introductory lectures to the various courses at the universities several of the professors have this year, and chiefly incidentally, had something to say on the vivisection discussion. It is to the ordinary voter that appeal must finally be made on this as on other questions which are ultimately settled by Parliament, and when the question is calmly discussed with the intelligent citizen there is seldom any but a satisfactory result. The chief danger is that, not the intelligence of the many, but the enthusiastic bigotry of a few active and astute wire-pullers may ultimately decide how science may in future be retarded, and its devotees held up to public scorn. There are many well-educated people who have no accurate acquaintance with the merits of the matter; and without guidance from responsible men, it is not surprising that the floods of anti-vivisection literature, containing statements of the most revolting kind, should bias the judgment of sympathetic natures. Such weighty words as those uttered by Professors Rutherford, Chiene, and Clelland, the former of whom showed the large sacrifice made by the University of Edinburgh, in the interest of truth, in refusing a large sum offered on condition that experiments on living animals should be prohibited, must have a good effect on unbiased minds; while the prominence given to the remarks by the leading Scottish newspapers is a gratifying evidence of good will.

What has been called the Dunecht mystery has been but partially solved by the conviction of one of the perpetrators, and his sentence to five years' penal servitude. No certainty is felt as to the manner of the outrage; but it is believed that more than one person was engaged in the removal of Lord Crawford's body from the family vault. There has been no such case tried in Scotland since the passing of the Anatomy Act.

The Dundee Naturalists' Society, of which Dr. Rorie is the very active President, gave last week a most successful conversazione in the spacious rooms of the Albert Institute. Over a thousand guests were present, and the greatest interest was manifested in the many scientific specimens and novelties exhibited. Mr. P. Geddes, F.R.S.Ed., gave a short discourse on "Some Results of the Study of Biology"; and Colonel Drummond-Hay, a distinguished local ornithologist, lectured on his favourite subject. Altogether the scientific as well as the social success of the meeting must have afforded Dr. Rorie and the useful society over which he presides great satisfaction, and was another proof of the awakening interest in science now so frequently observed on the part of the public generally.

Epidemics of typhoid fever are reported from Kilbirnie and Grangemouth. In the former place about thirty-three cases have occurred, the disease has spread somewhat rapidly, and several deaths have been occasioned. At Grangemouth the outbreak has been traced to a dairy where a case had occurred; several families taking their milk from this source have been attacked; and the whole circumstances have been reported to the Board of Supervision for their advice and that of Dr. Littlejohn. In the meantime an

order has been issued prohibiting the further use of the infected milk till the fever case is removed and thorough disinfection carried out.

## HYPNOTISM IN PARIS.

(From an occasional Correspondent.)

### NO. IV.

THE difference between M. Donato's performances and the experiments of Drs. Charcot and Dumontpallier is this: the subjects for experiment by the latter gentlemen were exclusively female patients more or less hysterical, and those exhibited by M. Donato were almost exclusively young men presumably healthy. This fact, he says, shows the greater magnetic power he possessed over those who experimented on females only; and if he had a subject of the fair sex who accompanied him in all his performances, it was for the sake of convenience, so as to have a subject always at hand. M. Donato's subjects should, according to his own admission, be naturally very sensitive to the magnetic influence, or they should, at any rate, go through some preparation, or rather training, before they could be considered fit subjects. Would this of itself not imply a certain degree of *compérage*? As far as I have seen, the young men are a pale, nervous, delicate-looking set, and are generally shopmen or clerks; and they are always, or nearly always, the same subjects who go through these demonstrations. I have seen them not only go through all the feats described by M. Charcot with his female subjects, but they seemed to be entirely under the influence of his will—so much so, he had only to will certain things and he was implicitly obeyed without even touching his subjects. For instance, he prevented them, while in the magnetic state, from opening their eyes or their mouth, or from speaking in an audible tone, rising when once on their knees, or from giving a blow with the fist while the arm was placed in such an attitude, notwithstanding the strenuous efforts made by the subjects to put these acts into execution. But what is most wonderful is the magnetiser could get them to do certain things which are directly opposed to his verbal injunctions, but are strictly in accordance with his will. Thus, in spite of the repeated orders, which he delivers in the most imperative manner, to open their eyes, their mouth, to pronounce words suggested by their magnetiser, they do just the reverse, and remain silent simply because he wills it inwardly. In some cases, if the subject is magnetised in the midst of a song, he suddenly stops, and resumes it when he is awakened, just at the phrase or the portion of the word where he had left off. Even the special senses are in the power of the magnetiser, which he can alter at pleasure. For instance, one of the subjects magnetised thought he was enjoying an apple while he was eating a raw potato. The mental faculties of the subject are not less under the control of the magnetiser, for he suspends his memory at will, the subject forgets the most common circumstances and the names of articles of every-day life; indeed, he forgets his own name and even the sex he belongs to. Fortunately, this "lapse of memory" lasts only during the magnetic sleep, from which he is roused by a slight whiff in his face. What will partisans of cerebral localisation say to this, and what will pathologists say when they are informed that phenomena such as those described above, which are the result of certain diseased processes of the brain, all of which are of a complex nature and take time to effect their work, are here produced, cured, and reproduced in a few minutes and at the will and pleasure of a "magnetiser?" I ask whether such phenomena can be *bona fide*, even when produced by a man of science? It would seem naive to put such a question, but when I think of the remarks that were made in my hearing at M. Donato's performances, and by men of science, who expressed their belief in the reality of what they had witnessed, and when one takes into consideration the amount of credit obtained for these pseudo-scientific representations through the medium of articles published on the subject in certain periodicals, it seems time that something should be done to expose the fallacy and danger of a doctrine according to which a magnetiser, expert in the art, could command at will the execution of any crime by a subject in the magnetic state. But truth will always prevail, and the impostures,

misconstructions, and misrepresentations are, by the more discerning portion of the public, separated from it as the chaff is from the wheat.

This is what has happened to M. Donato's magnetiser, which were found to be all "chaff," mixed up with a semblance of science, as was shown by a certain number of anti-magnetisers, who had got up opposition meetings. Among others, I may notice one convened by M. Carmelli, Professor of Mathematics at a Government College, who, finding his pupils so full of M. Donato's experiments on animal magnetism, which diverted them from their studies, determined to prove by practical demonstration that the whole affair, whether it be called animal magnetism or hypnotism, was a monstrous humbug. The anti-magnetiser had not much difficulty in doing this: the meeting was announced beforehand, and, of course, the hall was crowded. At the hour appointed M. Carmelli made his appearance in due form, in evening dress and accompanied by a Mademoiselle Mariani, his "agent de démonstration," as M. Donato had his, and who was named Mademoiselle Lucile. M. Carmelli began by assuring his audience that he had never been magnetised in his life, and, consequently, did not possess the mysterious agent called the magnetic fluid. He would, however, undertake to put Mademoiselle Mariani, who also had never been magnetised in her life, through the same processes as M. Donato's subject was in the habit of going through. After a few passes over the forehead and head, a few significant looks, and other manoeuvres usually employed on such occasions, Mademoiselle Mariani fell off into a state of catalepsy. She was then placed on a chair, her body being as rigid as a corpse, with her eyes wide open and fixed from which even the burning of a bundle of phosphorus matches under her nose did not rouse her; there was no quiver in the muscles of the face, and she looked as wise and as lifeless as a marble statue. To show how completely she was under his control the magnetiser roused her by a few passes, and then, by certain other passes, she fell back again into the cataleptic state. A medical man who was present observed that he had seen all this go through at the Salpêtrière except the burning of matches, which would be too vulgar a trick for that institution, and he thought that the subject herself, who looked highly hysterical, might have been a patient in that hospital. While in the cataleptic state her eyes were blindfolded, and she went through the usual tricks as cleverly as any somnambulist by profession. After a short rest and a few fresh passes she again fell off into a sleep. The magnetiser then drove a long pin through the fleshy part of the forearm, but she did not flinch, and not a drop of blood was seen oozing from the wound. She was then placed in the horizontal position between two chairs, her head resting on one and her feet on the other, with nothing to support her back. In this position the magnetiser sat, and even stood upright on her, and she lay as inflexible as a board under the man's weight. This brought down a thunder of applause from the assembly, but it having been intimated to M. Carmelli that it was impossible for any person, not under the influence of magnetism, to go through such a feat as Mademoiselle Mariani had just gone through, he simply reminded his audience that it was a feat commonly performed by clowns at circuses and public fairs who certainly had no pretensions to magnetism, and in order to prove that neither somnambulism nor magnetism had anything to do with it, he proposed rousing his subject from her longest sleep, and that without any passes or blowing on the head, or even touching her. By the simple word of command, "Mademoiselle, levez-vous," she showed signs of gradually coming to by first smiling, and then, stretching out her limbs, she sprang to her feet, and looked none the worse for all she had gone through.

He then explained the trick of passing long needles or pins through the arm without pain, and that it was not necessary to be magnetised to escape suffering, and, suiting the action to the word, he turned up his sleeve and passed a long pin through his own arm. He declared he felt no pain whatever, and invited anyone in the assembly to come forward and try the experiment for himself or herself. No one seemed inclined to attempt it until an old gentleman offered his services, and M. Carmelli put him through the same process as he had just gone through himself, the old gentleman also declaring that he felt no pain whatever. This was the scene of Carmelli's success, and before bringing the séance to a close he wished to impress upon the assembly that there

was no such thing as animal magnetism, that there was certainly an understanding between the magnetiser and magnetised, and that it required some dexterity in performing the tricks and the most scrutinising attention to detect them. As for the feat of thrusting a long needle or pin through the arm, it was a very common one, and the explanation given as to the painlessness and bloodlessness of the operation was that the parts generally selected were those barely supplied with nerves and bloodvessels of any size, as is the case with the upper and fleshy part of the forearm. Besides which, it is a fact well known to surgeons that the muscles are not endowed with great sensibility, and the only pain felt, if at all, would be in the skin, but this would be so slight that, coupled with the dexterity of the operation, the subject would hardly feel any. If the subject be hysterical this would still more favour the success of the feat, as the skin is generally insensitive in this condition; and this would explain how Mademoiselle Lucile bore the operation so well.

This amateur *séance* was most damaging to M. Donato, who was present, and just at the termination he stood up and, in a most frantic rage, denounced his adversary's experiments as unscientific and absurd. Whereupon an altercation took place not only between the principals but between their respective partisans. This, however, was soon put down, and at the breaking up of the meeting many of the audience left with the firm belief that M. Carmelli was a magnetiser *incognito*, or, at any rate, that he and his coadjutor possessed the fluid without being cognisant of the fact, or that they had some motive for not wishing to own it, as they both, Mademoiselle Mariani in particular, acted their part too well to have merely simulated. Be that as it may, M. Donato's glory from that day grew dim, and Mademoiselle Lucile began to find out that she had not been properly treated in the division of the profits accruing from the *séances* and as a natural sequence, she quarrelled with her *pro tempore* lord and master and denounced him as an impostor. Moreover, at an interview a journalist had with her she fully exposed M. Donato's tricks, and made some very interesting disclosures. Among other things she told her interviewer that at times she was rather refractory, and could not fall asleep. M. Donato then resorted to the expedient of dosing her with opium, which made her feel so drowsy and stupid that he used to pinch her to keep her awake till the proper time arrived. But there were times she was so sleepy from an overdose of opium that she could not be roused, and it was then that M. Donato had recourse to the young male subjects already referred to, who were regularly trained to go through the processes told off for them. She further avowed that if she had a choice in the matter she would, by a great way, prefer to have the pins thrust into the arm than be pinched as she was, as the latter operation caused her great pain, and her body was covered with boils in consequence. Nothing has been heard of M. Donato since these disclosures were made, and the rage for exhibitions such as he provided in Paris has consequently declined.

## MEDICAL TRIALS.

### THE BRIGHTON SEWERS BOARD AND THE HOVE COMMISSIONERS.

MR. A. MARTINEAU, the Sussex County Court Judge, sat at the Brighton Town Hall, on the 25th ult., with Mr. James Abernethy, President of the Institute of Civil Engineers, as assessor, in obedience to a mandamus from the Court of Queen's Bench, and under the 73rd Section of the Brighton Intercepting and Outfall Sewers Act, 1870, to hold an inquiry into a dispute between the Sewers Board and the Hove Commissioners. The sewer, the construction of which was begun in 1870, is over seven miles in length, commences on the sea front at Hove-street, Hove, runs along the coast line through Brighton, and discharges itself into the sea at Portobello, about four miles east of Brighton. It intercepts on the line of route and receives the contents of all the sewers in Hove and Brighton, which formerly discharged direct into the sea in front of the two towns at seven different points. The Sewers Board contend that under the Act the two local authorities, the Brighton Town Council and the Hove Commissioners, were bound to convert the old

sewer ends into storm outfalls, to relieve the sewer in time of flood. Brighton converted the whole of the outfall in the Council's jurisdiction, and the Sewers Board now seek to compel Hove to provide outfalls, three of the outfalls in that district having been removed and converted, so that it does not act as an outfall until the water in the ordinary sewers is 5ft. 6in. above the crown of the intercepting sewer. The Hove Commissioners held that the intercepting sewer was constructed for both storm and sewage water, that they were permitted to remove the old sewers by the report of the Board's engineer, Sir John Hawkshaw, and that they cannot be called upon to provide new outfalls. Both Brighton and Hove contribute to the cost and maintenance of the intercepting sewers according to their respective rateable values, and the Commissioners of the latter town contend that if new outfalls are needed in their district they should be constructed at the cost of the common fund.

The hearing of the inquiry was adjourned, and resumed on the 31st ult., when Mr. Cohen addressed the Court on behalf of the Hove Commissioners. He contended that the sewer was constructed for both sewage and storm water, that it was the duty of the Sewers Board, which issued precepts on both the Brighton Town Council and the Hove Commissioners, to construct outfalls if such were found to be necessary, and that the local authority of the Hove district could not, under the Sewers Board Act of 1870, be called upon to carry out the work. Evidence having been taken as to the state of the old sewers at the time of the completion of the intercepting sewers, Mr. Finlay, Q.C., replied on behalf of the Sewers Board, and the Court rose. The Judge will give his decision on the questions of law on November 21st, and in the event of his deciding against the Hove Commissioners, evidence will then be taken as to the work necessary to be carried out.

### IMPORTANT TO MEDICAL OFFICERS.

#### GRUBB v. THE CHESTERTON BOARD OF GUARDIANS.

AT the Cambridge County Court on the 27th ult. the Judge, Mr. Bagshawe, Q.C., gave his judgment in the above case. The plaintiff, Mr. J. S. Grubb, resides at Waterbeach, Cambridgeshire, and is one of the medical officers of the Union, residing at that place. He brought an action against the guardians for the recovery of £3 3s. 6d., being 3s. 6d. for the supply of a truss to a pauper, named Brewer, and £3 for the setting of the leg of a pauper, an old woman named Pearson. As the old woman was a permanent pauper, and the case, in the opinion of the guardians, not an urgent one, the claim was resisted. The leg, it appeared, had been set temporarily by Mr. Bridger, surgeon, Cottenham, and was a case, it was said, for the hospital. His Honour dealt with the larger claim, £3 for treating the woman Pearson for a fractured leg. The pauper held a ticket for permanent relief, and while that ticket was running the woman broke her leg. This was at Cottenham, and the woman was temporarily attended to by Mr. Bridger. On her way in a cart to Landbeach, her home, they met Dr. Grubb. His Honour was satisfied that the woman was not intercepted on her way to the hospital. Dr. Grubb attended the woman and re-set the leg. He sent in his claim for such attendance, but it was suggested that he could not recover, as he did not get a further order as required. The terms of the existing order being without qualification he took to be sufficient. He relied upon Article 76 of the Consolidated Orders, which stated that upon the exhibition of a ticket such person was entitled to receive relief in sickness. He also quoted Article 206, defining the duties of medical officers, amongst which it was stated that upon application made on behalf of the party to whom a ticket was given the medical officer would be bound to supply as if he had received an order from the guardians. In that, there was not a word suggesting that the plaintiff was bound to get any further order. The guardians could not make the woman go to the hospital. It was not the duty of the medical officer to provide extra facilities. Article 177 of the General Consolidated Orders settled the point as to plaintiff's remuneration, namely—£3 for setting the leg. His Honour was at a loss to discover any reason why plaintiff should not be paid and allowed the £3 and costs, the 3s. 6d. being abandoned. Witnesses were allowed.

## MEDICAL NOTES IN PARLIAMENT.

*Treatment of the Sick and Wounded in Egypt.*

On Thursday, 26th ult., Mr. Chaplin gave notice in the House of Commons that on an early day he would "call attention to the condition and treatment of the sick and wounded in Egypt and on the journey home, and the unnecessary sufferings which they have undergone"; and that he would move a resolution.

*Vaccination Questions.*

On Friday, Mr. Hopwood gave notice "To ask the President to the Local Government Board whether he has received further and complete information, through the Foreign Office, from the French Government, on the subject of the infection of fifty-eight soldiers of the 4th Zouave Regiment, to whom it is alleged that syphilis was communicated by vaccination with matter from Arab children."

On Tuesday, in reply to Mr. Taylor, Mr. Dodson stated that he expected the report on the Norwich vaccination inquiry would be printed within a fortnight.

*The Artisans' Dwellings Acts.*

Sir J. McGarel Hogg, in answer to Sir R. Cross, stated on Friday that the Metropolitan Board of Works had given instructions for the preparation of draft schemes under these Acts, with regard to four areas situated in Lambeth, St. George's-in-the-East, Limehouse, and Greenwich respectively. These schemes would come before the Home Secretary for his approval, and if that were obtained they would be submitted to Parliament next session.

*The Army Medical Department in Egypt.*

On Friday, Mr. Childers, in answer to Mr. Fitzpatrick, on behalf of Colonel Milne Home, expressed his regret that Colonel Home, whose gallantry in Egypt was so marked, should have assumed that his medical comrades were guilty of maladministration, instead of asking whether the allegations against some of them would be inquired into. Without admitting the accuracy of the complaints, some of which had been shown to be greatly exaggerated, and others altogether unfounded, he had arranged to defer them to a departmental committee. The Committee was originally appointed in the summer to inquire into the organisation of the Army Hospital Corps, and the reference to it would now be so enlarged as to include all hospital arrangements in the field and on board ship. The right hon. gentleman added that he thought he ought to state, in justice to the medical department, that Sir Garnet Wolseley had greatly praised the medical officers generally in Egypt.

On Monday, in response to an appeal from Mr. Carington, Mr. Childers declined to advise the appointment of a Select Committee or a Royal Commission to deal with this departmental question, for action upon which he was responsible. He was aware of the interests on behalf of which the question was asked, but the committee he had appointed was sufficiently strong to act fairly to all concerned. Surgeon-General Hanbury had not asked for a court of inquiry, but had expressed a wish for the fullest investigation of the complaints made against his officers by certain correspondents. Of course the committee would have the advantage of the evidence of these gentlemen. The right hon. gentleman said he was aware of the pressure which was being used. Strong pressure from different directions had been put upon himself.

On Tuesday, Mr. Gourley asked if there was any foundation for the allegation that the medical service necessary for the proper treatment of the sick and wounded brought home on board Her Majesty's ship *Malabar* was insufficient.—Mr. Childers replied that the committee presided over by Lord Morley would minutely investigate the allegations as to the treatment of the sick and wounded on board the *Malabar* and other ships on which they embarked, and he preferred not to prejudge the committee's report. With regard to the inquiry why what his hon. friend considered an inefficient medical force was sent with the expedition, the whole of that question would come before the committee; but he was bound to say that beyond dispute no military expedition ever left this country with anything like the same proportionate strength of medical officers and attendants. The number of medical officers actually embarked from England, not including India, was 163, besides thirteen who would have left had not the additional drafts been stopped. The numbers of the Army Hospital Corps were eighteen

officers and warrant officers, and 817 non-commissioned officers and men, and in addition twenty-nine nursing sisters were sent by the War Department. Of course, he did not include sisters of mercy or nurses sent by private societies of whom the War Office had no knowledge. After considering the suggestions made to him as to enlarging the committee, he had come to the conclusion that, without in any way qualifying his absolute responsibility in the matter, he might make an addition to the committee. He accordingly asked Sir R. Lloyd Lindsay if he was willing to give the benefit of his assistance. He was happy to say that Sir Robert had consented, and the first meeting of the committee would take place to-morrow (Wednesday).

*Royal Irish Constabulary.*

In answer to Mr. W. Corbet, Mr. Trevelyan said that members of the Royal Irish Constabulary did not pay anything for medical attendance. Complaints were made by the men of the Arklow Division, through the chief inspector, against the medical attendance. Careful inquiry was made by the county inspector, who found the complaints much exaggerated. The removal of the head constable had no connexion with the complaints. Mr. Corbet subsequently gave notice that he will ask the Chief Secretary other questions in reference to the matter.

*Phosphate of Potash.*

Mr. O'Kelly gave notice that he would ask the President of the Board of Trade whether his attention has been called to a pamphlet written by Dr. Robert Galloway of Dublin on the use of phosphate of potash as an antiscorbutic; and if so, whether he will take steps to have its value as a preventive agent properly tested.

*The Murder of Dr. Maclean.*

On Wednesday, Dr. Cameron gave notice that he would ask the Under Secretary of State for Foreign Affairs whether anything definite has yet been done in the way of advancing or securing a settlement of the claim against the Chilean Government for compensation for the murder of Dr. Maclean, the physician to the British Legation, by Chilean soldiery, at Chorillos, in January last.

*Vaccination of Zouaves.*

In answer to the question of Mr. Hopwood, of which notice had been given on Friday (see *supra*), Mr. Dodson said: My answer to the question is that we have not succeeded in obtaining any fresh information upon the subject, and it does not appear that the French Government have any in their possession. With regard to the alleged fact that the disease referred to was communicated by vaccine matter, I am advised that the statement that two children served as vaccinifers for 280 men, and that fifty-eight of these men were operated upon by lymph taken from one single child, is opposed to all experience in vaccination. So far from admitting the fact that this disease was communicated by vaccine matter, I cannot entertain the slightest doubt that such was not the case, more especially as it is expressly mentioned that the children from whom the lymph was said to have been taken were in excellent health.

*The Medical Acts.*

Sir T. Lawrence asked the Vice President of the Council whether it was his intention to introduce a Bill to carry out the recommendations of the Royal Commission on the Medical Acts; and if so, when. Mr. Mundella said the report of the Medical Commission was at present under consideration, but the department had not arrived at such a stage in their deliberations as to enable him to state what course they proposed to pursue.

*The Contagious Diseases Acts in Cairo.*

Mr. Pease asked the Under Secretary of State for Foreign Affairs, whether his attention had been called to the following paragraph in the *Daily News*:—"The first attempt of the Council of Public Health, composed of Europeans and traders, to introduce the Contagious Diseases Act into Cairo is already a great success."—Sir C. Dilke said the Foreign Office had no information whatever upon the subject. They had heard nothing of it, and they were unaware of the existence of a body called the Council of Public Health.

*The War Office Committee.*

Mr. Fort asked the Secretary of State for War whether, seeing that Sir W. Meade holds the office of Director of Transports, Mr. Thomas Crawford that of Director-General



the Army Medical Department, and Mr. George Lawson, of Assistant Director of Supplies and Transports, and thus all officially connected with the Departments which alleged to have failed in properly carrying out their duties during the late war, it would not be more satisfactory if they were as witnesses before, rather than as members of a committee appointed to inquire into matters so intimately connected with their own departments; and whether he is aware that there is a feeling abroad that before a committee is constituted subordinate officers of the Transport and Medical Departments would be unlikely to give the requisite evidence.—Mr. Childers said the main object of the committee was to improve the arrangements of the transport service. No one was more fitted to take part in that work than Dr. Crawford, who had recently returned from India, and the other gentleman named. As to the last part of the question, he could not conceive that any such feeling could exist, inasmuch as the subordinates of the different departments would naturally look to their chiefs to secure them from play when any attacks were made upon them. Mr. H. Smith asked if there were really any charges of failure against either of the departments. Mr. Childers said charges against the transport and medical departments had been made in the newspapers, but he did not attach much importance to them.

## Medical News.

**ROYAL COLLEGE OF PHYSICIANS OF LONDON.**—The following gentlemen were admitted Members of the college on Oct. 26th:—

Benham, Frederick Lucas, M.D. Lond., Notting-hill.  
Edwardes, Edward Joshua, M.B. Lond., York-street.  
Oliver, Thomas, M.D. Glas., Newcastle-on-Tyne.  
Oxley, Alfred Jas. Rice, M.B. Dub., Junior Oxfr. and Camb. Club.

On the same day the following gentlemen were admitted Licentiates of the College:—

Abrath, Gustav Adolph, M.C. Heidelberg, Sunderland.  
Adkins, George, London Hospital.  
Beattie, Henry, jun., Albert square.  
Birch, Henry Priestley, Harley-street.  
Birt, Cecil, Wadale, Sheffield.  
Bollen, Frederick James, South Australia.  
Crick, William Throne, Fentiman-road.  
Dale, Walter Frederick, London Hospital.  
Déqué, Laurent, St. Mary's Hospital.  
Dixon, Henry Charles, Portincale-road.  
Dun, Walter Angus, M.D. Miami, Queen-street, Cheapside.  
Howard, Robert Jared Bliss, M.D. McGill Coll., Guildford-street.  
Hull, Walter, Swallow-place.  
John, David, Swansea.  
Khan, Mohamed Ismail, Montague-place.  
Massey, Henry Massey, Peckham-road.  
Myles, James Percival, St. Mathias Vicarage, Bristol.  
Pantley, John Emanuel, Green-street.  
Penn, John Evans, Cumberland-terrace.  
Powell, John James, jun., Heathlands, Weybridge.  
Robinson, Frederick Gardner, Pendleton, Manchester.  
Sinclair, John, Queen Adelaide's Dispensary, Bethnal-green.  
Skipper, Edward, University College Hospital.  
Stead, Geoffrey, Birmingham.  
Thane, Philip Thornton, Montague-street.  
Tripp, Charles Llewellyn Howard, Royal Free Hospital.  
Williams, Edward Richard, St. Bartholomew's Hospital.  
Wise, Charles Henry, Westminster Hospital.  
Wohnitz, Ferdinand Broër Mathieu, Albert-street.

The following gentlemen passed the Second Examination for the Licence:—

Beatty, Joseph Bensley Higginson.  
Birch, Charles Ormond.  
Croese, Hammond William Rufus Richardson.  
Power, Henry D'Arcy.  
Uppley, John George, Richmond-road.

**ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.**—At the October meeting of the Examiners the following gentlemen passed the Primary Examination for the Double Qualification:—

L. M. Dunlop, M.A., Glasgow. | John Mackie, Aberdeen.

Four candidates were remitted.

The following gentlemen passed the Final Examination, and were admitted Licentiates of both Colleges:—

F. V. Adams, Glasgow. | Sheridan Dean, Glasgow.

Four candidates were remitted.

**FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.**—At the October meeting of the Examiners the

following gentlemen passed the First Professional Examination of the Faculty:—

L. P. Banks, London Hospital.	G. G. Jones, University Coll.
A. C. Boothman, Glasgow School.	J. Mason, Glasgow School.
G. Hunter, Glasgow School.	W. Somerville, Glasgow School.
D. Jamison, Belfast.	A. A. Pulton, Glasgow School.

Ten candidates were remitted.

The following gentlemen passed the Final Examination, and were admitted Licentiates:—

J. H. Blayney, Manchester.	A. M'Anland, Glasgow.
A. Dickson, Glasgow.	A. L. Macphail, Glasgow.
W. Dunlop, Glasgow.	John Mathie, Glasgow.
L. Eminson, Messingham.	A. D. Naismith, M.D., Toronto.
W. Gibb, Glasgow.	N. N. Parakh, Bombay.
G. Hunter, Glasgow.	James Wilson, Glasgow.
E. Kauffmann, Michigan, U.S.	

Twelve candidates were remitted.

**ROYAL UNIVERSITY OF IRELAND.**—The following obtained Honours at the autumn examinations in the Faculty of Medicine:—

M.D. DEGREE EXAMINATION.—First Class Honours: Chas. H. Wise.  
Second Class Honours: J. M'Murray, F. E. Adams.  
M.B. DEGREE EXAMINATION.—Upper Pass Division: John Riordan.  
SECOND EXAMINATION IN MEDICINE (EXHIBITIONS).—First Class, £40:  
Benjamin Hoferd. Second Class, £20: Thomas Grainger, John Kearney, R. B. Gorsuch. First Class Honours: James Chambers, Benjamin Hoferd. Second Class Honours: Thomas Grainger, John Kearney, R. B. Gorsuch, James Norwood.  
FIRST EXAMINATION IN MEDICINE (EXHIBITIONS).—Second Class, £15:  
T. R. Leonard. First Class Honours: J. W. Wilson, T. D. Smyth.  
Second Class Honours: T. R. Leonard, W. B. M'Quitty.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Oct. 26th:—

Bassett-Smith, Percy William, Alexandra-road.  
Willey, Alex. Gascoigne, Dunbar House, Southsea.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Alfred Kirby, Middlesex Hospital; H. Anderson Sheppard, Charing-cross Hospital; Walter Reginald Tuckett, London Hospital.

**THE LATE DR. YEATES.**—The monumental tombstone provided by public subscription in memory of the late Dr. Yeates, who died at Walthamstow in February last, has been placed over his grave.

**OWENS COLLEGE.**—The Dauntsey Entrance Scholarship, value £100, has been divided between Nathan Charles Haring and Charles Frederick Marshall, who were bracketed equal.

**THE BISHOP of Liverpool** preached the annual sermon in aid of the Derbyshire General Infirmary, at All Saints Church, Derby, on the 26th ult. The Mayor and members of the Town Council attended the service. The collection amounted to £208.

**CAMBRIDGE UNIVERSITY.**—At a congregation held on the 27th ult., Mr. G. E. Wherry, of Downing College, was approved as a University teacher of Practical Surgery. The report, dated October 16th, 1882, of the Council of the Senate, recommending that a sum of £300 be placed at the disposal of the Board of Biological and Geological Studies for the purpose of providing additional teaching for the classes in Morphology during the current academical year, has been confirmed.

**DONCASTER INFIRMARY.**—The report read at the annual meeting of governors and friends of this hospital held last week stated that the number of in-patients was 159, and of out patients, 2348. The annual subscriptions had not decreased, but this branch of income was becoming a source of anxiety. The total receipts for the year were £1721 9s. 8d., being £147 12s. 9d. more than last year. The total ordinary expenditure was £1561 17s. 11d. The balance due to the treasurer was £47 1s. 10d. The Infirmary Sunday collections had yielded £209 5s. 6d., and the Saturday collections £236 7s. 9d., compared with £214 18s. 1d. in 1881.

**DR. E. H. BYRNE, OF DUBLIN.**—The Dublin South City Dispensary Committee, at a meeting held on October 24th, passed the following resolution in reference to this gentleman, who is about to go to Australia:—"That the South City Dispensary Committee, having received the resignation of Dr. E. H. Byrne as medical officer of High-street Dispensary, beg to express their high sense of the manner in which he has discharged his duties, and their high opinion of his professional services, and the great kindness and attention he has given to the poor under his charge; and they wish him every success in future, and much regret the loss of his service."

## BOOKS ETC. RECEIVED.

- ASSELIN ET CIE, Paris.  
Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris. Tome XVII. pp. 387-180.
- BAILLIÈRE, J. B., ET FILS, Paris.  
Nouveau Dictionnaire de Médecine et Chirurgie Pratiques. Tome trente-troisième.  
Les Hystériques. Par le Dr. Legrand Du Saulle. pp. 625.  
Leçons Cliniques sur les Maladies Mentales, et sur les Maladies Nerveuses, professées à la Salpêtrière. Par le Dr. Auguste Voisin. pp. 770, avec Photographies, Planches, Lithographies, et Figures.
- BAILLIÈRE, TINDALL, & COX, London.  
Poltzer's Text-book of the Diseases of the Ear and Adjacent Organs. Translated and Edited by J. P. Cassells, M.D., M.R.C.S. pp. 800, with 257 Original Illustrations.  
Whooping-cough, its Pathology and Treatment. The Fothergillian Prize Essay. By Thos. M. Dolan, F.R.C.S. Ed. pp. 108.  
A Guide to the Examinations of the Apothecaries' Society of London. By W. E. Dawson, L.S.A. Lond. pp. 68.  
Stable Management and the Prevention of Disease among Horses in India. By J. J. Meyrick, F.R.C.V.S. pp. 91.  
An Essay on the Breeding and Management of Draught Horses. By R. S. Reynolds, M.R.C.V.S. pp. 104.
- BELL & BRADFUTE, Edinburgh.  
Medical Diagnosis: a Manual of Clinical Methods. By J. Graham Brown, M.D. pp. 331.
- CHURCHILL, J. & A., London.  
Regional Surgery, including Surgical Diagnosis. A Manual for the Use of Students. Part I.: The Head and Neck. By F. A. Southam, M.A., M.B. Oxon, F.R.C.S. Eng. pp. 329.  
Diet for the Sick. By J. James Ridge, M.D. Second Edition. pp. 54.  
The Contagiousness of Pulmonary Consumption and its Antiseptic Treatment. By J. Burney Yeo, M.D. pp. 124.  
Some Practical Observations on Vaccination. By W. H. W. Wilkinson, L.R.C.P. Lond. pp. 40.  
A Supplementary Catalogue of the Pathological Museum of St. George's Hospital. By Isambard Owen, M.D. pp. 284.  
The Chamberlains and the Midwifery Forceps. By J. H. Aveling, M.D., F.R.S. pp. 231.  
Elements of Dental Materia Medica and Therapeutics, with Pharmacopœia. By James Stocken, L.D.S. Eng.; assisted by Thos. Gaddes, L.D.S. Eng. & Edin. Third Edition. pp. 400.
- CORNISH, J. E., Manchester. SMITH, ELDER, & Co., London.  
The Frog: an Introduction to Anatomy and Histology. (The Owens College Course of Elementary Biology. Part I.) By A. M. Marshall, M.D., D.Sc., &c.
- CUSHINGS & BAILEY, Baltimore.  
The Physician Himself, and what he should add to his Scientific Acquirements. By D. W. Cathell, M.D. Second Edition, carefully Revised. pp. 208.
- GRIFFIN (CHARLES) & Co., London.  
The Teeth, and how to Preserve them and Prevent their Decay. By S. H. Linn, M.D., D.D.S. pp. 74, with Plates and Diagrams.
- GRIFFITH & FARRAN, London.  
Ambulance Lectures. By L. A. Weatherly, M.D. pp. 87, illustrated.
- HIRSCHWALD, A., Berlin.  
Die Electricität in ihrer Anwendung auf Practische Medicin. Von Dr. Moritz Meyer. pp. 632.
- JANSEN, MCCLURG, & Co., Chicago.  
Essentials of Vaccination. By W. A. Hardaway, M.D. pp. 146.
- JOHNSTON, W. & A. K., Edinburgh.  
The Botanical Atlas. By D. McAlpine, F.G.S. Part VII.
- LONGMANS, GREEN, & Co., London.  
Memoir of Augustus De Morgan. By his Wife, Sophia Elizabeth De Morgan. With Selections from his Letters. pp. 422.  
A Dictionary of Medicine, including General Pathology, General Therapeutics, Hygiene, and the Diseases Peculiar to Women and Children. By various Writers. Edited by Richard Quain, M.D., F.R.S. pp. 1816, with Illustrations.  
The Pathology, Diagnosis, and Treatment of the Diseases of Women. By Strully Hewitt, M.D. Lond., F.R.C.P. Fourth Edition, Revised, Enlarged, and in great part Rewritten. pp. 906, with numerous Illustrations.
- LONGMANS & Co., J. MURRAY, MACMILLAN & Co., SIMPKIN, MARSHALL, & Co., TRAUBNER & Co., E. STANFORD, J. D. POTTER, KRIGAN PAUL & Co., London; A. & C. BLACK, and DOUGLAS & FOULIS, Edinburgh; A. THOM & Co., and HODGES, FIGGIS, & Co., Dublin.  
Report on the Scientific Results of the Voyage of H.M.S. Challenger during 1873-76, under the Command of Captain Nares and Thomson. Prepared under the superintendence of Sir C. Wyville Thomson, F.R.S. Vol. V.: Zoology.
- MASSON, G., Paris.  
L'Étude et les Progrès de l'Hygiène en France de 1878 à 1892. Par MM. Napias et A. J. Martin. Avec une Préface par M. le Prof. Brouardel. pp. 545, avec 229 Figures.
- PUTNAM'S SONS, New York.  
Cerebral Hyperæmia, does it exist? By C. F. Bulkley, M.D. pp. 122.

SMITH, ELDER, &amp; Co., London.

- First Aid to the Injured. Five Ambulance Lectures by Dr. Esamarch. Translated from the German by H.R.H. From Christian. pp. 100, illustrated.  
A Treatise on the Science and Practice of Midwifery. By Playfair, M.D., F.R.C.P. In 2 Volumes. Fourth Edition. pp. 405-418, illustrated.  
A Treatise on the Theory and Practice of Medicine. By John Syer Bristowe, M.D. Lond., F.R.S. Fourth Edition. pp. 111, with Illustrations.  
Human Morphology; a Treatise on Practical and Applied Anatomy. By H. A. Reeves, F.R.C.S. Ed. Vol. I.: The Limbs and Perineum. pp. 719, with 564 Illustrations.

WASHINGTON GOVERNMENT PRINTING OFFICE.

Index-Catalogue of the Library of the Surgeon-General of the United States Army. Authors and Subjects. Vol. II. Cholera-anin-Dzondl. pp. 1020.

MACLEHOSE, J., &amp; SONS, Glasgow.

Lectures on Medical Nursing, delivered in the Royal Infirmary, Glasgow. By J. Wallace Anderson, M.D. pp. 274.

Transactions of the American Otological Society.—Index Nefm. Vol. IV., No. 3.—Thomas's Operation (Laparo-elytrotony); by R. Beckwith, M.D.—Infectionskrankheiten in Japan; von Dr. Eva Baelz.—Stricture of the Rectum treated by Electrolysis; by R. Newman, M.D.—Annual Report of the Public Garden at Plantations of Jamaica; by D. Morris, M.A., F.G.S., Director.—Proceedings of the Society for Psychical Research.—The Incidence of Phthisis; by C. Denison, A.M., M.D.—Health Lecture to the People, No. IX.—Journal of the Scottish Meteorological Society.—What to do in Accidents and Sudden Illnesses; by Philip Farr, M.D.—Ekinokokygdommen belyst ved Islandske Jægers Erkjendelse.—On Preventive Medicine in relation to the General Practitioner; by J. Wilkie Burman, M.D. Edin.—Eighteenth Annual Report of the Society for the Suppression of Vice.—A Handbook of General Treatment for Gonorrhœa; by C. J. Hancock, M.R.C.S., L.R.C.P., &c. (Part. Bath.)—Longman's Magazine, No. 1.—The Growth of Children; by Geo. W. Peckham.—Akklimatisations begrebet i det Forhold til Feber; af P. K. Kalmær, Landphiscus for St. Croix.—Dr. J. Chapman's System of Neuro-dynamic Medicine; by Dr. R. Kinnear.—Influence of Light on the Development of Bacteria; J. Jameson, M.D.—Alcoholic Anæsthesia; by Dr. L. D. Hume.—Archives Italiennes de Biologie, tome 2.—Die Tuberculose in der Anatomischen Ausbreitung; von Prof. H. Heiberg.—The Nervous (with Diagrams); by A. H. P. Leaf, M.D.—Tubercular Tumours of the Windpipe &c.; by J. N. Mackenzie, M.D.—Baptist Paper, Girl's Own Paper, Leisure Hour, Sunday at Home, N.-Knowledge, October.—Employment of Calcium Sulphide in the Treatment of Inflammatory and Suppurative Aural Disease; by S. Sexton.—The Search after Truth; by Dr. W. V. Dwyer.—Good Words, Sunday Magazine, Nov.—Index Medicus, Vol. IV., No. 1.

## Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday morning at the latest.

- ALLEN, Mr. ALFRED H., has been reappointed Public Analyst for the Borough of Wakefield.  
ALLKIN, WILLIAM JOHN, L.R.C.P. Ed., M.R.C.S., has been appointed Medical Officer of Health for the Audenshaw Urban Sanitary District, Lancashire, vice Slater, resigned.  
BEITH, ROBERT, M.B., has been appointed Resident Assistant Medical Officer to the Western Infirmary, Glasgow.  
CARDEN, JOHN CONDEL, L.R.C.P., L.R.C.S. Ed., has been appointed Medical Officer and Public Vaccinator to the Minethorpe Workhouse and District, vice Royle, M.D., resigned.  
COVENEY, JAMES HENRY, M.R.C.S., L.S.A. Lond., has been reappointed Medical Officer of Health for the Preston Urban Sanitary District, Lancashire.  
CROSS, F. RICHARDSON, M.B. Lond., F.R.C.S., has been appointed Surgeon to the Bristol Eye Hospital, vice Dr. Bartley, deceased.  
DUNLOP, H. MELVILLE, M.B., C.M., has been appointed Resident Physician to the Sick Children's Hospital, Edinburgh, vice John Keith, M.B., C.M., resigned.  
GETTINGS, JOHN SALTER, L.R.C.S. Ed., L.S.A. Lond., has been appointed Medical Officer to the Ogley Hay District of the Lichfield Union, vice D. E. Flinn, resigned.  
GOFF, JOHN, M.B., has been appointed Resident Assistant Surgical Officer to the Western Infirmary, Glasgow.  
HARDIE, JAMES, M.D., L.R.C.S. Ed., has been appointed Honorary Surgeon to the Manchester Royal Infirmary, vice Lord, resigned.  
HILL, ALFRED BOSTOCK, M.D. Glas., L.R.C.P. Ed., has been reappointed Public Analyst for the Borough of Royal Canning Spa.  
HORSLEY, Mr. JOHN, has been reappointed Public Analyst for the City of Hereford.  
MACLEHOSE, N. M., M.B., has been appointed Resident Assistant Surgical Officer to the Western Infirmary, Glasgow.  
MARSHALL, JOHN N., M.B., has been appointed Resident Assistant Medical Officer to the Western Infirmary, Glasgow.  
MASTER, GEORGE R., M.R.C.S., has been appointed Surgeon in the Jenny Lind Infirmary for Sick Children, Norwich, vice C. Fink, resigned.  
PATULLO, WM., M.B., has been appointed Resident Assistant Medical Officer to the Western Infirmary, Glasgow.

VS, GEORGE STEELE, M.B., C.M., M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer and Public Vaccinator to the Ableham and Withcombe Districts of St. Thomas's Union.

PS, EDWARD ENGLAND, L.R.C.P.Ed., M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the Rochford Rural Sanitary District, Essex.

LS, SCUDAMORE KYDLEY, M.D.Durb., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Madley Sub-district of the Dore Rural Sanitary District, Herefordshire, vice Mrs. resigned.

VS, A. M. M.B., has been appointed Resident Assistant Medical Officer to Western Infirmary, Glasgow.

VS, JAMES MAYNE, L.R.C.P.Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Ivybridge Urban Sanitary District, Devonshire.

VS, EDWIN ELSWORTH, L.R.C.P.Ed., M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the Thornton Urban Sanitary District, Yorkshire.

VS, CHARLES WM., M.R.C.S., L.S.A.Lond., &c., has been appointed Medical Officer for the Tynemouth District.

VS, ARTHUR CHARLES, M.R.C.S., L.R.C.P.Ed., & L.M., has been appointed Registrar to the West of England Eye Infirmary, Exeter.

VS, HEYWOOD, M.A. M.D., Physician to the Hospital for Women and to the British Lying-in Hospital, has been appointed Consulting Physician to the St. John's House Maternity Home.

VS, JAMES, M.B., C.M.Ed., has been appointed Medical Officer to the Fourth District of the Wortley Union.

VS, R. S., has been appointed Resident Assistant Surgical Officer to the Western Infirmary, Glasgow.

VS, ERNEST OPFORD, L.R.C.P., L.R.C.S.Ed., has been appointed Assistant Medical Officer and Dispenser at the Infirmary of the Jlford Union.

VS, L. M.D., M.R.C.S., has been appointed Assistant Demonstrator in Anatomy in Trinity Medical College, Toronto.

VS, INSON, Mr. OSWALD, has been reappointed Public Analyst for the Borough of Stockport.

VS, A. J. M.B., has been appointed Resident Assistant Surgical Officer to the Western Infirmary, Glasgow.

VS, WILLIAM HENRY, M.K.Q.P.I., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Alvaaton and Boulton Urban Sanitary District, Derbyshire, vice Ashby, whose appointment has expired.

## Births, Marriages, and Deaths.

### BIRTHS.

VS.—On the 26th ult., at Accrington, the wife of Henry Byles, M.B.Edin., of a son.

VS.—On the 27th ult., at Richmond-road, Barnsbury, N., the wife of Gilbert T. Smith, M.R.C.S., L.S.A.Lond., of a son.

VS.—On the 28th ult., at Victoria-park-road, the wife of Dr. S. Welch, of a son.

### MARRIAGES.

VS.—TEEL—BABINGTON.—On the 16th ult., by licence, at the Parish Church, Northam, Marcus Henry Teel, L.R.C.P.L., M.R.C.S., of Buckingham House, Stonehouse, Devon, eldest son of Christopher Teel, F.R.C.S., to Ellen Grace, second daughter of Lieut.-General J. H. M. Babington, Madras Staff Corps, of Conybeare, Northam, North Devon.

VS.—(D)SIDE—MCNICOLL.—On the 26th ult., at the Parish Church, St. Helens, Lancashire, by the Rev. Henry Siddall, M.A., Vicar of Ashton-in-Mackerfield, Arthur Handyside, Surgeon, of Earlestown, to Emily, second daughter of Robert McNicoll, M.R.C.S., of St. Helens.

VS.—(F)RRINGTON—JERVIS—WHITE—JERVIS.—On the 24th ult., at Felixstowe, by the Rev. H. Hetherington, Vicar of West Braddenham, Norfolk, George Haynes, L.R.C.P.Lond., M.R.C.S.E., L.S.A.Lond., eldest son of G. Hetherington, Esq., of Uxbridge, to Lucy Frances, second daughter of the late Colonel Henry Jervis-White-Jervis, R.A., of Felixstowe.

VS.—(F)AIR—MACDONALD.—On the 26th ult., at Christ Church, Cloughton, Birkenhead, by the Rev. W. H. F. Robson, Vicar, Hon. Canon of Peterborough Cathedral, David Thomas Playfair, M.B., C.M.Edin., &c., of Bromley, Kent, to Catherine (Katie), third daughter of James Macdonald, Esq., of Ennerdale Lodge, Birkenhead-park.

VS.—(L)RIGE—KEATING.—On the 26th ult., at St. John's, Bathwick, Bath, Herbert E. R. Wolrige, M.R.C.S. & L.R.C.P., of East Knoyle, Wilts, son of the late James Wolrige, Esq., of Southsea, to Annie Louisa, daughter of Lieut. Colonel A. Keating, Retired List Madras Army.

VS.—(L)NG—DAVY.—On the 24th ult., at Christchurch, Crouch-end, London, N., by the Rev. C. Edmonstone, Vicar, James Vance Young, M.D., M.Ch., L.S.A.Lond., only son of Robert Young, Esq., of Salter's House, Magherafelt, Co. Londonderry, to Mary Louisa (Marie), second daughter of the late Henry Davy, Esq., of Hornsey-lane, N., and formerly of Port Louis, Mauritius.

### DEATHS.

VS.—(L)UGHTON.—On the 14th ult., at his residence at Ambleside, Francis Broughton, Esq., F.R.C.S., late of H.M. Medical Service, Bombay, aged 62.

VS.—(L)MOUCHEL.—On Sept. 26th, at St. Benoit, Quebec, the Hon. Dr. Dumouchel, aged 72.

VS.—(L)CHENER.—On the 19th ult., at King-street, Bath, suddenly, Thomas Kitchener, M.D., aged 50.

VS.—(L)NELL.—On the 28th ult., at Merchiston-avenue, Edinburgh, Richard Parnell, M.D., F.R.S.E., in his 73rd year.

VS.—(L)ID.—At Newbiggin-by-the-Sea, John Campbell Reid, M.D. Glas., aged 67.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Nov. 2nd, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia. in Vacuo.	Max. Temp. in Shade.	Min. Temp.	Rain Fall.	Remarks at 8.30 A.M.
Oct. 27	29.41	E.	47	46	..	53	41	16	Raining
" 28	29.41	N.E.	49	48	..	50	45	47	Raining
" 29	29.84	W.	47	44	..	52	40	22	Hazy
" 30	29.92	W.	47	45	..	54	35	..	Overcast
" 31	30.01	W.	45	44	..	57	40	..	Hazy
Nov. 1	29.74	S.	58	51	..	59	47	..	Overcast
" 2	29.84	W.	52	50	..	60	45	..	Cloudy

## Medical Diary for the ensuing Week.

### Monday, Nov. 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. General Meeting.—Mr. Edmund Owen, "On Two Cases of Congenital Cystic Hygroma" (living specimen).—Mr. Sampson Gamgee (of Birmingham), "On the Treatment of Wounds and Fractures."

### Tuesday, Nov. 7.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2 P.M.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. The following specimens will be shown:—Traumatic Hematoma of Vertebral Column; Meningocele Simulating Nasal Polypus; Dissminated Sarcoma; Xanthoma Tuberosum (with microscopical specimens); Pigmentation of the Cervix Uteri; Double Hydrosalpinx; Renal Calculus in a Child; Lung with Impacted Foreign Body; Ulceration of Vermiform Appendix in Typhoid Fever; Sarcoma of Bladder and Prostate.

### Wednesday, Nov. 8.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

HUNTERIAN SOCIETY.—7.30 P.M. Council Meeting.—8 P.M. Dr. Stephen Mackenzie: 1. "On a Case of Hemianopsia with Hemiplegia;" 2. "On Paroxysmal Hemaglobinuria."—Dr. Coxwell, "On Demonstration of Reflexes in a Case of Hemiplegia."

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. T. B. Rossiter, "On Observations on Stephanosceres."—Dr. Maddox, "On some Organisms found in the Excrement of the Goat and the Goose."

### Thursday, Nov. 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

### Friday, Nov. 10.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—Mr. Golding Bird, "On a Case of Removal of the Uterus for Fibroid Disease" (specimen shown).—Mr. Clutton, "On a Case of Spina Bifida."—Mr. C. Heath, "On a Case of Separation of the Epiphysis of the Clavicle by Muscular Action."—Dr. Goodhart, "On Six Cases of Diptheria treated by the Local Application of Borax or Boracic Acid."—Mr. Golding Bird will exhibit a Case of Transpatellar Excision of the Knee.

### Saturday, Nov. 11.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

## TO SUBSCRIBERS.

IN order that no encroachment may be made on the usual contents of our number by the publication this week of Dr. Richardson's elaborate Report on the Sanitary Condition of Brighton, we have increased the size of our current issue to the extent of sixty-four columns. THE LANCET of the present week therefore consists of 112 pages.

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

## "TETANUS FOLLOWING VACCINATION."

DR. H. J. BERKELEY records in the *Maryland Medical Journal* a case headed as above. The patient was a man aged forty, tall, and healthy-looking. Some days after the operation, which was performed about the middle of January last, he exposed himself to severe cold, and the arm became much swollen, and the integument around the scar inflamed. No other lesion could be detected anywhere in the body. On February 7th he noticed a little stiffness of the jaw, and there was slight opisthotonos, accompanied on the following day with profuse perspirations and muscular spasms of the lower extremities. These symptoms increased in severity till the 18th, on the evening of which day death took place, the pulse at noon having been 120, the respiration 44, and the temperature 102°. The treatment throughout was by chloral hydrate and kalium bromide. Constipation was persistent during the entire illness, and was occasionally relieved by an enema. Dr. Berkeley acquits the virus of any share in the fatal result in this case, the "lesions of the peripheral nerves involved in the inflamed tissue probably being the immediate factor."

Dr. Tarleton, G. P., and others.—We strongly disapprove of the circulation of the post-cards referred to.

## "THE DANGERS ATTENDING SHAMPOOING."

To the Editor of THE LANCET.

SIR,—The article in your journal of Saturday last has, I am happy to say, created much comment upon a very important subject. As, however, the inquiries here are both frequent and searching, it has occurred to me that the uninitiated, and especially our foreign patrons, may construe the matter to the disadvantage of this company.

I hope, therefore, you will allow me to state that you correctly describe our arrangements when you say "in one of the most celebrated West-end houses we noted that the pipes from the basins all led on to the roof of an out-house, and there the soapuds and water travelled some four or five yards in the open air before entering the waterspout. A back current could, therefore, only bring in air from the roof, that is, air as pure as any to be had in London."

I may add that the system of water-supply and waste at this establishment is under weekly supervision.

I remain, Sir, your obedient servant,  
Old Bond-street, London, Nov. 1st, 1882.

H. P. TRUEFIT.

\* We have likewise received a communication from Mr. Robert Douglas, of Bond-street, in which he asks us to state that every basin in the gentlemen's room in his establishment delivers into an open courtyard and into the open air; one waste pipe above a trap, and another under what is called a ventilated trap. Thus no sewer-gas or air from the drains can pass up the main waste-pipe and along the tributary pipes leading to the several basins. There is even a more thorough disconnection in the case of the waste from the ladies' basins, for there the main waste-pipe delivers into a large hopper, close to the exterior of the window.—ED. L.

## A LEESMAGHAW GEOLOGIST.

THE death, about three weeks ago, of Mr. Robert Slimon, surgeon, Leesmaghew, has removed one of those self-educated, enthusiastic men of science, who seem in a manner indigenous to Scotland. Mr. Slimon began his working life as a hand-loom weaver in Douglas. From Douglas he removed to Cumnock, where he entered on the trade of a fancy box maker. After spending some time in Cumnock he went to Glasgow, and obtained a situation in a druggist's shop. While serving as a druggist, Mr. Slimon entered the medical classes in the University, and obtained the licence of the Faculty of Physicians and Surgeons. He then left Glasgow for Leesmaghew, where he settled down, and spent a long, busy, and respected life. From his earliest days Mr. Slimon was a close observer of nature. While yet little more than a boy he became interested in the study of geology, and this study he was enabled, after his migration to Leesmaghew, to pursue with much success. His researches, indeed, into the upper silurian system were rewarded by the discovery of the crustaceans in the rocks of this system, a discovery which has made his name celebrated in the annals of geology. His collection of these crustaceans was altogether unique. Sir Roderick Marchison, who was a frequent correspondent of Mr. Slimon's, inspected it with great care and interest, and made special mention of it at the '54 meeting of the British Association in Glasgow. In addition to his silurian crustaceans, Mr. Slimon possessed an extensive palaeontological collection of the flora and fauna of the carboniferous rocks of the parish of Leesmaghew, and this collection he utilised, in some measure, in his "Geological Account of Leesmaghew," a monograph which, while limited as to its scope, is a model of minute and exact research. Mr. Slimon was, many years ago, elected a corresponding member of the Geological Society of London, a distinction in regard to which he manifested a very pardonable measure of gratification, and even pride. At his death, Mr. Slimon had attained the mature age of seventy-four years.

Mr. Chavasse.—Thanks. The reports will be acceptable.

F. A. M.—A month's notice.

## ON THE INTERNAL ADMINISTRATION OF OHRYSOPHANIC ACID IN PSORIASIS.

To the Editor of THE LANCET.

SIR,—Since the publication of Dr. Napier's interesting article on the above subject, which appeared in your columns of May 20th, I have given this drug an extensive trial, and have been remarkably struck with the result.

In the first case in which I tried it the action proved so rapid and effective that I think it worthy of record in connexion with the other cases that have been brought forward. A young, delicate lad, fourteen years of age, came to me with well-marked psoriasis of five years' standing. The abdomen and chest were covered with numerous rings about the size of a florin. The upper and lower extremities were also affected; the patches were here, however, much smaller and less numerous. I ordered him one-fifth of a grain of the acid three times a day in sugar of milk, with directions to take the powders about half an hour after meals. No external application of any kind was given. I saw him the following week. Some of the patches were beginning to fade, whilst a few had actually disappeared. The following week those on the chest had entirely died away; the others were fading quickly, especially those on the belly. At the end of the third week he was practically cured, only a few small spots remaining on the arms and legs. He continued the medicine (one-tenth of a grain) for a month afterwards, and, as I have not seen him since, I conclude there has been no return. The dose (one-fifth of a grain) was not increased throughout. The boy never complained of any nausea or sickness, or any other ill-effects from the use of the drug, so common when larger doses are given.

I have tried it in several other cases with marked benefit, but not with such success as in the case mentioned. I have generally begun with one-fifth of a grain, and have rarely exceeded that amount, having found that where the smaller dose failed to do good a larger dose was equally ineffectual. I have also noted the fact that the disease is more amenable to treatment when occurring in strumous cachectic patients than in those of a stronger and healthier constitution.

I am, Sir, yours, &c.,

F. W. CLETON, M.R.C.S. Eng.

Easy-row, Birmingham, Oct. 31st, 1882.

Dr. D. W. Corfield.—The list was published in our last issue.

Mr. Gordon Holmes.—Yes.

## "PERFORATING ULCER OF FOOT AND LOCOMOTOR ATAXY"

To the Editor of THE LANCET.

SIR,—Out of three well-marked cases of locomotor ataxy which I have had considerable opportunities of observing, one had an intractable abscess situated over the outer tarsometatarsal joints of the left foot on the dorsum. This was open for the last two years of the man's life. It certainly could not come under the title of perforating ulcer, but I always connected it with the nerve affection in my own mind.

I am, Sir, yours, &c.,

E. E.

October 30th, 1882.

## HOSPITALISM AND PUERPERAL SEPTICEMIA.

A CORRESPONDENT says that, having practised for some years near a provincial hospital, he has been continually struck with the fact that all people dying during or soon after their confinements have been attended by some one of the surgeons on the staff of the hospital. It is undoubtedly true that hospital surgeons, especially those practising midwifery, need to take special precautions in the way of cleanliness and antisepticism. But is it not hospital surgeons to whom we are mainly indebted for the science of antisepticism and the practice of it? We think there is something partial in the observation of our correspondent; but hospital surgeons who are also obstetric practitioners will not blame us for directing attention to the point raised, and for advising rigid care, cleanliness, and antisepticism.

*James Ross, M.D.*—It is most unreasonable to be required to give receipts without at the same time being paid. There can be no justification of such a system. The facts given prove its unsoundness, and should be forwarded to the higher authorities if the fees are not quickly forthcoming.

*Mr. W. A. Gilligan.*—Dunglison's (Churchill).

## "THE USE OF THE FORCEPS IN MIDWIFERY."

To the Editor of THE LANCET.

SIR,—In reference to the letter of your correspondent, Mr. E. A. Rugg, permit me to make a few remarks in regard to the manner in which that gentleman draws his conclusions as to the necessity of using forceps in labour, and from which, as a standpoint, he would seek to criticise others.

Mr. Rugg asserts that he has used forceps in 12 cases out of "of the last 400" attended by him, and that "half of these cases might have terminated without the use of forceps." He also states that he is "not at all addicted to the use of instruments where they can possibly be avoided." This seems like a contradiction, as stating no condition of labour indicating the use of forceps, he thus acknowledges himself, judged from his own standpoint, "addicted" to "meddlesome midwifery."

In regard to Mr. Rugg's "rule of practice not to wait more than three hours when there is no advance in the second stage of labour," it seems to be a rule more suited to his convenience than that of the patient; and if Mr. Rugg adheres to this rule in his next 400 cases he attends he will use forceps many times when it is neither "necessary nor desirable" so to do. Mr. Rugg ought to know that this is a very unsafe guide in determining how long labour should remain unaided in the second stage, and that many labours prolonged in the second stage may terminate satisfactorily without interference. On the other hand, it would in some cases be injudicious for one experienced in obstetrics and in the use of the forceps to allow the patient to exhaust herself for anything like three hours before delivery.

It is not, however, my intention to discuss the indication for, or the benefits which arise from, the timely use of forceps in the hands of a skillful person, but merely to hint at some of the sources of fallacy which may have prejudiced the use of instruments in Mr. Rugg's estimation, and which his confessedly small experience of them has failed to remove.

I would refer Mr. Rugg to the works of modern writers on the subject of the forceps, the perusal of which, I feel sure, would void his mind of the ancient prejudice, and satisfy him that the most potent arguments of the opponents are founded upon imperfect and limited experience, or cases in which, through delay in its application, the mischief had in all probability already taken place.

As Mr. Rugg takes exception to the forceps proportion of the master of the Rotunda, I would remind him that one is scarcely justified in estimating the necessity for forceps in such an institution by comparison with the statistics of his own cases in private practice, the circumstances being so widely different, as they are even in comparing one practice with another.—I am, Sir, yours truly,

Britannia-terrace, Kensal-road, W.

ISAAC WILLIAMS.

Oct. 23rd, 1882.

*Psychologist.*—There were four generations of Monroes. There is a portrait of Dr. Edward Thomas Monro in the dining-room of the Royal College of Physicians; it was painted by his son, Dr. Henry Monro.

## "TESTIS IN PERINEO."

To the Editor of THE LANCET.

SIR,—I venture to ask for space to record another instance of the above in a child one month old, brought to the out-patient department of this hospital, and seen by Mr. Sansome (an. surgeon) and myself. The mother brought it as "ruptured." The right half of the scrotum seemed longer than the left, was flaccid, and contained no testis. This was felt in the perineum, a little below the junction of the scrotum. It was noticed some days after birth. Mr. Sansome proposed a similar procedure to that suggested in THE LANCET of October 21st—viz., the subcutaneous division of the separating membranes; but the child, like its testis, has wandered, and sought some other course.

I am, Sir, yours truly,

F. F. GRAMAN, House-Surgeon.

The District Hospital, West Bromwich,  
Oct. 27th, 1882.

## PITYRIASIS NIGRA.

DR. PRATT thinks that, after all, the case to which he referred in a note under the heading "A Query" may be one of pityriasis nigra, and directs attention to an instance somewhat similar which occurred in the practice of Mr. Teevan, and was brought under the notice of the Royal Medical and Chirurgical Society in 1845, the report of which appears in THE LANCET of July 10th of that year.

A Collector.—There is a portrait of Dr. Thomas Fuller prefixed to his Pharmacopœia Domestica. He wrote the following lines on a left-handed writing master:—

"Though Nature thee of thy right hand bereft,  
Right well thou writest with the hand that's left."

Mr. Cauty's paper is marked for insertion.

## UNQUALIFIED PRACTICE BY MEDICAL STUDENTS IN GLASGOW.

To the Editor of THE LANCET.

SIR,—In the interest of the community, as well as the medical profession, I should like to draw your attention to a few facts in reference to a system carried on here. Some time ago the trustees of Anderson's College thought that they would increase the popularity of their medical school if they were to give outside practice to their students. With this no one could find fault if confined within certain limits, but it has become otherwise, and has become a serious hurt to the people, as well as to the general medical practitioner. It seems anyone leaving name and address at their dispensary may have out-door attendance. Hundreds who are quite able to pay both for attendance and medicine take advantage of this. This of itself is not the worst feature of the practice, but that young men just commencing to study (youths who have not passed their first professional examination) should be sent out to visit and to undertake the treatment of the most delicate and serious ailments, is not altogether free from danger, and confers a doubtful benefit upon the unfortunate sufferers. The most grievous part of this practice, however, is that some of these young men open up drug shops and visit for the dispensary, and in the district in which they illegally set up their shop induce people to go there for medicine as well as for advice, and, under the pretence of doing work for the dispensary, advertise themselves (verbally) as doctors, and thus obtain profit for their labour. Is this not allowing quackery in its very worst form, as the people are under the belief that they are having the gratuitous advice and attendance of bona fide medical men?—I am, Sir, yours respectfully,

October 23rd, 1882.

GLASGOW.

*Surgeon.*—The election of Fellows into the Council of the College of Surgeons is vested entirely in the Fellows. Members have no share in it. There are, according to the last published Calendar of the College, 1184 Fellows and 16,003 Members of the College, making a total of 17,279 Fellows and Members.

*Mr. F. W. Strugnell* will find the correction made on page 734 in our last issue.

## CASE SIMULATING HARE-LIP.

To the Editor of THE LANCET.

SIR,—The following case may be deemed of sufficient interest for insertion in your pages.

Being called to see C. H.—, ten months old, on August 5th, about 12.30 P.M., I found a severe cut on the upper lip, extending through the septum of the nose right through the lip. This accident occurred as follows:—The foot of an iron bedstead went through the flooring of the bedroom and upset some ornaments that were on the mantelpiece close by. On examination I found that the wound was quite through, and sloping rather to the left side, and that she could take the breast very well. The wound was put together by means of two silver sutures, and adhesive plaster was applied to give it a better support. One suture, nearest to the nose, was removed on the tenth day; the other was left till the fifteenth day, when it was removed, and has left hardly a mark to be seen.

The points of interest in this case are—(1) there was very little hemorrhage, (2) the child could suck all along, and (3) the rapid recovery.

I am, Sir, yours, &c.,

W. E. WILLIAMS.

Daylan, Oct. 1882.

M.R.C.S.—Such shabbiness we should hope is not common. There may, however, be some reason for it, which time will explain.

D. H. R.—No card enclosed.

## "INUNCTION IN SCARLATINA."

To the Editor of THE LANCET.

SIR,—"Cutis" asks for information regarding this very valuable mode of treatment by inunction in scarlatina. Since Dr. Taylor's paper, in THE LANCET of 1849, many have used inunction with marked satisfaction to themselves and patients, and, so far as I ever heard, with no injury to the kidneys of the latter. If "Cutis" refers to me he will find the information he seeks regarding hamamells.

I am, Sir, yours, &c.,

MEDICAL DIGEST (Section 80: 4 & 361.1).

Boundary-road, N., Oct. 30th, 1882.



## THE POSTAL MICROSCOPICAL SOCIETY.

WE understand this society is still in existence. The secretary is Alfred Allen, Esq., Bath.

**Bibliopole.**—The surgical writings of John of Ardena are scarce and valuable. There is one in manuscript in the British Museum; there was also one in the library of Dr. Mead, and there is one which belonged to Queen Mary, afterwards in the library of Mr. Towers, of Essex. When Mr. South was President of the College of Surgeons he had one translated for the library, where it may be seen on applying to Mr. Chatto, the librarian.

**T. M.**—The studentships in Human and Comparative Anatomy have long since been abolished at the College of Surgeons, no election having taken place since 1855.

## "HAMAMELIS VIRGINICA."

To the Editor of THE LANCET.

SIR,—I cannot give your correspondent, "C.," any information regarding the tincture of hamamelis, not having used it; but I can speak most highly of hazeline, the active principle of the witch hazel. I have prescribed hazeline as an injection (twice daily) in several cases of hemorrhoids with most satisfactory results, relieving cases that had resisted all other treatment. It does not cause pain; on the contrary, relieves all unpleasant symptoms.

Hazeline was highly recommended two years ago for cases of hæmorrhoids, epistaxis, melæna, &c.; but administered internally it has disappointed me in such cases. As a local application I have never known it fail, and I consider it invaluable as such in the treatment of indolent and varicose ulcers, &c. Injected into the nostrils in that common complaint, "cold in the head," it gives immediate relief.

While the correspondence on the "abortive treatment of gonorrhœa" was being carried on in THE LANCET I had opportunity of using hazeline as an injection in a case of "old gleet," and was agreeably surprised to find that, after a few injections, my patient was cured. I also had the opportunity of using it in the early stage of gonorrhœa, and with good result; and I believe that if any of your readers who may have more opportunity should give the drug a fair trial they will not be disappointed with the "abortive treatment of hazeline" when using hazeline as an injection. A glass syringe should be used; metals decompose hazeline. I am, Sir, yours truly,

Chesterfield, Oct. 30th, 1882.

W. S. SYMES.

**A Provincial F.R.C.S.**—The number of Fellows of the Royal College of Surgeons whose addresses are known, residing in London and within a radius of ten miles from the General Post-office, is about 440. Upwards of eighty Fellows appear in the College Calendar with no address to their names.

**Theta.**—In the absence of any expressed wish of the patient to the contrary, the case should be handed over to the ordinary medical adviser.

## REMOVAL OF HAIR FROM THE FACE.

To the Editor of THE LANCET.

SIR,—Can you or any of your readers help me under the following circumstances? One of my patients has a large tuft of thick hair occupying a prominent position upon the face, and which it is very desirable to get rid of permanently. Depilatories have been had recourse to without affording any satisfaction, and latterly epilation has been tried, with no better result. The individual hairs are extracted easily enough, but as their bulbs cannot be induced to accompany them, a fresh capillary crop takes the place of the one just reaped.

Any treatment that has acted well in a similar case, or one that theoretically holds out a prospect of doing so, will be heartily welcomed by

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October 24th, 1882.

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Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

## HYSTERIA.

To the Editor of THE LANCET.

SIR,—Can you or any correspondent kindly inform me of any charitable institution where the "Weir Mitchell" treatment of hysteria is carried out? A small payment might perhaps be arranged for.—Yours truly,  
October 30th, 1882.

E. W. JOLLYE.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir William MacCormac, London; Mr. Lawson Tait, Birmingham; Mr. Roger Williams, London; Mr. Collyer; Dr. Hughes Bennett, London; Dr. J. A. Campbell, Garlands; Mrs. Gothard; Messrs. Nichols and Co., London; Mr. Chavasse, Birmingham; Mr. Harris, Norwood; Mr. German, West Bromwich; Dr. Pratt, Appleford; Mr. Laurent, Bedford; Dr. Collier, London; Mr. Reese, London; Mr. B. Shillitee, London; Mr. Briscoe, London; Mr. M'Mann, London; Mr. Berry, Wigan; Mr. Christopher Heath, London; Mr. Crombie, Brighton; Mr. Rochfort, Chesterfield; Mr. Williams, Portsmouth; Dr. Sinclair Thomson; Mr. Savory, London; Dr. Caddy, London; Mr. Barrand, London; Mr. W. E. Lloyd, Bristol; Dr. Hudson, Leeds; Mr. Beacom, Esker; Dr. Eastwood, Darlington; Messrs. Waugh and Co., London; Mr. Bennett, Liverpool; Messrs. Ure and Co., Toronto; Mr. Hall, Blackpool; Mr. L. Bullock, London; Mr. Brown, Westgate-on-Sea; Mr. Bullivant, Derby; Dr. Creery, Dinapore; Dr. Corfield, London; Mr. Shaw, Ayr; Mr. Clarke, Aberfeldy; Mr. Woodcock, Bradford; Dr. Schmitz, Neuenahr; Mr. Clifton, Birmingham; Dr. S. G. Barnes, Eyr; Dr. Corfield, London; Mr. Symes, Chesterfield; Mr. Cameron, Stroud; Mr. R. Douglas; Mr. Harding, Leeds; Mr. Jalland, York; Dr. Maxwell; Dr. Leonard Sedgwick; Mr. Reginald Harrison, Liverpool; Dr. Hutton, Hartshill; Dr. Eshelby, Frocester-court; Mr. Bain, Dundee; Mr. Hosker, Bournemouth; Mr. Turlington; Mr. Roberts, London; Mr. Shuttleworth, San Remo; Mr. Truman, Nottingham; Mr. Nutra, London; Asinus; Fornix; M.D.; Septicæmia; M.R.C.S.; M.D., Carlisle; Medicus B.; M., Urbridge; P. D., Oldham; W.; &c. &c.

LETTERS, each with enclosure, are also acknowledged from—Mr. Lake, Plymouth; Mr. Kirkpatrick, Woodbridge; Mr. Quinton, Norwich; Mr. Hay, St. Helens; Mr. Crompton, Bury; Messrs. Beal and Co., Brighton; Mr. Eariam, Abbott Bromley; Mr. Eschwaga, London; Mr. Noakes, Exeter; Mr. Hyatt, Shepton Mallet; Mr. Young, Bray; Mr. Whitford, London; Mr. Coates, Southsea; Mr. Hetherington, Ipswich; Mr. M'Dougal, Dorsey; Dr. Roberts, Sheffield; Mr. Hicks, Hendon; Messrs. Bell and Co.; Mr. Cottle, Preston; Mrs. Carter, Bristol; Dr. Coombs, Castle Cary; Mr. Darke, London; Mr. White, Bayswater; Mr. Millican, Warwick; Mr. Frampton, Weston-super-Mare; Mr. Phillips, Seale; Mr. Lake, Gravesend; Mr. White, Bayswater; Dr. Dobell, London; Mr. Sarkle; Mr. Simpson, Dungannon; Mr. Garrod, Mexborough; Mr. Harrison, Sherburn; Mr. Heyworth, Rawtenshaw; Messrs. Keith and Co., Edinburgh; Dr. Low, Norwich; Mr. Woodland, London; Miss Armitage, Nottingham; Mr. Roberts, Alfreton; T. K.; E. J., Tring; F. B. F., Dunstable; H. H.; G. V. D.; Medicus, Dublin; H. B., Nottingham; Lancet, Chesterfield; J. H. R., Whitehaven; Physician, Holborn; Beta, Manchester; S., Arlo; T., Oldham; J. G.; J. M. J.; Tenax, Liverpool; D., Blackwater; A. B., Walton; Miss H., Southport; Dispenser, London; C. B. A.; Lex, Manchester; Superintendent, Seaford; Surgeon, Bury St. Edmunds; Mentone, London; A. B., South Bank; S. W.; Medicus, Bowles; &c. &c.

Croydon Advertiser, Sussex Daily News, Sunderland Herald, Cambridge Chronicle, Dean Forest Guardian, Westmorland Gazette, East Anglian Daily Times, South-Western Star, Temperance Record, &c., have been received.

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ABSTRACT OF A

Clinical Lecture

ON

HEMORRHAGE INTO THE CAVITY OF THE ARACHNOID:

ITS SURGICAL AND MEDICO-LEGAL ASPECTS.

*Delivered at the Middlesex Hospital on Jan. 17th, 1882,*

By HENRY MORRIS, M.A., F.R.C.S.,

SURGEON TO, AND LECTURER ON SURGERY AT, THE HOSPITAL.

THE subject of hæmorrhage into the inter-arachnoid space has been one of the battle-fields of pathologists. The source of the blood is generally difficult to trace. It has been thought at one time to proceed from one of the vessels of the dura mater, at another from the pia mater; or, again, from one of the small veins which cross between the brain and the large venous sinuses of the dura mater. Probably it rarely comes from a vessel of the dura mater, because blood from such a source, whether the skull be fractured or not, is far more likely to separate the dura mater from the bone and escape into the space between. When the brain is lacerated and the visceral arachnoid torn, the blood found in the inter-arachnoid space is pretty sure to have come from the pia mater. Such cases are comparatively common. But if there be no fracture of the skull, no injury to the dura mater, no tear in the visceral arachnoid, and no bruising or laceration of the brain, it is impossible to say whence the effused blood is derived.

Then as to the state of the effused blood. It may be liquid or solid. If solid, it may be coagulated in clots, or in a thin membranous layer covering more or less of the convexity of the cerebrum. If in the form of a membrane, it may become a bond of union between the visceral and parietal arachnoid; or it may be adherent to the arachnoid covering the dura mater, but free on its under surface; or it may be quite non-adherent on both its aspects. In either the fluid or the solid state, if it retain all or nearly all the natural colour of the blood, and if it have none of the characters of false membrane or of a cyst, there is no room to doubt as to its nature. But when in the inter-arachnoid space there have been found layers looking like false membrane with more or less altered blood in them; or when these layers have consisted of yellowish fibrine only, with or without effusions of recent blood, in the form of small cysts, between them; or, again, when, as in some extravasations of old date, the mass has assumed the appearance of a single complete cyst containing blood, and has perhaps fallen out entire from its position,—much questioning has arisen. In all such cases, the question has been whether the cyst-like membrane has been formed from the extravasated blood itself; whether the blood causes the false membrane by inflammation, and thus an exudation of lymph surrounds the extravasation; or whether a vascular false membrane yields the blood by bleeding.<sup>1</sup>

The blood may become so firmly attached to the arachnoid surface of the dura mater as to appear like a thickening of that membrane. Or it may be so closely fixed to it by a smooth and glistening serous-like covering as to look as if the blood were effused between the dura mater and the parietal arachnoid; but such can be proved not to be the case by peeling off this false membrane, and thus exposing the parietal arachnoid, roughened and discoloured it may be, but still adherent to the dura mater.

Ample evidence has been produced by the French pathologists, and by Sir George Burrows, Mr. Prescott Hewett, and Dr. Wilks in this country, that all these various appearances result from extravasation of blood between the layers of the arachnoid.

But besides their great interest to the pathologist, these interarachnoid effusions are of much importance to the practical surgeon. They have been met with after blows and falls upon the head, sometimes associated with fracture of

the skull, sometimes with brain bruising, sometimes with both, at other times with neither. They give rise to no symptoms which are pathognomonic, or which even suggest, with any definiteness, their presence. The symptoms as coma and paralysis, which they excite, may be delayed for an indefinite period, and are liable to intermissions dependent upon recurrence of hæmorrhage, or in old cases upon the more or less rapid absorption and effusion of the cyst fluid. Even when immediate symptoms of compression occur, neither the nature of the accident nor the character of the injury to the head affords any clue whatever to the exact locality of the blood. Nor does the apparent slowness of the hurt, or the entire absence of symptoms, exclude the probability of meningeal apoplexy; neither is there any evidence to show that the evil consequences of these extravasations are hastened or delayed by the observance or otherwise of absolute rest, regulated diet, and medicinal treatment, after the accident which has caused the hæmorrhage. This is much to be regretted; for although in many cases surgical interference would be useless, yet in others could we with certainty tell the exact situation of the effused blood, the well-timed employment of the trephine might make all the difference between restoring the patient to health on the one hand, and of early death from compression, or prolonged years of constant headache, impaired senses, altered disposition, epilepsy, and even insanity, on the other.

To the surgeon, moreover, these inter-arachnoid effusions have a very important medico-legal bearing, for he may be called upon to express an opinion as to whether the hæmorrhage is the result of violence or not; and the life of an accused person may largely depend upon the surgical evidence. Now, as it is with regard to the source of the hæmorrhage and the condition of the extravasated blood, so is it with regard to the cause of the hæmorrhage. There are cases in which there is scarcely room for doubt, but there are others in which opposite opinions might plausibly be advanced. Extravasations of blood in the arachnoid occur from injury, but, as Mr. Prescott Hewett has said, they "are generally met with in cases where there has been a decided determination of blood to the head by whatever cause produced. I have met with them in cases where there has been great anxiety of mind, in poisoning of opium, in drunkards, in delirium accompanying phthisis, in maniacal patients, and in aged people, in whom I think these effusions depend oftentimes upon the atheromatous deposit in the arteries of the brain and its membranes."<sup>2</sup>

In the Guy's Hospital Reports for 1859<sup>3</sup> Dr. Wilks has reported in abstract eight cases of sanguineous meningeal effusion (apoplexy), in some of which the extravasation into the arachnoid cavity was certainly spontaneous, the result of Bright's disease or anæmia, in others as certainly due to a blow; whilst in others the cause was dubious, because, though violence had preceded death, there was such a diseased condition as might of itself have given rise to the hæmorrhage.

In dubious cases two questions may be raised in defence of a person accused of murdering the subject of an inter-arachnoid hæmorrhage. 1st. Was not the hæmorrhage the result of a diseased state of the blood or tissues of the deceased, or of over-excitement? 2nd. If disease or excitement was not the immediate cause of the hæmorrhage, was it not a strong predisposing cause, and would the same amount of violence have excited fatal hæmorrhage in a perfectly healthy person?

No question of the sort arose in the case I now am going to relate, because the scalp wound was caused by a fall, but had it resulted from a blow or from something thrown at the deceased, with intent to injure him, one or both of these questions would have been put to the surgeon. And like so many other questions, it would have been much easier to put than to safely answer them.

CASE 1. *Scalp Wound, Delirium Tremens, Extravasation of Blood into the Arachnoid Cavity; Death.*—James J—, aged thirty-one, was admitted into Brodrip Ward on 14th of December, 1881. He had been spending a fortnight in dissipation at Brighton, during which he was more or less drunk (generally more) every day. On the morning of December 14th he arrived in London, staggered along Oxford-street to Regent's-circus, where he fell heavily, striking the back of his head against the kerb. He was

<sup>1</sup> Vide Prescott Hewett, *Med. Chir. Trans.*, vol. xxviii., p. 67; and Wilks and Moxon, *Pathological Anatomy*, p. 197. No. 3089.

<sup>2</sup> Prescott Hewett, *Med. Chir. Trans.*, vol. xxviii., pp. 80, 81.

<sup>3</sup> Series III., vol. v., pp. 120, et seq.

picked up in a half-conscious state, taken to the police-station, and subsequently brought to the Middlesex Hospital. On admission, he was in a very muddled state of mind, and smelt strongly of drink. There was a small scalp wound, slightly to the left of the occipital protuberance; it did not extend to the periosteum. His pupils were regular and acting; his respiration and pulse natural; there was no symptom of any fracture of the skull. The stupidity of manner which was attributed to alcohol passed off after several hours, and for the next three days he lay quietly, perhaps drowsily, in bed. All this time he remained quite sensible, answered questions readily and intelligently, though in a rather subdued voice, and gave a very clear, though a most discreditable, account of his recent proceedings. He looked pale, took very little of the milk and beef-tea diet to which he was limited, and complained of frontal headache and double vision. On the morning of December 17th, he was sick, complained of having passed a very restless night, and appeared to be on the verge of delirium tremens. Later on the same day the symptoms of delirium tremens became marked, and he was removed to the delirium ward. The urine voided this day was examined, and found free of albumen. He was treated as all cases of delirium tremens under me are—viz., no opium was given, no undue or irritating restraint allowed, but enemata of two ounces and a half of strong beef-tea, with half an egg, were to be administered every three or four hours if he refused to take sufficient by the mouth. For fifty-eight hours he continued delirious, talking a good deal and having illusions. His other symptoms were subsultus tendinum, small and very compressible pulse, a moist, furred tongue, and clammy skin. He was very tractable, and neither violent nor noisy. At the end of fifty-eight hours he slept soundly and for a long time. On the morning of December 22nd he was brought back into the general ward, and seemed quite well, though weak. So he continued, and on Christmas-day he went to the church service; but he complained of feeling rather drowsy, and of having pain in the back, for which a liniment was ordered by the house-surgeon. During the night the nurse noticed how restless he was. After a time, however, he fell asleep, and in the morning (Dec. 26th) it was impossible to wake him, and he was found to have passed his urine in the bed. At 10 A.M., when seen by the house-surgeon, he was lying in a comatose state, with unequal pupils, the right being widely dilated and the left very much contracted; neither pupil responded to light, and the conjunctivæ were insensible. The pulse was 100, very small, and jerky. The skin was acting freely. There was slight twitching of both upper limbs; but it was very slight, and if more marked on one side than the other it was on the left. There was neither hemiplegia, paraplegia, nor facial palsy. At 1.30 P.M. he was in the same condition; the urine had all been passed into the bed, but two ounces of highly coloured urine were drawn off by the catheter, and was found to be nearly solid on boiling. The pulse was 100, and very small; temperature 101° 6'. There was no oedema around the scalp wound, but a little purulent discharge from it. Firm pressure about the wound produced no symptom. At 7 P.M. one-eighth of a grain of pilocarpin was given by hypodermic injection, and in less than half an hour the patient was perspiring profusely. At 8.30 P.M. five grains of calomel were given in butter placed at the back of the tongue. He sweated freely all night, and the bowels acted several times, and abundantly. On the following morning (Dec. 17th) he was better; he answered when spoken to, and he could swallow beef-tea and milk. The pupils were unequal, as before, but the conjunctivæ were sensitive; there was less stertor, but otherwise the respiration and the pulse were the same. The temperature kept above 100° F. The urine was still very highly charged with albumen. The hot-air bath was employed at 1 P.M., and at 2.30 P.M. half a drachm of compound jalap powder was taken by the mouth. During the following day (Dec. 28th) and the early part of the day after (Dec. 29th) his general condition was about the same, but the quantity of albumen had diminished, and was now about half. Later on the breathing became more stertorous again; he could neither speak nor swallow; the pupils were still inactive and unequal, the right being dilated and the left contracted. At 9 P.M. the temperature shot up to 104° 2' F., and at 3.10 A.M. the following day (Dec. 30th) he died.

*Autopsy.*—The post-mortem examination was made by Dr. Fowler twelve hours after death. The following is an abstract of his report:—The body was well nourished. There was considerable post-mortem congestion. To the left side of

the occipital protuberance there was a wound dividing the integuments, but not laying bare the bone. The wound was oblique in direction, one and three-quarters of an inch in length, and slightly irregular. The tissues around the wound were infiltrated with a little blood for about an inch in each direction. The tissue of the ventricles of the heart was pale but firm, but there was a considerable quantity of sub-pericardial fat. The mitral valve was thickened and fibrous at the edges, but competent. The aortic valves were competent; there were some spots of atheroma just above the attachment of the valves. The lungs were emphysematous, and there was a good deal of hypostatic congestion. The liver was moderately congested, and spleen was normal. The kidneys were large, and the capsules in places adherent; beyond swelling of the cortex, possibly from slight infiltration, there was no evidence of disease. The ureters were normal and the bladder healthy. On removing the calvaria, which was thick and very dense, no fracture could be found, nor was there any fracture of the base. The right half of the dura mater covering the convexity of the brain appeared somewhat distended. On reflecting this half of the dura mater blood-clot was found spread out beneath it. The clot was most abundant over the frontal bone and in the anterior fossa, but there was also a considerable quantity beneath the parietal eminence and over the occipital convolutions. The ascending frontal and the parietal convolutions were depressed and flattened. The blood was of a mahogany tint, the coagula were soft and adherent to the under-surface of the arachnoid covering of the dura mater. The source of the hæmorrhage could not be ascertained, but probably it was from a vessel behind the upper end of the right ascending parietal convolution. The dura mater separated easily from the bone. There was a small clot on the left side, immediately beneath the wound, which had compressed the occipital convolution over an area the size of a shilling. There was a small amount of extravasation within the meshes of the pia mater over the left half of the cerebrum. The venous sinuses contained some black clots. The arteries of the base were normal. The substance of the brain appeared normal, except that the depressed convolutions were pale. The left lateral ventricle was considerably dilated, the posterior horn reached three-quarters of an inch further backwards than the right ventricle.<sup>4</sup> There was no blood below the tentorium. The cerebellum was normal.

In this case the scalp wound was not accompanied by a fracture of the skull, nor by lesion of the brain substance, nor was the effusion of blood most extreme beneath the seat of the wound, or the supposed source of the bleeding on the diametrically opposite point to the scalp wound, as might be expected if caused by counter-stroke. Moreover, the man was a drunkard, and had just previously to the injury undergone a prolonged debauch, whilst a few days subsequently he had suffered from an attack of delirium tremens. Then followed two or three days of apparent convalescence. These points might have furnished a strong case in favour of the theory that the injury had nothing to do with the cause of death, and that the extravasation occurred either before the injury, as the result of the congestion of drunkenness and excitement, or after it as the immediate effect of delirium tremens. Nor would the character of the blood-clots have disproved any of these suppositions. Their colour and consistence corresponded, doubtless, with the date of the injury—viz., sixteen days before death; but the changes in effused blood vary with the locality and with many other conditions, and are neither so regular nor so accurately known as to justify anyone in asserting that the age of the clots could not have been eighteen, twenty, or even twenty-five days on the one hand, or ten or twelve days only on the other. The late Dr. Taylor exposed the fallacy and danger of relying too much on the state of the blood as a means of ascertaining the length of time it has been effused. Two men were tried at Derby in 1859 for manslaughter. Within fourteen days after the assault the injured man was convalescent, but in four weeks more he was dead. The prisoner's counsel asked the witness—"I can produce evidence to show that deceased fell down some steps into a cellar, upon his head, three weeks before his death. Do you not think it more likely that death was the result of this fall rather than of the beating three weeks prior to the fall?" The surgeon at once said

<sup>4</sup> Possibly in this condition we have the explanation of the contracted left pupil, the distortion of the ventricle by traction keeping up irritation of the third nerve. The dilatation of the right pupil was doubtless due to pressure by the blood-clot, which flattened the cerebral hemisphere.

"Certainly not; there could not have been the effusion of lymph I describe after an accident in so short a space of time as three weeks." As Dr. Taylor remarks, reasons justifying such a strong opinion were not forthcoming, and he goes on to prove by another case that there was nothing in the description of the clot in question to show that the effusion had taken place more than three weeks before death.<sup>5</sup> This and other cases quoted by Dr. Taylor warn us how unwise it is to dogmatise on this subject. But, it might be urged in opposition, there was no Bright's disease, no anemia, no disease of the vessels of the brain or its membranes, in this man; and, though there was no fracture of the skull and no bruising of the brain, there was a little blood effused beneath the seat of the scalp wound, and the most extensive effusion was in the situation where it would be looked for if caused by contre-coup. Moreover, it might be added, there was frontal headache and double vision. Such points should, of course, be allowed their proper weight, for they are of considerable significance in making up one's mind as to the more probable cause of death. But they do not dispose of the facts (1) that blood poisoned by alcohol may produce much the same effects as Bright's disease—e.g., the convulsions of renal disease, and the epileptiform convulsions of intoxication;<sup>6</sup> and (2) that the prolonged toxic effects of alcohol may produce a diseased condition of the brain and its membranes such as will lead to the occurrence of epilepsy, delirium tremens, or hæmorrhage even during the periods of comparative or entire abstinence from drink.

What I have desired to point out by these remarks and by this somewhat extraordinary case is:—1. That spontaneous effusions into the cavity of the arachnoid—i.e., effusions of blood from disease or excitement—are very often not distinguishable from traumatic effusions. 2. That post-mortem examination does not always explain the cause or the source of the effusion, and that the state of the blood-clot is only a very rough test as to the age of the effusion. 3. Extravasation of blood between the dura mater and bone, as also extravasations beneath the visceral arachnoid, accompanied by brain bruising, are almost certainly traumatic, whether fracture co-exists or not. Extravasations into the substance of the brain and into the ventricles are almost certainly spontaneous when no fracture and no brain bruising co-exists, and are probably so even when fracture without bruising of the cerebral surface is found. 4. Spontaneous effusions may occur without there being any naked-eye evidence of disease of the cerebral or meningeal vessels. 5. Spontaneous effusions into the arachnoid cavity from disease or excitement have occurred as early as the twelfth year of life, and at all ages subsequent to puberty. Inter-arachnoid hæmorrhage occurs at any age from violence. 6. In slight injuries to the head, such as small scalp wounds without fracture of the skull, or bruising of the surface of the brain, the surgeon should be extremely cautious in attributing inter-arachnoid extravasation to a blow, and more especially when, as in the above case, the injured person is of intemperate habits.

## RUPTURE OF THE URINARY BLADDER.

By WALTER RIVINGTON, F.R.C.S. ENG.,  
SURGEON TO THE LONDON HOSPITAL.

### PART III.—(Concluded)

#### REPORTED CASES OF RECOVERY AND TREATMENT.

APART from the objections which can be urged against the genuineness of the recorded recoveries after intra-peritoneal rupture of the bladder, there is one circumstance which would quite justify us in setting the cases on one side in considering the question of treatment; and that circumstance is the remarkable fact that if the genuineness of all the eight cases were to be admitted the effect in regard to the selection of the best method of treatment would be thoroughly bewildering. The record would show four cases of recovery after the use of the catheter only; one case of recovery after "washing out the peritoneal cavity" by means of the catheter passed through the rent in the bladder; one case

successfully treated with the aspirator; one case of recovery after lateral lithotomy; and one case of recovery after abdominal section, sponging the urine and blood from the peritoneal cavity, and leaving the rent to itself. The inference would be drawn that one mode of treatment is as good as another, and this "lame and impotent conclusion" would sadly mar the prospect of attaining an effectual means of dealing with a most fatal lesion. Turning, then, to the accounts of the cases which are beyond the reach of doubt, we may affirm that in neither form of rupture—the intra-peritoneal or the extra-peritoneal—can reliance be placed on constitutional and general means of treatment. Leeches, venesection, fomentations, clysters, purgatives, sinapisms, salines, poultices, calomel, opium, morphia, &c., probably affect the ultimate issue as little as the fresh sheepskins applied to the abdomen of the patient whose case is related by Bonetus, and the oxyrhodinum with which the parts were subsequently smeared. Morphia and opium may be very efficacious in relieving suffering, but, uncombined with surgical measures, they have no power to do more than promote the euthanasia. If any hope is to be entertained, it lies in the prompt application of efficient local treatment. The main indications are two—first, the removal, as speedily as possible, of the effused urine, and, secondly, the prevention of the further escape of urine through the rent in the bladder into the connective tissue, or the peritoneal cavity. For these purposes the means at the disposal of the surgeon are catheterism, intermittent or permanent, washing out the peritoneal cavity, and retaining a catheter in the bladder, paracentesis abdominis or simple incision to evacuate the urine, perineal sections, median or lateral, as for stone in the bladder, tapping the recto-vesical cul-de-sac, and abdominal section, combined or not with sewing up of the wound in the bladder, and the establishment of drainage.

1. By the use of the catheter only it is possible to draw off a considerable portion of the urine effused into the peritoneal cavity, if the rent happens to be on the posterior wall of the bladder, but it will not remove all of it; and when the rent is in another part of the viscus it may fail to remove any, whether from the peritoneum or connective tissue. If passed only at frequent intervals, it will not altogether prevent further extravasation, and is liable to disturb the process of repair. Retention of a catheter in the bladder is more efficacious in preventing effusion, but it is not thoroughly reliable, and the patient finding it intolerable, may remove the instrument in the absence of the medical attendant. It is no wonder, then, that as catheterism alone does not fulfil the necessary indications, it should have been "weighed in the balance, and found wanting."

2. *Washing out the peritoneal cavity*, as in Thorp's case it was euphemistically termed, by means of a catheter fitted with an indiarubber bag and stopcock, has been strongly recommended by Mr. Heath on the basis of its supposed success in the hands of Dr. Thorp, and the failure of abdominal section in his own and Mr. Willett's cases. I cannot say that I entertain any well-grounded hope that it will prove efficacious in removing the extravasated urine, neutralise its evil effects; it appears to me to be a fallacy to suppose that the complicated peritoneal cavity can be washed out as a simple circumscribed cavity like the bladder can be washed out through a catheter alone. For effectual washing out an opening should be established into the peritoneum above the pubes, whereby the danger of merely driving the urine further amongst the intestinal coils would be obviated. A solution of thymol would be better than warm water for this purpose. Certainly such a case as Dr. Thorp's should not lead the surgeon astray from the employment of more active measures when he is at liberty to act as his judgment directs.

3. *Tapping the recto-vesical cul-de-sac* was suggested by Dr. Harrison as a means of treating intra-peritoneal rupture under the mistaken impression that the urine frequently collects and is confined in that pouch, and that a dependent opening into the rectum would efficiently drain the peritoneal cavity. I agree with Mr. Spence that the procedure would be uncertain and often dangerous.

4. *Paracentesis abdominis* has been performed twice in intra-peritoneal ruptures (cases of Bonetus and Cusack). A cutting instrument is to be preferred to a trocar and cannula. This operation is not likely to prove sufficiently efficacious by itself, but it might be practised for the confirmation of a doubtful diagnosis, as a preliminary to abdominal section, or as a substitute for it when a more effectual procedure was

<sup>5</sup> Taylor, A. S., *Medical Jurisprudence*, 1865, p. 530.

<sup>6</sup> Vide Dr. Robertson's evidence in a recent trial for murder at Glasgow.

forbidden. In extra-peritoneal ruptures incisions must be made freely wherever urine can be evacuated.

5. The operations of *median and lateral lithotomy or cystotomy* are of unequal value. The median operation consists merely of urethrotomy and dilatation of the prostatic urethra, and, as the sphincter soon regains its retentive power, can scarcely be effectual, either for the removal of urine already in the peritoneal cavity, or for subsequent drainage. For exploration it would be simple, safe, and valuable, and in cases complicated by stricture the best method of preliminary procedure. (Compare cases of Arnott, Clark, Dickinson and Holmes, Earle, Quain, Reginald Harrison, and Robert F. Weir.) In *lateral cystotomy*, on the other hand, the knife would be able to cut freely into the prostate and reach the neck of the bladder, which would be slow to regain its retentive power. This constitutes the great recommendation of the lateral operation, and no other measure appears to equal it for efficiency in this important direction. By itself it could scarcely have much effect in removing urine already effused into the abdominal cavity, and for this purpose some supplementary procedure would be necessary. It is also difficult to understand how the operation could be effectual for the removal of urine which had already escaped into the pelvic fascia through an extra-peritoneal rent, but probably it might answer the purpose for extra-peritoneal ruptures immediately behind the prostate, if the operator had the boldness to carry his incision through the gland and its capsule. In a case of intra-peritoneal rupture Mr. Partridge cut into the bladder and found it empty. The procedure has been strongly advocated by Dr. Stephen Smith and Dr. John A. Liddell<sup>2</sup> in America, and by Mr. Bryant in England.

6. *Abdominal section and sewing up the rent in the bladder* were discussed by Benjamin Bell and warmly advocated by Dr. Blundell,<sup>3</sup> who made experiments on rabbits to determine the value of his suggestion. In 1851 Dr. Gross proposed abdominal section for the removal of the effused urine, and more recently Mr. Holmes has written in favour of the procedure combined with suture of the bladder. Mr. Willett<sup>4</sup> and Mr. Heath<sup>5</sup> have put this method in practice without saving the patients. The causes of failure are not far to seek. In Mr. Willett's case there was a delay of twenty-four hours, the incision was five or six inches in length from the umbilicus to the pubes, the intestines were much exposed, and the suture was proved at the post-mortem to have been defective. In Mr. Heath's case the interval before the operation was unavoidably longer than in Mr. Willett's case; some clotted blood was left in the pelvis and the catgut suture gave way. The incision, however, was only two inches long. But though Mr. Heath's patient died, the advantage of abdominal section is strikingly demonstrated by the great relief afforded to the patient. My second patient, who was treated only by the intermittent use of the catheter and opium, lived six days; but how remarkable the contrast between his suffering restless state, with incessant vomiting, and the condition of Mr. Heath's patient, almost free from pain, entirely free from sickness, passing quiet nights and days, and dozing with limbs outstretched. Abdominal section has not yet been fully and fairly tried. A series of twenty or thirty cases may be needed before the value of the method can be determined. Much will depend on points of detail, the promptitude of application, the age and condition of the patient, and severity of the injury, the more or less complete removal of urine and blood from the peritoneal cavity, the length of incision, the treatment of the wound in the bladder, washing out the peritoneum, and the establishment of drainage. It is unnecessary to insist on the earliest possible formation of a diagnosis and performance of the operation, and a thorough removal of blood and urine from the peritoneal cavity. Few will dispute the less severity of an incision two or three inches long compared with one of twice the length. Experience alone can determine whether the wound in the bladder should be sewn up or not. If we could unreservedly trust to the genuineness of Dr. Walter's case, the rent might be left to take care of itself, and we might find some justification for this in the frequently jagged and contused edges of the aperture, which render primary union unlikely to occur. Dr.

Vincent,<sup>6</sup> in a brochure for which I am indebted to Mr. Heath, has recently advocated cystorraphy by a combination of two kinds of suture termed the sero-muscular and serous suture respectively. In his experiments on dogs he found that abdominal section and cystorraphy were uniformly successful when practised within eight and a half hours, but constantly failed through urinary intoxication when performed twenty-four or twenty-five hours after the bladder was wounded. He attributes the failure of Mr. Willett's and Mr. Heath's cases to the length of time which elapsed before the operation, and to the ineffectual character of the suture. He deprecates founding any canon for treatment on Dr. Thorp's case. Mr. Heath is convinced of the inutility and harmfulness of a drainage-tube passed through the abdominal wound into the pelvis, but he seems to regret that he did not pass a tube through the recto vesical pouch of peritoneum and the wall of the rectum, bringing it out of the anus. I feel very strongly that this would be a dangerous procedure, and that the risk of gas getting into the peritoneal cavity would far outweigh any advantage arising from the dependent opening. If another opening be needed, and I am inclined to think that it is, the most efficient means of securing free exit of urine and giving perfect rest to the bladder would be to combine lateral lithotomy or cystotomy with abdominal section, performing the abdominal section first with antiseptic precautions, sewing up the rent in the bladder, if it ought to be sewn up, and afterwards making the perineal opening. Doubtless the combined procedure may appear severe, but an intra-peritoneal rent in the bladder is a desperate injury requiring to be met not by desperate but by thoroughly effectual measures, directed first to the removal of urine already extravasated, and, secondly, to the prevention of further escape. Surgery will achieve no unimportant triumph if occasional recoveries can be ensured by improved methods of treatment.

#### CLINICAL OBSERVATIONS ON

### THE TREATMENT OF ENLARGED TONSILS.

By GORDON HOLMES, M.D.

1. *Excision*.—That excision is the most fitting remedy for enlarged tonsils is a proposition from which few authorities or none would now be found to dissent. The theory, however, that removal of the tonsils has some adverse effect on the generative system has gained some currency amongst practitioners. Those who practise the throat speciality will scarcely attach any importance to this hypothesis, as they have the opportunity of observing numerous cases of females who have borne large families, although the tonsils were excised in youth.

The condition of the tonsils at the time of operating is a point which deserves attention. As a rule, when the patients first present themselves, the organs are in a state of acute or subacute inflammation, which is the immediate cause of treatment being sought. Under these circumstances, some practitioners are in the habit of operating at once, whilst others wait until the tonsils have regained their ordinary condition of indolent chronic enlargement. In order to decide this question, the arguments to be drawn from clinical observation are rather in favour of delay. It is no doubt well for the patient to be relieved at the soonest from the diseased glands, and the excision, with the attendant hemorrhage, may abridge, or render abortive an attack of quinsy. If, however, the tonsillitis is very acute, the pain of the operation may be excruciating, and it may even be difficult to open the mouth wide enough for the accurate introduction of the instruments. But the most important consideration is that after the inflammation has subsided, and a few weeks have been employed in general tonic and local astringent treatment, the tonsils may return to nearly their natural size. Of course should the history of the case indicate clearly a permanent hypertrophy, we need not hesitate to operate immediately when other circumstances are favourable. It is, indeed, by no means uncommon to see even cases of mild subacute or chronic tonsillitis, in which a considerable swelling undergoes spontaneous involution in

<sup>1</sup> Lectures on Urinary Diseases, p. 321.

<sup>2</sup> See Liddell on Rupture of Abdominal Viscera for some valuable practical remarks, American Medical Journal, April, 1867, p. 358.

<sup>3</sup> Lectures in THE LANCET, 1829.

<sup>4</sup> St. Bartholomew's Hospital Reports, 1876, p. 209.

<sup>5</sup> Medical Chirurgical Transactions, 1879, vol. lxi., p. 335.

<sup>6</sup> Plaies pénétrantes intra-péritonéales de la Vessie. Paris, 1831.



the course of a month or two, according as the general health improves. Such instances are very likely to mislead the practitioner into the belief that a cure has been wrought by the aid of some really impotent local application. It is also interesting to observe that in a series of such attacks, where the subsequent involution is always less and less complete, we can perceive the origin of chronic tonsillar hypertrophy. And most probably there is no other way in which the disease arises, unless in those cases where the enlargement is apparently congenital.

With respect to the method of operating, the tonsillotome has almost superseded the bistoury and tenaculum, owing to the ease and rapidity with which it can be used, and the little suffering it causes the patient. The rare case of a tonsillar calculus alone remains in which the tonsillotome is inapplicable. The instrument known as Physick's is preferred by some, that of Fahnstock by others, the majority; both models being of American invention. Physick's pattern has the advantage of allowing more force to be applied in fixing it firmly on the tonsil, as it is grasped by a stout handle, whilst the convex cutting-blade can also be pressed down with great power by the thumb. Fahnstock's, on the other hand, is an instrument to be employed with dexterity rather than force, as it is manipulated by the thumb and first two fingers only, each of which is accommodated with a separate ring. It is, however, a much surer instrument than Physick's, which often fails to excise the tonsil, even in the hands of the most practised operators. This is mainly due to the aptness of the convex blade, which enters at one point only, to press the tonsil outwards, and glide over or merely lacerate its surface, even when sharpened to perfection. The tonsil is, in fact, often very gummy, and requires to be jammed very firmly against the blade in order to be cut directly through. But the lunated edge of Fahnstock's cutting ring is much less likely to swerve from the straight course, as it begins by being in contact with the whole surface to be incised, whilst the organ is steadied and drawn into the tonsillotome by the transfixing prong.<sup>1</sup> As Fahnstock's instrument is therefore almost certain never to miss the tonsil, it is more under the command of the operator, so that a larger or smaller portion can be removed according to the requirements of the case; whereas in using Physick's, owing to the necessity of fixing it as deeply and firmly as possible over the tonsil, the amount to be taken must mainly be left to chance. For the practitioner who seldom has occasion to excise the tonsils, Fahnstock's is decidedly the model to be recommended. In all cases it is advisable to support the tonsil during the operation from the outside of the neck, either by the hands of an assistant or by grasping the throat in a fork formed by the left thumb and forefinger of the operator.

As regards hæmorrhage after tonsillotomy, it is usually very trifling and ceases spontaneously in a few minutes, or after gurgling with cold water. In rare cases (probably about 1 per cent.) it is troublesome and must be controlled by ice and strong styptics. Considered in this relation the tonsillotome is safer than the bistoury, as the dragging of the tenaculum displaces the parts so that the knife may inadvertently cut deeper than intended by the operator.

2. *Caustics*.—Although excision is the standard remedy, cases are constantly met with in which the patient or his relatives, if a child, steadfastly refuse to permit the performance of the operation. Frequently also it happens that the enlargement is not so pronounced as to render the excision strictly necessary. It is of great importance therefore that we should be in possession of some mild measures, which, aided by time, can effect a reduction of the tonsils. For the purpose astringents (such as strong solutions of perchloride of iron, chloride of zinc, &c.) or caustics are our only resource; but the former, however useful in promoting spontaneous resolution in cases of temporary subacute engorgement, are totally powerless in the face of a true hypertrophy. Hence the only means that can be adopted with any clear prospect of success is to destroy small portions of the tonsils in slow succession by repeated cauterisations carried on for a lengthened period. This object is generally carried out by the application of solid nitrate of silver, chloride of zinc (in the stick), Vienna paste, London paste,<sup>2</sup> or the galvano-caustic to a limited area of the surface of the tonsil every two or three days. Of these remedies the nitrate of silver is very valuable when the

superficial substance of the gland is in a softened and raw state, as it can be rubbed freely over the whole organ, usually without causing any suffering to the patient; but it is of slight avail in reducing the volume of the toughened mass of connective tissue which generally constitutes the bulk of the permanently enlarged tonsil. Nor can it be said that the stronger caustics are much more potent in this way, for they can only be used in this position so as to destroy very minute portions at a time, and hence the progress is mostly so slow and tedious that few patients will persevere until positive results have been attained. If any exception can be made to this statement, it must be in favour of the galvano-caustic<sup>3</sup> (a small loop of wire raised to a white heat by electricity as soon as placed in contact with the surface to be cauterised), for it kills immediately the part touched and leaves a clean ulcer, which soon heals almost unfeeling by the patient. On the other hand, the London paste, &c., often give rise to considerable congestion round the sloughing point, attended with aching and pain on swallowing for many hours.

There is, however, another method, very much more effective, of applying the common caustics to the tonsil, which appears to have remained hitherto unnoticed. The tonsil, as the anatomist knows, is permeated by several rather large channels around which the follicles are collected, opening on the pharyngeal side of the gland, whence its characteristic cribriform aspect. Their orifices, about seven to fifteen in number, are sufficiently evident to be counted on the healthy tonsil *in situ*, whilst in the hypertrophied condition these lacunæ increase greatly in calibre and depth, and can be ascertained by a probe to vary from one-eighth of an inch to half an inch in length, with a diameter capable of admitting a style of ordinary size. These observations, then, afford a valuable indication for treatment: for through these natural canals a way lies open for us to attack the heart of the gland in a most efficacious manner with our caustics. Thin, pointed sticks of nitrate of silver or chloride of zinc can easily be pressed into the lacunæ and worked round for a few seconds. Small sloughs are thus formed which are soon discharged, and in the progress of this treatment the tonsils are hollowed out in one direction whilst being contracted into much smaller bulk by the subsequent cicatrization in another. Two or three channels in each tonsil can be cauterised daily or on alternate days, and we can thus act on a comparatively large surface whilst causing but slight external soreness and little or no suffering to the patient. In practising this method, although the stronger caustics may be used, I do not think it will be necessary to have recourse to anything more potent than nitrate of silver, which acts much more effectually on the more tender internal structures of the tonsil than when applied to the comparatively callous pharyngeal surface.

Finsbury-square, E.C.

## A CASE OF INTRA-ORBITAL ANEURISM

FOLLOWING

FRACTURE OF THE ANTERIOR FOSSA OF THE BASE OF THE SKULL AND MENINGITIS; LIGATURE OF THE COMMON CAROTID SIX DAYS AFTER ACCOUCHEMENT; EXTIRPATION OF EYEBALL; RECOVERY.

By WALTER E. LLOYD, L.R.C.P. ED. & L.F.P.S.G.

CASES of intra-orbital aneurism are of somewhat rare occurrence. Statistics show that the majority of the cases that do recover are those treated by ligature of the common carotid. A case recently reported by Dr. Wolfe of Glasgow, which had been operated on by that devoted surgeon, the late Dr. Foulis, adds another to the list of successful cases treated by this method. Although the case I am about to relate differs somewhat from Dr. Wolfe's, happily the same result was secured. In my case the aneurism was first intra-cranial, and then, progressing gradually through the sphenoidal fissure, became intra-orbital. The history of the case shows it to have been entirely traumatic.

Mary Jane W—, aged twenty-nine, the wife of a journeyman baker, on July 21st, 1881, was driving in a two-

<sup>1</sup> The prongs are sometimes fitted to Physick's model.

<sup>2</sup> Equal parts of powdered unslaked lime and caustic soda made into a paste with water as required (Mackenzie).

<sup>3</sup> Now coming into general use, chiefly owing to the advocacy of Dr. Capart of Brussels.

wheel cart with her husband, delivering bread in the country; while returning home through the village of Long Ashton the horse fell down, and the man, his wife, and a child were all thrown out on to the road; the man and the child were uninjured, but the woman pitched on to the left side of her head. I happened to pass the scene of the accident about five minutes after, and was requested to attend to the injured woman. She had been lifted into the cart and I found her in a semi-conscious condition, bleeding slightly from the nose. I ordered her to be at once removed to her home, and shortly after went there and was able more thoroughly to examine her. I found her in bed lying on her back with symptoms characteristic of concussion. When spoken to loudly she opened her eyes and attempted to answer, but was unable to do so. The bleeding from the nose still continued; there was subconjunctival ecchymosis of both eyes, but most marked on the left side; the pupils were normal and acted when stimulated by light. I ordered her to be kept on milk and beef-tea. I found her to be six months pregnant. The next morning symptoms of meningitis appeared, and by the evening (twenty-four hours after the accident) she was in a state of violent delirium, the assistance of three or four persons being required to keep her on the bed. I ordered the head to be shaved, and an ice-cap applied. The bleeding from the nose had ceased, but the subconjunctival vessels were very much gorged with blood, those of the left side being somewhat more so than the right. The delirium continued for three days, when she gradually recovered consciousness, and from that time she made good progress. I kept her in bed, and after about six weeks it was noticed that the left eyeball was becoming more prominent. She found the sight was going from the left eye, and complained of a loud whirring, "like the noise of a mill," in the left ear, also of deafness on the same side. It became at length evident that these symptoms were due to an intra-orbital aneurism. On applying the stethoscope, a loud bruit was heard over the frontal and left temporal bones, and there was distinct pulsation of the left eyeball, both of which ceased when the left common carotid was compressed.

Now arose the question of treatment, and the complication of her being seven and a half months pregnant was a grave one. In consultation with two of my surgical friends, it was decided that it was best not to attempt an operation until after accouchement, but to keep her in bed, give ten-grain doses of iodide of potassium three times a day, and when the labour came on to deliver her as speedily as possible, so as to avoid the consequences of straining during labour; this was the treatment adopted up to the time of her confinement.

On Oct. 14th I was sent for at 9 A.M., and attended immediately. I found she had been in labour about two hours, the os uteri was dilated as large as a crown, the pains were forcing, and as I found the head did not make speedy progress, I at once applied the long forceps, and delivered her in a few minutes of a remarkably large living male child. The prominence of the eyeball was not affected by the labour.—15th: Doing well, the condition of the eyeball not altered at all.—16th: Doing well as regards the confinement, but complains of great pain in the head, and that the noise is much louder than it has been hitherto; the conjunctiva is much more injected, and the eyeball more prominent. Ordered iodide of potassium and bromide of potassium, ten grains of each, every four hours.—17th: The protuberance of the eyeball much increased, as is the oedema of the conjunctiva. She cannot sleep, the pain and noise in the head are also increased.—18th: All the symptoms are still more aggravated. Pulsation very marked, and the eyeball still more protruding; the sight is now quite gone from this eye.—19th: The prominence of the eyeball still much more increased, and the oedema of the conjunctiva much more marked, projecting one-eighth of an inch beyond the cornea; cannot distinguish light from dark. Says the pain in her head will drive her mad. Pulse weak, about 60; temperature normal; going on well as regards the confinement. I was sent for hurriedly at 8 P.M., as it was thought she was dying. My friend, Mr. W. H. Harsant, surgeon of the Bristol Royal Infirmary, saw her in consultation with me, and we decided that the only chance of saving her life was to ligature the common carotid. She was then very faint; anxious expression of countenance. Pulse hardly perceptible. Ordered brandy, and the following mixture—tincture of opium, ten minims, with compound spirit of ammonia, twenty minims, every four hours. Owing to the extreme deli-

cacy of the operation, and the many difficulties which presented themselves, there being no gaslight and having no assistants, &c., we postponed the operation until the following morning, hoping also that she might be better able to take the chloroform.—20th: Her condition is slightly improved, the pulse being somewhat stronger. Chloroform having been administered by Mr. Harsant, whom I cannot sufficiently thank for his very valuable assistance, I proceeded to ligature the common carotid. Making an incision three inches and a half in length along the anterior border of the sterno-mastoid, and carefully dissecting, I divided the different layers of tissue on a director. There was no special feature in the operation, except that the artery was overlapped by the internal jugular vein, which had to be drawn aside by a retractor, the carotid being found directly underneath it. The needle, being carefully passed from without inwards, was then threaded with a stout carbolised catgut ligature, which having been tied and the ends cut off short, the wound was brought together with six horsehair sutures, and covered with boracic lint. I was most ably assisted by Mr. W. A. Jones and Mr. H. M. Powell, students of the Bristol Medical School. During the progress of the operation there was very slight hæmorrhage, one small vessel having to be secured by torsion. 7 P.M. (four hours after the operation): Frequent vomiting from the chloroform. Ordered ice to suck. Says she feels much better; the pain in the head is much less, and the whirring noise is gone. The oedema is already much less, the pulsation has disappeared, and the bruit cannot be heard. She says that now she can see me quite distinctly.—21st: Has been vomiting during the night. The bruit is slightly audible; there is no pulsation. She says she has been much relieved by the operation, and feels quite different. The wound is looking healthy, but there is some pain at the top of the head (neuralgic). Pulse 80; temperature normal.—22nd: The vomiting has ceased. She still complains of the neuralgic pain. About three drops of pus came from the lower end of the wound when I dressed it to-day, but it is looking healthy. Pulse and temperature normal.—23rd: Mr. Harsant saw the case with me to-day. There is a most marked improvement; the protrusion of the eyeball is rapidly receding, and the fold of the eyelid is seen when the eye is open; the sight is perfect, the oedema of the conjunctiva is much less, and she is able to use the muscles of the eye, and rotate it on any axis. The wound is looking healthy, but, as there is some pus coming from the lower end, I removed the lowest suture, and about a drachm of pus exuded. Otherwise she is doing remarkably well. The bruit is still slightly audible.—24th: The oedema of the conjunctiva very much less. I removed the last three sutures from the wound, which has healed, except at the lower end, from which the pus escapes. Ordered fish diet. She says the whirring noise has almost gone. She was quite deaf on the left side before the operation was performed, but can now hear quite distinctly on that side. The prominence of the eyeball has most markedly decreased. There is now no pulsation, and the bruit is hardly perceptible. The wound completely healed after a few days.

The progress of the case has been somewhat remarkable. At times there has been acute pain in the head, referred to the back of the left eyeball, relief from which could only be obtained by large doses of opium. The sight of the left eye has become gradually destroyed, the crystalline lens has become opaque and the eyeball pushed forward by what appears to be a large organised blood-clot; the bruit is still heard very distinctly, but, whereas before the operation it was heard loudest over the orbit and temporal fossa, it is now heard loudest over the mastoid process and the occiput. The sight of the right eye being threatened by the condition of the left, I determined to extirpate the left eyeball.

July 6th: Mr. Harsant having kindly given chloroform, I extirpated the eyeball. It was with great anxiety that I commenced this operation, fearing that during its progress I might possibly cut into the aneurism and the patient die from hæmorrhage. Happily my fears were not realised; there was hardly any bleeding. After removing the eyeball I passed my finger carefully into the orbit and could feel a firm but somewhat elastic mass at the back. The wound rapidly healed. The patient has been into the country and has returned home in perfect health, and able to perform her domestic duties; she is about to have an artificial eye in the place of the one removed.

I believe this to be the first case reported in which the common carotid artery has been ligatured six days after a

woman's confinement. Although the operation was of so grave and complicated a character the result clearly justified the means, as this woman's life was undoubtedly saved by the operation. In conclusion, I would call attention to the rapid healing of the wound, notwithstanding the fact that the operation was not performed antiseptically.

Bristol.

#### A CASE OF

### EXTREME CYANOSIS IN AN ADULT, PROBABLY OF CONGENITAL ORIGIN.<sup>1</sup>

BY JUDSON S. BURY, M.D., 'B.S. LOND.,

HONORARY ASSISTANT MEDICAL OFFICER TO THE CLINICAL HOSPITAL AND DISPENSARY FOR CHILDREN, MANCHESTER.

MARY F—, aged twenty-one years, was quite well during infancy and childhood, the only ailment she ever had was an abscess in the thigh. Her mother states that she was not a delicate child, was not more easily tired than other children, and did not differ in colour or in any other respect from a healthy child. The blueness set in suddenly about two and a half years since. The patient had "hurried a good deal" and felt pains in the chest and back and a choking sensation, and the woman with whom she worked remarked that "she was as blue as a whimberry." The blueness disappeared the next day but returned in a few weeks, and has since persisted. Menstruation began shortly after the first appearance of the cyanosis. When the patient was between nineteen and twenty years of age she was regular for the first year; then the catamenia stopped for about nine months. They now occur regularly, but are very scanty. There is no family history of rheumatism, and the patient has never had pains in her limbs or other symptoms suggesting a rheumatic diathesis.

*Present condition.*—Patient is of short stature, being about 4 ft. 7 in. Facial expression somewhat dull; skin muddy and dusky; the lips are blackish-blue; the conjunctivæ injected and of a light-claret colour; nose and cheeks purplish; the tongue, inside of the mouth, and throat present a dark-purple, congested appearance; the ends of the fingers and toes are clubbed and livid; extremities cold; no œdema; the urine is high-coloured, deposits urates, and contains a trace of albumen. On inspection of the chest, a distinct bulging is visible; it involves the second, third, and fourth left rib cartilages; there is some tenderness over the sternum. The jugular veins are not distended, but there is distinct pulsation of the carotid arteries. The heart's impulse is diffused and heaving; it is felt in the third, fourth, and fifth spaces, as far out as the anterior border of the left axilla, but is not felt near the sternum, nor is there any epigastric pulsation. The maximum point of the impulse is in the fifth space in the nipple-line; no thrill. The cardiac dullness is much increased, and laterally rather than vertically, extending from about one inch to the right of the sternum to almost the middle of the left axilla; the third rib marks the upper limit of superficial dullness, though the first two spaces are higher pitched than those on the right side; the sixth rib is the lower limit. On auscultation a high-pitched, systolic, whistling murmur is heard at the base, of maximum intensity over the first piece of the sternum; it is well conducted down this bone, being also well heard at the right sterno-clavicular articulation, and faintly in the carotids. A vertical line from the middle of the left clavicle marks its extreme left limit, and the murmur is gradually lost as the stethoscope is moved towards the apex; it is not heard behind; the sounds at the left apex are quite pure. The second sound is accentuated over the pulmonary cartilage, and is louder than at the aortic cartilage. The pulse is regular in rhythm, but not quite regular in force; it is equal on the two sides, and is felt in the femorals and in other arteries.

*Remarks.*—The striking feature of the case is the comparatively sudden onset in an adult of intense and permanent cyanosis, unpreceded by any illness, and found to be associated with extensive heart disease. If the latter were the result of endocarditis entirely acquired after birth, we should expect to have marked signs of engorgement of the general venous system; indeed the absence of dropsy alone points strongly to some congenital malformation of the heart, and also proves

that cyanosis cannot be completely explained by the theory of venous congestion. The bulging of the chest may be taken as an indication that the enlargement of the heart occurred at an early period, when the chest walls are soft and yielding. By far the commonest cause of congenital cyanosis is contraction of the pulmonary artery as a result of foetal endocarditis; the first consequence of this contraction is hypertrophy of the right ventricle, the second a permanent communication between the two sides of the heart; and if stenosis is extreme it may prevent the closure of the ductus arteriosus. Thus there is compensation for the strain on the right ventricle; the venous blood passes into the aorta and is conveyed to the lungs either by enlarged bronchial or other arteries, or by a dilated ductus arteriosus. These safety valves prolong life and diminish or prevent cyanosis. In contraction of the pulmonary artery the duration of life varies directly, the cyanosis probably inversely, with the degree of patency of these foetal passages. It is now indeed well established that the mere intermixture of arterial with venous blood is not sufficient to produce cyanosis, the essential element for this condition being, as Dr. Lewis Smith puts it, the hindrance to "the free and regular flow of blood to, through, or from the lungs." The physical signs in the case before us are somewhat complicated. In pulmonary stenosis we expect indications of hypertrophy and some dilatation of the right ventricle, together with a basic systolic murmur of maximum intensity at the junction of the third left costal cartilage with the sternum, conducted towards the left clavicle and not audible in neck arteries. In the patient the murmur is loudest at the top of the sternum, is conducted to the right as well as to the left, and is heard in the carotids. There is increase of dullness to the left as well as to the right, and there is no epigastric pulsation, but a heaving impulse in the left mammary region. Most of these signs point to disease at the aortic orifice rather than at the pulmonary; but this as a result of foetal endocarditis is very rarely met with, not because (as Rauchfuss points out in Gerhardt's Handbuch) the aorta is less frequently affected with endocarditis than the pulmonary artery in foetal life, but on account of the very short duration of life, only one-eighth of the cases collected by Rauchfuss survived the second week of life, only one case the first month. Dr. Sansom, in a lecture reported in the *Medical Times* for 1870, relates a case of congenital stenosis of the pulmonary artery where the basic murmur had an aortic conduction. Although the aorta after death was found to be quite normal, he thinks that this was due to the coexistence of a hæmic murmur. Dr. Peacock says that the septum of the ventricles being usually defective when there is a considerable contraction of the pulmonary artery, "the aorta derives its supply of blood from both ventricles; and, if so, a systolic murmur may probably be produced by the meeting of the two columns of blood in the ascending aorta, which may modify the signs observed."

In spite, then, of aberrant physical signs, it seems probable that the origin of the pulmonary artery was affected with endocarditis in foetal life, that the effects of its obstruction were compensated for by the persistence of communication between the two sides of the heart, and, perhaps, also by a patent ductus arteriosus; and, according to Rauchfuss, the loud second sound at the pulmonary cartilage would favour a patent duct. But about puberty, as the body became more developed and the volume of the blood greater, the insufficiency of the heart first made itself apparent. It is possible, too, that a fresh endocarditis was lit up about this time, and affected the aortic valves, for, as Dr. West has pointed out, congenital malformations of the heart predispose to inflammation of the valves.

Manchester.

**PHOTOGRAPHY.**—An essential preliminary to the obtaining of a good photograph is that the sitter should be, as regards the different systems of the body, in a state of perfect tranquillity. But in London it is usually necessary that studios, in order that the requisite light may be secured, should be placed at the top of the house, and the exertion of going up several flights of stairs is not conducive to that quiescent state of the circulation so desirable in a sitter. This difficulty has been met in the new photographic rooms of Mr. Barraud of Oxford-street, by the provision of a patent lift, which, worked by a gas-engine, and constructed on the automatic stopping-gear system, conveys visitors in a pleasant and easy manner to the elegantly appointed studio aloft.

<sup>1</sup> Case shown at the Medical Society, Manchester, October 4th, 1882.

# THE FIRST FIVE YEARS' WORK AT THE LIVERPOOL SEAMEN'S DISPENSARY FOR VENEREAL DISEASES.

By FREDERICK W. LOWNDES, M.R.C.S. Eng.,  
AND

ARMAND BERNARD, M.B. Dub.,  
SURGEONS TO THE DISPENSARY AND TO THE LIVERPOOL LOCK HOSPITAL.

THAT merchant seamen suffer severely from venereal diseases is too well known to require proof. It is also well known that it is among them the advertising venereal quacks find many victims. These two circumstances induced the committee of the Liverpool Sailors' Home, upon our suggestions, to open in February, 1877, a self-supporting dispensary, in connexion with the home, for the treatment of venereal diseases among all seamen in Liverpool, whether British or foreign, and whether inmates of the home or not. It was decided from the commencement to limit the practice of the dispensary to cases of venereal disease, and that the dispensary should be self-supporting, each patient paying one shilling for each attendance, receiving for this advice and medicine. The result of the five years' working, ending December 31st, 1881, will be of interest, and may be an encouragement to those who advocate self-supporting dispensaries. The lock hospital here has twenty-five beds for male patients, which are constantly full; there is no outpatient department at it nor any of the general hospitals, except the Stanley Hospital, which is a long way from the Sailors' Home. The nearest general dispensary (the South) is also some distance off, and the hours of attendance are very inconvenient ones for sailors; hence the dispensary supplied a want without adding to free medical charities or doing any injustice to the latter. It also brought medical advice and medicine within easy reach of the sailors, whose nearest advisers had hitherto been the advertising quacks. We have restricted the practice of the dispensary as much as possible to men before the mast, though we occasionally see stewards, cooks, boatswains, carpenters, &c. Suitable premises were found contiguous to the Sailors' Home, and the dispensary was opened on February 26th, 1877. The following table shows the results:—

Year.	Patients.	Attendances.	Remarks.
1877	847	2363	Only ten months
1878	1002	3246	Whole year
1879	853	2823	Ditto
1880	944	3512	Ditto
1881	848	3276	Ditto
Total ...	4494	15,220	—

For the first year we were unable to keep so accurate a register of cases as we could have wished; but since Jan. 1st, 1878, a most careful and, so far as is possible, a most accurate register has been kept, from which we are enabled to give the following summary:—

	1878.	1879.	1880.	1881.	Total.
Simple sores ...	226	173	229	205	833
Gonorrhœa ...	364	321	330	294	1309
Gleet ...	200	169	184	136	689
Primary syphilis ...	112	101	115	107	435
Secondary syphilis...	95	83	79	96	353
Tertiary syphilis ...	5	6	7	10	28
	1002	853	944	848	3647

Of the total of 3647 cases, 816 were cases of syphilis, or 22.374 per cent.

*Simple Sores.*—Our diagnosis has often to be made on the eve of a sailor's departure to sea; hence it is possible that

some of these might eventually prove to be the initial manifestation of syphilis. As a rule these simple sores healed up readily, especially with iodoform ointment. Merchant seamen are by no means cleanly in their person, a fact of which we have daily evidence. Hence we have many cases of balanitis, and simple sores are much aggravated by this want of cleanliness.

*Gonorrhœa and Gleet.*—For these the old copaiba mixture still holds its own, and with a few exceptions answers very well. In obstinate cases an injection of sulpho-carbolate of zinc, two grains to the ounce, is ordered as well. Our chief difficulty is to induce patients to abstain from intoxicants until after they are thoroughly cured.

*Bubo.*—These occur very frequently among sailors in conjunction both with simple sores and gonorrhœa. As a rule, after being opened they heal rapidly, especially if this has been done in good time. But in many cases there has been much delay, especially when the disease has been contracted immediately before sailing; in these cases there is much undermining and disorganisation of the parts, and the healing process is much retarded. In these cases, again, we have found iodoform most beneficial, sometimes in the form of powder dusted over the part, or as an ointment (forty grains to the ounce) with or without operative treatment.

*Syphilis.*—The practice of this dispensary affords favourable opportunities for observing the variable periods of incubation, which average from fourteen days to eight weeks. It is true that we cannot place absolute reliance on the statements of our patients, especially as, with the uncleanly habits already noticed, an indurated sore might easily escape notice amidst a mass of smegma. On the other hand, there is the fact that in the case of sailors this incubative period can be determined with more accurate data than in the case of landmen. A seaman discovers that he is infected some weeks after sailing, and therefore some weeks after the possibility of impure sexual intercourse. In a certain number of these cases, the patients being of superior intelligence, we have been able to ascertain the period with great exactness. Primary ulcers are generally situated on the prepuce or in the furrow between the prepuce and the corona glandis, involving frequently both these parts. Induration is generally well marked, and especially in those cases where the disease has been in existence for some weeks without any treatment. In the treatment of syphilis we find it necessary to administer mercury in a very mild form and in small doses, the reckless habits of seamen in exposing themselves to wet and cold, their too frequent intemperance and impaired constitutions, making it imperative to exercise great caution in the administration of this drug. We require them to attend every second day, and supply them with sufficient medicine to last two days. A pill containing two grains of grey powder with three of Dover's powder, made up with confection of roses, is the form we mostly prefer. We also give the biniodide of mercury in mixture, and sometimes mercury by inunction. Our chief difficulty is the short time allowed us by the patients' stay in port, many men proceeding to sea in an unfit state, as will be seen further on. To those who are fit to proceed to sea, but require a continuation of the treatment, we give extra medicines, with every necessary precaution. Our experience here confirms that of most workers in this special line of practice—viz., that syphilitic diseases are most amenable to treatment if taken in proper time, and if the treatment be not interfered with by any untoward circumstances.

The following extracts from our register afford melancholy proofs of the unseaworthy state of many sailors; these being only a few out of many which might be given, and only an infinitesimal proportion of the probable whole number of seamen leaving English ports infected with venereal disease:

March 15th, 1878.—T. D.—. Phimosis, ulcers of prepuce, and indurated glands. To sail next day.

April 23rd.—C. W.—. Indurated ulcer of corona, indurated glands; a very severe case. Going to sea in the morning.

April 27th.—C. W.—. Indurated sore of corona, indurated glands and secondary eruption. Sails on the 4th May.

May 10th.—J. P.—. Large indurated sore of corona, indurated glands. Going to sea in the morning.

May 14th.—J. H.—. Papular eruption on back, loins, arms, forehead, and legs. This man is saturated with syphilis. Going to sea to-morrow.

May 30th.—G. G.—. Ulcer of prepuce, gonorrhœa, sup-

purating bubo. Arrived to-day; unable to work last five days; sent to lock hospital.

Nov. 6th.—J. C.— Syphilitic disease of testicle. Going to sea next day.

Dec. 4th.—J. J.— Orchitis and gonorrhoea. Going to sea next day.

Dec. 18th.—J. Q.— Suppurating bubo; ulcers of prepuce. Just came from sea. Opened bubo.

Dec. 19th.—J. F.— Indurated sore of prepuce; indurated glands; secondary eruption; disease of three months' standing. Going to sea on the 21st inst.

Jan. 13th, 1879.—T. L.— Phimosis; ulcers; suppurating bubo. Going to sea. Seen subsequently on March 20th. A very bad case of syphilis.

July 6th.—J. B.— Paraphimosis; ulcers of prepuce; indurated glands. No room in lock hospital; refused admission to workhouse. Compelled to go to sea.

In some cases we have been able to induce men not to go to sea, but to remain ashore until cured.

As regards the financial success of the dispensary, it will suffice to say that from the very commencement it has paid its way, the receipts from patients enabling us to pay rent, taxes, drug-, dispenser's salary, &c., and to leave a small and we hope increasing balance for honoraria, in accordance with the original rules. The members of the Committee of the Sailors' Home have individually and collectively shown us the greatest kindness and assistance, and the same remark applies to the energetic and indefatigable secretary, Mr. Thomas Hammer.

Liverpool.

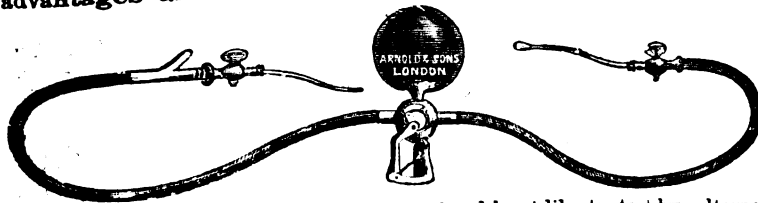
## ON TRANSFUSION.

By J. F. LE PAGE, L.R.C.P.E.

CONVINCED that in the conservative practice of the future transfusion will hold a place of no little importance, and will be more and more extensively resorted to, and seeing that the means at present at our disposal for the performance of the operation are not altogether satisfactory, I have devised an apparatus in which there is an endeavour to combine absolute safety with great facility in use.

Of the transfusors which have been at our service that of Dr. Aveling is, perhaps, all things considered, the most serviceable; but it has the disadvantage of requiring very complex manipulation. To put it concisely, each of them requires in its use for the surgeon to be aided by skilled assistance, whilst at the same time there is no safeguard against the injection of a minute quantity of air, however careful and adept the operator may be; an accident which, in all probability, would prove fatal to the patient.

The accompanying illustration shows how these disadvantages are overcome. One hand alone is needed to



operate the transfusor, and the other hand is at liberty to attend to the efferent tube; whilst the attention of the surgeon may be divided between the recipient and the donor of the blood. If any portion of air should at first remain adherent, and, of course, unseen, on the inner surfaces of the tubes, and, during the passage of the blood, be carried along with the stream, their course is with certainty arrested by the glass air receiver, into which they must rise. As to the *modus operandi*: The case contains the apparatus, knife, forceps, and a small bottle, which latter is intended to hold a compound powder composed, say, as follows: Carbonate of soda, ten grains; phosphate of soda, two grains; chloride of sodium, thirty grains. One-fourth of the powder should be dissolved in about two ounces and a half of water at a temperature of 100° F. A few drops of alcohol may be added, and the vessel containing the solution placed in another vessel partly filled with water at a temperature somewhat higher. Then, having attached the receiving and delivering tubes, the two extremities of the

instrument must be placed in the inner vessel with the air chamber downwards. Now press the lever, press the elastic ball, release the lever, release the elastic ball, and, after repeating that process once or twice, turn both taps. It is now ready for use. Raise the patient's arm to the horizontal position, so as to facilitate the transmission of the blood to the heart, and, having inserted both tubes, one into the supplying vein, and the other into the receiving vein—the right median basilic is, perhaps, the best—turn the taps, and, in the same order, press the lever, press the ball, release the lever, release the ball, and so on. Precisely one quarter of an ounce passes out each time. It is expedient, having commenced the transmission of blood, to complete the process without arrest, lest coagula should form. The apparatus is made by Messrs. Arnold and Sons, and their name is quite sufficient guarantee for excellence of workmanship. I must, however, say that my thanks are due to them for so faithfully, so well, and with such precision and care elaborating from my drawings an instrument of some elegance.

A word as to the cases in which transfusion is indicated. My special intention is that of supplying the obstetrician with a safe and facile means of transfusing blood after post-partum hæmorrhage, where the diastaltic system is practically dead, and the heart is dynamically incapable of action in consequence of the absence of fluid to act upon. But transfusion is indicated in many other cases than that of uterine hæmorrhage leading to this condition. For instance, when, after excessive hæmorrhage, the vital fluid is not reproduced, and the nutritive process is so impaired that the persistent anaemia would be the forerunner of phthisis or other grave disease did we not supply red corpuscles to carry oxygen with which to re-establish those functions which are essential factors in the formation of hæmoglobin. And it is certainly indicated in some cases of hæmorrhage from the bursting of an aneurism, or where a main artery has been divided. With its aid life may at least be prolonged, where the stomach and rectum refuse to retain nutriment in the exhaustion from marasmic disease. It may also be resorted to in the asphyxia of new-born infants, the injection being made through the umbilical vein, having previously allowed a little blood to escape from the umbilical artery. For this purpose a small quantity of blood taken from the placenta and defibrinated will answer very well. In chronic as well as in acute anaemia we may transfuse, for where the whole blood is altered by toxic or pathological causes it is manifestly advantageous to improve its quality by the admixture of healthy blood. It may also appear indicated after hæmorrhages from the stomach and intestines, hæmoptysis, and some surgical operations. I would go so far as to suggest, on physiological grounds, its occasional indication in hæmorrhagic fever. In the young who are robust, absorption and nutrition will soon replace the normal quantity of fluid, although for a time it will be inferior in quality to that which was lost, containing less than the due proportion of oxygen carriers, the red corpuscles. In those previously suffering from anaemia, and in the aged whose blood is very slowly reproduced, it appears to me that the operation may, with very great promise, be repeated even more than once, at intervals of a few days. In cases of poisoning, when the nature of the poison is unknown, or when an antidote would not be effective, or in pyohæmia, might not occasionally a life be saved by alternate depletions and injections of pure blood? In epilepsy it has been used with marked success. And, as in puerperal eclampsia we may presume an excess of carbonic acid and a deficiency of oxygen, may we not here also find it of no little service? I should remark that Dr. Schäfer has most conclusively shown that the action on the blood-corpuscles of beef peptones, milk, and some other fluids, when used in lieu of blood, is most injurious.

It has been urged in disparagement of the operation that during transfusion very painful symptoms are experienced, followed, after its performance, by alarming prostration and hæmorrhagic fever. This we may admit to be, in some cases, substantially correct. But what is the cause of all this, but that the vital powers are so stimulated to reassert themselves that the heart and arteries, certainly with intermissions, are making very violent efforts to drive along the small quantity of blood which the system contains? The inference is clear that this most valuable operation has not been so frequently performed as it should have been, and that many invaluable



lives have been lost which might have been saved by the immediate restoration of the failing powers of the heart and nervous system which it most strikingly effects.

Durham.

### CASE OF ACUTE RHEUMATISM,

OCCURRING IN A NEWLY-BORN INFANT, TREATED WITH SALICYLATE OF SODA.

By F. ERNEST POCOCK, M.D.

ON May 25th I was called to see Mrs. A——, who had been ill for two days. I found her suffering from acute rheumatism, with a temperature of 106° 5'. She was pregnant with her second child, and, as far as I could gather, within about a month of her confinement. I ordered twenty grains of salicylate of soda every hour for six doses, and then every two hours. On Tuesday morning, about thirty hours after seeing her for the first time, the rheumatic pains left her entirely, and labour pains came on, resulting in about four hours in the birth of a sturdy male child, who appeared perfectly healthy. The rheumatism returned immediately the child was born, and she could not bear it put to the breast. The milk was dispersed by belladonna, and Mrs. A—— made a fair recovery in about five weeks, but unfortunately with considerable valvular mischief.

The child was a very cross one, and cried very much, which the nurse and the mother attributed to flatulence and want of food. However, dill-water, aniseed, &c., having no effect, I was sent for about twelve hours after the birth. The child was decidedly feverish, with a moist skin and an acid smell about him. I noticed that he appeared to cry more loudly whenever his right arm was moved. On removing the dress, his right shoulder and elbow were found reddened, and on moving either joint he cried lustily. On using the thermometer I found his temperature 103° 5' and his pulse 170, as accurately as I could count it. Under the circumstances, it occurred to me that he might have the rheumatic poison in his blood, and that in fact I had to do with a case of congenital rheumatic fever. As Mrs. A—— was unable to nurse him, and we thus could not give him any medicine per matrem, I determined to administer the salicylate in a direct form. Four grains were given in a little sweetened water every two hours for six doses. The pain then seemed less, and it was given every four hours. However, the restlessness returned, and the temperature was found to have risen to 104°, and it was therefore continued every two hours for four doses more, and then the interval increased to three hours. By this time (about forty hours from birth, or twenty-eight from the commencement of the salicylate) the temperature was reduced to 101° and the pulse to 140. In another twenty-four hours the interval between the doses was increased to four hours, and in another day to six hours or three times a day. When about 180 grains had been taken, and the child was nine or ten days old, the drug was stopped for twenty-four hours, but given again at the end of that time in four-grain doses two or three times a day as occasion required for a fortnight. After this a teaspoonful of cod-liver oil was rubbed into the skin twice a day for three weeks, when the child appeared perfectly well. The temperature had gradually and steadily diminished since it had risen to 104°, which was when the child was thirty hours old, down to the eighth day, when it was normal, and never rose after. Nestle's milk food was given as sustenance, and a few grains of mercury with chalk as occasion required. I was unable to detect anything abnormal about the heart sounds all through.

This is, as far as I know, a unique case, and I trust it will be of interest to the profession. It seems to show that the salicylate does not deserve quite all the hard things that have been said and written about it; and that even in the case of a newly-born infant it may be pushed almost to an extreme without producing the head symptoms which have so often been laid to its charge. May not these latter, in many reported cases, have been due to the rheumatic blood circulating through the brain, and not to the drug?

St. Mark's-road, North Kensington.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

#### UNIVERSITY COLLEGE HOSPITAL.

TWO CASES OF INCREASED EYEBALL TENSION; ONE REDUCED BY ESERINE, THE OTHER BY ATROPINE.

(Under the care of Mr. TWEEDY.)

AMONG the cases lately presenting themselves in Mr. Tweedy's clinique were two of considerable therapeutical and pathological interest. In both the tension of the left eye was greatly increased, though from different causes. In one the tension was reduced to normal by means of a pupil-contractor, eserine; while in the other a similar result was produced by a pupil-dilator, atropine. In the first the disease was intermittent glaucoma; in the second, recurrent iritis. The interest of the cases is increased rather than diminished by the fact that such examples are by no means infrequent, and their gravity by the fact that a mistaken choice might be disastrous. To employ atropine in glaucoma and eserine in iritis would, besides aggravating the existing symptoms, in all probability induce irreparable mischief. Mr. Tweedy alleged that it had become too much the fashion to regard increased tension of the globe as always identical with glaucoma. This is as irrational as it would be to regard ascites as always and only indicative of cirrhosis of the liver. The second of these cases showed that there may be a high degree of hardness of the eyeball, and yet an absence of glaucoma. In glaucoma the increased tension usually supervenes on changes affecting the drainage apparatus of the anterior segment of the globe, checking elimination, whereas the increased tension occurring in iritis and allied conditions primarily and chiefly depends on engorgement of the vascular tunics of the interior of the eyeball and on the formation and accumulation of inflammatory products. Eserine and other myotics could not, it was stated, be looked upon as the rivals of iridectomy or sclerotomy in glaucoma, they were rather adjuvants, and at most alternative in cases where operation was not imperative or was otherwise impracticable. On the other hand, as glaucoma is a cumulative condition the judicious employment of myotics might correct the vice on which the malady essentially depends, and thus ward off an actual outbreak.

For the following notes we are indebted to Mr. F. Knight, ophthalmic assistant.

CASE 1. *Intermittent Glaucoma; increased Tension rapidly reduced by Eserine.*—Maria B——, aged fifty-five. On August 21st the patient was seized with severe pain across the top of the head, in the forehead, and left eye. For a week this pain was constant and prevented sleep. On August 28th a blister was applied behind the left ear, and this seemed to relieve the pain considerably. After a day or two the pain returned, and up till Sept. 11th the pain recurred nearly every day, each attack lasting eight or ten hours. During these attacks the patient could not bear any light and had to have the room darkened. Objects looked foggy. On September 11th she came to the hospital for dimness of the left eye and neuralgia. The left pupil was slightly larger than the right, the tension normal and equal; V =  $\frac{2}{3}$  in the right eye, and  $\frac{3}{4}$  in the left. The left optic papilla was "shallowed." From the history rather than from the physical signs a diagnosis of intermittent glaucoma was made. Quinine mixture was ordered. On September 17th the patient was seized with an attack of pain, and when seen on the following day the tension was increased to T + 2, the vision had greatly diminished, the media were hazy, and there was visible pulsation of the central artery of the retina. A drop of a solution of sulphate of eserine (two grains to the ounce) was applied to the conjunctiva of the left eye, and in half an hour the tension had sunk to normal, the pain had ceased, and the sight had improved. Eserine was ordered to be

applied twice a day. No recurrence of pain, increased tension, or obscuration having occurred in the interim, a solution of nitrate of pilocarpine (two grains to the ounce) was, on October 5th, substituted for the eserine as being less costly, and in some cases as effectual. On the 9th the eye was not so well, the tension was increased, the pupil semi-dilated, and the sight was "misty" again. Eserine was applied once more, and in half an hour the tension was normal, the pain gone, and the sight clearer. Since then eserine has been used twice a day, and the sight and general condition of the eye have steadily improved.

**CASE 2. Recurrent Iritis; Increased Tension (T + 2); Reduced by Atropine.**—S. C., aged forty, a tailor, was seized with violent pain in the right eye on waking on the morning of Oct. 24th, 1881. The pain continued till Nov. 7th, when he applied at the hospital. He then had marked kerato-iritis with many posterior synechiæ. The pharmacopœial solution of atropine, applied many times at short intervals, failed to dilate the pupil. Leeches were applied, a mercurial and colocynth purge was given, and atropine was instilled every two hours. The pain speedily subsided, and in a few days the eye was apparently recovered. The left eye was then attacked, but soon got well. In the following January episcleritis appeared in the right eye, and continued some weeks. On February 23rd, however, the eyes were quite well; the acuteness of vision was normal. On March 9th there was another recurrence of iritis, with posterior synechiæ in the left eye, but this attack responded gradually to treatment, and on May 1st the patient resumed work, and continued to work with comfort till Oct. 14th. On the morning of this day the left eye was again attacked with recurrent iritis of a severe type. The patient applied leeches and poppy fomentations, but did not attend at the hospital till the 17th, when he had an extreme degree of kerato-iritis; the aqueous was turbid, the pupil greatly contracted and blocked with lymph, which extended over the whole surface of the iris and covered it. The tension was increased to T + 2. Atropine was applied at short intervals, and one grain of calomel and a quarter of a grain of opium were given three times a day. On the 19th the pain was less, the tension somewhat diminished, and the pupil was semi-dilated, exposing a narrow space between the edge of the iris and the circular mass of lymph in the pupillary area. Three days later, the same treatment having been continued, the pain had ceased; the pupil was rather larger, the cornea bright, the lymph gone from the pupil, and the tension was if anything subnormal, from inflammatory softening.

### LEEDS PUBLIC DISPENSARY.

CASE OF ANEURISM OF BASILAR ARTERY; RUPTURE;  
DEATH; NECROPSY; REMARKS.

(Under the care of Mr. C. J. WRIGHT.)

FOR the notes of the following case we are indebted to Dr. Hudson.

William —, aged sixteen, currier, was found in the street in a fit, at 4 P.M., March 12th, 1882. He was conveyed to an inn and given some whisky, after which he attempted to walk home. After going about forty yards in a semi-stupefied condition, he fell down insensible, not convulsed, and was taken home by a policeman, vomiting profusely on the way. At 7 P.M. he was seen by Dr. Hudson. He was then lying on his back, his face pallid and covered with perspiration, as also the rest of the body; pupils dilated, equal, not responding to light, no apparent loss of muscular power, limbs flaccid. He could not be aroused by loud speaking; pulse 79, full, compressible; respiration 26; temperature 100.4°. There was no paresis of the sphincters, nor any loss of blood from the ears or mouth. The nostrils were partly filled with clotted blood, and a trace of the same was on the upper lip. There was no evidence of fractured skull or other injury. At the bed-side was some vomit slightly and equally mixed with dark blood. There was no injury of a former date, nor history of any illness to be elicited, neither was there suspicion of foul play. The head was shaved and an ice cap was applied. The vomiting having ceased, six grains of calomel were placed on the tongue. At 10.30 P.M. he was seen by Mr. Wright. He could now be roused, and answered "Yes" to a question about pain, putting his right hand to the frontal region and keeping it

there. The pupils were normal and acted well; there was no paralysis, no return of vomiting, and the bowels had acted freely. Pulse 80, dirotous; respiration 24; temperature normal. Perfect quiet was enjoined, soda-water and milk were given, and the ice was continued.—13th: More conscious; complains of great pain in the frontal region with intolerance of light, and of nausea. He remembers feeling "dizzy" and falling, nothing further; urine normal. Ordered an effervescing draught, with ten grains of bromide of potassium every three hours.—14th: Has not slept owing to the frontal cephalalgia; looks very pallid, is warm, and has not vomited again. No blood in nostrils; no melæna. Respiration and temperature normal; pulse 80, firmer. Ordered two ounces of compound senna mixture, and a blister to nape of neck.—16th: Has slept two hours, and had less pain; bowels very confined; passes water freely, and has perfect control over the emunctories. To continue with draught and have a powder with six grains of calomel and a drachm of compound jalap powder at bedtime.—18th: The frontal pain alone complained of, and which entirely prevents sleep; no vomiting. Temperature normal. To have nightly a draught of three grains of chloral hydrate, with twelve grains of bromide of potassium.—23rd: Still intense frontal pain. A seton inserted in nape of neck. To have seven grains of iodide of potassium three times a day, and mercurial ointment applied to the arm.

April 4th: The pain continuing, though not so severe as before, a seton was put in the nape of the neck, and the mixture increased to twelve grains of iodide of potassium three times a day. The draught at bedtime was continued, as he only slept after taking it.—12th: Has less pain, eats well, and sits up in bed daily.—14th: No pain for two days. The ointment to be discontinued, and the seton removed.—20th: Was out of bed two hours.—24th: Reported by his mother to have had a "fit" at midnight, not being convulsed but falling suddenly on the floor. He remained unconscious forty-five minutes, and continued "dazed" for hours afterwards. He vomited shortly after the "fit." He still seems stupid, and complains of great pain over the left orbit, whereas previously it was referred to the whole frontal region. Bowels unmoved for two days. To continue mixture and draught, and two compound colocynth pills at bedtime.

May 1st: Has no pain, and been up for the first time since the "fit."—11th: Having had no pain for twelve days the iodide was reduced to two grains thrice daily, and the draught discontinued.—12th: Attended at the dispensary, walking well, and only looking pallid. Ordered to Ilkley. 13th: Went to the theatre, and while down in the vestibule between the acts had a "fit," at 10 P.M.; was taken to the General Infirmary and expired immediately after admission, at 10.30 P.M.

**Necropsy, forty-two hours after death.**—A large quantity of clotted and semi-fluid blood covered the whole surface of the brain, especially the base, extending over and down below the medulla oblongata and through the transverse fissure into the lateral ventricles. An aneurism about the size of a small bean was found at the junction of the basilar with the left posterior cerebral artery, which had given way in its lower wall, the opening being about the size of a large pin's head. The coats of the aneurism were extremely thin, especially around the ruptured point. There were no signs of any former fracture of the skull. Other organs healthy.

**Remarks by Mr. WRIGHT.**—Although the cases of cerebral aneurism upon record are somewhat limited, they are probably in reality more common than is supposed, owing to the real causes of some hæmorrhages over the brain being either overlooked or never ascertained; such cases being either not examined after death, or simply set down as under the head of "apoplexy." The basilar artery appears to be the most usual seat for the development of a cerebral aneurism, which probably can seldom, if ever, be diagnosed with certainty during life. In the above case the main symptoms were the epileptiform attacks, the fixed and persistent pain in the forehead, giddiness, with consequent sleeplessness, and intolerance of light. The patient, aged sixteen, was young for disease of this character. Of sixty cases of cerebral aneurism mentioned by Dr. Tanner,<sup>1</sup> including fifty-two cases collected by Dr. Brinton,<sup>2</sup> the average age was forty-one, the youngest patient being fourteen, the oldest sixty-five. It may be a question how far

<sup>1</sup> Practice of Medicine, sixth edition, vol. II., p. 455.

<sup>2</sup> Transactions of the Pathological Society, vol. III., p. 47. 1852.

the first attack, which took place in the street, and the second during his illness, may have been due to some oozing from the aneurismal sac. No trace or proof of this, however, was found after death. It is worthy of note that the fatal seizure due to the rupture took place, not during the excitement of a sensational play at the theatre, but between the acts—i.e., during physical exertion subsequent to the mental effort.

## Medical Societies.

### PATHOLOGICAL SOCIETY OF LONDON.

*Congenital Malformation of Heart.*—*Paraplegia.*—*Disseminated Sarcoma.*—*Xanthoma Tuberosum.*—*Pigmentation of Uterus.*—*Empyema from Foreign Body.*—*Malformation of a Lamb.*

THE ordinary meeting of this Society was held on Tuesday last, Dr. S. Wilks, in the chair. The report of the committee appointed at the last meeting to examine Dr. Norman Moore's specimen of deformity of the heart was read to the Society. The specimens shown by Dr. Kesteven and Dr. Hadden were referred to the Morbid Growths Committee. Dr. Malcolm Morris read a very complete account of a remarkable case of skin disease, his designation of which—*xanthoma tuberosum*—was not accepted by the other dermatologists present, who, however, did not suggest any other name for it. The case was referred to the committee which last year reported upon *xanthelasma*.

Dr. P'ye-Smith read the report of the committee appointed to examine Dr. Norman Moore's specimen of narrowing of the left ventricle below the aortic valves. The committee could not decide whether it was congenital or acquired, but were of opinion that the fibrous ring was of later date than the formation of the aortic opening and septum ventriculorum, and of earlier origin than the aortic aneurism, and therefore they referred it to the later period of intra-uterine life.

Dr. KESTEVEN related a case of Paraplegia, caused by Traumatic Hæmatoma, in the Dorsal Region. In this case there had been some pre-existent disease, which had caused the spontaneous removal of the body of the seventh dorsal vertebra. About three months before death occurred the patient had received a blow on the back, which had caused some displacement at the diseased part and rupture of some bloodvessels, thus giving rise to an effusion of blood into the spinal canal, and consequent pressure on the cord. Some of the blood had also escaped anteriorly, forming a hard tumour in the posterior mediastinum, which had pushed forward the sympathetic ganglia and caused destruction of the rami communicantes of the seventh ganglion on each side. The heads of the seventh and eighth ribs on each side were also diseased. The narrator of the case gave an account of the symptoms produced, and pointed out the effects produced by the pressure on the cord, and by the damage caused to the sympathetic nervous system.—Mr. ROGER WILLIAMS said the case was interesting as an example of cure of spinal caries without suppuration. It showed, too, that paralysis was produced by the tumour pressing upon the spinal cord. He thought it might be also an example of what Sir James Paget had called "residual abscess."—Dr. HORROCKS observed that this was the first case on record in which ankle clonus had not been associated with degeneration of the lateral columns of the cord; although clonus had been present for a few seconds after a fit from temporary exhaustion of the lateral columns.—Mr. BUTLIN asked if the blood-clot had been examined microscopically, as it looked like a blood-cyst or hæmorrhagic sarcoma. There was no trace of suppuration, and the history pointed rather to a tumour than to hæmorrhage.—Dr. KESTEVEN replied that it had not been examined microscopically.—Dr. WILKS supposed Dr. Horrocks did not mean that the excess of spinal reflexes was directly produced by lateral sclerosis. He thought it was due to excitation of the grey nervous matter within the degenerated cord.

Dr. HADDEN described a case of Disseminated Sarcoma. The patient was a gentleman, aged thirty-eight, in St. Thomas's Home. Shortly before admission he had been

operated on for fistula in ano. On admission, he was dull and drowsy; this increased; then oedema of the legs came on; the pulse became very small and frequent. Temperature reached only 101.2°. No optic neuritis, nor evidence of organic disease during life. He died comatose. Post-mortem: The pericardium on each surface was studded with small new growths; similar growths were seen in the muscular substance of the heart, parietal layer of pleura, both surfaces of diaphragm, omentum, mesentery, liver, and spleen. The right kidney was remarkable, the capsule was studded with numerous white masses of calcareous matter. Several small bodies like tubercles were seen on the arachnoid, which were found to be only thickenings of the membrane; no glands enlarged. The tumours were round-celled sarcomata. In the heart the cells were round; matrix amorphous, in some places alveolar. In the liver the growth was interlobular. Beneath the capsule of the right kidney was an extensive infiltration of round cells, which sank down between the tubules. The case during life was thought likely to be acute tuberculosis, and was also very interesting, as the symptoms were acute, lasting only a fortnight.—Dr. NORMAN MOORE asked if the new growth on the kidney was the same in character as that in the heart; and whether Dr. Hadden was sure the growths were sarcomatous. The indurations on the kidney were like those common on the liver. He thought that in the heart sarcomata were nearly invariably pigmented.—Mr. BUTLIN had examined these specimens carefully, and was not prepared to affirm that the growths were sarcoma growths if this would be in opposition to the general characters of the disease. It was extremely difficult to distinguish such round-celled sarcomata from tubercular deposits or other round-celled formations.—Dr. BEDFORD FENWICK remarked on the paroxysmal character of the pain associated with new growths in the heart.—Dr. HADDEN replied that the growth in the right kidney in the main resembled that elsewhere. He had never seen any growth quite like it, and he thought it unique. He did not know whether there was paroxysmal pain in the region of the heart.

Mr. MALCOLM MORRIS showed a living specimen of a very rare skin disease which he called *Xanthoma Tuberosum*. The patient was a married man, aged forty-eight, who was suffering from saccharine diabetes. There was no history of syphilis or rheumatism; no jaundice or evidence of disease of the liver. He complained of sleeping badly, and of dimness of sight with occasional mists before his eyes. There was distinct anaesthesia of the soles. Heart weak; reflexes normal. The eruption appeared suddenly, first on the outer side of the thigh, then spreading to the trunk, to between the fingers, and on the mucous membrane of the mouth. It consisted of small rounded firm pink tubercles, with depressed centres which had more of a fawn-colour in the centre. Many of the papules had disappeared since the case first came under his care. With the patient's consent he removed one of the growths and examined it microscopically. This showed small nodules in the corium, with a delicate fibrous intercellular matrix; towards the centre the fibrous tissue became more compact and firm. The superficial epithelial cells were normal. There was no connexion with any glandular structures, and the older papules contained no blood-vessels. In one place he found a collection of round cells about a vessel, and he suggested whether this might not be the real origin of the growths—the tissue ultimately contracting and so causing degeneration of the cells. This case differed from those of *xanthelasma* in many respects, chiefly in its association with diabetes and not with jaundice; the sudden onset of the rash, and its rather rapid disappearance, and in the fact that the eyelids were not implicated. But on the other hand it closely resembled two cases, one of which had been recorded by Drs. Gull and Addison, the other by Dr. Bristowe. The three cases were all in men; they all had diabetes, they all affected the same locality and avoided the same parts; in all the rash appeared suddenly, and gradually, but rather rapidly, disappeared. To these exceedingly rare cases the name of *xanthoma tuberosum* had been applied.—Mr. MORRANT BAKER said the case was of great rarity, but it differed so much from *xanthelasma* that he doubted whether it should have that name at all.—Dr. DUCKWORTH said that the case did not resemble *xanthelasma* and ought not to be called by that name. Its actual appearance did not justify the use of the term applied to it.—Dr. RADCLIFFE CROCKER said in *xanthoma* the nodules were always soft and yellow, but these were firm and not yellow. The rapid appearance and disappearance of the rash quite separated it from true

**xanthoma.** In xanthoma there were, also, stellate fat cells and oil globules.—Dr. MORRIS said the rash was chamois-leather coloured in the centre and pink in the centre. There was an absence of the oil globules in ordinary xanthelasma; microscopically it was more like keloid or fibroma, but it was exactly like the cases described early by Drs. Addison and Gull as xanthoma tuberosum. The case was referred to the Committee appointed last year to investigate xanthelasma.—Dr. MORRISON compared this rash with the eruption common in gout, and said it was also similar to molluscum. He thought in all such cases the parts affected first were the hair-follicles and sebaceous glands.

Dr. ROBERT BARNES showed a specimen of Pigmentation of the Cervix Uteri. It consisted of the vaginal portion of a uterus affected with hypertrophy, and which projected from the vulva. It was pigmented on the surface. The patient was a Hindoo. The parts not exposed were of the normal rose colour. Dr. Ewart had examined the part microscopically, and found the pigmented surface to have the leading characteristics of healthy skin; the horny layer was thin; rete Malpighii well furnished with closely-packed cells, like those of the skin; the deep vertical cells were deeply pigmented; papillæ projected forwards into the epithelium, and contained vessels of new formation. In the unpigmented part the corium was absent, the rete abutting upon the firm muscular tissue of the uterus. The pigment consisted of fine granules, and was present in the nuclei of the cells. There was thus evidence of a further change than one of dying of the exposed surface of mucous membranes. It was new to him, but probably familiar to practitioners in India.—Dr. WILKS said that pigmentation was a very difficult subject, for in some cases it was due to local causes, and in others to deep constitutional changes, as in Addison's disease. Professor Laycock thought that the pigmentation of the face was always associated with disease of the genital organs.

Dr. NORMAN MOORE read a paper on Lung with Impacted Foreign Body. The right lung of a child, aged twelve, who died of typhoid fever. The lung is partly collapsed, and in its lowest lobe are several reddened patches. In one of these, near the pleural surface, was fixed a spicule of bone three-quarters of an inch long. The spicule, which looks like the neural spine of a fish vertebra, had one end in a minute bronchus, the wall of which it had penetrated. Four years ago the child was suddenly seized with pleurisy. It was tapped in St. Bartholomew's Hospital, pus was let out, and as the wound continued to discharge a drainage-tube was put in. The child attended with this as an out-patient, and at length the wound was closed. The scar was distinct. The lung was firmly adherent to the chest-wall. The spicule of bone passing deep into the lung probably set up pneumonia, which was followed by the empyema four years ago. The empyema was emptied, and the bone remained, a very exceptional circumstance. The typhoid fever, of which the girl died, was remarkable in the large extent of intestine affected, and in the fact that the middle part of the vermiform appendix was externally tumid and internally ulcerated all round. Perforation of the vermiform appendix had occasionally been a cause of death in typhoid fever, and had been thought a condition preceding the fever. In this case, and in another post-mortem which he had lately made, the ulceration of the vermiform appendix was clearly one of the results of the typhoid fever. A further point of interest was that in the middle of the epiglottis there was a small ulcer.—Dr. GOODHART said that foreign bodies more commonly caused lung disease than was generally suspected; he had made two autopsies quite close together of cases of obscure lung disease, in each of which he discovered the cause of the mischief in a foreign body.—Dr. MACLAGAN said that in cases of foreign body in the lung there was fetid expectoration of a peculiar odour. Dr. Begbie had particularly pointed this out, and had been able to diagnose the source of a troublesome cough and expectoration by this means; he also found that turpentine given internally removed the fetor, and rendered the patient more comfortable.—Dr. SHARKEY said that it was not necessary to suppose that the foreign body had actually passed through the lung, and so caused the pleurisy, for in cases of obstruction of a bronchus by an anæmism, lobular pneumonia and pleurisy were often met with. He had under his care a patient with a tooth in a bronchus, causing partial obstruction, and he got an attack of pleurisy, although the tooth was still in the bronchus.

Mr. EVE showed a specimen of Malformation of a Lamb. All the parts developed from the first visceral arch were

absent on one side; the superior and inferior maxillary bones and palate bones were absent; the temporal bone was dwarfed, and there was no trace of the ossicles of the ear. The brain and cranial nerves were normal, except that the fifth and ninth nerves were smaller on the right (the deformed) side. He had not been able to examine the arteries. He could not find any similar case, although absence of the lower jaw was tolerably common in lambs. Possibly, the cause of the deformity was some vascular lesion, as thrombosis of the internal maxillary artery.

The following card-specimens were shown:—Congenital Malformation of Skull, by Mr. F. Treves; Double Hydro-salpinx, by Dr. Norman Moore.

## CAMBRIDGE MEDICAL SOCIETY.

At the meeting on Oct. 6th, 1882, Professor Humphry, President, in the chair,

Mr. WHERRY related a case of Complete Inversion of the Uterus. The patient was a woman who had been delivered two days previously of a healthy male child, which was born rather suddenly and with a short thick cord. She was given twenty minims of liquid extract of ergot after delivery, and shortly after this had a pain, and there was protruded from the vagina what at first appeared like the head of another child, but which proved to be the inverted uterus, with the placenta adherent. There was not much hæmorrhage. The medical attendant detached the placenta and endeavoured to replace the uterus by his hand, but he was obliged to desist, owing to the great softness of the uterine walls and the collapsed condition of the patient. Two days later, when called in, Mr. Wherry found the uterus completely inverted. Ether was administered, but it was quite impossible, owing to the doughy softness of the fundus, to replace the uterus with the unaided hand. Accordingly a large rubber drainage-tube was inflated to about the size of an egg at one end and ligatured. The band, in the form of a cone, was passed into the vagina, and the finger tips, pressed against this air pad, were in no danger of lacerating the walls of the uterus. Half an hour's pressure, first with one hand and then with the other, against the most prominent part of the fundus, at length reduced the uterus, leaving the dilated tube in the cavity. The string was then cut and the collapsed tube withdrawn. The replacement was not by a jerk, but gradual, and to be compared to the relief of a paraphimosis; it was evidently effected by squeezing fluid out of the oedematous tissues of the uterus. The patient, after three days of fever and pain in the body, made an excellent recovery.—Dr. INGLE said that complete inversion of the uterus must be a rare occurrence if the figures given in some textbooks were correct. Braun states that of 150,000 births in the clinics respectively under the charge of Spæth and himself, not a single complete inversion had come under their notice. There was one case in 190,000 confinements at the Rotunda; but much doubt has been thrown on these statements by later writers. He had not seen a case of complete inversion, but remembered one of partial, in which the patient died very quickly from hæmorrhage. Might not such an accident arise from a mal-condition of the walls of the uterus brought on by constitutional disease; by previous imperfect involution; or from irregular contractions; the normal rhythmical movements of the muscular coat being interrupted from either of the above causes? Would not restoration be better effected by the free use of chloroform before an attempt at replacement? It had been shown by Dr. Hewitt how more or less inversion may occur days after labour from incautious exertion. Is it not likely that partial inversion takes place much oftener than is supposed, but is altogether overlooked, leading to grave subsequent interruptions of the monthly health?

Mr. T. LUCAS (Cambridge) produced a specimen of Membranous Cystitis from the bladder of a woman he had attended for this condition. The patient was twenty-eight, and was delivered of her third child in 1881. She had phlegmania dolens after the birth of her second child. On the ninth day after her last confinement she had pain over the hypogastric region and retention of urine. In a few days she had feverish symptoms and a temperature of 103°, pain in the left groin, followed by swelling of the left thigh and leg. The use of the catheter was required for twelve days, after which time the leg was well. The urine contained mucus and albumen. Ten days later there was complete and sudden reten-

tion of urine, and on passing the catheter an obstruction was met with which proved to be a piece of membrane blocking the urethra. This was withdrawn in pieces, and then a quantity of ropy urine escaped through the catheter. A few days later a piece of membrane about six inches by four was removed, and subsequently another piece, ten by twelve inches, came away. Ten days later the woman had entirely recovered. The membrane consisted of a fibrillated network, in the meshes of which were enclosed leucocytes, granular matter, and crystals of phosphate of lime, and seemed to be a cast of the mucous surface of the bladder.—Dr. HUMPHRY said he had, in the case of a young woman, dilated the urethra with his finger and removed a large amount of mucus membrane covered with phosphatic deposit; and observed that the mucous membrane of the bladder had hardly any secretion and very little glandular substance. In cases where the whole mucous membrane sloughed off it seemed due to a process called by Leuchars necrosis of the membrane.

Dr. W. A. SMITH (Newport) related a case of Lateral Sclerosis. The patient, a man, aged forty-four, eighteen years previously had sprained his back by lifting a heavy weight, and had for the last two years been getting more feeble and stiff in his back, and had pains in his legs. He was removed to St. Walden Hospital, and while there the chief symptoms were general rigidity of back and legs, excessive knee-jerk and ankle clonus, slightly impaired sensation, especially in left leg, and considerable wasting, also deep-seated tenderness at lower part of spine on pressure, and pain extending to the groin. There was also a general shaky condition of head and lips, and fibrillary twitchings and stiffness about muscles of the neck. He was treated with iodide of potassium, blisters, and actual canterbury. Dr. Smith considered the case one of lateral sclerosis, with very slight, if any, disease in the posterior columns, and that the stiffness of the muscles of the head and neck might possibly point to some patches of sclerosis high up in the cord. He discarded the notion that there might be any deep-seated caries, but thought these pains might be due to pachymeningitis of the cord. This, too, would satisfactorily explain the lateral sclerosis, because primary sclerosis is very rare, the disorganisation usually following a focal lesion as a focal myelitis.—Dr. BRADBURY mentioned a case he had treated in hospital, and which had rapidly mended under the use of iodide of iron and the battery, after the failure of other remedies, and another case in which ankle clonus and knee-jerk had existed and in which iodide of potassium had failed, but which had, after two months, nearly recovered under the use of syrup of the iodide of iron and quinine.—Dr. PAGET referred to a case under his care where spinal disease occurred in a man accustomed to violent exercise in cricket, skating, &c.

Dr. BRADBURY narrated a case of Cerebellar Tumour. The patient was twenty-two years of age, had never had syphilis, and there was no history of injury or fits. He had been subject for years to neuralgia in face and forehead, and for a month, before coming under Dr. Bradbury's care, to neuralgic pain on the top of the head and the occipital region. Sleep was disturbed, and the pain had exacerbations every few minutes, always increased at night. Had vomited at first, but that abated. There was an expression of suffering in the face (in May), pain in occipital region, but no signs of disease in the thoracic or abdominal organs, and the optic discs were normal. In June he had had considerable relief from pain and had taken belladonna and quinine, and afterwards iodide of potassium. During the next month he had occasional sickness and pain varied in amount. In July he lost control over his rectum, but not over the bladder. He was unable to walk without help, but when assisted took short hesitating strides with some tremor of legs. Gait unaltered when eyes shut; has had no tendency to bear to one side more than the other in walking. Sensation unaffected. Patellar reflex slightly exaggerated. No ankle clonus. In August there was no vomiting or diarrhoea, but a good deal of headache, though there was progressive weakness and emaciation. On September 9th he died rather suddenly, after having got steadily weaker. The pain had diminished and he had been getting drowsy, and had lately lost the control of his sphincters. The autopsy revealed a tumour in the right hemisphere of the cerebellum, as large as a hazel nut, consisting of a white cheesy mass of irregular shape, surrounded by softened cerebellar structure of a reddish colour with a few hæmorrhagic spots. The rest of the lobe was softened and altered. In the left lung was a small cavity

at the apex, surrounded by caseous tubercles, and there were milary tubercles scattered in the lower lobes of both lungs. Dr. Bradbury remarked that in this case two of the symptoms of an intracranial growth were present at an early stage—viz., vomiting and cephalalgia; another symptom, double optic neuritis, was absent throughout, as sometimes happens in cases of even large intracranial tumours. As there was no optic neuritis or atrophy, so the sight was not affected. The diagnosis of cerebellar tumour was based on the seat of pain, which was chiefly occipital, and the peculiar gait of the patient, which was like that of a drunken man—a swaying of the trunk during progression from front to back and from side to side. This has been called the "cerebellar reel." Vertigo was not a prominent symptom. During the latter part of his illness the patient lay in a peculiar apathetic condition, but answered questions on being roused. There was no complaint of stiffness about the back of the neck. The patellar tendon-reflex was slightly exaggerated. The presence of tubercles in the lungs showed the cerebellar tumour to be of a tuberculous nature.

## MIDLAND MEDICAL SOCIETY.

THE first ordinary meeting of this Society was held in the Birmingham Medical Institute on October 25th, Dr. Malins, president, in the chair.

Mr. FURNEAUX JORDAN exhibited a specimen of a Suppurating Node, situated on the upper portion of the diaphysis of the tibia. The child was the subject of inherited syphilis, and its general condition was such as to necessitate removal of the affected limb above the condyles. The subsequent recovery was rapid.—Mr. CHAVASSE thought that the bone disease of inherited syphilis originated in the medulla of the diaphysis, as suggested by Waldeyer, and was not an osteocondritis commencing in the cartilage.

Dr. MALINS showed a new form of Uterine Sound of ingenious construction.

Mr. CHAVASSE exhibited a specimen extracted by lateral lithotomy from the bladder of a man forty-seven years of age. It consisted of three inches of solid indiarubber tubing thickly coated with phosphates. The patient had introduced the tubing to relieve himself of scalding during micturition.

Mr. E. L. FREER showed a portion of the Cranial Vertex, about two inches square, devoid both of aponeurosis and dura mater, which had been blown off a boy's head by the bursting of a small pistol. The weapon contained neither bullet nor foreign body. Death was instantaneous.

Mr. FURNEAUX JORDAN gave the details of three cases of Gunshot Injury to the head, in which recovery took place with retention of the bullets. The first was that of a man who shot a woman through the ear, and afterwards himself, with a fatal result. The bullet entered the woman's external auditory meatus, and passed into the petrous portion of the temporal bone. With difficulty a portion of the bullet was extracted by one of the three surgeons who met in consultation, but it was deemed advisable to make no attempt to interfere with the remaining part. The patient made a perfect recovery. The second case was that of a middle-aged clergyman and magistrate, seen in association with Mr. Walker of Upper Gornal, who was deliberately fired at three times. The first bullet entered behind and above the right mastoid process and penetrated to the interior of the cranial cavity, as evidenced by an escape of cerebral matter through the wound. The second bullet entered the mouth, passing upwards and perforating the hard palate. The third bullet entered the side of the neck, and probably lodged in the body of one of the cervical vertebrae. On receipt of the injury the patient did not fall, although a certain amount of shock resulted. When examined by Mr. Jordan the wounds were dry and covered with blood-clot, so no attempt was made to dislodge the bullets. With care and quietude a complete recovery resulted, and now, after three years, a hard substance can be felt along the floor of the right orbit. This is considered to be the second bullet, which has worked its way into the orbital cavity, where it gives rise to no inconvenience. The third case was that of a gentleman who was seen in consultation two days after an attempt had been made at suicide. The pistol had been pointed just above the right zygomatic arch, and the bullet had probably passed towards, and fractured, the roof of the right orbit. The brain matter was found



outside the wound. There was complete unconsciousness and an enormous sanguineous extravasation around the orbit. The aperture of the bullet was small and covered with a dry blood-clot. Expectant treatment was adopted; consciousness gradually returned. The extravasation subsided, and ultimately recovery took place. Mr. Jordan agreed with the general rule that no attempt should be made to extract bullets which had perforated any of the great cavities of the body unless they can be easily and certainly reached, the retention of the bullets giving the patient a far better chance of life than that afforded by strong or prolonged efforts to extract them. To trephine in such cranial injuries was held to be a dangerous expedient. If ever needed it should be only with full Listerian precautions. If any foreign body is driven into the wound the prognosis is rendered more grave, but pieces of bone were not regarded as such a bad complication as were portions of clothing.—In the discussion which followed, Mr. GREENE gave an account of an attempted suicide in which the bullet was found quite flattened out, lying in contact with the parietal bone.—Mr. EALES narrated the case of a man, aged sixty, who, in the dissecting-room at Queen's College, was found to have a bullet encysted in the mastoid process, and impinging upon the lateral sinus. On inquiry it was found that the man was an old soldier who had served in the Crimea and also in the Indian Mutiny. The wound had been received many years before death.—Mr. PRIESTLEY SMITH, who had had charge of a hospital in the Franco-German War, and many hundred cases of bullet wounds, did not see or hear of any instance recurring in which the cavity of the skull had been opened. Such patients generally died before they could be sent back from the front.—Mr. Freer, Mr. Bennett May, Mr. Jordan Lloyd, and Mr. Harman also made remarks upon the paper.

Dr. SAUNDBY read a paper on the Treatment of Epilepsy, in which the following points were insisted on:—1st. The value of combining the bromides of potassium, sodium, and ammonium, as recommended by Professor Brown-Séquard. 2nd. The advantage of adding tincture of digitalis and sometimes theine to the mixture to counteract the depressing influence of the bromides. 3rd. The utility of zinc as an adjuvant in the treatment. 4th. The successful use of borax in some cases of obstinate epilepsy, of which two illustrative cases were given. 5th. The value of theine or caffeine and nitro-glycerine in the treatment of epileptic vertigo.—In the discussion which followed the paper, Mr. R. Smith, Dr. John Greene, Mr. J. H. Palmer, Mr. Lloyd, Dr. Robinson, Mr. Eales, and Mr. Chavasse took part.

## Reviews and Notices of Books.

*Clinical Lectures on Diseases of the Heart and Aorta.* By GEORGE WILLIAM BALFOUR, M.D. Second Edition. London: J. and A. Churchill, 1882.—Those who made the acquaintance of this work on its first appearance will not be surprised at the publication of a second edition, for few works of its class have been so favourably received. The great merit of the book was its thoroughness and the ability with which its author grappled with the problems of cardiac physiology in their application to the results of clinical experience. He did this in a manner which showed how deeply he had pondered the subject, and his book revealed to many a large field of observation and inference previously too much neglected. It speaks well for the pursuit of scientific medicine that we should have occasion to welcome a second edition of a work of this kind within so short a time. Amongst the contributions made by the author to therapeutics is his insistence upon the value of digitalis in aortic regurgitation, and he points out that there is no fear of any cumulative effect if the dose given be small, whilst with a continued flow of urine no ill results may be anticipated. He far prefers arsenic to iron in combination with digitalis. Another point upon which the author insists is that the presystolic, or rather the auricular systolic, murmur is the only bruit really distinctive of disease of the mitral valve. As a means of timing the murmur he prefers the carotid pulse; and his explanation of the characters of the bruit is exact and sufficient. He

notes also its tendency to disappear, and also describes other murmurs—e.g., diastolic and a systolic in the pulmonary area—as occasionally produced by mitral stenosis. The significance of the irregularity of the pulse in mitral disease is indicated. All the points he raises receive ample illustration in the very carefully recorded cases with which the text abounds. The lecture headed "Curable Mitral Regurgitation" refers to the conditions present in cases of chlorosis, chorea, and fevers—conditions mostly referable to ventricular weakness. Dr. Balfour's views on the chlorotic murmur are well known, and his arguments in favour of its production in the auricular appendix rather than in the pulmonary artery, although much criticised, certainly afford a sufficient explanation of a difficult subject. There are lectures also upon murmurs in the pulmonary areas, and on variation and vanishing of cardiac murmurs, full of instructive and important matter. As to nervous affections, we note that he refers "cramp" to a fatal inhibition of the heart; and that he prefers in anginal diseases the inhalation of nitrite of amyl to the exhibition of nitro-glycerine. A lecture is also devoted to the action of digitalis and the therapeutics of cardiac disease. The author is strongly of opinion that digitalis is to be regarded as a cardiac stimulant, and he does not think that fatty degeneration contra-indicates its employment. Amongst tonics he speaks of strychnia, arsenic, and iron as the most useful, and he wisely insists on the importance of rest. The present volume contains additional matter in the lectures dealing with aneurism, and a reiterated statement of his belief in the value of treatment by iodide of potassium. On all these matters we must refer our readers to the work itself; it should not only be read but carefully studied, for we venture to think that all who do so will be amply repaid for their pains. They will not only gain a large amount of useful information, but will be led to think far more deeply of the changes, structural and functional, that the heart undergoes in adapting itself to the proper performance of its functions under the strained and altered conditions imposed by valvular disease. The result will be that, under the inspiration of the author, they will approach each case of cardiac disorder with a more profound interest, knowing what physiological problems underlie it.

*The Transactions of the Edinburgh Obstetrical Society.* Vol. VI.—The Edinburgh Society has this year for the first time published the work of one session in a separate volume. It is stated in the preface that this has been thought advisable by reason of the "greater bulk of its proceedings, during the past and present sessions, as compared with previous years." We heartily congratulate the Society on this step, for the volume represents an amount of work that would do credit to a much larger society than the Obstetrical Society of Edinburgh. The volume contains quarterly reports of the Royal Maternity and Simpson Memorial Hospital, but we will postpone our consideration of these to another occasion. Of the more interesting and valuable papers in the volume we would mention Dr. Hart's on the Shape of the Female Bladder; Dr. Macdonald's on Chronic Inversion of the Uterus; Dr. Napier's on Puerperal Temperatures; Dr. Halliday Croom's on a Complication of Occipito-posterior Position of the Vertex; and Dr. Turner's on Delivery by the Breech through a Flat Rachitic Pelvis. It is somewhat inconvenient to find a discussion in the present volume of a paper which we are told will appear in the next volume of Transactions; and we do not see the object of publishing in the Transactions of the Society a brief account of the diagnosis and treatment of ovarian tumours, a subject which is better and more fully treated in works on diseases of women, as well as in special treatises on ovarian diseases.

*Transactions of the American Gynecological Society.* Vol. VI.—The present volume of Transactions is perhaps

the best hitherto issued by the Society; it is, indeed, if we take it as a whole, a very valuable contribution to obstetric and gynaecological literature. The paper of Garrigues on Exploratory Puncture of the Abdomen is an excellent piece of work. It is based on a large number of observations made by himself, and the discussion of the material shows an extensive acquaintance with the literature of the subject. There is a long paper by Dr. Bozeman on the Treatment of Fistulæ of the Vagina, an interesting article by Goodell on Bursting Cysts of the Abdominal Cavity, one by Gaillard Thomas on Expansion of the Bladder over the Surface of Abdominal Tumours as a Complication of Laparotomy, and an interesting paper by Dr. Underhill on Jaundice in Pregnancy, with cases. The volume contains several papers a great part of which is historical. There is a tendency nowadays to commence papers by reviewing the past, and this in many cases is interesting and quite justifiable; at the same time, we think this is frequently overdone, and contributions would be far more valuable, far more interesting, and less wearying, were their authors to present their observations in as brief a form as possible, without the encumbrance of the usual historical introduction. There is a paper in the volume before us, of nearly fifty pages, on the Practice of Gynaecology in Ancient Times, which consists merely of extracts from ancient authors, showing their notions of the diseases of women and their modes of treatment. Interesting as the past must always be to men of culture, yet we fail to see that the Transactions of the Gynaecological Society is the place for such an abstract as the one before us, and we cannot see any reason for its publication in the volume.

*Skizzen aus der Chirurgischen Klinik des Herrn Professor Dr. Ritter von Nussbaum.* Von Dr. ISENSCHNEID. Erste Heft. Sommer, 1881. München: F. A. Finsterlin, 1882.—Dr. Isenschneid tells us in his preface that he has not made any attempt to give a detailed account of cases under Nussbaum's care, but has endeavoured to pick out those points of practice which had impressed him, and which would be likely to be of service to general surgeons. He accordingly gives brief, but careful, sketches of forty-eight cases which he saw treated in June and July of last year. The cases vary in severity from hypertrophy of the tonsils and retention of urine to excision of the jaw and laparotomy. They are recorded without elaborate detail, but by a competent observer who has grasped one or more points in them, and succeeds in presenting those points clearly. The sketches are very interesting, and full of practical instruction, and we are glad that Dr. Isenschneid promises a second instalment, double the size, in the course of the year. This second part will contain sketches of cases treated in the winter session 1881-82.

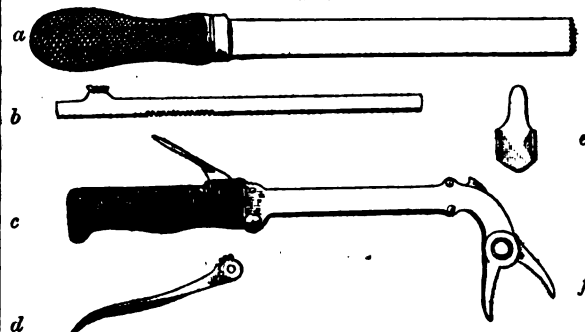
## New Inventions.

### A NEW OSTEOTOME, AND ELEVATORS.

THE Osteotome figured in the diagrams below is the invention of Mr. B. Campbell Gowan, a student at Guy's Hospital, who, it is almost needless to say, has devoted considerable time to the pursuit of practical mechanics before entering the medical profession. The instrument consists of two main parts. The first is a forceps (Fig. 1, c) with jaws working in a plane at right angles to the long powerful handle. With this the bone to be sawn is held. To render the hold on the bone secure, a thrust-rod (b) runs in the upper part of the handle, and its end presses upon and actuates the male or distal jaw of the forceps (f). On the upper edge of this rod is a thumb-piece, and on its lower edge it is toothed and is brought into gear with teeth on the pinion of a lever (d), which is fitted on below the handle. When the jaws of the forceps grasp the bone, the rod is thrust forwards with the thumb, and then by raising the lever (d) in the palm of the

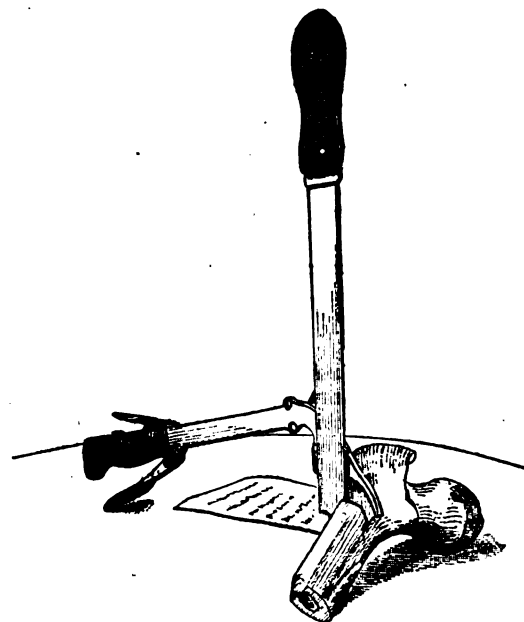
hand, the thrust-rod is fixed and pressed still further home, and the jaws of the forceps thus made to grasp the bone immovably. The second part of the instrument consists of a long saw-blade and handle (a). The teeth are cut on the end of this blade, are double, and have a slightly forward direction. This is fixed on to the forceps by a pivot-slide (e), which has a pin on its back (not shown in the diagram),

FIG. 1.



which passes through a bush in the centre of the jaws, and keys the saw on to the forceps. On the front of the pivot-slide are lip-flanges, and the sides of the saw-blade fit accurately into them. With the forceps fixed on to the bone in the desired position and plane, the saw-blade is slipped down into this pivot-slide, and on until its teeth rest upon the bone. The saw is then at right angles to the handle of the forceps, and parallel with the blades, as shown in Fig. 2.

FIG. 2.



The surgeon grasps the forceps tightly in one hand, and works the handle of the saw to and fro in the only plane in which movement is free—viz., parallel to the sides of the jaws,—and the bone is rapidly and accurately sawn across. The instrument has been used at Guy's Hospital, and found to answer well. Its advantages are the firm hold on the bone, and the ease and rapidity with which a true section of a bone can be made without injury to the soft parts.

Mr. Gowan has also devised Elevators for operations upon bones. They are so shaped as to be easily passed beneath a bone, one on each side, and their curved ends fit into each other. When in this position, by depressing the handles, the bone lying on the other ends is at once pressed up into the wound.

The above instruments, which promise to be of considerable value, are made by Mr. Hawksley, of Oxford-street.

# THE LANCET.

LONDON: SATURDAY, NOVEMBER 11, 1882.

AN official communication has been received by our Solicitors from the Solicitors to the Corporation of Brighton. It runs as follows:—"We are instructed by our clients to request you to convey to Dr. WAKLEY their appreciation of the fair spirit which has prompted him to insert the whole of Dr. RICHARDSON's Report in your issue of the 4th inst., at what we know must have been a very considerable expense and occasioned him some inconvenience. We are instructed to take no further steps in the action."

The Mayor and Corporation of Brighton have, therefore, abandoned the proceedings which they impetuously commenced against THE LANCET for its critical remarks on the insanitary condition of the sewers and sewerage of that town. They have acted wisely. We printed Dr. RICHARDSON's "Report" simply because it seemed fair to the Corporation of Brighton to do so, and because the admissions and recommendations of Dr. RICHARDSON—as was the case with the admissions and recommendations made by Sir JOSEPH BAZALGETTE, the other authority consulted by the Corporation—supplied a full justification of our original and subsequent remarks and suggestions. Neither of these gentlemen has, in our judgment, hit on the right plan of amendment, but both acknowledge—Dr. RICHARDSON emphatically—that the ventilation of the sewers must be (to use his own adjective) "enormously" increased. In short, Dr. RICHARDSON and Sir JOSEPH BAZALGETTE agree in recognising that during a considerable portion of each twenty-four hours "the intercepting sewer" is tide-locked; and while the one would stud the town with air-shafts, "not less than four inches in diameter," the other would throw open the sewers "in at least twenty parts of the town," from man-hole to man-hole, covering the opening only with a grating; and both would rely on almost continuous pumping and flushing to get rid of the sewage. As we have said, neither of the recommendations made by the chosen advisers of the Corporation seems to us completely suitable or adequate; but it is not our function to solve the problem of local sanitation. We discharged our duty in pointing out the need that undoubtedly, and now admittedly, waits to be satisfied.

The Corporation having receded from a position which it ought never to have taken up, we can only wish the local authority well out of its difficulty. It was solely with a desire to help forward the reform which we knew, and what the people of Brighton now know, to be necessary that our criticisms were made. No consideration has ever yet deterred us from exposing what we believe to be remediable faults in the sanitation of any place of public resort, and nothing will induce us to abstain from an honest discharge of this function in the future. We were perfectly prepared to abide the issue of the proceedings which the Mayor and Corporation of Brighton unadvisedly instituted, because our

only desire has been to help in the remedy of an evil to which we trust the sanitary authority will now direct its undivided attention. That evil *must* be remedied. Delay is to be deprecated, and if the Corporation of Brighton is well advised it will, as soon as its differences with the authorities at Hove are settled, reconsider the whole question, *de novo*, with a calmer spirit and in a clearer light. The problem of reconstruction is confessedly one of exceeding perplexity, looking to the many and costly schemes which have been submitted. Our own idea, as expressed at the outset, is that the most complete sanitary reform, though it may seem to involve the largest outlay at once, will be cheapest in the end. Of this question of policy we are not, however, the arbitrators. All we have said, and now repeat, is that the sanitary condition of Brighton is faulty, and that it calls for a remedy which the Corporation should not, and we hope and believe will not, further hesitate to apply.

WE were not wrong in indulging a hope that the Government would be questioned on the subject of the Royal Commission on Medical Acts. In our Parliamentary report of last week our readers will see the answer of Mr. MUNDELLA to Sir TREVOR LAWRENCE, which on the whole is satisfactory. The Report of the Medical Commission is at present under consideration, but the Department had not arrived at such a stage in their deliberations as to enable Mr. MUNDELLA to state what course they proposed to pursue. We must remember that this answer was given on the 2nd of November, and that we are yet fully three months from the time at which any actual legislation can be proposed. No doubt the present suspense and tension of all the medical bodies and of the whole army of medical students are great, and ought to be relieved. Nevertheless, we must give the Government time to consider and deliberate.

There are a few facts on the very surface of this subject which cannot be too deeply considered. The first is, that there is an universal feeling that we have too many examining bodies, and that if legislation is to be efficient we must get rid of some of them. Sir JAMES PAGET—as readers of the evidence will see—puts this fact in the most kindly and euphemistic way. Plied by Mr. HUXLEY with the difficulty that a conjoint system would give a new Parliamentary title to certain bodies which "it may not be very desirable to perpetuate," Sir JAMES said: "I think with some of them it would be, on the whole, an advantage if they ceased. I have often wished that there was a timely mortality amongst institutions as amongst men."

But it is not only English medical reformers who think that the time has come for allowing some of the medical corporations to "fall on sleep." Here, at least, we have the concurrence of some, if not all, of our Scotch friends. Professor TURNER may be accepted as their mouthpiece, and he is decidedly in favour of disfranchisement, or, as Sir JAMES humanely puts it, "the timely death," of a few of the entirely superfluous corporations. In the special Memorandum by Professor TURNER appended to the Report of the Royal Commissioners (page 29) the following paragraph occurs: "As regards the two Societies of Apothecaries, I am of opinion that their existence as licensing bodies is an anachronism, and that they should in future cease

to take part in conducting examinations for a licence to practise."

The only difference between Scotch and other reformers in this matter is that the Scotch see their way clearly to drop an English and an Irish corporation, but cling to the hope of saving the superfluous one in Scotland from that timely death so feelingly desiderated by Sir JAMES for institutions that have obviously no further *raison d'être*, and can only be perpetuated by what is virtually a tax on the medical profession. It is surely an excess of patriotism to shield a superfluous corporation in a division of the kingdom with three corporations to four millions of people, while you are sacrificing one in another division where there are only three to twenty-five millions. Scotch liberalism will not make such a mistake in fairness and thoroughness.

The second fact is that there is an universal feeling in favour of a complete qualification diploma being given instead of the *half diplomas* which are now dispensed; that the diploma-granting bodies shall be reduced to three—one for each division of the kingdom; and that the curriculum, examinations, and fees of these Boards shall be as equal as in the nature of things it is possible for them to be. It is time that the mutual disparagement of licensing bodies should cease, and that men who hold their licence from a college in Edinburgh should not be taunted with holding an inferior document by those who hold their diploma from a college in London or Dublin. The legal privileges conferred by diplomas are the same in each division of the kingdom; so should be the knowledge guaranteed by their diplomas.

To this end the creation of a new Medical Council is indispensable—one in which Corporations shall cease to be individually represented. It would be monstrous that while being deprived of their individual licensing power, they should retain an individual representation on the Medical Council. The grouping of the undiafranchised corporations for examining purposes will necessarily carry their grouping for purposes of representation, as recommended by the Royal Commissioners. This will make room for another recommendation of the Commissioners, in regard to which the profession and the public seem unanimous, that the medical profession, apart from its cliques and corporations, should have a certain number of representatives. The public will not believe, with Mr. SIMON, that all these representatives will care about will be questions of pecuniary and professional advantage. Such a suggestion is little short of an insult to the profession, and comes with bad grace from Mr. SIMON. As experienced practitioners they will take their share in debating practical questions of medical education which have been very little advanced by the Medical Council.

UNDER the heading "Mansions of Death," a title somewhat vivid perhaps, but still not more so, we fear, than the circumstances fully justify, Mr. W. K. BURTON, a consulting engineer, addresses himself to the daily press, with a view of drawing public attention to the grave sanitary defects which characterise a large proportion of London houses. The story he tells as to the condition of houses in the neighbourhood of Mayfair, as regards their drainage, would hardly need to be altered if it were told of nine-tenths of the area of the metropolis, and it is probable that in one respect only do the modern houses materially differ from those which have

for several generations constituted the fashionable districts of London. This difference lies in the brick barrel drain, so often an elongated cesspool, which has within recent years been replaced by the use of ill-laid, ill-jointed, and hence leaky glazed pipes. Owing to the faulty manner in which London houses are grouped together, it is almost everywhere a matter of necessity that their drains should be carried beneath them in order to reach the sewer, and the various offices from which waste and other drain-pipes pass are often, sometimes through ignorance, but still more frequently from motives of architectural economy, so situated as to make it most easy to connect those pipes directly with the drain in the course of its passage beneath the dwelling. In every large and well-appointed house it thus comes to pass that several soil-pipes, a number of waste-pipes from housemaids' sinks, butlers' pantries, baths and lavatories, in addition to overflow pipes from some three or four cisterns, all connect the interior of the house with the interior of the drain; and the latter being rarely provided with a sufficient trap in its course to the public sewer, the house and the sewer itself come to be in direct communication with each other. The mansion, too, is far worse off than the cottage, for the larger the establishment the more numerous will be the pipes by which foul air is thus laid on from sewer to house. It is true that most of the drain connexions referred to are provided with some form of trap, but it is well known that even the most perfectly designed apparatus cannot be trusted to keep back noxious effluvia from the sewer, especially when there is a marked difference between the temperature on the house side and that on the sewer side of the trap. Hence we cannot too emphatically protest against the prevailing and misplaced faith in the power of traps to keep sewer-air out of houses. Between the interior of the house and the interior of the drain there should at every point be an absolute air-break; and traps, though serving useful purposes in connexion with waste and other pipes, should never be relied on to prevent the passage of drain-air, except at such drain inlets as are out of doors. The house-drain itself should be bedded in concrete, and otherwise rendered impervious to the passage of either foul air or sewage into the surrounding soil; it should be fitted with a syphon trap before its junction with the sewer, and it should be provided with two ventilating openings at different levels, so as to secure throughout its course a never-ceasing current of fresh air. The neglect of these precautions, so simple in themselves, and yet of such vital importance, is but too often a cause of unnecessary death, and still more frequently of conditions of ill-health, the removal of which is beyond the range of therapeutics. Families who take highly-rented mansions and houses for a London season soon find themselves suffering from malaise, headache, physical prostration, sore-throat, and other obscure symptoms, which are rarely attributed to their proper cause, but are almost invariably set down as the natural incidents of a life of exceptional gaiety, to late hours, and to a change of air; and it is only when some serious and often fatal attack of diphtheria or enteric fever results from the inhalation of the poisoned air, that the real cause of the evil is suspected. Too often it is even then most difficult to prove the relation between cause and effect. Houses, the air of which is hardly ever free from contamination, may yet never have

been the seat of really offensive effluvia, and it cannot be too widely known that offensiveness is by no means a necessary characteristic of those specially dangerous emanations which carry with them the poisons of the specific fevers. The more offensive gases are readily absorbed by the water-trapping, whereas particles of infection may pass into the air of the dwelling from the evaporating surface of the trap.

Nothing short of such structural arrangements as will with certainty ensure the exclusion of all sewer and drain air from dwellings can be regarded as sufficing for the protection of the public against the needless risk which they now run in houses, whether old or modern. In London the risk is perhaps at its greatest, and this because modern regulations as to building operations are much more readily adopted in country towns and boroughs, where the sanitary jurisdiction is in the hands of a single authority, than in the metropolis, with its divided rule and divided responsibility. But still London does not stand alone in this matter; the evil is widely spread. Indeed, it is at this season of the year especially that we learn most of disease and death brought about by similar faults in the sanitary arrangements of places which, by the very fact that they offer themselves as health-resorts, should be the first to eliminate from their midst conditions of house-construction so fraught with danger to life and health.

THE letter on the Report of the Royal Commission on Infectious Hospitals which has been addressed to us by Mr. PEARSON HILL, and which we publish elsewhere, raises a question of considerable importance in connexion with the future isolation arrangements for the metropolis. The Commissioners propose to set a limit to the number of small-pox patients to be aggregated on any one site; but, except in so far as a similar end may be arrived at by the division of London into hospital districts, each district to isolate its own cases of infectious disease, no such limitation is proposed as regards scarlet fever and the continued fevers. The ground for dealing differently with the two groups of diseases is, that in the one case—namely, small-pox—the aggregation of patients is known to have been followed by the spread of infection to the surrounding community; and in the other—namely, the remainder of the specific fevers—no such result has been recorded, and this in spite of the fact that thirty-two medical men having special acquaintance with the subject under consideration gave evidence before the Commission. Some positive evidence to the contrary was indeed adduced; especially that relating to the influence of the London Fever and the Warrington Borough Hospitals on the neighbourhoods in which they are situated. But this evidence, which is detailed in the recent official Report on the Use and Influence of Hospitals for Infectious Diseases, cannot, in some important respects, be regarded as sufficient to determine finally the question as affecting the hospitals belonging to the Metropolitan Asylums Board. Thus, taking the question of the isolation of scarlet fever, we find that in neither instance did the number of patients under isolation at any one time reach that which the Asylums Board hospitals are intended to receive; the highest numbers attained being at the London Fever Hospital, where a total of 103 scarlet fever patients were simultaneously under treatment in 1875, and a total of 108 in 1879. The matter

is somewhat different with regard to typhus and relapsing fever. Thus, in 1864 there were 168, and in 1865 there were 162 cases of typhus, and in 1869 there were 250 cases of relapsing fever, at one and the same time in the hospital; and notwithstanding the fact that the buildings are somewhat closely surrounded by dwellings, no case of the spread of either disease could be learned as the result of two inquiries. Taking scarlet fever, relapsing fever, and the several continued fevers together, the numbers simultaneously under treatment in the London Fever Hospital have been much larger. Thus, according to a table prepared by Mr. SHIRLEY MURPHY, it appears that on the last day of thirty-six months during the nine years 1862-70 the total number of such patients then in hospital varied from 200 to nearly 400, the highest totals reached being 369 on one occasion and 391 on another. But the fact that the patients in question, though in the aggregate numerous, suffered from different diseases, and were in consequence centres not of one but of several different specific infections, prevents any comparison being drawn between the results of their simultaneous treatment in one institution and the possible practice of large fever hospitals in the future. The fact remains that we have no sufficient evidence to show whether the aggregation of cases of scarlet fever and the other fevers beyond a certain point can be attended by results similar to those which followed on the simultaneous treatment of a considerable number of acute cases of small-pox at Fulham, and it is obvious that nothing short of an inquiry as minute and as painstaking as that which was made by Mr. W. H. POWER in the Fulham case will suffice to clear up the point.

We are hardly able to agree with Mr. PEARSON HILL in his contention that fever patients can be removed to distant hospitals with the same absence of risk as is the case with small-pox patients. Dr. MURCHISON's statement to the effect that the mortality amongst patients brought to the London Fever Hospital from a distance was no greater than that amongst those conveyed shorter distances, applied, we believe, solely to cases of typhus. As regards enteric fever, and indeed scarlet fever also, the matter is different. Thus the diagnosis of enteric fever is often not sufficiently certain to warrant isolation in hospital until a stage has been reached when a long journey would be fraught with much risk, and bearing in mind that removal to isolation hospitals is usually effected in the interests of the public, all unnecessary risk to the patient should be avoided. Dr. MURCHISON's writings go strongly to urge the avoidance of all unnecessary movement in the case of this fever; and the statement of the Commissioners, to the effect that long removals must not be risked even in cases that are not very severe, is, we think, fully borne out by experience. This, however, points, not to aggregation at large centres, but to the provision of small hospitals at reasonably available points.

WE observe with much satisfaction that Sir GARNET WOLSELEY in his despatch to the Secretary of State for War, forwarding for his information the names of those who, in his opinion, should be specially brought to favourable notice for the good work they did during the campaign, has not forgotten the medical officers. He says, "The Medical Department, under Surgeon-General HANBURY, C.B., has



done everything that could possibly be done for the care and comfort of the sick and wounded. The manner in which the wounded were removed from the fighting-line by the bearer-company was most satisfactory. The following officers are brought specially to my notice:—Deputy Surgeon-General J. EKIN; Deputy Surgeon-General W. G. N. MANLEY, V.C.; Deputy Surgeon-General J. A. MARSTON; Brigade-Surgeon O. BARNETT, C.I.E.; Surgeon-Major G. S. DAVIS; Surgeon-Major T. F. DWYER." We trust that in the distribution of honours these officers will not be overlooked. In addition to them, however, Sir GARNET WOLSELEY, in reporting upon his personal staff, brings to notice the medical officer who was specially attached to him, Brigade-Surgeon R. W. JACKSON, C.B., of whom he says, "Brigade-Surgeon JACKSON, C.B., who has seen service in all parts of the world, has, through the many wars he has taken part in, distinguished himself throughout by his coolness under fire, and by his zeal as a medical officer. I would venture to recommend him for special promotion." Mr. JACKSON served in the Crimea, the Indian Mutiny, and the Ashanti war, and has always been a zealous and efficient officer. But there is a serious difficulty in the way of his receiving the promotion for which he is thus recommended. Mr. JACKSON was placed upon the retired list in August last, in accordance with the provisions of the Royal Warrant of Nov. 27th, 1879, having attained the age of fifty-five. To replace him on the active list and promote him would be in direct contravention of the Warrant, would be an act of injustice to the officers—in number about thirty—over whose heads he would be promoted, would undoubtedly revive in the Department the feeling which existed before the late reorganisation that Royal Warrants were no guarantee that the rights of medical officers would be respected, and would establish a dangerous precedent, which hereafter might be considered applicable to the Army generally. It would also reflect most injuriously upon Sir GARNET WOLSELEY if one of his early acts as Adjutant-General were the direct violation of one of those Warrants which it is his official duty to administer, in order that he might reward an officer who had served on his personal staff. We feel strongly that Mr. JACKSON is entitled to his well-earned reward, but it ought not to be one which will inflict an injustice upon his brother officers, destroy their confidence in Royal Warrants, and bring discredit upon the highest military authorities. We trust that Mr. CHILDERS may be able to find some means of adequately recognising Mr. JACKSON's services without incurring so grave a responsibility.

ON Wednesday, at a meeting of the Wednesbury Sanitary Authorities, it was stated that, owing to the alarming outbreak of small-pox which has recently occurred in that district, upwards of £2000 had been expended in providing hospital tents and the maintenance of patients. The disease is being gradually stamped out of the district, and there are now only forty-two patients in the hospital.

At a meeting of the Election Committee of the Middlesex Hospital, held on Monday last, Mr. A. Pearce Gould was appointed Assistant-Surgeon, in the room of the late Mr. Lyell. By this appointment Mr. Gould is transferred from the Westminster Hospital, where he has been for the past five years Assistant-Surgeon and Lecturer on Anatomy.

## Annotations.

"Ne quid nimis."

### ROYAL COLLEGE OF PHYSICIANS.

AT the last meeting of the Royal College of Physicians the following resolutions, moved by Dr. Acland, were referred to a Committee to report upon. It will be seen that they contemplate a very important step in the system of licensing examinations, which, if carried into effect, may eventually solve the vexed question of a complete licensing board so far as England is concerned. It is premature, however, to discuss the subject until it has taken more definite shape. Meanwhile the profession and the Government also will await the result of the proposal with interest. The resolutions ran as follows:—

"1. That whereas the Royal Commission on granting medical degrees has now affirmed the principle of diminishing the number of examining boards for medical licences, the Royal College of Physicians takes the opportunity of reaffirming that principle, already adopted and acted on by it."

"That the President be requested to name a Committee to consider and report to the College at its next meeting, what combination the College can best enter into for examination purposes, so as to secure for England, without further delay, one complete Pass Examination Board, which shall be satisfactory to the profession, the Medical Council, and the Government."

"3. That the President be also requested to take such steps as he may see fit, in order to obtain for the Committee the fullest information on the matter referred to it, before the next meeting of the College."

THIS is not the first time that the College has moved in this direction, but now being no longer bound by the Conjoint Scheme (the five years' grace having expired), it is free to invite the co-operation of another licensing body in the furtherance of the desired object.

### THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE public health, judged by the Registrar-General's mortality statistics, continues satisfactory, and shows a marked improvement upon that which prevailed a few years ago. With the single exception of the three months ending September, 1880, the national death-rate reported by the Registrar-General has been considerably below the average for the corresponding period in each quarter since the beginning of 1880. Indeed the English death-rate has been almost continuously below the average since the end of 1875, an improvement which it appears only reasonable to attribute in great measure to the stimulating effect of the Public Health Acts of 1872 and 1875, upon sanitary organisation, and sanitation in general. The English annual death-rate during the past summer, the Registrar-General reports in his Quarterly Return, just issued, did not exceed 17.7 per 1000 of the estimated population, which was 1.5 below the average rate in the ten preceding corresponding quarters, although it showed an excess upon the exceptionally low rate in the summer quarters of 1879 and 1881. In other words, the mortality last quarter was nearly 8 per cent. below the average, signifying that more than 10,000 persons survived the three months in England and Wales, who would have died had the average death-rate been maintained. The low death-rate during last summer was undoubtedly due in great measure to the unseasonably low temperature, which induced an unusually low rate of mortality from diarrhoea. The saving of life during the quarter from the low diarrhoea rate was, however, less than half the saving from all causes. The decrease of mortality was equal to 9 per cent. among

infants under one year of age, to 6 per cent. among children and adults aged between one and sixty years, and to 2.0 per cent. among persons aged upwards of sixty years. The death-rates from scarlet fever, "fever," and small-pox were also below the average, whereas those from measles, whooping-cough, and diphtheria showed a slight excess. The mortality statistics of the past quarter—the crude death-rate, the zymotic death-rate, and the rate of infant mortality—point conclusively to a continuance during the last quarter of the recent well-marked improvement in the national health.

### THE "SOCIAL EVIL" AND THE CONTAGIOUS DISEASES ACTS.

A GREAT deal of righteous indignation has recently been expended on the state of our streets, and particularly the Strand, in regard to morality and the obtrusive parade of the social evil. There was much need for an expression of public opinion on this subject. We doubt whether there is in any other city in the world so shameless a flaunting of vice as not only may, but must, be witnessed by any foot passenger from Charing-cross to Waterloo-bridge at almost any hour between noon and midnight. It is a disgrace to the nation that throughout this country, with the exception of a few garrison towns, nearly every "populous place" is an open hotbed of pestilent moral corruption; while for special blazonry of the social evil some districts of the metropolis could scarcely be surpassed. We are not exaggerating the extent of the nuisance, nor is the view we take of the subject dictated by a narrow-minded conventionalism. Matters have come to such a pass that the police are powerless to do anything in the matter; and the shameless proceedings of the women who infest our streets are more demonstrative at this present time than at any other within memory. The harm done to the interests of social morality by the tolerance of this evil cannot be readily estimated. The pharisaical and fatuous policy of the Middlesex board of magistrates has been, and still is, to close the special places of resort which the common women of London of all grades once frequented; and where, at least, they were out of sight and could be avoided. The effect has not been to sweep back the ocean, but to flood the land. By blocking the old channels they have simply inundated the surrounding districts. It is now impossible for any man who would not be molested to walk up the east side of Waterloo-place, on his way from east to west, after the business or pleasure of the evening. The crowd is as dense as would be found in any ordinary business thoroughfare at a particularly busy hour; and not only a majority of the persons composing the crowd, but, with scarcely an exception, all, are actively and noisily bent on vice. Nevertheless, the shrieking sisterhood, and the study philosophers and book-room philanthropists, who either themselves conduct, or meddle and muddle in, our domestic political affairs, are doing their utmost to prevent recourse to the only measure which would be of the slightest avail in staying the plague. Nothing short of the universal adoption of the Contagious Diseases Acts, placing this most contagious moral malady under the direct control of the police, can rid us of an evil which is destroying the young of both sexes. If the Acts to which we refer were in operation in the metropolis three-fourths of the young females who now loiter in the streets, dallying with vice, would be deterred from doing so by the fact that the practice they at present pursue with perfect immunity from risk or punishment, would then certainly bring them within the grip of the agents of the law. It cannot be doubted that the tolerance of habitual street-walkers induces young women who have not yet actually entered that class to mingle with them, and imitate their proceedings. Again, the worst members of the class itself would be compelled

either to abandon their present line of life, or at least to pursue it under conditions which would not augment the demand by increasing the supply. The time has come when—leaving the man's view of the question wholly out of account, as the agitators against these Acts are wont to leave it—the woman's aspect of the problem, and her interests, require the only practicable and effective solution; namely, extension of the Acts, and the placing of the public morals of the country under, we will not say magisterial, but police, control. For a prompt and unhesitating application of this remedy for the existing perilous and pitiful state of matters, it is now the duty of every order-loving citizen to appeal.

### THE ELECTRIC LIGHT.

BEFORE the electric light becomes, as it must soon become, the common illuminating agent of the period, a determined effort should be made to devise some mode of mitigating its peculiarly unpleasant intensity. The vibratile impulse of the electric force is obviously stronger than the delicate terminal elements of the optic nerve in the retina can bear without injury. We are wont to apply the adjectives "hard" and "soft" to light, and their significance makes them peculiarly appropriate. The electric light is too hard; it needs to be softened. The waves of motion are too short, and the out-stroke—so to say—joins the in-stroke at too acute an angle. This might doubtless be obviated by employing suitable material for globes and shades, but perhaps the best plan would be to break up and scatter the rays of light by reflection. If a small convex reflector were placed immediately below the light in the protecting globe, and one of larger dimensions above it, so as to secure a double reflection with ultimate divergence downwards and outwards, the effect would be to cause the "rays" of light to fall obliquely on all objects within the immediate area of illumination. This would perhaps obviate the need of coloured glasses, which the promoters of the electric light seem to dislike. Certainly there is a considerable sacrifice of power in the use of the opaline globe—so much, indeed, that some of the districts lighted by electricity displayed through this medium do not present any very obvious superiority over gas. We throw out the suggestion for what it is worth. Something must be done, for, as it is, the electric light is "trying to the eyes," which means that it is in danger of injuring them, and already there is reason to believe mischief has been wrought by its use. For true comfort there is nothing like the light given by the old-fashioned pure wax candle.

### THE TRAUMATIC ORIGIN OF LOOSE BODIES IN JOINTS.

IN France, and Germany especially, the statement that in falls and blows upon the knee or other joint a portion of the normal articular cartilage and bone can be broken off and remain in the joint as a "loose body," has met with much opposition. In England this view has met with more general acceptance, and in modern special treatises and text-books no doubt is thrown upon it. On the one hand, cases are cited where persons with apparently perfectly healthy joints have after a fall or other severe local injury shown all the symptoms of "loose body;" and it has been found in some cases that corresponding more or less exactly with the outline of the loose body is a gap in the joint surface of the femur and tibia. On the other hand it is alleged that in these cases, although there may have been no previous signs of joint disease, there were really outgrowths from the articular cartilage that were broken off by the injury. In the gradual enlargement of these supposed outgrowths, the pressure upon the opposed joint surface has caused its absorption to an extent corresponding to the size of the outgrowths. This view will be held by most surgeons to

be fanciful, and not to accord with the most simple and straightforward interpretation of the facts, and it has been rejected in this country. M. E. Poncet of Cluny has approached this question from the histological point of view in a paper in the last number of the *Revue de Chirurgie*. Here he states that in capsular "arthrophytes" a gradual transition from cartilage through fibro-cartilage to true bone is not unfrequently met with, that there is sometimes calcification of the fibro-cartilage quite distinct from true bone, that in all specimens a hilus or remains of a pedicle are to be seen, while in none is there any capsule of newly formed fibrous tissue surrounding the loose body. In true traumatic "arthrophytes" he found, on the contrary, no hilus or sign of any pedicle, but the body was surrounded by a thin cortex of newly formed fibrous tissue, while a section showed that the line of separation of the bone and cartilage was sharp and abrupt, and without any intermediate zone of fibro-cartilage. The bony matter, too, was always placed to one side of the body, and was never completely surrounded by cartilage, but partially in immediate contact with the cortex of fibrous tissue which was found to be histologically continuous with the cell tissue in the cancelli. These observations certainly afford a further proof that "arthrophytes" may be produced by injury to previously perfectly healthy joints. M. Poncet advocates the removal of "loose bodies" through a sufficiently free incision, but he disapproves of the subsequent use of a drainage-tube. Regarding the drainage-tube as solely intended to prevent the exudation from the wound passing into the joint, he endeavours to secure this object by suturing the synovial membrane with fine catgut, and closing the external wound in a similar manner. As M. Poncet mistakes the object for which the drainage-tube is used in such cases, his argument upon it is misleading. The tube is used to run off any excessive secretion from the synovial membrane that may be caused by the interference of the operation. M. Poncet's successful case only shows that in it this secretion of synovial fluid did not occur, and it would be rash in the extreme to argue from it to all cases of a like nature.

#### ABERDEEN UNIVERSITY.

THE opening of the winter session at Aberdeen University has this year been peculiarly interesting from the fact that no fewer than four professors were called upon for the first time to conduct classes within its walls. Three of these belonged to the Medical Faculty, and by a singularly happy coincidence, though the positions were vacant for various reasons, none of the gentlemen had to fill a blank caused by the hand of death. Through the retirement of the venerable Professor Pirrie, whose high services, enthusiastic character, and distinguished position were appropriately referred to by every speaker in his turn, the chair of Surgery has been left to Dr. Alex. Ogston, who commences his professional life amid high hope and after able work in the science and practice of his subject. Dr. Alleyne Nicholson succeeds Dr. Cossar Ewart, now of Edinburgh; and Dr. Hamilton has the honour not only of initiating the work in the chair of Pathology, founded through the munificence of Sir Erasmus Wilson, but of occupying a position unfortunately unique in the profession. The duties of the Pathology chair are quite as arduous as are those of the professor of the sister subject, Physiology, and, though the teacher of the latter science is not in all cases a pure physiologist, it is usually recognised as an advantage to his students and to science generally if he is not distracted by the cares of private practice. Sir Erasmus Wilson took a similar view with regard to the teaching of pathology, and has so handsomely endowed this chair at Aberdeen that the services of such a well-known pathologist as Dr. Hamilton could be obtained, and that gentleman is now the only teacher of pathology in

Britain who, by the rules under which he holds office, confines himself entirely to the elucidation of that subject. We have frequently drawn attention to the undoubted deficiency in most of our English schools arising from the subsidiary part which teaching takes in the lives of many of our best men; and if the generosity of Sir E. Wilson could be imitated and the financial difficulty overcome in these cases, it would be of vast benefit to scientific medicine. In any case, the teaching power has been greatly strengthened at Aberdeen by the institution of a chair of pathology—a subject which, both from its own importance, its rapid growth, and the lessening time left to its incidental treatment in other classes, demands separate consideration in any well-arranged curriculum. During the past few years the Aberdeen School has been subject to many losses, and graduates of a few years' standing would now find but few of the old teachers doing duty. There are but three chairs in the Medical Faculty occupied as they were in 1875, and two at least of these are filled by men of great vigour. A staff composed of men comparatively youthful, and thoroughly well chosen, should be equal to excellent work, and the new professors will have the best wishes of all interested in this northern school.

#### DRAINAGE AND TYPHOID IN PARIS.

AGAIN the grave increase of typhoid fever in Paris must call public attention to the extraordinary imperfections of the drainage of this "centre of civilisation." Most of the houses communicate direct at once with a cesspool and with the public sewers. That the water in these sewers is highly contaminated has been demonstrated over and over again by the death of all the fish in the Seine near the sewer outfall and by numerous analyses. No sink pipe is trapped in Paris, though it is sometimes conducted through the wall; where, as it measures only about two inches in diameter and joins the water-spout junction, which is some four inches in diameter, the connexion might be broken off and a sort of ventilation established. This, however, is carefully prevented by the use of a quantity of cement, so that the gases rising up the water-spout are conducted straight into the house, attracted by the higher temperature of the interior. Of late some of the iron pipes coming from the houses into the sewer have been bent upwards at their extremity, and form a sort of spoon which retains a little water and is supposed to act as a syphon. But this is a mere illusion, as there is no "dip" whatsoever to the syphon, and the slightest pressure or the smallest ripple over the surface of the water, caused by wind or the falling of a heavy substance, would suffice to break the seal. We may therefore safely assert that an enormous majority of the Paris houses are utterly unprotected against the injurious emanations from cesspool and sewer. Further, many closets are utterly devoid of water-supply, while in all instances the house drain-pipes are much too large, and therefore cannot be kept clean, particularly when the fear of overflowing the cesspool necessitates a stint of water. Over and above these considerations, the sewers themselves are so unsuitably constructed that they do not act, and it is consequently necessary to maintain, at great cost, an army of 800 men to literally push the heavy deposits along to the sewer outfall. Many of the small branch sewers also are so dangerous and foul that the men refuse to enter them, and these have to be left to engender disease, without even an effort to cleanse them. Finally, there is no organised method of ventilating the sewers. The necessity of sewer-ventilation has not yet been recognised, and what ventilation there may be is of a purely accidental description. In fact, the houses, by reason of their superior elevation and temperature, are the most active sewer ventilators that exist, and it is not till after the sewer-gas had been breathed by the inhabitants of the

apartments that it reaches the streets or open air. Of course, the more elevated quarters of Paris are subjected to a stronger pressure of sewer-gas, which in unventilated sewers generally tends to ascend to the highest points. Hence, typhoid fever is usually more prevalent at Montmartre, Batignolles, and along the course of the "collecteur du Nord." It will take many years and a large expenditure of money to remedy all these defects; still the evils might be modified to some extent by the immediate introduction of good syphons at the junction of the house-drains with the public sewers. Pending their reconstruction, the sewers might with comparative facility be ventilated, and police supervision could ensure greater cleanliness within the houses. All this could be done pending the adoption of some comprehensive and general scheme of drainage; and, though such measures would not suffice to place Paris on a par with modern principles of hygiene, still they would save many valuable lives. Considering the large number of Englishmen who frequent the French capital and, by their lavish expenditure, enrich the hotel- and shop-keepers of that attractive city, we have a right to complain of the risks our compatriots are compelled to incur when they visit Paris.

### THE PROPOSED CONVALESCENT HOME AT HASTINGS.

THE generous offer, by the Misses Briscoe, of the large mansion in White Rock Gardens, Hastings, to be used as a Convalescent Home for the patients of the infirmary and others, appears to be regarded with very mixed feelings by the parties concerned in the matter. By some it is looked on as a veritable white elephant. Owners of property in the neighbourhood of the mansion have issued a protest, threatening legal proceedings in the event of the premises being employed in the way suggested; whilst many friends of the infirmary seem to fear that the raising of the money necessary to maintain the Home will be effected with detriment to the financial interests of the former institution. The question of acceptance of the offer has been adjourned for six weeks, at the end of which time a committee of the infirmary is to be prepared with a report. Meantime it may be observed that trustees of charities are often placed in a difficult position by the offer of benefactions not exactly suitable to the object in view. Convalescent Homes are not well situated when in close contiguity with dwelling-houses. They should be placed in their own grounds, on an open breezy site, offering conditions most favourable to the restoration of the health of their inmates. If the mansion in White Rock Gardens could be disposed of for its full value and the money devoted to the erection of a building in a situation such as that described, the problem which the Hastings Infirmary Committee have to consider would, we think, receive a more satisfactory solution than any likely to be arrived at if the question is restricted within the limits which seem to be proposed.

### THE ACTION AGAINST DRs. CLUCKIE AND DOBIE, OF GREENOCK.

THIS action, in which £500 damages were claimed for the death of a child under chloroform, has ended, as might have been expected, in favour of the defenders. Proof was led before Sheriff Smith, and Drs. Macleod, Watson, and Dunlop, of Glasgow, and Drs. Wallace and Paton of Greenock, were examined at some length as witnesses for the defenders. At the conclusion of the proof, and after the agent for the pursuer had been heard, Sheriff Smith said that a grave attack had been made upon the professional skill, attention, and tenderness of two medical gentlemen, which was certain to subject them to considerable anxiety; and he considered it his duty, while

reserving his formal judgment until the extension of the shorthand-writer's notes, to take the earliest opportunity of relieving them of that anxiety, which he would do by pronouncing judgment at once. After stating that he had every sympathy with the bereaved parents, Sheriff Smith proceeded to say that he considered that it had been proved that the death of their girl had resulted from the visitation of Providence, and that no blame had been brought home to either doctor. In this case it was evident the chloroform had been administered with the utmost care and skill, and with every possible precaution, and that the parents were totally wrong in attaching any blame to Dr. Cluckie and Dr. Dobie. He had therefore no hesitation in pronouncing decree of absolvitor in favour of both defenders. Drs. Cluckie and Dobie will have the sympathy of the whole medical profession in the annoyance to which they have been subjected. The Glasgow Medico-Chirurgical Society have requested their Council to take such steps as they may deem necessary, either alone or in concert with the Council of the Faculty, to initiate a subscription for the purpose of assisting in defraying these gentlemen's expenses. It is to be hoped that the response to this appeal will be prompt and liberal.

### VICTORIA UNIVERSITY AND MEDICAL DEGREES.

ON the 1st instant the Manchester University conferred its degrees in arts and sciences on a numerous body of graduates for the first time since the date of its charter, in April, 1880, by which from a simple college it was converted into a university, for at present Owens College is practically the Victoria University. The graduates were all previously associates of Owens College, and have merely changed their academical title; and it is greatly to the credit of the College that so large a number of well-known literary and scientific students should have been ready for enrolment in the ranks of the new University. This proves most conclusively that no real hardship existed, for almost all these gentlemen already held degrees from other universities, and it shows that degrees by the best class of students are readily obtainable at the older universities and examining bodies. We are, however, more particularly concerned with the motion of Professor Roscoe, in accordance with which a petition to the Queen in Council was adopted, asking for the grant of a supplemental charter to enable the Victoria University to confer degrees and distinctions in medicine and surgery. The chief point in the petition is reserved for the last sentence; the preceding paragraph referring to the staff and the students can scarcely be seriously urged for when the teaching-staff is no larger, and the number of students no greater, than in some of our metropolitan schools who advance no such claims for giving medical degrees. This sentence runs thus:—"Your petitioners believe that it would not only complete the powers and increase the usefulness of the University which Her Majesty has been pleased to found, but also that it would have the effect of raising the standard of medical education, particularly in the North of England, and would promote the advancement of medical science if the power to confer degrees in medicine and surgery were granted to the Victoria University." The utility of the University will not be impaired if the degrees, which we merely look on as a bait for additional students or a desire "to brand one's own herrings," be refused, for we are quite sure, not only that there are degree-giving bodies enough already in Great Britain and Ireland, but that an additional one will only be made use of as a precedent for other ambitious medical schools and colleges to press forward their claims for the same privilege. If the Victoria University grants medical degrees, why should not Liverpool and Birmingham, and even Bristol in a few years, make similar demands? Why

should King's and University Colleges, St. Bartholomew's and Guy's Hospitals, not ask for similar rights now? At present, the medical education of the degree-desiring student in these schools does not differ in any essential feature from that at Owens College, and every argument used in favour of the latter is equally applicable to them. The American system of granting medical degrees is surely a sufficient warning against their needless multiplication in this country. We fail to see how, with the universities of Scotland in one direction and those already established in England in the other, medical education can be raised in the north of England by the mere granting of an M.D. or M.S. degree by the Victoria University. It will be raised by the superiority of the teaching, not by the adventitious influence of the distinction.

#### THE MILLER MEMORIAL HOSPITAL.

IN October, 1881, nearly sixty members of the medical profession, residing and practising in the district of the Royal Kent Dispensary, unanimously certified that it would be of the greatest possible benefit to the neighbourhood if hospital accommodation in connexion with that institution were provided, and expressed their pleasure at hearing that a project was on foot to build a hospital wing. On the receipt of this communication, a conference was arranged between the Executive Committee of the Royal Kent Dispensary and the Canon Miller Memorial Fund Committee, which resulted in an arrangement by which it was decided to combine the two movements on the understanding that one of the wards in the proposed hospital should be called the "Miller Memorial Ward," as a recognition of the valuable services rendered by the late Rev. Canon Miller, D.D., as the originator of "Hospital Sunday" at Birmingham, and as a mark of esteem and affection to his memory. Mr. Wm. Bristowe of Greenwich was appointed honorary secretary, and by his exertions between £2000 and £3000 has been promised or paid towards the £5000 which it is estimated will be required to defray the expense of erecting the proposed hospital. We wish this movement all success. Few people have done more for the hospitals than the late Canon Miller, and he was one of the first to actively support the proposal of THE LANCET to establish Hospital Sunday in London.

#### PROPHYLAXIS OF TYPHOID FEVER.

At the sitting of the Paris Academy of Medicine, on the 24th ult., a discussion arose upon the prophylaxis of typhoid fever, the prevalent epidemic, doubtless, evoking the question which was introduced by M. Marjolin. He referred to the unhealthy dwellings of the poor, which no one thinks of improving, and urged that the various Commissions d'Hygiène should be empowered by law to take prompt action in remedying these defects. He charged the Assistance Publique with having, in violation of sanitary principles, suffered the wards of hospitals to be overcrowded with cases; and he criticised the measures recommended by the Committee of Public Hygiene as being impracticable. Isolation, he said, was difficult, especially among the poor and large families, when to carry it out provision should be made for the case of the members of the family who escaped the disease during the isolation of those attacked by it. Measures should also be adopted for the distribution of disinfectants; and M. Marjolin considered that the medical profession should make its voice heard in insisting upon legislation to improve the present deplorable state of things. M. Larrey said that the members of the Council of Hygiene were fully aware of the distress in certain districts; and account should be taken of the difficulties surrounding the question. He had often insisted that the law dealing with unhealthy dwellings should be

put in force, but this had not been done, and now that an epidemic of typhoid fever was before them, something must be done. The regulations adopted by the Council of Hygiene in a certain measure answered to the present emergency. M. Bouley thought it the duty of the Municipal Council to remedy the deplorable condition of dwellings in the outskirts of the city, where the artisan population were crowded together. Even if necessary, let houses be constructed and well-ventilated pavilions erected on sanitary principles. M. Dujardin Beaumetz pointed out that medicine could not undertake the work of demolition of unhealthy tenements. He thought that, besides unhealthy dwellings, the numerous permanent earthworks in Paris were to blame in the propagation of the fever. M. de Perrin said that barracks had never been the focus of an epidemic of typhoid fever. M. Proust reproved M. Marjolin for his censure of the Council of Public Hygiene. The instructions issued by the Council were based on scientific principles. Before solving the question of the prophylaxis of typhoid fever, before commencing improvements in unhealthy dwellings, the service of public hygiene in France should be remodelled. M. Marjolin, in reply, said he was pleased to find that all agreed with him as to the urgent need for the strict enforcement of the law relating to sanitation.

#### PERILS OF RAILWAY TRAVELLING.

WE have long contended that a perfect and ready means of communication between the passengers and the guard or driver of a train is necessary to public safety. It must be obvious that such a provision is absolutely indispensable as the first condition of possible escape in case of peril; but what, we must now ask, is the use of a means of communication the most perfect, if when an alarm is given the guard or driver is to deliberate and determine whether he will or will not act upon it? The instruction to engine-drivers to hesitate and look back along the line before they bring the train to a standstill, is one that ought to be peremptorily interdicted. It was a most insulting offence against public opinion to issue such an order, and we are wholly at a loss to understand how any respectable Board of Directors could have been found to sanction so flagrant an imposition on the public—we can describe it by no other term—as the provision of a means of communication, such as it is, and a private instruction to engine-drivers to delay, and use their own judgment, in obeying it. Let the fine for stopping a train without sufficient reason be made as heavy as directors please, let it even be made a misdemeanour to do this; but the travelling public must at all costs and inconveniences, feel assured that they can instantly communicate with guard or driver in case of need, and that having received the order or heard the alarm, the summons to stop shall be immediately obeyed.

#### XANTHIC OXIDE URINARY CALCULUS.

DR. G. L. PORTER, of Bridgeport, U.S., has had under his care a young woman who had several attacks of renal colic; after one of these attacks she passed per urethram a calculus one inch long and half an inch in breadth. The stone was of a yellowish colour, and on analysis proved to be composed of xanthic oxide. It was shown at a late meeting of the New York Medical and Surgical Society by Dr. R. F. Weir. This is the rarest of all forms of urinary calculus, and this specimen is only the eighth that has been recorded. Dr. Marcet was the first who discovered this substance in a urinary calculus; Langier recorded a second specimen; Langenbeck removed the third, and the second largest yet noted; it weighed 338 grains, and was analysed by Liebig. The Museum of the College of Surgeons contains half a calculus that was presented to it by Mr.



Bransby Cooper, who obtained it from a surgeon who had removed it in India; its nature was discovered by Mr. Taylor. Mr. Fleming, of Dublin, and Dr. Dulk have also recorded specimens. Dr. Gaillard has removed a xanthic calculus weighing 350 grains, the largest on record. Xanthic oxide is closely allied in composition to uric acid, and its formation is believed to be due to imperfect oxidation of nitrogenous material.

#### POISONING FROM BRAWN.

DR. THURSFIELD, in a report addressed to the Whitchurch (Salop) Urban Sanitary Authority, draws attention to a serious group of symptoms from which seventeen persons suffered in September last as the result of eating some brawn. The persons affected had absolutely nothing in common except the consumption of this article of food, and the brawn when examined microscopically was found to contain, in addition to the ordinary bacteria of decomposition, other apparently distinct micro-organisms, which were capable of similarly affecting other pieces of meat to which they were applied. The organisms are described as of the most minute kind, and they were found in brawn which had been procured from two entirely different shops on the same day. That they were related to the symptoms as cause to effect does not, according to Dr. Thursfield, admit of doubt. But crucial evidence as to this would have been forthcoming had Dr. Thursfield been able to administer a small quantity of the affected article to one or two mice, a proceeding which is rendered impossible by the stringent terms of the Vivisection Act. All the persons affected exhibited a distinct period of incubation between the consumption of the brawn and the onset of their symptoms, and the worst attacks occurred in those who ate the brawn some days after it was made. Nothing could be learned to show that the animals from which the brawn was made were otherwise than healthy; all seems to point to some subsequent infection of the flesh. Two years ago six very similar cases occurred in Whitchurch, two of them proving fatal; and as it was then assumed that the symptoms were due to some form of poisonous matter capable of being detected by chemical analysis, the brawn was on this occasion submitted to the county analyst, with the result that it was found to be absolutely free from any mineral poison. Such instances as these, taken together with the series of similar occurrences at Welbeck and at Nottingham, point to a danger associated with the consumption of pork in its various forms, which does not appear to attach to the flesh of other animals, and also to the need for very careful inquiry into the whole subject.

#### DR. SOUTHON, CENTRAL AFRICA.

A GREAT loss has befallen the cause of medical missions, which is eminently the cause of civilisation, in Central Africa. We have seldom read a short piece of biography with greater interest than we felt in reading a brief account of the late Dr. E. J. Southon, medical missionary, Urambo, Central Africa, including, alas! the story of his death, after an accidental gunshot wound of the elbow, and amputation by Mr. Copplestone, of the Church Missionary Society at Uyui. In the absence of a full account of this remarkable man's life, we commend this paper to our readers. It is to be found in the current quarterly paper of the Edinburgh Medical Missionary Society. Dr. Southon had acquired a great influence over the King Mirambo, owing to his surgical services in the removal of some tumours from the King's arm. He was deeply engaged, too, in the study of the Kinyamwezi language, which, at the time of his death, he had so far reduced to writing as to be able to compile a small "reader" for his pupils, who included thirty sons of chiefs. His diary gives a remarkable idea of the multifarious work

in which he engaged—from preaching, or removing tumours from the King's arm to the making of a hut or the taking of meteorological observations. We can only express the hope that the notices of his life, which are to be found in the missionary journals, will be amplified into one fuller and complete, and that his work will be taken up by some worthy successor of a man whose life and death remind us more of Livingstone than anything which we have read since the death of that devoted man.

#### THE ROYAL SOCIETY.

THE following is the list of names nominated for the Council of the Royal Society to be balloted for on November 30th:—President, William Spottiswoode, D.C.L., LL.D.; Treasurer, John Evans, D.C.L., LL.D.; Secretaries, G. G. Stokes, D.C.L., LL.D., Professor Michael Foster; Foreign Secretary, Professor A. W. Williamson, LL.D. Other members of the Council:—Professor W. G. Adams, F.C.P.S., John Ball, F.R.A.S., T. Lauder Brunton, M.D., Professor Heinrich Debus, Ph.D., Francis Galton, F.G.S., Professor Olaus Henriki, Ph.D., Professor Huxley, LL.D., Professor E. Ray Lankester, Professor Lister, Professor Prestwich, F.G.S., Professor Osborne Reynolds, M.A., Professor Roscoe, The Marquis of Salisbury, Osbert Salvin, M.A., F.L.S., Warington W. Smyth, M.A., F.G.S., Edward James Stone, M.A., F.R.A.S.

A Royal Medal has, we learn, been awarded to Professor Flower, LL.D., F.R.S., by the Council of the Society in consideration of his numerous and valuable contributions to science.

#### LONDON IN NOVEMBER.

THE autumn session of Parliament will, among other beneficial results, probably help to reduce the erroneous impression which pervades many minds that London is intolerable as a place of residence in the later months of the year, particularly in November. Nothing can well be further from the truth than this wide-spread notion. As a matter of fact, the metropolitan district is at very nearly its best in October and November and a portion, at least, of the month of December. The worst month of the year—the typical modern year we mean—is, probably, that in which the Houses of Parliament are usually opened: February. March and April are scarcely less wretched. It is exceedingly unfortunate that the prejudice which undoubtedly exists cannot be removed. Trade suffers and society is disorganised quite needlessly in the two months before Christmas by the unanimity with which the Upper Ten avoid London at the very time when it is, on the whole, at its pleasantest. Those who are compelled to remain in town at this season are not sorry that the political exigencies of the year 1882 have obliged a considerable number of Members of Parliament to make the acquaintance of the capital at a time when they usually avoid it.

#### SOUTHEND-ON-SEA.

THE question of laying on the water of the Southend Waterworks Company to an outlying part of this health-resort, which is known as Prittlewell, is causing much discussion. In 1880 Prittlewell suffered from a considerable epidemic of enteric fever; the wells were found to be sunk in a porous soil, which had for generations received the soakage from pervious cesspits, and the use of water thus polluted was ascertained to have been the main cause of the epidemic. At that time the people were thankful to avail themselves of a supply sent daily from Southend in water-carts, and on more recent occasions when a scarcity of water has prevailed a similar method of supply has been resorted to. The Water Company, in consequence of the prospective

demands which will be made on their supply, have at great cost sunk a new deep well at Prittlewell, and their mains have been laid through the village. But when the question of making the house connexions arises, the inhabitants, forgetting the bitter experience they went through in 1880, declare that in their dangerously placed wells they have a supply of pure and wholesome water sufficient for all domestic and sanitary purposes, and they petition for a Government inquiry. One was held in 1880, and the wells were condemned; a second one would hardly convince the petitioners.

#### THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

At the meeting of the 14th inst. of the Society the paper of the evening on Endemic *Hæmatobia* will be illustrated with specimens of the *Bilharzia hæmatobia* in its several forms by Drs. Cobbold and Crocker. This opportunity will be taken to bring before the Fellows a numerous exhibition of animal parasites. Mr. A. P. Thomas of Oxford will describe his recent discovery, of the life history of the sheepfluke, exhibiting the small snail which is one host of the animal before it reaches the sheep. Drs. Cobbold, Bastian, Ray, Lankester, and Stephen Mackenzie, have also promised most interesting contributions to the exhibition of parasites.

#### SIR THOMAS WATSON, BART.

THERE has been a continuous loss of strength during the past week. On Tuesday Sir Thomas Watson complained of pain in the region of the bladder, with much irritation, the secretion being acid and depositing uric acid. The pain and irritation continuing through Tuesday night and Wednesday, he felt convinced that he had stone in the bladder, and requested Dr. Walters to telegraph for Mr. Lister, who promptly obeyed the summons, and relieved him by emptying his bladder with a catheter.

#### THE EDINBURGH GRADUATES' CLUB.

A FULL meeting of this pleasant club met at St. James's Restaurant on Wednesday evening. The dinner was good, and included an excellent specimen of that "great chieftain o' the puddin'-race," a haggis. The chair was occupied by Dr. Crawford, the Director-General of the Army Medical Department. The toasts were few and the speeches short, which added to the sociality of the evening. The toasts of the Army and Navy and the Health of the Director-General were received with great enthusiasm. The former was proposed by Dr. Crichton Browne, and the latter by Sir Joseph Fayrer.

#### MEDICAL HONOURS.

THE air is charged with rumours of coming honours to medical men, some long expected, and some that, if realised, will occasion criticism. We shall be disappointed if a Liberal Ministry in this matter does not devise liberal things, and advise a more deep and ample recognition of medical service and scientific merit than has yet been awarded to medical men in this realm. Ours is, probably, the country in which least honour is paid to that profession which saves life.

THE applications for space at the Berlin Hygienic Exhibition, which opens May 1st, 1883, have been so numerous that the promoters have had to contemplate an extension of the building ground by taking an adjoining site.

THE death is announced of Dr. Troschel, Professor of Zoology at Bonn.

THE names of Sir Peter Benson Maxwell, Knight, and Colonel Charles Brisbane Ewart, C.B., R.E., have been placed on the Royal Commission appointed to inquire into and report upon the system under which sewage is discharged into the Thames by the Metropolitan Board of Works.

WE regret to learn that during the gale which broke over Dorchester on Sunday last Mr. Good, whilst visiting his patients, was carried off his feet from the pavement into the roadway, and in falling suffered dislocation and fracture of an arm, besides other injuries.

THE Lord Chancellor has, on the recommendation of the Lord-Lieutenant, appointed Dr. Alfred Meadows, of Poyle Manor, Colnbrook, and George-street, Hanover-square, one of the magistrates for the county of Middlesex and the city and liberty of Westminster.

THERE appears to be no doubt that cholera has prevailed in an alarming manner at Mecca, and that it had extended to Jeddah, where many cases are reported to have occurred. Quarantine regulations are being enforced by the Egyptian Government.

THE whole of the scientific world will hear with regret of the illness of Professor Virchow. The latest report, however, is somewhat reassuring.

DR. BRAXTON HICKS has been elected Honorary Fellow of the Edinburgh Obstetrical Society.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

**Fulham.**—This district, which comprises the parish of Fulham and those of St. Peter's and St. Paul's, Hammersmith, had an estimated population of 116,000 in the middle of last year, and, excluding the deaths of non-parishioners which occurred in the Fulham small-pox hospital, the death-rate amounted to 19.3 per 1000 living. The deaths under one year of age were at the rate of 15.7 per cent. of the registered births, a rate which must be regarded as high, considering that the district is by no means one of the poorest or most densely populated of the metropolis. The history of the small-pox epidemic, both as affecting the isolation arrangements for the metropolis and as regards its incidence in the Fulham district, is told in considerable detail by Mr. Collier, who shows that the total mortality from this disease in his district was forty-four, and who alleges that whereas, when patients were removed to hospital directly it was known they were suffering from that disease, hardly a single case occurred in which there was any further spread of infection; yet, on the other hand, where cases were, either from accident or otherwise, not so removed, further attacks in the same house almost invariably resulted. Enteric fever was somewhat prevalent during the year, causing thirty-three deaths, as opposed to seven in 1880, and this not including some fatal attacks of so-called simple continued fever. As regards this disease, Mr. Collier points out how very undesirable it is, in the interests of the patients, to move the sick any considerable distance, and he considers that for this purpose every sanitary authority should have a hospital which is easy of access. Pig-keeping is still a source of great nuisance in the vicinity of Latymer-road, but owing to the great unwillingness of aggrieved persons to support the authority in dealing with this matter by tendering evidence before the magistrate, preventive measures are all but at a standstill.

**Hampstead.**—According to Dr. Edmund Gwynn's annual report for the parish of St. John, Hampstead, it appears that the last census return gave the population of the parish as 45,436, and at that estimate the death-rate for 1881 must be regarded as one of the smallest on record; for, including non-parishioners who died in the various local institutions, it was only 13·2 per 1000. It is true that, owing to the closing of the Hampstead Hospital, the number on which this rate is calculated did not include any fatal cases of infectious diseases removed from houses elsewhere than in the parish to any hospital belonging to the Asylums Board. But as regards small-pox, for which disease that hospital was originally used, it appears that, including all cases sent to the various small-pox hospitals, only six fatal attacks occurred amongst the population of Hampstead. And this leads Dr. Gwynn to show, in the form of a table, the small-pox death-rate in his district during the last two small-pox epidemics. In 1877-78, when the Hampstead Small-pox Hospital was open, the mortality from that disease was at the rate of 9·7 per 1000 of the population; whereas in 1880-81, during which period the hospital was closed, it was only 2·1 per 1000. The latter epidemic was, however, not as fatal as the former one as regards the metropolis as a whole, and therefore it could hardly be expected that, even had the local circumstances remained the same during the two periods, their mortality for the two periods in question would have been alike in Hampstead, and this especially in view of the large amount of protection afforded by increased vaccination during the period of the former period. Still, making every allowance for these and other possible sources of error, no question can remain but that the difference in the death-rate of the two periods must be regarded as to a great extent due to the different conditions, as regards the local aggregation of small-pox cases, which existed in the parish. And this view becomes even more convincing when it is remembered that crowded neighbourhoods such as Fleet-road, which suffered so much in the first epidemic, have, although now still more populous, all but entirely escaped during the recent outbreak; and that the streets and parts bordering on the grounds of the hospital did not in 1880-81 contribute a greater number of cases than the other parts of the parish, as was the case in 1877-78. As regards scarlet fever, Dr. Gwynn points to a circumstance which has been noted before, but concerning which no sufficiently definite information is as yet available; it is that the emanations from manure tend to the development of scarlet fever, and he points out how a number of the fatal attacks in Hampstead occurred in mews. The number of such attacks was, however, only nine out of a total of forty-seven in the parish as a whole; and it must be remembered that the facilities which children who play together in mews would have of contracting infection are very exceptional. In connexion with the prevention of the spread of infection, a Ransom's disinfecting stove has been provided; it has been in efficient working for some time, and is available for use by all in the parish. The charge, however, for such use is considerable, especially when it is remembered that the apparatus has been provided and is maintained at the public cost. Thus 15s. is the sum charged for the disinfection of bedding, &c.; and though the charge is to be remitted in the case of persons who are too poor to pay it, yet the uncertainty as to whether it will be claimed or not will probably to an important extent prevent the use of the stove, and so lead to what will now be an altogether unnecessary source of infection. Many parishes of London are still much in arrear of other sanitary districts, where in such matters the public, and not the unfortunate individuals who have already suffered, pay for the measures deemed necessary for preventing the spread of infection to the community at large.

**Huddersfield (Urban).**—Dr. Cameron's report upon the health of the borough of Huddersfield during the quarter ending September derives additional interest from the information it contains relative to the exceptionally fatal epidemic of measles from which that town has recently suffered. The annual death-rate during the quarter did not exceed 23·1 per 1000, but showed an increase of 6·6 upon the rate in the corresponding period of last year. A large portion of this excess was due to the measles epidemic, to which Dr. Cameron attributes 49 deaths, being four less than those reported by the Registrar-General during the thirteen weeks ending September 30th. The death-rate from measles in Huddersfield during last quarter was more than seven times as high as the mean rate in the twenty-eight large towns. The disease became epidemic during the latter part of June,

and the rate of fatality increased steadily until it reached its maximum in August. Of the 49 fatal cases, 39 were of children under two years of age, 8 of children aged between two and three years, and 2 of children aged three years. In most of the cases lung diseases were assigned as the secondary cause of death, and Dr. Cameron notes that, following the sharp outbreak of measles in the central registration district, the rate of mortality among young children from bronchitis, pneumonia, convulsions, and diarrhoea showed a marked excess; this is, with reasonable probability, attributed in great measure to the effects of the measles epidemic. It is most satisfactory to hear that the lesson of this epidemic, or rather of its unwonted mortality, has not been missed. The "circumstances pointed to, such a condition of unhealthiness in certain parts of the town," that the medical officer made a special report to his sanitary authority, and measures were at once adopted, which have resulted in a considerable improvement in its condition. Apart from the mortality from measles, the death-rate from other zymotic diseases was not excessive, and was considerably below the mean rate in the twenty-eight large towns. The rate of mortality from diarrhoea, although higher than that recorded in Halifax, was considerably below that prevailing in the other large Yorkshire towns. The Borough Hospital for Infectious Diseases contained 25 patients at the end of September, 36 having been admitted during the quarter. It appears that 52 cases of infectious disease were noted during the quarter under the 64th clause of the Huddersfield Improvement Act; this number is, however, considerably lower than the number of deaths from the principal zymotic diseases during the quarter. Dr. Cameron, in concluding his report, expresses his conviction that the Town Council will have no reason to grudge the increased expenditure which the special measures taken to improve the sanitary condition of the town have necessarily entailed.

**Leeds.**—Dr. Goldie's report for the third quarter of the present year refers to an undue prevalence of fever during that period, a result which, in his opinion, is owing to the absence of heavy rainfall, so much needed to secure powerful means for flushing the sewers. Dealing with an outbreak of small-pox, it is shown to have had an exceptional incidence upon shopkeepers, probably owing to the fact that infected persons were allowed to travel about the town. Up to the end of September last as many as 170 persons had been attacked, and the disease was still spreading. In the emergency the Leeds Borough Hospital has been opened for cases of small-pox, and as yet forty patients have been admitted.

**Paddington.**—The total population of Paddington in 1881 was 107,218, it having increased at the rate of 27·7 per cent. in the decennial period 1861-70, and at the rate of 10·7 per cent. in the last ten years. The birth-rate during last year amounted to 26·6 per 1000 living, and the deaths were at the rate of 15·7 per 1000, as opposed to 21·2 for London as a whole. One death from typhus was recorded in the year; and typhoid fever, which was specially fatal, caused twenty-one deaths. The cases of small-pox which occurred were, as far as possible, at once removed to one or other of the hospitals belonging to the Metropolitan Asylums Board, or to the Small-pox Hospital at Highgate; and in a similar way the London Fever Hospital was used for fever cases. In addition to numerous statistical tables which are appended to the report, Dr. Stevenson gives some useful information concerning the London water-supply.

**Cork.**—During the four weeks ending October 7th the total number of registered deaths amounted to 116 (including 25 in the workhouse, and therefore outside the borough); of these, 5 were due to infectious diseases. The births during the same period numbered 152. The mortality was equal to 19·02, but omitting the workhouse deaths it was 15·0. The returns compare favourably with those for the corresponding period of last year, both as regards the general mortality and the prevalence of fever in the city, the total and the urban death-rate being then 22·06 and 18·24 respectively, as against 19·02 and 15·0 now recorded.

#### BANGOR LOCAL BOARD.

The Board has decided that, in view of an outbreak of scarlet fever, the hospital tents erected for purposes of isolation of typhoid patients should remain standing. It was also proposed and agreed to that a plan and estimate should be prepared for the extension of the sewer outfall to the river Cegin.

The Woodford Local Board has agreed to adopt the sewerage scheme proposed by Mr. Angell, C.E., the cost of which, without purchase of site, is estimated at £15,000. The outfall will be situated on the eastern side of the river Roding. A committee has been appointed to report to the Board their opinion as to the best system for the treatment of the sewage.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 6148 births and 3451 deaths were registered during the week ending the 4th inst. The annual death-rate in these towns, which had been equal to 20.5 and 21.4 per 1000 in the two preceding weeks, was 21.3 last week. The lowest death-rates in these towns last week were 15.2 in Brighton, 16.9 in Huddersfield, 17.3 in Newcastle-upon-Tyne, and 17.4 in Cardiff. The rates in the other towns ranged upwards to 26.2 in Oldham and Derby, 28.5 in Sunderland, 29.5 in Liverpool, and 33.1 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 483, showing a further slight decline from the numbers in recent weeks; 116 resulted from scarlet fever, 97 from measles, 93 from diarrhoea, 84 from "fever," 70 from whooping-cough, 21 from diphtheria, and only 2 from small-pox. No death from any of these zymotic diseases was recorded in Huddersfield, whereas they again caused the highest death-rates in Preston and Sunderland. Scarlet fever showed the largest proportional fatality in Sheffield and Sunderland; measles in Norwich and Sunderland; whooping-cough in Bradford and Preston; and "fever" in Portsmouth, Derby, and Sunderland. No fewer than 13 of the 28 deaths from diphtheria in the twenty-eight towns were recorded in London. Small-pox caused 1 death in West Ham (situated in the outer ring of suburban districts) and 1 both in Manchester and in Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which had been 84, 78, and 72 on the three preceding Saturdays, further declined to 70 at the end of last week; 7 new cases of small-pox were admitted to these hospitals during the week, against 8 in each of the two previous weeks. The Highgate Small-pox Hospital contained 6 patients on Saturday last, no new case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 290 and 355 in the two preceding weeks, were 347 last week, and were 51 below the corrected weekly average. The causes of 83, or 2.5 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Bristol, Leicester, and three other smaller towns. The proportions of uncertified deaths were largest in Wolverhampton, Bolton, Halifax, and Newcastle-upon-Tyne.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which in the three preceding weeks had been equal to 19.2, 19.7, and 21.4 per 1000, further rose to 24.3 in the week ending 4th inst.; this rate was 3.0 above the rate that prevailed last week in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had steadily declined in the five preceding weeks from 117 to 89, further fell last week to 85, and were equal to an average rate of 3.6 per 1000 in the eight towns, which exceeded by 0.6 the rate from the same diseases in the eight English towns. The 24 deaths referred to diphtheria in the eight towns showed a further increase upon recent weekly numbers, and included 7 in Glasgow, 4 in Dundee, and 3 each in Edinburgh, Aberdeen, and Leith. The 20 deaths attributed to diarrhoea, however, showed a decline. The fatal cases of whooping-cough, which had been 18 and 19 in the two previous weeks, were 20 last week, and included no fewer than 15 in Glasgow. The 13 deaths from scarlet fever showed a decline of 3 from the number in the previous week, but included 4 in Glasgow, 4 in Edinburgh, and 2 in Paisley. The deaths referred to "fever" were fewer than in any recent week, 3 being recorded in Glasgow. Both the fatal cases of measles occurred in Dundee. The deaths referred to acute diseases of the lungs in the eight towns, which had been 100, 108, and 113 in the three preceding weeks, further rose to 135 last

week, but only exceeded by one the number in the corresponding week of last year. As many as 116, or more than 20 per cent., of the causes of the deaths registered in these Scotch towns last week were not certified.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 22.5 in each of the two preceding weeks, declined to 20.4 in the week ending the 4th inst. During the first five weeks of the current quarter the death-rate in the city averaged 21.9, against 19.8 in London and 18.5 in Edinburgh. The 136 deaths in Dublin last week showed a decline of 14 from the number in each of the two previous weeks, and included 7 which were referred to "fever," 5 to diarrhoea, 2 to whooping-cough, and not one either to small-pox, measles, scarlet fever, or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 8 and 13 in the two previous weeks, further rose to 14 last week; they were equal to an annual rate of 2.1 per 1000, the rate from the same diseases last week being equal to 3.0 in London and 3.1 in Edinburgh. The deaths from "fever," which had averaged less than 3 in the four preceding week, rose to 7 last week, and exceeded the number in any week since the beginning of September. The 5 deaths from diarrhoea, corresponded with the number in the previous week, while the 2 from whooping-cough showed a decline of one. The deaths of infants corresponded with the number in the previous week, while those of elderly persons were somewhat more numerous.

### THE SERVICES.

The following members of the Army Medical Department are under orders to embark for Egypt at an early date:—Surgeons-Major T. Comyn, R. Anderson, W. D. Wilson, B. Jazdowski; Surgeons H. M. Reid, H. O. Stuart, W. H. P. Lewis, F. G. Jenckin, F. H. Trehern, W. Dick. Most of the above gentlemen have only recently returned to England after duty in that country.

RIFLE VOLUNTEERS.—2nd Durham: William Robinson, Gent., M.S., M.B., to be Acting Surgeon.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Inspector-General of Hospitals and Fleets John Trail Urquhart Bremner, M.D., has been placed on the Retired List from the 3rd inst.

The following appointments have been made:—Surgeon Thomas D. Popham to the *Impregnable*, vice Barnes; Fleet Surgeon Henry Hadlow to Royal Naval College at the Cape of Good Hope, vice Henry F. Norbury, C.B.; Surgeon William Edward Breton to Royal Naval Hospital, Cape of Good Hope, vice John B. B. Triggs.

### BANQUET TO THE MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.

A MEETING of the subscribers to the Invitation Fund was held, by permission, at the Royal College of Physicians on Monday last, the 6th inst., and was numerously attended. Sir William Jenner Bart., presided. The following resolutions were unanimously agreed to:—

1. "That a banquet of welcome be given at the earliest convenient date to all the medical officers who have recently served in the Egyptian Expedition, in recognition of their gallant services."

2. "That the following gentlemen be requested to act as a Dinner Committee, to arrange the details of the banquet, and to report to the General Committee, if it seem desirable—viz., Sir W. Jenner, Bart., Sir James Paget, Bart., the hon. treasurer and the hon. secretary, ex-officio; Mr. Ernest Hart, Chairman of the Dinner Committee; Dr. T. Bridgwater, Dr. Cholmeley, Dr. Andrew Clark, Dr. R. Farquharson, M.P., Sir Joseph Fayrer, Mr. Cooper Forster, Dr. J. G. Glover, Mr. Prescott Hewett, Mr. Joseph Lister, Mr. John Marshall, Dr. W. M. Ord, Dr. R. Quain, and Mr. S. W. Sibley, with power to add to their number."

3. "That Mr. Spencer Wells be requested to act as

honorary treasurer, and Mr. George Eastes, M.B., as the honorary secretary to the banquet.

4. "That Sir W. Jenner, Bart., President of the Royal College of Physicians, be requested to take the chair at the banquet; and that the invitations be issued in his name and that of the committee."

5. "That medical men only take part in the banquet except as guests."

6. "That all the medical officers of the Egyptian Expedition, with any other gentlemen whom the Dinner Committee may consider it desirable to ask, be invited to the banquet."

7. "That the best thanks of this meeting be and are hereby given to Sir W. Jenner, Bart., for the use of this room, and for kindly presiding on the occasion."

At a meeting of the Dinner Committee, held on Wednesday, the 8th instant, it was resolved that the banquet take place on Tuesday, November 21st, at Willis's Rooms, King-street, St. James's. The price of the dinner ticket is 30s. All applications for places at the banquet must be made to Mr. George Eastes, M.B., 69, Connaught-street, Hyde-park, London, W.; and notice is hereby given that "the number of places being necessarily limited, applications will be attended to in the order in which they are received."

## Correspondence.

"Audi alteram partem."

### TESTS FOR ALBUMEN IN THE URINE.

To the Editor of THE LANCET.

SIR,—My paper in your last number was headed "Another New Test for Albumen." I have just now discovered that there is no novelty in the suggestion of picric acid as a test for albumen in the urine. Using Dr. Neale's valuable "Medical Digest" as a means of reference to the various tests which have been employed for the detection of albumen in the urine, although picric acid is not mentioned in the digest except as one of the materials used for adulterating beer, I incidentally came upon a leading article in the *Medical Times and Gazette* (vol. ii., for 1874, p. 366) in which picric or carbazotic acid is mentioned as having been "lately recommended strongly by M. Galippe in the French medical journals, and noticed in the *Edinburgh Medical Journal* for July last" (i.e., 1874). The writer of the article agrees with M. Galippe that this is "one of the best and most reliable tests for albumen in the urine." The only objection to it that he knows of "is the stain given to the fingers by the reagent." But I find that this stain, unlike the yellow stain caused by strong nitric acid, is readily removed by soap and water. The writer ends his article by saying that "none of the common tests" (including picric acid) "are quite satisfactory and that we still lack one which shall be cleanly, portable, cheap, and certain." He appears not to have made sufficient trial of the picric acid test to ascertain its real value; but having experimented with it now upon some hundreds of specimens of urine I claim for it that it possesses all the advantages which the author requires for an entirely trustworthy test. While, therefore, acknowledging M. Galippe's priority in the use of picric acid as a test for albumen in the urine, it is right to point out that my son's experiments, which proved the power of picric acid to coagulate albumen in solution of all its acid compounds, extended over a period of several months and were published in the "Journal of the Chemical Society" in August, 1874; they were, therefore, contemporaneous with, and certainly quite independent of, M. Galippe's observations.

I am, Sir, yours faithfully,  
Savile-row, Nov. 8th, 1882.

GEORGE JOHNSON.

To the Editor of THE LANCET.

SIR,—I do not know that I can agree with Dr. George Johnson in his prediction that a few of the crystals of picric acid, recommended by him in your last week's issue as a test for albumen, will speedily take the place of nitric acid in all urinary test-cases which are made for carrying in the pocket, but I do think that some form or other of solid reagent will be thus employed and perhaps also will find its way beyond the pocket-case.

For some time past I have been giving attention to this subject, feeling that it would be a desideratum to the medical practitioner to have a reliable test for albumen under such a form. Metaphosphoric acid, which is a solid glacial-looking body, is well known to chemists as a very delicate test for albumen, and I remember seeing, a few years back, its solution proposed for clinical use. Instead of the solution, however, a small fragment may be dropped into the urine to be examined. From very extensive trials extending over a couple of years, I can speak of it as an exceedingly sensitive re-agent and have sometimes found it give a decided indication where heat and nitric acid have failed to show any behaviour. Although an excellent test as far as sensitive behaviour goes, yet otherwise it does not possess all the properties that could be desired. The purer kind of glacial acid sold absorbs moisture from the air too freely to be convenient. There is a more impure form, which I am told contains some metaphosphate of soda, which is not so deliquescent, and which may be broken into fragments, and thus kept for use. This, for between the last two and three years, I have carried in my urinary test-case as a companion to my cupric test-pellets for sugar (I observe Dr. Johnson refers to some Cooper and Fehlings' test-pellets, and presume he alludes to the pellets which have been prepared at my instigation and under my directions, by Mr. Cooper, and which I brought to the notice of the profession about three years ago) and have entirely escaped from the inconvenience occasioned by a reagent like nitric acid. The metaphosphoric acid, however, although deliquescent, does not dissolve quickly, and the undissolved part of the fragment remaining after use is apt to cling to the interior of the tube in such a manner as to be quite troublesome to wash out. I have tried mixing the acid with pounded cane-sugar, chloride of sodium, sulphate of soda, and such like, but have not obtained what I could regard as a perfectly satisfactory product. Lately I have looked in another direction, and have alighted upon something which has appeared to me to give promise of yielding what I have been seeking for.

The combination of yellow prussiate of potash and acetic acid has been known of old as a good test for albumen, and I have frequently appealed to it when I have wanted the assistance of corroborative evidence. Now, citric acid may be made to take the place of acetic acid in liberating the ferrocyanic acid, which is the precipitant of the albumen. The combination yields a product which is devoid of any obnoxious properties, and possesses the essential quality of ready solubility in water. Probably it will be found that the best way of using it will be as a compressed pellet—the two substances being deprived of the water of crystallization, that they will yield, and instead of being previously mixed, perhaps compressed, one on the top of the other. These, however, are details which are under consideration.

Since your publication of Dr. Johnson's communication I have tried the picric acid, which, as a test, answers to all that Dr. Johnson has said of it. One objection, however, belonging to it is its deep yellow staining property; and also, its form as a solid agent is not a very satisfactory one to deal with. I have tried the picric acid, and the combination of yellow prussiate of potash and citric acid, against each other, and for delicacy the latter seems quite equal to the former. It remains to be ascertained whether it will serve in all cases of albuminous urine; but, on account of the acid present, it certainly serves in alkaline albuminous urine where Dr. Johnson suggests that picric acid alone might possibly fail.

I am, Sir, your obedient servant,  
Grosvenor-street, Nov. 8th, 1882. F. W. PAY.

To the Editor of THE LANCET.

SIR,—I am a little surprised to see Dr. G. Johnson advocating the use of picric acid as a new test for albumen in the urine, as it was in use in the wards of the Edinburgh Royal Infirmary when I was a student, ten years ago, and its action on albuminous substances has been long known to chemists. I continued to employ it for several years, using a filtered saturated solution of the acid, into which I poured a few drops of urine. But during my term of office as pathologist at the General Hospital I became convinced that it was a less delicate test than Heller's method of using nitric acid in the cold, while that, again, I gave up for boiling and acidulating with acetic acid. It is important, if we wish to succeed with this last test, that the urine should be clear, and, if necessary, it must be filtered; only the upper half



of the column of fluid should be boiled, and then a few drops of dilute acetic acid are added. The tube should be held against a shaded back-ground, when the faintest haze of albumen can be seen.

I have long been aware that the presence of chloride of sodium favours the coagulation of albumen by heat, and I think some advantage may be obtained by adding a little brine or solution of sulphate of magnesia to those urines of low specific gravity in which the discovery of a trace of albumen is often so desirable to confirm suspicions founded upon other abnormal signs. But I am in accordance with the best authorities when I say that we do not want other tests than these for detecting albumen in the urine. It is doubtless true that many proteids are present in it which may be thrown down by the use of various reagents, but albuminuria should be restricted in its significance to the presence in the urine of an albuminous substance coagulable by heat or precipitated by neutralisation.

We shall hardly make much advance in knowledge if, by the use of a variety of reagents, we confound serum albumen and para-globulin, which gave the above reactions, with various peptones and pro-peptones, which seem to find their way into the urine under, at present, little understood conditions.

I am, Sir, yours faithfully,

Birmingham, Nov. 7th, 1882.

ROBERT SAUNDSEY, M.D.

To the Editor of THE LANCET.

SIR,—In the year 1874, when I was endeavouring to find some single reagent which should be reliable as a test for albumen, and which also could be carried with safety in my urinary pocket-case, there appeared in the *Medical Times and Gazette* for Sept. 26th, a notice of the picric acid test, attributed therein to M. Galippe. For many months I carefully tried it, but in the end, failing to get full confidence in its reliability, I put it aside. There are two drawbacks to its use: the first, easily avoided, is that excess of albuminous urine redissolves the precipitate; the other, of much more importance, is that the potassium salts will also make a precipitate with picric acid. It fails, then, as a single test in the same way that heat does; and consequently, although it would be very convenient to be able to avoid the use of nitric acid, I am afraid that picric acid will scarcely take its place.

I am, Sir, yours faithfully,

Gloucester, Nov. 6th, 1882.

RAYNER W. BATTEN.

## THE REPORT OF THE ROYAL COMMISSION ON HOSPITALS.

To the Editor of THE LANCET.

SIR,—It seems important to challenge the conclusion of the Commissioners that "well-conducted" fever hospitals are no danger to their neighbours, and their inference that therefore ill-conducted fever hospitals, like those of the Asylums Board, should be permitted in close proximity to inhabited houses. The danger of small-pox hospitals, so long denied, is now fully recognised; but the Commissioners admit that they have received no evidence as to the spread of disease from fever hospitals, but many assurances to the contrary from hospital authorities. Their opinion, therefore, that fever hospitals are harmless is avowedly based on a hearing of one side only of the case. It is not difficult to understand why the opposing evidence did not happen to be submitted. The Commission sat with closed doors; no one knew what statements had been made to them, and, unless they called for evidence on any particular point impugning the management of hospitals, no one was likely to volunteer it except those persons who had suffered from such mismanagement.

Now of all the populations surrounding the hospitals of the Asylums Board only those of Hampstead and Fulham have had the means and energy thoroughly to investigate the facts; but as the Hampstead and Fulham Hospitals had never been used for fever cases, and as the only official examination into the spread of disease from the hospitals of the Asylums Board (that made by Mr. W. H. Power) was confined to small-pox epidemics, the facts as regards fever hospitals have not received the same searching examination.

A few years ago the Royal Commission, had it then existed, would probably have given equally comforting but equally misleading assurances about small-pox hospitals,

and as upon one very important question as regards fever patients—viz., the possibility of conveying them long distances—the Commissioners' conclusions are at variance with well-ascertained facts, a doubt necessarily arises as to the soundness of their conclusions on this the less considered portion of their inquiry. For years past the stock answer of the Asylums Board to all suggestions that small-pox hospitals should be placed far afield was that it had been informed by some high but unnamed authority that patients could not safely be moved more than three miles. This is now admitted to be untrue as regards small-pox, but the old turnip and sheet are still made to do service as "bogie" in the interests of those who desire to retain the Board hospitals and use them for fever in their present unisolated positions. Now, it so happens that this very point was thoroughly investigated years ago by no less an authority on fever than the late Dr. Charles Murchison, as the readers of his work on the "Continued Fevers of Great Britain" will remember, for he found on carefully comparing the mortality amongst patients in the London Fever Hospital brought in from its immediate neighbourhood, with that of patients of the same age and condition brought from places many miles distant, that the additional distance travelled produced no ill effect. If therefore the supposed difficulty of removing fever patients be the only ground for retaining fever hospitals in crowded neighbourhoods, where, unless their rules be observed with a strictness never yet secured, danger must be created, the distant and well-isolated hospitals now at last recommended for small-pox should obviously be made available for all kinds of infectious or contagious diseases. Well-conducted fever hospitals, as has been before pointed out, are perhaps as harmless to their neighbours as well-conducted powder mills; but because rules, however stringent, are, as everybody knows, daily and hourly violated, fever hospitals, like powder mills, should be placed where the public will be safe, not only when the rules are observed, but when they are disregarded. What rule can have more authority than an Act of Parliament? yet the very existence of small-pox hospitals is due to the fact that the Compulsory Vaccination Acts are so often disobeyed.—I am, Sir, your obedient servant,

Belsize-park, Oct. 23rd, 1882.

PEARSON HILL.

## "A SIMPLE OPERATION FOR VARICOCELE.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Oct. 28th there is a letter from Dr. Campbell Black, which contains some would-be severe strictures upon the mode I used in treating the silk employed in tying the veins in a simple operation for varicocele. Dr. Campbell Black seems to be fully alive to the immense strides which have during the last few years been made in the scientific treatment of surgical diseases by the introduction and application of the germ theory of putrefaction and its prevention to the conduction of surgical operations.

How astonished would the earlier contemporaries of John Hunter have been had anyone attempted to supersede their clumsy and painful arrangement of wire and interposed cork for the occlusion of vessels, by a carbolised catgut or asepticised silk ligature, cut short and left in the wound. In the present day, however, provided any possible germs in the material be first rendered inert by subjection to a boiling temperature in a germicide solution, and provided that afterwards the material be kept from further germ contact by immersion in the same solution until the moment it is used, one has no hesitation in leaving it in the wound. One can easily understand how, as Dr. Campbell Black observes, such precautions, which ought in the present state of our knowledge to be used by every thinking surgeon, would some few years ago have been regarded as "fetish worship." This is not surprising, however, when we reflect that it is less than a century ago that the operator who tightly ligatured an artery would, had death ensued, have been considered guilty of manslaughter.

Dr. Campbell Black describes a knot which he uses in his varicocele operations as a "reef" knot, and he afterwards goes on to say that it "can be tightened as frequently as necessary by tension of the free ends." Evidently in his anxiety to criticise he has become hazy as to the difference between a "graamy" and a "reef," as of course no reef knot could, when once tied, be made tighter by any amount of tension.

I am, Sir, yours faithfully,

York, Oct. 31st, 1882.

W. H. JALLAND.

## "ON ABSORBENT DRESSINGS, ETC."

To the Editor of THE LANCET.

SIR,—Permit me through you to thank Mr. Berry for his courteous notice of my letter of the 28th ult. As my letter referred to his paper in your issue of Oct. 21st, after much thinking I see no occasion to withdraw a single statement—each was a fact or else an accurate deduction. The premises may have been false.

In his letter of Nov. 4th, Mr. Berry gives a somewhat different account of Case 1 to what appeared in his original paper. In the same letter it appears that Mr. Berry regards erysipelas as a local contagious disorder. I am ever ready to admit my faults, but even yet I must look upon erysipelas as a general infectious disease, accompanied by fever and a local manifestation in the form of a rash, which (of course) does not necessarily appear where the germs gained access into the system. Of course it may. I need not discuss its pathology; better men than I have done so already.

Next, Mr. Berry proceeds and misquotes me, leaving out an important word. Nor did I impute death (in the fatal case) to the dressing; I merely introduced the case as not having been reported in the original paper. I freely admit the existence of a *vis medicatrix naturæ*, also there is not to be forgotten the *vis maligna*.

With regard to case 4, I think Mr. Berry admits to himself that I was right. He endeavours to find fault with my logic, but fails. Because he gets confused he gives a positive meaning to "learn (?)," which has a sign after it indicating doubt. Mr. Berry seems, from his letter and his paper taken together, to consider that "abundance of carbolic spray and lotion" constitutes the antiseptic system of Lister. This is a fatal error. Gamaliel was not a surgeon.

Finally, are we to lay aside the modern antiseptic (not the abortive or modified Wigan) system which has been followed by the best results in hundreds of cases for the sake of four cases treated in some other way, two of which did best where some attempt at antiseptic treatment (accidentally in one case, as Mr. Berry admits) had been employed?—I am, Sir, yours truly,

Brighton, Nov. 4th, 1882.

H. ROGERS-TILLSTONE, M.B.

## MANCHESTER.

(From our own Correspondent.)

MANCHESTER is justly elated this week at finding itself an *alma mater*. This city opened its arms to receive the Gown, on Wednesday last, in our noble Town Hall. The occasion was the conferring of degrees by Principal Greenwood; and among the associates who were entitled to receive that honour at his hands were fourteen members of the medical profession.

The worthy Principal of Owens College, clad in red raiment, supported on either side by the Archbishop of York and the Bishop of Manchester, gave us an address in which, after a sympathetic allusion to the private sorrow that had caused the absence of the Chancellor, the Duke of Devonshire, he told us that almost exactly 240 years ago a petition was presented to Parliament urging the necessity of a university in the North of England. In answer to various critics, one of whom "foresaw that Pegasus was about to be yoked to a cotton mill," he reminded us that the "orators and historians of Athens were wont to boast that their city was at once the mart of the world and the school of Greece, the most favoured seat of commerce, and the chosen home of art and letters, of eloquence and philosophy."

On the previous Friday we had the annual dinner of the Medico-Ethical Society, which, thanks to the able superintendence of the stewards, Messrs. Ewart and Dacre Fox, and the culinary resources of the Queen's Hotel, passed off most creditably. There were about fifty members and visitors present, and after the usual loyal and patriotic toasts had been duly honoured, the President of the Society, Mr. Hardie, rose to introduce the toast of the evening, "The Medico-Ethical Society, coupled with the name of Dr. Stone, the oldest member present." The President showed us that this excellent institution has done much for ethics, and is the parent of all similar societies in the kingdom, and that

its tariff of fees has been largely copied by them without any acknowledgment.

Owing to the resignation of Mr. Lund through ill-health, Mr. Hardie has been appointed Surgeon to the Royal Infirmary. For the assistant-surgeonship thus left vacant there are three candidates:—Mr. Wright, Mr. Howlett, and Mr. Young. Mr. Wright is B.A. and M.B. Oxon., a Fellow of the College of Surgeons, Surgeon to the Children's Hospital, and Surgical Registrar to the Infirmary. Mr. Howlett was recently Resident Surgical Officer to the Infirmary, and is a Fellow of the College. Mr. Young is also a Fellow of the College, Pathologist to the Infirmary, and Surgeon to the Throat Hospital. The contest promises to be a keen one.

Nov. 6th, 1882.

## EDINBURGH.

(From our own Correspondent.)

THE number of students who have so far matriculated is, I understand, some 300 more than at the corresponding period of last year. Whether the chief increase is in the faculty of medicine is not yet known. All the University medical classes are very large, some of them larger than they have ever been before. Professor Chiene must have at least 400 students, for he has been obliged to leave his own class-room for the Anatomy theatre, but it is not at all too large. The extra-academical classes, on the other hand, are as a rule very small, Dr. John Duncan's being, so far as I have been able to ascertain, considerably larger than any of the others.

On Saturday afternoon Lord Rosebery delivered his rectorial address to the students of the University, in the United Presbyterian Synod Hall. It is probable that between 2000 and 3000 students were present, and the preliminary proceedings were riotous to a degree. Fully an hour before the time appointed for the delivery of the address the students began to assemble in front of the hall, and, while waiting for the doors to be opened, peas were freely thrown about, and the glass of one of the large lamps at the entrance-gate was broken. About the same time the new Professor of Greek drove up in a cab, and was cordially cheered. Evidently not aware that the gate was still closed, Professor Butcher made his way towards it. No sooner had he got within sight of the door than the cry was raised, "Let's give him a squeeze." This suggestion was at once acted upon, and attempts were made to knock off the professor's hat with walking-sticks. The professor, whose coat was torn in the scuffle, took his rough reception with great good-humour and eventually was able to shake himself clear of the crowd. After the doors were opened the galleries and body of the hall were speedily filled, and the same disorderly proceedings were indulged in. Soon after two o'clock the Lord Rector, the Chancellor, the Principal and Professors of the University and other officials ascended the platform, but the same riotous proceedings continued. While the introductory prayer was being delivered by Professor Flint, great and unseemly uproar prevailed. Repeated cries of order from the platform failed to produce any effect on the students. Professor Kirkpatrick then proceeded to present to the Chancellor the nobleman and gentlemen recommended for the degree of LL.D., but he fared no better at the hands of the students; the remarks he made being, in consequence of this continued uproar, entirely inaudible to any save the Chancellor and the gentlemen receiving the degrees. Indeed, it was not until the Lord Rector proceeded to deliver his address that quiet was at length obtained. After thanking the students for his election, Lord Rosebery paid a graceful tribute to his predecessor, the late Sir Robert Christison, and said, "In this place, where you all knew him, it is unnecessary to speak to you of Sir Robert Christison, nor am I competent to pay a tribute which should be worthy of his fame. What I can speak of him from personal knowledge was his unwearied energy, his faithful performance of public duty, and his rare devotion to this University." The general subject of the address was patriotism, especially as applied to Scotchmen and Scotch students. Lord Rosebery commended to the students the cultivation of national sentiment. He was careful to say that of Scotch character he did not mean peculiarities of custom or accent.

It was not by "the mere utterances of time-honoured shibboleths, nor by constituting the plaid a wedding garment, without which none is welcome," that Scotland was made; nor by these means would Scotland be maintained. The address, which was at the same time both eminently eloquent and practical, was listened to with great attention, the most striking passages being loudly applauded. After the delivery of the address the same uproar which characterised the commencement of the proceedings prevailed.

### GLASGOW.

(From our own Correspondent.)

THE appointments in connexion with our Sick Children's Hospital have been made public. They are as follows:—Physicians: Professor Leishman, Dr. J. Findlayson, and Dr. S. Gemmell (extra physician); Surgeons: Dr. H. C. Cameron, Dr. Wm. McEwen, and Dr. W. J. Fleming (extra surgeon); Pathologist: Dr. Joseph Coats; Oculist: Dr. Thos. Reid; Aurist: Dr. Thomas Barr; Dentist: Mr. Rees Price. With the exception of Mr. Price, all these gentlemen already hold other hospital appointments. The hospital is now on the eve of completion, and will probably be opened before the close of the year.

The Faculty of Physicians and Surgeons has resolved to institute a qualification in State Medicine, to be granted only to men already having a licence to practise. The nature and extent of the curriculum required, and of the examination, have not yet been determined.

The Faculty has now seriously taken alarm at the evident effect produced on the public mind by the report, somewhat adverse in its references to the Faculty, which has been furnished by the Royal Commission on the Medical Acts. Notwithstanding the very favourable notice of the Faculty's examination by the visitors sent down by the General Medical Council, it is recognised that the mind of the profession across the border is still hostile to this particular Corporation. A committee of the Faculty has therefore been appointed to consider these reports and the evidence on which they are based; though it is not yet clear what public action it may take with the view of refuting the charges brought against it, and of bringing its true standing and practice properly before the profession and the country at large. It is strongly felt here that the Faculty has been grossly maligned, and its procedure in regard to examinations misrepresented. It has for centuries rendered incalculable service to the profession in the West of Scotland, through its magnificent library, the general care it has taken of medical interests, and the encouragement it has always given to scientific study and work by its consistent and liberal recognition of extra-mural teaching. Its downfall would be felt as a calamity in this part of the country.

Our medical schools are again in full swing. At the University the session was opened by a characteristic and enjoyable address by Professor Gairdner, in which the past and present systems of medical education were ably reviewed, and reference was made to the immense progress made, especially in diagnosis, of late years.<sup>1</sup>

The commencement of the session at the Royal Infirmary School of Medicine was marked by a little extra ceremony and importance, as the new school buildings are now in use for the first time. The speeches were delivered, one by the Lord Provost of Glasgow, and one by Dr. Eben. Watson. The Lord Provost showed his usual familiarity with medical and public health matters, and expressed his regret that among the classes conducted at the infirmary, no room had been found for a course on hygiene. He frankly admitted, however, that neither the town nor the county authorities have shown by the salaries they give to their health officers, that they estimate at their true value the services rendered by these gentlemen; and so it is probably too much to expect that the medical profession, which gives of its services so much gratuitously already, should be very forward in making a new departure in the direction indicated. Dr. Watson's address was given with the eloquence and point of which he is admitted to be so complete a master.

The conversazione which took place at the inauguration of the new buildings for the Infirmary Medical School, was

a most brilliant affair. There was a little good music, but no speeches, beyond a few introductory remarks by Dr. Wm. McEwen; Messrs. Hilliard showed a number of medical, surgical, and obstetrical instruments; various druggists exhibited whatever was new in the way of pharmacy; Drs. Fleming and Newman gave demonstrations of the most recent novelties in physiological and pathological research; while the commissariat arrangements gave the greatest satisfaction to everybody, including the students. Probably it was the facilities provided for anatomical studies that attracted most attention, especially the "osteology" room—why not bone-room? The elder practitioners (of whom and of students there were over 300 present) were unanimous in saying that they enjoyed no such advantages in their student days.

The effect produced on many present by all this display was striking. Some did not hesitate to assert that the rival school, the Andersonian College, was completely left behind, so far as thorough equipment can be said to make or mar a school; and that if it intended to maintain its position in the field it would need to put forth a very mighty effort. It does seem as if that school had missed its day of grace in failing to amalgamate with the Royal Infirmary School.

Perhaps the ablest, certainly the bitterest, of all the introductory lectures given during the last few days was that of Mr. D. C. M'Vial, at the opening of the Western Medical School. It took the form of a history of medical education in intra-mural and extra-mural schools, but its substance and culmination were a fierce attack on Glasgow University, for its alleged illiberal conduct in, till very recently, refusing to recognise intra-mural lecturers, and thus endeavouring to establish and maintain for itself a strict monopoly of medical teaching in the West of Scotland.

At the Andersonian College the medical session was opened by a very interesting address by Dr. James Christie.

### SCOTTISH NOTES.

(From our own Correspondent.)

PROFESSOR HAMILTON, in his inaugural address to the pathology class at Aberdeen, delivered on Nov. 1st, gave a history of the endowment of the chair by Sir Erasmus Wilson, whose life he sketched; he showed how the intimacy between Professor Pirrie and the generous donor had led to the worthy gift of £10,000 to his father's *alma mater*, and afterwards proceeded to point out the objects in view and the subject to be taught by him. After a rapid survey of the history of his subject, he showed how from the "theory of medicine" pathology had come to be considered as the "science of medicine"; how, based upon a thorough knowledge of histology and physiology, the end in view was to ascertain the *causes* of disease. As illustrating what had in recent years been done in this direction, the lecturer referred to the success met with in determining the etiology of zymotic diseases, while the manner in which many skin affections were associated with constitutional disorders was still a matter of surmise only. Pathology at the present time resolved itself into—1st, minute anatomy; 2nd, experimental investigation; and, 3rd, the comparative study of diseases in the lower animals. The first of these was the basis of all therapeutical deduction, and when thoroughly acquired can be put in constant use at the bedside, and is easily carried about. It was his determination that, as far as possible, the subject should be taught practically, the only sound and useful method of teaching pathology. He wished to discourage all supercilious dilettantism, and reach forward with a determined purpose, "Heart within and God o'erhead."

Professor Stirling in his introductory lecture to the physiology class, after referring to the recent changes in the Aberdeen University, went on to consider the connexion existing between physiology and other departments of medical study, and finally to urge its importance in relation to our every-day life. Dr. Stirling spoke of the importance of considering the relationship between man and the lower animals, and illustrated, by reference to the work of Pasteur and of Koch, the advantage to animals as well as men of experimental inquiry. Proceeding to push the comparison further, the studies of Sir John Lubbock and Dr. Romanes were invoked as hopeful evidence that psychology might also be

<sup>1</sup> This address will appear in our next impression.—ED. L.

advanced by comparative study. The whole question of mind in the lower animals bears intimately upon the "Theory of Descent," and a question at present before evolutionists is, Is the mind of man distinct from that of the lower animals, or has it been evolved from the "mind" of the lower animals? Mr. Wallace answers the first question, and Mr. Darwin the second, affirmatively. The study of infant psychology is here of great interest and importance, and Mr. Darwin was amongst the first to examine the question. Recently Professor Preyer of Jena has published an elaborate work detailing in the most minute manner very numerous observations made regarding the mental development of his own child, and showing the vast influence of heredity. He is clearly of opinion that the intelligence of a child—even before it can speak a word—is ahead of the most intelligent animal. While the anatomical resemblance between man and the higher apes is of great interest, this question of mental evolution must have much study in the future, and the answer will be assisted by regard to the various degenerations to which the mind is liable. After showing the further connexion between physiology and other medical studies, Professor Stirling concluded an eloquent address by urging the importance of teaching physiology in schools, and to the young people generally, and more especially to girls. Quoting M. Paul Bert, he said: "When you educate a boy, you, perhaps, educate a man; when you educate a girl, you are laying the foundation for the education of a family."

After so recently having had the pleasure of directing the attention of your readers to Dr. Struthers' efforts to obtain the foundation of bursaries for the students at Aberdeen it is very satisfactory to record what has already been done in response to the appeal. At the meeting of the Senatus held last Saturday it was intimated that George Thompson, Esq., of Pitmiddden, had offered the sum of £6000 to be applied in the foundation of medical bursaries. It was resolved cordially to accept the gift, to record best thanks to the donor, and to send him a copy of the minutes. Mr. Thompson has shown great liberality, alike in the amount of money given and in the manner in which it is offered to the Senatus, that body being allowed full discretion as to the particular way in which the object stated shall be served. The Senatus will not be placed in any difficulty by this handsome bequest, as there are very numerous needs to be supplied, and it is certain that the fullest good will be done with the money by those having the best knowledge of the wants of the university. Added to the recent grant by Mr. Marr, this sum will form an excellent nucleus, and ere long Aberdeen may be enabled to offer the same attractions to medical students which have so long proved useful in the other Faculties. Only a few weeks ago Mr. Thompson gave £4000 to local charities.

The students at Aberdeen have petitioned the Senatus against having pathology embraced as a compulsory subject in their curriculum. Students joining now and hereafter will of course do so knowing that subject to be compulsory, but there is something to be said for those who feel that the new chair was not embraced in the course when commenced by them. Even though optional to present students, the majority will probably find it advantageous to take Professor Hamilton's class.

At a recent meeting of the Perth Water Commissioners a resolution somewhat to the following effect was carried by a majority: "That an opinion of counsel should be taken as to whether some recent statements by Dr. Trotter are libellous, and if competent, that an action should be raised against that gentleman." It appears that the gentleman referred to, feeling that the typhoid fever now and frequently prevalent in Perth is due to the admixture of sewage with the water-supply—an opinion shared by the profession in that city—has expressed himself very strongly on the subject.

## IRELAND.

(From our own Correspondent.)

DISSECTING by gaslight has been found to be unsatisfactory, and in consequence the Board of the Ledwich School of Medicine have made arrangements to have introduced into their dissecting-room one or more electric lamps. I believe the result will answer all expectations; and there is no doubt but that the good example shown by this school,

the largest in Dublin, will conduce to its prosperity and to the advantage of the students at the institution.

The annual elections for the Council of the Surgical Society of Ireland took place last Monday in the College of Surgeons. No votes were recorded except by members of the Society, who were either Fellows of the College of Physicians or Surgeons. The only change was the addition of Mr. Kendal Franks of the Adelaide Hospital, who replaced a member of Council, who has been elected a vice-president of the College.

Collections in aid of Hospital Sunday will take place on Sunday next, the 12th inst., when upwards of 200 churches will join in the movement. It has been usual for the past few years for a football match to be held the Saturday previous, and the sum obtained, generally upwards of £40, after all expenses have been paid, is handed over to the Hospital Fund. This year the fifth annual match will take place on the 11th inst., when one of the finest contests of the season will be played by teams representing the County Dublin, and the United Hospitals.

A slight increase in small-pox appears to have taken place in Belfast during the last week, eight fresh cases having been admitted to hospital, making a total of fourteen under treatment.

It is intended by the students of Mercer's Hospital to present an address to Dr. George F. Duffey, who recently resigned the post of physician to that institution.

Dr. Atthill, master of the Rotunda Lying-in Hospital, will vacate his post this month, after a seven years' tenure of office. The name of Dr. Macan, ex-assistant-physician, has been mentioned as a probable successor. The appointment is a very important and lucrative one, and is in the hands of the governors.

In the report of the Reformatory and Industrial Schools in Ireland for the past year it is remarked that a very large majority of the deaths in 1881, in industrial schools, was from scrofula and tuberculosis in their various forms. Von Niemeyer states that one of the primary causes of scrofula amongst children is the coarse diet to which they have been accustomed before admission into reformatory and industrial schools. Such food, containing little nutriment in comparison to its bulk, is insufficiently assimilated by their tender stomachs. The normal functions are thus checked, and an impoverished and vitiated circulation is created, which renders them peculiarly susceptible to receive and nourish the germs of tuberculosis that float in an atmosphere vitiated by the breath of consumptive children. It has been observed that peat bogs check, in a marked degree, the development of consumption. In 1854 the Directors of Convict Prisons found the prisoners in Spike Island, Cork, dying in numbers from consumption and other scrofulous diseases, the mortality in that year being 289 out of a total of 3701 inmates of convict prisons. The directors established an invalid dépôt at Philipstown, which is situated on a gravel bank in the midst of a bog. The deaths were reduced in the following year to 149 in a total prison population of 3147, and in 1856 the number of deaths fell to 54. The Philipstown Reformatory, with an average of 290 inmates, on the site of the above-mentioned convict dépôt, enjoys an almost perfect immunity from the disease. There was no death in it during 1881, and only one from consumption in the two previous years. In the Glencree Reformatory, also situated on a bog, with an average of 276 inmates, there has not been a single death from tubercular diseases during the past three years. On the other hand, in the Upton Reformatory, with an average of 243 inmates, there were 5 deaths from consumption last year, 2 in 1880, and 3 in 1879.

## PARIS.

(From our Paris Correspondent.)

THE diagnosis of syphilides is not at all times an easy matter, and any contribution to the literature of the subject will always be acceptable. Dr. Mauriac, Physician to the Hôpital du Midi, the well-known hospital for venereal affections in the male, delivered a very interesting lecture on the subject which may be summarised as follows: In giving a description of the topography of syphilides, Dr. Mauriac observed that their distribution on the different regions of the body presents certain peculiarities which are not found

in other affections of the skin. Erythematous syphilide is found principally on the trunk and flanks, on the inner parts of the limbs and on the flexor more than on the extensor aspect. The papular form has its seat of predilection on the face, the ala of the nose, and on the forehead at the roots of the hair, the upper part of the neck, the trunk and on the limbs in all directions. The scaly forms, with all their varieties, invade principally the palms of the hands and the soles of the feet. Pustular syphilides, superficial and impetiginous, affect the scalp, the beard and, in general, the regions covered with hair. Ecthyma and rupia attack by preference the limbs, principally the lower limbs. As for tubercular eruptions, they are disseminated all over the body. Thus it may be seen that syphilitic eruptions may affect the entire cutaneous covering of the body. There are, however, some parts of it which would seem to form exceptions to this rule, such as, for instance, the clavicular and sternal regions, where simple and parasitic eruptions are so common. The same may be said of the back of the hand, and this remark is particularly applicable to the exanthemata. Papulo-squamous eruptions are never seen on the limbs on the extensor surface, at least systematically, as is the case with one of the most common and most typical of non-syphilitic eruptions, psoriasis. The natural orifices, the commissures of the lips, isthmus of the fauces, orifices of the nostrils, the vulva, and anus, are the seat of predilection of the earlier syphilitic eruptions, and, among others, mucous patches are there particularly noticed. The circular forms of simple erythema may be found on all parts of the body; whereas the same forms of erythematopapulous syphilides affect by preference the chin, the cheeks, forehead, the neighbourhood of the anterior and internal parts of the limbs and the buttocks. The syphilides appearing later and affecting the tissues deeply are generally situated on the nose, lips, scalp, the sternal and clavicular regions, the buttocks, and more frequently on the legs near the joints than on the thighs.

Madame Madeleine Brès, one of the few French ladies who have become doctresses of the Faculty of Medicine of Paris (for I may say *en passant* that French ladies in general are not at all partial to the study and practice of medicine), has submitted a paper, through M. Wurtz, to the Academy of Sciences on an analysis of the milk of the Galibis women, the savages referred to in my letter to THE LANCET of Aug. 12th last. Both the women from whom the milk was taken are multiparæ. One is suckling her sixth child, three months old; the other her seventh, two years old, and in which dentition is complete. The following is the result of the analysis obtained from a kilogramme of milk:—

	A.	B.
Butter .....	34.70	51.96
Casein .....	9.54	13.12
Lactose .....	74.78	77.70

The analysis was performed according to the method adopted by Dr. Adam, and shows that the two samples of milk were rich in butter and lactose, whilst the proportion of casein was, on the contrary, extremely feeble, thereby approaching more to the composition of cow's milk. It may be interesting to give the analysis by MM. Bouchardat and Quevenne of the milk of women in general:—

Heat-forming substances—Butter.....	20.73
Lactine and extractive matter .....	74.20
Plastic substances—Casein.....	13.68

Although the winter session is supposed to begin on October 15th, the doors of the Faculty are not opened for the courses before the first week of November. The following is a list of the Professors who are to lecture during the session:—Prof. Gavarret, Medical Physics; M. Gariel, General Physics; Prof. Jaccoud, Medical Pathology; Prof. Sappey, Anatomy; Prof. Bouchard, Pathology and General Therapeutics; Prof. Wurtz, Medical Chemistry; Prof. Duplay, Surgical Pathology; Prof. Le Fort, Practical Surgery; Prof. Robin, Histology; Prof. Cornil, Pathological Anatomy; Prof. Laboulbène, History of Medicine and Surgery; Prof. Brouardel, Forensic Medicine; Profs. Germain Sée, at the Hôtel Dieu; Lasègue, La Pitié; Hardy, La Charité; Potain, Hôpital Necker, Clinical Medicine; Prof. Ball, at the Sainte-Anne Asylum, Clinical Pathology of the Mind and Brain; Prof. Parrot, Hospice des Enfants Assistés, Diseases of Children; Prof. Fournier, Hôpital Saint Louis, Syphilitic and Cutaneous Affections; Prof. Charcot, La Charité, Diseases of the Nervous System; Profs. Gosselin, La Charité; Richet, Hôtel Dieu; Ver-

neuil, La Pitié; Trélat, Hôpital Necker, Clinical Surgery; Prof. Panas, Clinical Ophthalmology; Prof. Depaul, Clinical Midwifery.

In addition to the above, supplementary courses are given by *agrégés* of the Faculty on the various branches of medical science. There are also a number of free professors who give lectures, and whose instruction is officially recognised.

The typhoid epidemic in Paris may now be considered fairly on the decline, as, according to the mortuary report of last week, the mortality from that affection has declined from 173 of the preceding week to 125. The number of cases in town and the admissions into the hospitals have also considerably diminished, and during the last three or four days no fresh cases have been reported. The number of deaths from all causes in town and in the hospitals amounted to 995, that of the preceding week being 1077. The number of births recorded for last week was 977, and marriages 467.

Nov. 7th, 1882.

## MEDICAL NOTES IN PARLIAMENT.

### *Scarlatina at Arklow.*

In the House of Commons on Thursday, Nov. 2nd, the Chief Secretary for Ireland answered a second series of questions by Mr. Corbet on the subject of an outbreak of scarlatina in the constabulary barracks at Arklow. The medical attendant ordered the removal of the children affected with the disease into the hospital, and the others went into lodgings with their parents in the town. The sub-inspector was not aware that there was any "consternation" in the town in consequence. It was not 11 o'clock at night, but 9, when the children were removed. The inspector found fault with the head-constable for inviting the men to express want of confidence in the medical officer, but there was no formal censure. The head-constable's removal was wholly unconnected with the question of medical attendance. There was no stoppage from the men's pay on account of medical attendance.

### *The Vaccination Acts.*

Mr. Hopwood asked the Home Secretary if his attention had been called to a case of distraint under the Vaccination Acts, at Bedford, in which, for a fine of 11s. 6d. laid on March 13th, 1882, goods had been seized of the value of eleven guineas, on Sept. 6th, 1882, six months after the case was heard, and while the parents were mourning for the loss by death of the child for the non-vaccination of which the prosecution was instituted; and if he would make such representations to magistrates, or issue such instructions, as would prevent in future similar proceedings.—Sir W. Harcourt said he had no official information of the case. He must point out that he had no power to set aside the distraint, and when the hon. member talked about issuing instructions to magistrates which would prevent them putting the law in operation, he must say he had often stated in the House that he had no power to direct anything of the kind. If the law was put into execution in a harsh manner, the Secretary of State had, under limited conditions, power to interfere with the sentence, but he had no power to interfere with judicial functions.

On Monday, on the motion of Mr. Dodson, a copy was presented of a memorandum by the medical officer of the Local Government Board, on the probable origin of erysipelas at the Norwich public vaccination station in June 1882.

### *The Murder of Dr. Maclean.*

Sir C. Dilke stated to Dr. Cameron that Her Majesty's representative at Santiago was instructed to press upon the Chilean Government the claim of the relatives of Dr. Maclean, late physician to the British Legation, for compensation for his murder by Chilean soldiery in January last.

### *Bristol Sanitation.*

Mr. MacIver asked the President of the Local Government Board if his attention had been called to the action of the sanitary authority at Bristol in summoning the owners (chiefly working men) of seventy-four houses condemned by the medical officer of health, these houses having been erected on the strength of the official sanction of the plans; and, whether such proceedings, without compensation to the owners of the property, were approved by the Board.—Mr.



ison replied that the medical officer of health reported a number of houses as being unfit for human habitation, because they were built on low lands, which were liable to be flooded whenever there was an excess of rain. It was the plan was approved by the sanitary authority as in accordance with their by-laws, but the approval referred to the construction of the buildings, and not to the sites. The Local Government Board had no control over the sanitary authority in the matter, but the case must be brought before the justices, and it would be necessary to satisfy the justices of the unfitness of the houses for habitation before they could be closed.

#### *Importation of Drugs into Japan.*

In answer to Mr. Alderman Fowler, Sir C. Dilke said he was not aware there was any recent interference with the importation of drugs and chemicals other than medicinal. There were restrictions imposed by Japanese law on the sale of bad and spurious drugs, and such articles had to be submitted to the examination of a Board of Health before they could be sold. There were complaints in 1879 at certain drugs were unfairly condemned, but none had been made since that time.

#### *Queen's Cadetships.*

Dr. Lyons asked the Secretary of State for War, if, under existing regulations, the sons of medical officers of the army were ineligible for nomination to honorary Queen's cadetships; and, if he would take steps to remedy this inequality in the position of the Medical Department which was felt as a slight to those who risk their lives in the service of the State.—Mr. Childers reminded his hon. friend that Queen's cadetships were open to the sons of medical officers. As to Queen's honorary cadetships, the arrangements were under consideration; but he could give no assurance that he could amend the system, which was a delicate one to alter.

#### *Surgeon Wheeler and the Irish Government.*

Mr. Gibson asked the Chief Secretary to the Lord Lieutenant of Ireland whether Surgeon William Ireland Wheeler, Vice-President of the Royal College of Surgeons, at the request of the Irish Government, attended Mr. Carter, who was, in the month of March last, fired at and dangerously wounded in the county of Mayo; whether Surgeon Wheeler attended many visits to Mr. Carter in Mayo, leaving his large practice in Dublin for the purpose, and reported the result of each visit to the Irish Government, and whether Surgeon Wheeler actually furnished his account for such attendance to the Irish Government, and had not been paid.—Mr. Trevelyan replied that Mr. Morony, resident magistrate, reported to Mr. Burke, the late Under Secretary, that Mr. Carter expressed a wish to have the professional aid of Mr. Wheeler, who had previously attended him. Mr. Burke thereupon intimated to Mr. Wheeler that if he visited Mr. Carter, and if that gentleman was unable to pay his fees he must submit a claim for the consideration of the Government. Mr. Wheeler paid many visits to Mr. Carter, and reported the result of each visit to Mr. Burke. He had since furnished an account to the Government for £1147 18s. for his services, and for fees of fifty and twenty-five guineas for two assistants who accompanied him. Mr. Carter stated he was unable to pay the account, and had made a claim for compensation for his injuries. Pending the result of the claim, the Government could come to no decision on Mr. Wheeler's demand. Mr. Gibson gave notice that he would ask that the correspondence between the Irish Government and Mr. Wheeler be laid on the table.—Mr. Healy said he would ask whether there was any record at Dublin Castle of eminent surgeons being sent by the Government to attend persons wounded by the police.—In reply to another question by Mr. Biggar, Mr. Trevelyan promised that the Irish Local Government Board would make inquiries into the alleged ill-treatment of a pauper lunatic woman named Malcolmson, who had been removed from Bothwell in Scotland to Downpatrick in Ireland.

#### *Militia Surgeons.*

A petition was presented from the North of England Branch of the Medical Association for redress of the grievances of militia surgeons.

#### *Regimental Surgeons.*

On Thursday, Sir H. Fletcher asked the Secretary of State for War if he would consider the advisability of reverting to the old system of appointing regimental surgeons and

assistant-surgeons to every regiment in her Majesty's forces.—Mr. Childers reminded the honourable member that the present arrangement of the medical service, which was commonly called the general, as opposed to the regimental system, was finally decided upon by the late Government when Lord Cranbrook was Secretary of State, as recently as 1878. Lord Cranbrook's final words were, "The regimental system has gone, and it will be impossible to recall it." If the present system should appear to be faulty, he (Mr. Childers) should have no hesitation in reforming it, but at the present moment he had no intention of reverting to an arrangement which had been so recently condemned.

#### *Dr. Wheeler's Claim.*

Mr. Trevelyan, in reply to Mr. Gibson, repeated his former statement as to the postponement of the consideration of Surgeon Wheeler's claim; and in reply to Mr. Healy, said there were instances during the last two or three years in which eminent surgeons had been employed to attend upon persons in indigent circumstances, injured either by the police or agrarian offenders, and the fees had been paid out of the law charges.

#### *Lunatics in Workhouses.*

Mr. W. Corbet asked the President of the Local Government Board if his attention had been called to the evils arising from overcrowding in the lunatic wards of workhouses, especially at St. Pancras and at the Dudley Union Workhouse; whether with reference to the latter he had noticed the following passage in the last report of the Commissioners in Lunacy, pp. 159-160:—"Attention has been drawn by the Visiting Commissioners for several years past to the overcrowding of the lunatic wards, but it continues to be as great as ever, and nothing has been done, nor as far as I can learn is anything in immediate contemplation with a view to remove or abate the evil which in the male lunatic ward day-room is indeed becoming worse every year;" whether he had noticed the following extraordinary statement of the Commissioners:—"In the dormitories of this ward also the beds are so close that they touch each other at the sides, and the patients have to climb into and out of their beds over the bottom," with other observations of a painful character; and whether he would take immediate steps to remedy the evils complained of.—Mr. Dodson said attention had been called to the evils referred to at St. Pancras and Dudley. The guardians of St. Pancras had during the present session obtained a Bill to acquire land; plans had been prepared, and when alterations were made he believed the evils would be removed. The overcrowding at Dudley being reported, the Local Government Board urged the guardians to take steps to remedy the evil. Plans were submitted, but were held to be inadequate. Amended plans were prepared, and were now under consideration. As to the workhouses generally, he did not think the wards were overcrowded, nor had any complaint been made of the treatment of lunatic inmates.

Colonel Colthurst asked whether it was the intention of her Majesty's Government to take action with respect to the better treatment and disposal of lunatics in Irish workhouses, in accordance with the recommendation of the Commission appointed in 1878.—Mr. Trevelyan said a report was made to the late Government in 1879, recommending that the whole of the pauper lunatics should be placed under a separate department of the Local Government Board. The questions with which it dealt were so extensive that he could not pledge the Government to any definite course, but he would look into the matter further upon his return to Ireland.

**SALFORD ROYAL HOSPITAL.**—The fifty-fifth annual meeting of the subscribers to the Salford and Pendleton Royal Hospital and Infirmary was held on Monday at the Town Hall, Salford. The Mayor of Salford (Mr. Alderman Husband) presided. The treasurer of the institution read the annual report, from which it appeared that the number of patients admitted during the year had been: out-patients, 4321; accident patients, 4525; home patients 2606; hospital patients, 452; total 11,904. A more favourable account was able to be given this year of the financial condition of the hospital than was possible at the last annual meeting. The improvement was due mainly to the receipt of two instalments of £10,000 each of a legacy of the late Mr. J. Pendlebury. It was resolved to call a special meeting of the governors to discuss the desirability of continuing or abolishing the system of recommendation;

## Obituary.

### GEORGE CRITCHETT, F.R.C.S.

THE death of this esteemed and skilful surgeon and oculist has made a gap in professional and social ranks which it will be difficult to fill. Mr. Critchett had been suffering for eight weeks from cystitis and enlarged prostate and granular kidney, and died on the morning of Nov. 1st, having received all the aid that medical and surgical art could afford at the hands of Mr. Henry Morris, Drs. Andrew Clark and Liveing, and also Sir Henry Thompson and Mr. Walter Coulson. His death was apparently somewhat sudden, for he had, until the commencement of this his last illness, shown no signs of failing health, but had been throughout the past season attending to his practice with unabated vigour and success, as well as attending the meetings of the Ophthalmological Society, and performing all his numerous social engagements with his accustomed hospitality and courtesy. He was born in 1817, was apprenticed to Mr. John Scott of the London Hospital, where he entered as a student. He became a member of the Royal College of Surgeons in 1839, and Fellow in 1844 by examination. Before he rose to fame as an oculist he did much good work in general surgery at the London Hospital, where he was appointed demonstrator of anatomy, and afterwards (July 14th, 1846) assistant-surgeon, which latter office he held until his promotion to the office of full surgeon, in August, 1861. For fifteen years he faithfully discharged the arduous but unattractive duties of an assistant-surgeon at the London Hospital (duties more irksome in those days than now), but during this time he showed himself a master-hand in surgery, and established one or two very valuable methods of treatment, especially in ulcers of the lower extremity. He held the office of surgeon barely two years (from August 13th, 1861, to June 3rd, 1863), and resigned the more remunerative post for which he had laboured so long, solely in obedience to a feeling that he could not in fairness hold it longer, as he was so rapidly becoming absorbed in the work of ophthalmology at Moorfields and in private practice. He had, however, shown great skill as a surgeon and operator in other branches besides the eye; and demonstrated the fact, that while possessing the neatness and delicacy of touch for special eye operations, he had also the boldness and capacity for operations of larger magnitude, and there are many now living who can remember with pleasure his lithotomies and excisions of large joints.

Throughout nearly his whole professional life he had been associated with the Moorfields Eye Hospital, and it was here that the work which was most congenial to his tastes was found. As an operator he was perhaps unsurpassed. His views upon treatment were clear and precise. He was kind, courteous, and considerate to a degree, and in the height of his prosperity had always great regard for his less fortunate brethren. He was generous to a fault, but much of his generosity was not generally known. Nothing could exceed his delight in dispensing hospitality. His capacity for so doing was greatly increased by his refined taste in the arts, and his love of manly sports.

He became a Member of Council of the Royal College of Surgeons in 1870, and was President of the Hunterian Society for two successive years. In 1876 he succeeded Mr. Hulke as ophthalmic surgeon and lecturer on ophthalmic surgery at the Middlesex Hospital. As a teacher Mr. Critchett's influence was for the most part personal, but it was nevertheless profound. Its operation may be still traced in those who were his juniors and successors at Moorfields in 1864. He published in THE LANCET a course of lectures on ophthalmic surgery—a most masterly exposition of all information on the subject at that date, and containing many valuable original ideas.

The influence he has exercised in modern ophthalmic surgery has been very great, especially in operative procedures, for in nearly all operations, by his peculiar skill and care, he wrought small changes which guided others to some of the more important modifications, but the method of dividing the recti muscles by means of hook and scissors subconjunctivally was peculiarly his own, as was also the method of enucleation now usually practised. He devised

the operations of iridodesis and abscission, and although these procedures had to be abandoned for reasons that could not have been anticipated, they manifested the resources of an ingenious mind.

### BHOLA NATH BOSE, M.D., M.R.C.S. LOND.

WE regret to announce the death of Dr. Bhola Nath Bose, the late Civil Surgeon of Faradpore. He was one of the first four Bengalese gentlemen who came to England for the purposes of study in the year 1843. He distinguished himself in his college, gaining gold medals in materia medica, botany, and comparative anatomy, and certificates of honour in medicine, surgery, and midwifery. He graduated as M.D. Lond. in 1847. A reference to the London University Calendar will show that he was the first Indian who obtained that degree. He returned to India in 1848, where he was appointed an uncovenanted civil medical officer. During the Indian Mutiny of 1857 he served as a military surgeon, and discharged his duties in that capacity in so satisfactory a manner that the Government, in recognition of his service in the battle of Chillianwallah, awarded him a medal. Subsequently he was stationed at Faradpore as a civil surgeon, a post he held till 1876, when he took furlough for two years, and visited England for the second time. During his stay here he published his two works—namely, (1) "A New System of Medicine; entitled Recognisant Medicine, or the State of the Sick;" (2) "Principles of Rational Therapeutics, commenced as an Inquiry into the Relative Value of Quinine and Arsenic in Ague." After the expiration of his furlough he was allowed to retire with a pension of 333 rupees a month. For the last two years he had been living a retired life at Narkeldaugha, a suburb of Calcutta, suffering from time to time from headache, vertigo, and dimness of vision. About the middle of September last, however, he was attacked with a carbuncle at the back of the neck, which proved fatal on October 1st, 1882, after causing him intense pain for a period of sixteen days. He leaves a widow, but no children. Dr. Bose was born at Barakpore, a village twelve miles from Calcutta. His family, though respectable, were of comparatively humble status. He made his way by untiring labour, zeal, and perseverance. At the commencement of his career (1843) much courage was needed to break through caste and other prejudices of his countrymen in order to cultivate the learning of the West. During his stay at Faradpore for about nineteen years he used to visit patients at their houses free of charge, and during the prevalence of cholera and other epidemics he would go from house to house in his neighbourhood inquiring if anyone was ill. His history affords an encouraging example to Hindoos with a taste for medical and scientific pursuits.

## Medical News.

**ROYAL COLLEGE OF PHYSICIANS OF LONDON.**—In the list published last week Dr. Abrath was described as M.C. Heidelberg, instead of M.D. Heidelberg.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on Monday, Tuesday, and Wednesday last:—

John Sykes, Henry Worsley, Lawson Gifford, Stanley M. Roome, Charles H. G. Brown, and James E. A. Fergusson, Edinburgh; Thos. G. Alexander, Robert R. Hunter, Mark Sharman, and Henry H. Ballachee, Glasgow; Edward Armitage, Richard P. Halliday, and John O. Ward, Leeds; William Graham, Dublin; A. T. G. Watts, Cambridge; Frank Woods, St. Bartholomew's Hospital; G. E. Deamer, University College and Edinburgh; J. W. Crowther, Birmingham; A. O. A. Packman, Sheffield; R. F. Castle, Cambridge; R. R. Giddings and G. M. Reid, Edinburgh; B. R. Johnston, Dublin; O. R. A. Julian, J. R. Forrest, W. J. Worleworth, Charles Downing, G. S. Leggett, R. H. Barrett, and Fredk. Sloman, St. Bartholomew's Hospital; T. J. Davis, T. H. Sykes, and T. M. Anglor, Liverpool; J. C. Michell, S. F. Smith, and T. G. Langhorne, London Hospital; Robert Denman and R. G. Silverlock, Guy's Hospital; J. F. W. Howitt, Toronto and Middlesex Hospital; A. E. Woods, St. George's Hospital; U. N. Mukerji, Cambridge and Edinburgh; Frederick Brentwall, Manchester; L. W. Burton, St. Thomas's Hospital; H. J. Butler, Leeds; Arthur Pring, Cambridge and Charing-cross Hospital; W. A. Dun, Cincinnati; Thomas Leicester, Liverpool and St. Thomas's Hospital; Charles Strickland, St. Bartholomew's Hospital and Hanover; W. F. Pridham and J. E. R. Grant, St. Mary's Hospital; C. E. Brooke, Cambridge and St. Bartholomew's Hospital; J. R. A. Bennett, University College.

# UNIVERSITY OF EDINBURGH.—The following gentlemen have passed the First Professional Examination:—

Anderson, William.  
 Anderson, W. A.  
 Antrobus, Edmund.  
 Bardgett, John.  
 Barraclough, T. W.  
 Baschet, Georges.  
 Bell, William J.  
 Bennett, Charles.  
 Bowman, Reginald.  
 Braga, Joao Francisco.  
 Broadfoot, J. D.  
 Brown, Harbit.  
 Burt, R. F.  
 Campbell, Ernest Kenneth.  
 Cassels, David.  
 Cheetham, Ernest J.  
 Clark, Stephen Frazer.  
 Clemow, Frank Gerard.  
 Collinson, F. W.  
 Coulthard, R. Swan.  
 Cunningham, James.  
 Davidson, G. Scott.  
 Dawes, Joseph Wm.  
 Deamer, J. Henry.  
 Douglas, K. Mackinnon.  
 Doughty, D. Somerville.  
 Drinkwater, J. J.  
 Eaton, Walter Musgrave.  
 Fahmy, Ahmed.  
 Fraser, Peter.  
 \*Fry, Edwin Sargood.  
 Garvie, John.  
 \*Gibson, W. Gregory.  
 Glover, J. Gray.  
 Gordon, Robert.  
 Grant, J. W.  
 Gray, Alexander M.  
 Gray, Allen E. Lambton.  
 Gray, David Campbell.  
 Greig, David Middleton.  
 Griffith, T. Howard.  
 Griffiths, Joseph.  
 Gulland, G. Lovell.  
 Hailes, C. Robert.  
 Hoffman, Joshua Jacobus.  
 Inkster, R. Wilberforce.  
 Jones, S. Baker.  
 Joyce, R. Conwy.  
 Keelan, H. L. St. P.  
 \*King, F. Truby.  
 Kingdon, Ernest Cory.  
 \*Lamont, J. C.  
 Leigh, J. Dickinson.  
 Lempriere, C. Lewis.  
 Lewis, C. J.  
 Linton, Edward.  
 Little, W. G.  
 Logan, J. Richardson, T.  
 Loubser, A. L. B.  
 Love, W. Wood Russell.  
 M'Allan, D. Campbell A.

M'Diarmid, Duncan.  
 M'Gavin, J. R.  
 Macintosh, G. Donald.  
 M'Jarrow, John.  
 Mackenzie, Francis Wallace.  
 M'Lean, Wm. Henry.  
 MacLellan, Robert.  
 MacLellan, J. M'Donald.  
 MacWatt, R. C.  
 Marshall, Daniel Groves.  
 Matthew, C. G.  
 Moir, David Macleish.  
 Morgan, David.  
 Morris, Thomas.  
 Morrison, R. S.  
 Morton, C. James.  
 Murray, J. Kemp.  
 Nash, Andrew W.  
 Nasmyth, W. Ramsay.  
 Neal, F. A.  
 Nicoll, J. M'Donald.  
 Paterson, Maurice.  
 Pirie, John.  
 Porter, George.  
 Pritchard, E. T.  
 Pritchard, Trevor J.  
 Puckle, Selwyn Hall.  
 Reid, James.  
 Reynolds, F. Mortimer.  
 Ridley, J. B.  
 Richards, John.  
 Robertson, Ernest.  
 Roberts, E. Theophilus.  
 Roberts, F. C.  
 Roberts, Hugh L.  
 Ross, Arthur MacLeod.  
 Ross, John.  
 Scotland, D. Wilson.  
 Scott, Gerard Affleck.  
 Scott, W. E. S.  
 Scurfield, Harold.  
 Smeddle, R. W.  
 Smith, G. Purves.  
 Smith, John W.  
 Somerville, G. Laird.  
 Steyn, Gabriel H.  
 Stewart, Robert.  
 Stirling, Robert.  
 Sym, W. G.  
 Teacher, C. C.  
 Terry, Caleb.  
 Thackwell, J. Bolton.  
 Thomas, W. J.  
 Thorp, Francis Courtenay.  
 Travell, John W.  
 Turner, Ernest B.  
 Vaughan, J. C. S.  
 Wallace, Quintin Macadam.  
 Warnock, John.  
 Waters, Clarence H.  
 Wilson, Adam D.

\* With distinction.

# UNIVERSITY OF GLASGOW.—The following gentlemen have passed their respective examinations for the Degrees of M.B. and C.M.:—

## FIRST PROFESSIONAL EXAMINATION.

Alexander, A. S.  
 Alexander, W. M.  
 Anderson, J.  
 Bamber, H.  
 Bankier, A. M.  
 Bannerman, G. G.  
 Baxter, C.  
 Broom, J.  
 Bryce, A.  
 Buchanan, J.  
 Buchanan, W.  
 Cameron, J. W.  
 Campbell, A.  
 Campbell, I. E.  
 Campbell, W. D.  
 Christie, W. W.  
 Couttes, J.  
 Crowford, R. K. B.  
 Dodd, J.  
 Dunlop, J.  
 Farquharson, J. D.  
 Ferguson, R. T.  
 Fleming, R. M.  
 Fulton, H. S. H.  
 Foster, A. B.  
 Fulton, J. R.  
 Gibson, J. B.  
 Gordon, C. H.  
 Hallett, C. H.  
 Hamis, Yonup.  
 Hay, W.  
 Hichen, H.  
 Hughes, J.

Hutchinson, T. B.  
 Johnston, D. G.  
 Marshall, W. G., M.A.  
 Martin, J.  
 Melville, H. B.  
 Mitchell, T.  
 Muir, D. C.  
 Muir, W. C. C.  
 M'Arthur, J. T.  
 M'Dermid, J.  
 Macdonald, J.  
 M'Eachern, D.  
 Mackie, J.  
 Maclean, J. N.  
 Macphail, Digby M.  
 Macquairie, J. A.  
 Neilson, J. F.  
 Orr, J. F.  
 Paterson, W. W.  
 Ralley, J.  
 Ramsay, R.  
 Rankin, W.  
 Richmond, A.  
 Robertson, W.  
 Routledge, R.  
 Rutherford, T.  
 Seright, W.  
 Smith, J. C. A.  
 Sprott, G.  
 Stones, R. W.  
 Wands, J.  
 Whish, C.

Forty-nine candidates were rejected.

## SECOND PROFESSIONAL EXAMINATION.

Beveridge, Jno.  
 Birrel, J. R.  
 Colvin, F. H.  
 Cross, David.  
 Callen, William.  
 Greener, M. H.  
 Hawthorne, C. O.  
 Hinshelwood, Jas., M.A.  
 Jack, Alexander.  
 Jones, Evan.  
 Kendall, F. E.  
 Keogh, Arthur G.  
 Logan, Hugh.  
 Miller, Robert A.  
 Montgomery, A. N.  
 Morris, Geo. A.  
 Murdoch, J. W. A.  
 Macartney, Duncan, M.A.  
 M'Cracken, Wm.  
 M'Creadie, Wm.  
 Macdougall, Alexander.

Macleod, R. L. R.  
 Macrae, Alex. M.  
 Parker, James.  
 Peacock, Alexander.  
 Ritchie, Jno.  
 Robertson, Alexander.  
 Rutherford, Hy., M.A.  
 Scanlan, Jas.  
 Scott, Robert.  
 Service, R. M.  
 Shaw, Jas.  
 Sinclair, Jno.  
 Somerville, Wm. F., M.A.  
 Smith, Jas. P.  
 Smith, W. M.  
 Smith, D. M.  
 Spence, W. W.  
 Taylor, Francis.  
 Temple, Charles D.  
 Wilson, George.  
 Wright, Jno.

Twenty-nine candidates were rejected.

## THIRD PROFESSIONAL EXAMINATION.

Arthur, D.  
 Beveridge, R. E.  
 Blante, B.  
 Brown, W.  
 Brown, W. M.  
 Cameron, J.  
 Campbell, J. J.  
 Crawford, J. C.  
 Dunlop, J. I.  
 Forsyth, W. A.  
 Gemmell, J. F.  
 Gibb, W. F.  
 Gourlay, R.  
 Gray, W. L.  
 Hamilton, W. T.  
 Headrick, J. M.  
 Herbertson, J., M.A.  
 Hodge, P.  
 Hogg, G. M.  
 Howie, A.  
 Johnston, A.  
 Johnston, F.

Kerr, Jno.  
 Marquis, D.  
 Martin, W.  
 Morrison, A.  
 Macarthur, B. N.  
 Macdonald, J.  
 Mackenzie, D.  
 Maclean, A.  
 MacNaught, J. B.  
 Prangwell, J. T.  
 Pretsell, W. G.  
 Quaike, W. F., B.A.  
 Richard, D. T.  
 Russel, J.  
 Soga, W. A.  
 Stafford, W.  
 Steele, R. G.  
 Taylor, W. C.  
 Turnbull, E. T.  
 Vost, W.  
 Williams, A.

Seventeen candidates were rejected.

# ROYAL UNIVERSITY OF IRELAND.—The following Degrees were conferred on the 8th inst. by his Grace the Duke of Abercorn, Chancellor of the University:—

## M.D. DEGREE.

FIRST CLASS HONOURS.—Charles H. Wise.

## SECOND CLASS HONOURS.

M'Murray, J. | Adams, F. E.

## UPPER PASS DIVISION.

Allport, C. W.  
 Austin, J. J.  
 Barnes, W. S.  
 Bell, T. G.  
 Cromie, Thomas.  
 Heanen, Charles.  
 Jackson, Mark.

Kelly, Michael.  
 Lindsay, J. A.  
 O'Keeffe, W.  
 Prendergast, J. M.  
 Swan, S. A. L.  
 White, Daniel.

## LOWER PASS DIVISION.

Brown, H. E.  
 Chambers, A. B.  
 Cooke, James.  
 Gibson, William.  
 Good, William.  
 Graham, J. S.  
 Graham, William.  
 Hamilton, William R.  
 Hawthorne, A. W.  
 Henderson, S. D.  
 Henry, James.

Hunter, J. F.  
 Legge, R. J.  
 M'Cambridge, J.  
 M'Dermott, Cornelius.  
 M'Manus, L. S.  
 Mathews, R. H.  
 Moran, John P.  
 Moynan, R. M.  
 Orr, J. Morrison.  
 Smith, R. Strafford.  
 Wilson, James.

## M.B. DEGREE.

UPPER PASS DIVISION.—John Riordan.

## M.CH. DEGREE.

Atock, M. H.  
 Austin, J. J.  
 Barnes, W. S.  
 Bell, T. G.  
 Black, J. G.  
 Chambers, A. B.  
 Craig, James.  
 Cromie, Thomas.  
 Gallwey, P. J.  
 Gibson, W. Walter.  
 Haines, H. A.  
 Hamill, Samuel.  
 Hamilton, William R.  
 Hawthorne, A. W.  
 Heanen, Charles.  
 Henderson, S. D.  
 Henry, James.  
 Lindsay, J. Alexander.  
 Lithgow, J. M'G.

M'Cambridge, J.  
 M'Connell, T. S.  
 M'Dermott, C.  
 M'Donnell, J. R.  
 M'Manus, L. S.  
 M'Murray, J.  
 Mathews, R. H.  
 Moran, John P.  
 Morell, L. D.  
 Moynan, R. M.  
 O'Connell, D. V.  
 O'Keeffe, Matthias.  
 O'Keeffe, William.  
 Prendergast, J. M.  
 Riordan, John.  
 Rountree, G. A.  
 White, Daniel.  
 Wilson, James.  
 Young, J. V.

## DIPLOMA IN OBSTETRICS.

Adams, F. E.  
Allport, C. W.  
Chambers, A. B.  
Cromie, Thomas.  
Gibson, William.  
Haines, H. A.  
Lyons, R. W. S.

M'Murray, J.  
Maguire, C. J. O'Leary.  
Mathews, R. H.  
O'Keefe, William.  
Prendergast, J. Moran.  
Rountree, G. A.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Nov. 2nd:—

Smith, Ebenezer Thos. Ayden, Abbey-street, Bermondsey.  
Spencer, Walter, Doughty-street.  
Statham, Reginald Whitehead, St. Peter's Rectory, Walworth.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Harold Wm. Banfield and Raheem Buksh, London Hospital; Arthur Dixon Jollys, Charing-cross Hospital; George Wm. Burgess Slader, Guy's Hospital.

**UNIVERSITY OF CAMBRIDGE.**—The number of students commencing dissection (i.e., second-year students) this session is 65.

**QUEEN'S COLLEGE, BIRMINGHAM.**—At this college there are 36 new entries, two dental students, and one for special classes.

**ST. MARY'S HOSPITAL, MANCHESTER.**—Messrs. G. and R. Dewhurst have given £100 towards the extinction of the debt on this charity.

**SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE.**—The first meeting of the 129th session of this Society will be held on Wednesday, the 15th inst., when the opening address will be delivered by Dr. Siemens, Chairman of the Council.

**THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.**—H.R.H. the Duke of Albany has intimated to the Board of Management his willingness to preside at a public dinner next spring in aid of the funds of the Ventnor Consumption Hospital.

**POLICE AMBULANCE CLASSES.**—On the 3rd inst., at Scotland-yard, Major-General Burnaby presented certificates to the members of the police force who had passed the examination of the St. John Ambulance Association. The number of men examined was 102, of whom 90 were successful.

**SUPERANNUATION ALLOWANCES.**—Mr. J. Hatton, L.R.C.P. Ed., M.R.C.S., district medical officer, Monmouth Union, has been awarded a superannuation allowance of £26 a year.—Mr. W. Barr Brown, M.R.C.S., L.S.A., late district medical officer of the Windsor Union, has been awarded an allowance of £30 a year.—Dr. Coulter, of the South Dublin Union, has been granted a retiring allowance of £130 per annum.

AN adjourned meeting of the Governors of the Yorkshire Hospital for Incurable Diseases, held at Leeds last week, seems to have been one at which the proceedings might very properly be called lively. Doubts appear to have been expressed of the soundness of the condition of the institution financially, but a committee having been appointed to investigate the matter, and their report having been regarded as satisfactory, the meeting terminated with mutual congratulations.

**MEDICAL SOCIETY, COLLEGE OF PHYSICIANS IN IRELAND.**—The following office-bearers have been appointed for the ensuing year:—President: William Moore. Vice-Presidents: F. R. Cruise and Henry Kennedy. Council: J. Hawtrey Benson, Fleetwood Churchill, J. Magee Finny, A. Foot, Samuel Gordon, T. W. Grimshaw, A. Jackson, J. W. Moore, Christopher Nixon, J. H. Purker, and W. G. Smith. Hon. Secretary and Treasurer: Alexander Nixon Montgomery.

**HYDROPHOBIA.**—Another instance of the length of time hydrophobic virus may be retained in the system before developing itself has been furnished during the past week by the death of a child in Guy's Hospital from this disease. At the inquest held on Monday it was stated that the deceased, a girl aged fourteen, had been bitten on the hand by a dog two years ago. The wounds eventually healed up and nothing more was thought of the matter until three weeks ago, when the girl complained of feeling unwell and remained in bed. When water was brought near her she was seized with a paroxysm of fear, and when

milk was offered to her she raved and cried piteously. She was conveyed to the hospital convulsed and foaming at the mouth, and expired almost immediately after admission. This case is worthy of note on account of the long period that elapsed between the receipt of the bite and the fatal result. In a case which happened a few years ago, a passenger to Australia by a sailing vessel, on which no dog was carried, at the conclusion of the voyage, which had occupied four months, was seized with hydrophobia. In the intervals of his paroxysms he was able to inform those near him that he had been bitten by a dog eighteen months previous to his departure from England, so that the virus had lain dormant in this case also for nearly two years.

**SANITARY INSTITUTE OF GREAT BRITAIN.**—At an examination for Local Surveyors and Inspectors of Nuisances held on November 2nd and 3rd, eight candidates presented themselves. The Institute's certificate of competency to discharge the duties of Local Surveyor was awarded to C. H. Cooper; and the Institute's certificate of competency to discharge the duties of Inspectors of Nuisances was awarded to J. Brown, S. C. Legg, D. Richards, A. Taylor, and J. Watson.

**VACCINATION GRANTS.**—The following gentlemen have received the Government grant for efficient vaccination in their respective districts:—Dr. William Hoffmeister of Cowes, Isle of Wight (fourth time); Mr. W. Birtwhistle, Swadford, Skipton (second time); Mr. J. H. Hughes, Ombersley district, Droitwich (fourth time); Mr. T. H. Tidswell of Morecambe (second time); Mr. S. Wellesley Coombs, Claines district; Mr. H. O. Westwood of Prees, Shropshire; Mr. John Wionall George of Leigh.

**MONUMENT TO THE LATE SURGEON-MAJOR SIMPSON.** A handsome and very chaste tablet in white marble, and after the form of a partly unfolded scroll, has recently been erected in the vestibule of the Free Church, Kintore, bearing the following inscription:—"Surgeon-Major John Simpson, H.M. 23rd Regiment, Bombay N.L.I. Died at Sibi, Southern Afghanistan. In affectionate remembrance this tablet is erected by his brother officers." Surgeon-Major Simpson was the fourth son of the late Dr. Robert Simpson, first minister of the Free Church at Kintore.

**ORDER OF ST. JOHN OF JERUSALEM.**—The committee of the Jerusalem Hospice Fund has made arrangements for opening immediately a temporary dispensary at Jerusalem pending the erection of the building a site for which has been granted by the Sultan to the Order of St. John. Dr. J. C. Waddell, who has had special experience in ophthalmia, has left England for Jerusalem to commence work. Letters have lately, we learn, been received from Mrs. Burton the well-known authoress, Sir Austin Layard, and others, testifying to the fearful sufferings caused by this disease. Subscriptions will be received from those interested in this matter by Lady Lechmere, 13, Bolton-row, W., and Captain Dallas, Treasurer, St. John's Gate, Clerkenwell, E.C.

## Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

ANGEL, MR. ARTHUR, has been reappointed Public Analyst or Southampton.  
CHISHOLM, J. M., M.A., M.D., C.M., M.R.C.S., has been appointed Visiting Physician to the Liverpool Convalescent Hospital, Woolton.  
EVANS, THOMAS, M.D. Ed., L.R.C.S., has been reappointed Medical Officer of Health for the Llandisilio District of the Aberystwyth Union.  
FIRTH, EUSTACE, M.B., C.M. Edin., has been appointed Medical Officer to the Norwich Dispensary, vice Charles Firth, resigned.  
FRANKISH, WILLIAM JOHN, L.R.C.P. Lond., M.R.C.S., has been elected Surgeon to the Chelsea, Brompton, and Belgrave Dispensary.  
HEHNER, MR. OTTO, has been reappointed Public Analyst for Southampton.  
JACKSON, JOHN HENRY, M.B., C.M. Ed., has been elected Junior House-Surgeon to the Wigan Infirmary, vice A. W. Stone, L.R.C.P. Ed., M.R.C.S., resigned.  
KEMPE, J. ARTHUR, M.R.C.S., L.R.C.P. Lond., has been appointed a Senior Demonstrator of Anatomy at University College.  
KIDD, PERCY, M.B., M.R.C.P. Lond., has been appointed Pathologist and Curator to the Hospital for Consumption and Diseases of the Chest, Brompton.  
MACLEAN, KENNETH, L.R.C.P., L.R.C.S., has been appointed Honorary Surgeon to the Stockport Infirmary, vice J. D. Bow, M.B., deceased.

**ORE, J. B. G. GIDLEY, M.R.C.S.,** has been appointed Medical Officer for the First District of the Ongar Union.

**RRAY, ANDREW, M.B.Dub.,** has been appointed Medical Officer to Hampstead Provident Dispensary, vice W. H. Cook, M.D., deceased.

**TER, Dr. JOHN,** has been reappointed Public Analyst for Bermondsey.

**INTON, J. CRAWFORD, M.D.Ed.,** has been appointed Surgeon to the Dispensary of the Western Infirmary, Glasgow.

**OWART, WILLIAM RIBTON, L.R.C.C.P.I., L.R.C.S.I.,** has been appointed Medical Officer for the Eighth District of the Norwich Union.

**ALKER, WILLIAM H. S., L.R.C.C.P.I., L.R.C.S.I., &c.,** has been appointed Resident Medical Officer to the Hospital for Sick Children, Glasgow.

**HITFORD, WILLIAM, M.D., M.Ch.Q.U.I.,** has been appointed Honorary Medical Officer to the North Dispensary, Liverpool.

**HITTLE, GLYNN, M.A., M.D.Cantab., M.R.C.P.L., M.R.C.S.,** has been appointed Honorary Medical Officer to the North Dispensary, Liverpool.

## Births, Marriages, and Deaths.

### BIRTHS.

**DUKE**.—On the 2nd inst., at the residence of her mother, Berners-street, Ipswich, the wife of Surgeon-Major Duke, of a son.

**LITTLE**.—On the 9th inst., at Dalkeith Lodge, Merton-road, Wimbledon, the wife of Dr. Edward Little, of a son.

**MACKENZIE**.—On the 1st inst., at Finsbury-square, the wife of Stephen Mackenzie, M.D., F.R.C.P., of a daughter.

**ORME**.—On the 4th inst., at Great Berkhamsted, the wife of Robert Orme, M.R.C.S.Eng., of a daughter.

**POIGNAND**.—On the 2nd inst., at Upper-street, N., the wife of Malcolm Poignand, M.D., of a son.

**SMITH**.—On the 1st inst., at Belmont House, Newport, Essex, the wife of William Alexander Smith, M.A., M.B.Oxon., of a daughter.

**TICEHURST**.—On the 27th ult., at Stichester House, St. Leonards-on-Sea, the wife of A. R. Ticehurst, M.R.C.S. &c., of a daughter.

**TURNER**.—On the 1st inst., at Camden-road, the wife of T. Bryett Turner, M.R.C.S., of a daughter.

**WALLACE**.—On the 3rd inst., at Cleeckheaton, Yorkshire, Constance, the wife of Edward J. Wallace, M.D., of a son.

**WHEELER**.—On the 4th inst., at Pembroke-gardens, W., the wife of John Wheeler, M.D. & C.M., of a daughter.

**WHITTINGTON-LOWE**.—On the 2nd inst., at Eaton-place, Brighton, the wife of R. Whittington-Lowe, M.D., Staff-Surgeon, of a son.

**WILLIAMS**.—On the 3rd inst., at Sherborne, Dorset, the wife of W. H. Williams, M.R.C.S., L.R.C.P.Lond., of a daughter.

### MARRIAGES.

**BOLSTER—CARPENTER**.—On the 1st inst., at St. James's Church, Exeter, by the Rev. Canon Bolster, M.A. (brother of the bridegroom), assisted by the Rev. George E. Carwithen, M.A., R.N., Staff-Surgeon Thomas Bolster, R.N., of the Royal Naval Hospital, Plymouth, eldest son of the late Richard Bolster, Esq., of Nummerville, co. Cork, to C. H. Laura C., third daughter of the late Rev. Charles Carpenter, Vicar of Week, St. Germans, North Devon.

**BRIGHAM—CARTWRIGHT**.—On the 7th inst., at St. Peter's and St. Paul's, Kilton, near Boston, by the Rev. E. Marshall, Curate-in-charge, assisted by the Rev. A. C. Rowley, Vicar of Satterton, John King Brigham, M.A., M.D., elder son of the late James Brigham, of Donegal, Ireland, to Mary (Pollie), youngest daughter of the late John Cartwright, of the Manor House, Timberland, Sleaford, Lincolnshire.

**LATHAM—ROBINSON**.—On the 7th inst., at Presdon, George Latham, L.R.C.P., of Highfields, West Bromwich, to Jane, youngest daughter of the late James Robinson, of Moor-park, Preston, Lancashire.

**MCCNEILL—PITT**.—On the 2nd inst., at Cullompton; Devon, John P. McNeill, B.A., M.D.T.C.D., of Knockmore, near Ballymoney, co. Antrim, and Fiverton, Devon, to Louisa, youngest daughter of the late William Pitt, Esq., of Southwell Lodge, Trull, near Taunton, and Woodcock's Well, near Cullompton.

**REYNOLDS—BOWERS**.—On the 28th ult., at Holy Trinity Church, Southampton, Robert Reynolds, second son of the late Dr. William Reynolds, of Wellington, Somerset, to Isabella Maria, third daughter of J. Bowers, Esq., of Southampton.

**TOOTH—PRICE**.—On the 31st ult., at St. John's Church, Weston-super-Mare, Howard Henry Tooth, M.B., of Harley-street, eldest son of the late Frederick Tooth, of Brighton, to Mary Beatrice, youngest daughter of the late Edward Price, of Highgate.

**WEBB—HUNTING**.—On the 2nd inst., at Jesmond Church, Newcastle-upon-Tyne, Henry Pelham Webb, M.B., of Wymering-terrace, Lavender-hill, S.W., to Fannie, daughter of Charles Hunting, of South Heston, co. Durham.

### DEATHS.

**ALLEYNE**.—On the 9th September, at Sydney, New South Wales, Haynes Gibbs Alleyne, M.D.Edin., President of the Medical Board, aged 69.

**DEELEY**.—In loving memory of Cissy, the dear wife of Ambrose W. Deeley, who died on Sunday, Nov. 5th, 1882, aged 29 years.

**LOWELL**.—On the 12th ult., at Brooklyn, New York, Abram Leland Lowell, M.D., aged 50.

**SOULBY**.—On the 4th inst., very suddenly, from disease of the heart, at Waverley House, Hull, Henry Soulby, M.D.St. And.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Nov. 9th, 1882.

Data.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 a.m.
Nov. 3	29.82	W.	52	50	..	59	47	13	Cloudy
" 4	29.59	W.	55	52	..	67	52	07	Cloudy
" 5	30.05	W.	56	54	..	61	45	..	Bright
" 6	30.12	W.	48	46	..	67	42	03	Cloudy
" 7	29.65	N.W.	47	45	..	52	42	26	Overcast
" 8	29.50	W.	44	41	..	61	33	32	Cloudy
" 9	29.22	W.	44	41	..	62	39	..	Clear

## Medical Diary for the ensuing Week.

### Monday, Nov. 13.

**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS**.—Operations, 10½ A.M. each day, and at the same hour.

**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL**.—Operations, 1½ P.M. each day, and at the same hour.

**METROPOLITAN FREE HOSPITAL**.—Operations, 2 P.M.

**ROYAL ORTHOPEDIC HOSPITAL**.—Operations, 2 P.M.

**ST. MARK'S HOSPITAL**.—Operations, 2 P.M.; on Tuesday, 9 A.M.

**MEDICAL SOCIETY OF LONDON**.—Dr. Richardson, "On Ammoniated Chloroform as a Preservative of Animal Tissues."—Mr. T. Knowsley Thornton, "On Three Cases of Successful Nephrectomy, with Remarks on Operation."

### Tuesday, Nov. 14.

**GUY'S HOSPITAL**.—Operations, 1½ P.M., and on Friday at the same hour.

**WESTMINSTER HOSPITAL**.—Operations, 2 P.M.

**WEST LONDON HOSPITAL**.—Operations, 3 P.M.

**ROYAL MEDICAL AND CHIRURGICAL SOCIETY**.—8.30 P.M. Dr. Vary Lyle, of Durban, "On the Endemic Hematuria of the S.E. Coast of Africa." The paper will be illustrated by specimens of the Bilharzia Hematobia, exhibited by Dr. Cobbold and Dr. Radcliffe Crocker.—Mr. A. P. Thomas, of Oxford, will exhibit Drawings and Microscopic Preparations, and make some remarks on his "discovery of the life history of the liver fluke, and its introduction into the bodies of sheep."—Dr. Cobbold will also exhibit Specimens of the various forms of Fluke from Man, the Elephant, and the Giraffe.—Flat and Nematoid Worms will be exhibited by Dr. Bastian, and illustrated with models and drawings by Professor Ray Lankester.—Dr. Stephen Mackenzie will show the Filaria Sanguinis Hominis from Human Blood, and also from the Stomach of the Mosquito.

### Wednesday, Nov. 15.

**NATIONAL ORTHOPEDIC HOSPITAL**.—Operations, 10 A.M.

**MIDDLESEX HOSPITAL**.—Operations, 1 P.M.

**ST. BARTHOLOMEW'S HOSPITAL**.—Operations, 1½ P.M., and on Saturday at the same hour.

**ST. THOMAS'S HOSPITAL**.—Operations, 1½ P.M., and on Saturday at the same hour.

**ST. MARY'S HOSPITAL**.—Operations, 1½ P.M.

**LONDON HOSPITAL**.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

**GREAT NORTHERN HOSPITAL**.—Operations, 2 P.M.

**SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN**.—Operations, 2½ P.M.

**UNIVERSITY COLLEGE HOSPITAL**.—Operations, 3 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

### Thursday, Nov. 16.

**ST. GEORGE'S HOSPITAL**.—Operations, 1 P.M.

**ST. BARTHOLOMEW'S HOSPITAL**.—1½ P.M. Surgical Consultations.

**CHARING-CROSS HOSPITAL**.—Operations, 2 P.M.

**CENTRAL LONDON OPHTHALMIC HOSPITAL**.—Operations, 2 P.M., and on Friday at the same hour.

**HOSPITAL FOR WOMEN, SOHO-SQUARE**.—Operations, 2 P.M.

**NORTH-WEST LONDON HOSPITAL**.—Operations, 2½ P.M.

**HARVEIAN SOCIETY**.—The Report of the Alcohol Committee.—Dr. Francis, "On the Treatment of Neuralgia."

### Friday, Nov. 17.

**ST. GEORGE'S HOSPITAL**.—Ophthalmic Operations, 1½ P.M.

**ST. THOMAS'S HOSPITAL**.—Ophthalmic Operations, 2 P.M.

**ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL**.—Operations, 2 P.M.

**KING'S COLLEGE HOSPITAL**.—Operations, 2 P.M.

**SOCIETY OF MEDICAL OFFICERS OF HEALTH**.—7½ P.M. Mr. Rogers Field, "On some of the less recognised but important points in the Drainage and Ventilation of Houses."

### Saturday, Nov. 18.

**KING'S COLLEGE HOSPITAL**.—Operations, 1 P.M.

**ROYAL FREE HOSPITAL**.—Operations, 2 P.M.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.



## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### MEDICAL KNOWLEDGE AND THE MUNICIPAL CONSTITUENCIES.

MR. GENTLES, at the recent municipal elections in Derby, found some disadvantage in holding intelligent opinions on matters of public health, such as that small-pox is a deadly, loathsome, hideous disease, to be regarded as a national calamity, and to be guarded against, and that, even at the cost of a little addition to the rates, and possibly a little curtailment of private liberty, public health must be secured. He made an able and unanswerable defence of the vaccination laws, and even his opponents allow that he made a great impression on the less fanatical members of the anti-vaccination party. It is better to lose an election, as Mr. Gentles did—though not by a large majority—than to gain it by pandering to ignorance and fanaticism. Education is abroad, and men who are faithful to science and to common sense will not always be rejected.

Dr. Ed. Thompson (Omagh).—We shall be glad to receive communications of an interesting nature as occasion may offer.

### "THE USE OF THE FORCEPS IN MIDWIFERY."

*To the Editor of THE LANCET.*

SIR,—The object of my writing to you on the above subject was not, as your correspondent, Mr. Isaac Williams, seems to infer, to deprecate the more frequent use of the forceps. On the contrary, it was in consequence of an assertion made by a correspondent in a previous number of THE LANCET, that the forceps were not required in more than one in 600 or 700 cases, that I was led to lay before the profession the experience of their use in 400 consecutive cases, of which notes had been kept by one who objects to a too meddlesome practice.

I purposely did not give my reasons for their employment, because those reasons were such as may be found in any modern text-book on midwifery, and likewise because I desired to keep my letter within the reasonable limits demanded by the crowded columns of your valuable journal. For the latter reason I do not propose to reply to Mr. Williams's criticisms *seriatim*. I am very strongly inclined to think, however, that when he has acquired a little more practical experience than he has probably had during the brief period he has been a qualified practitioner, he will find that, as a rule, three hours will be the longest time he can wait (with advantage to his patients) before applying the forceps, or adopting some alternative, when there is no advance in the second stage of labour. My remark concerning the proportion in which the forceps were said to have been used by the late master of the Rotunda had no reference to their particular necessity or otherwise at that institution, but rather to what seemed to me to be an unnecessary and undesirable frequency in their use in private practice. In this opinion I venture to say that I should be borne out by the great bulk of the profession. *In medias res tutissima* is, as a rule, a tolerably safe motto in midwifery as in other affairs of life. The proportion of cases in which the forceps used to be employed, as stated by Dr. Churchill, was about one in 115, but I suspect that if the collective experience of the younger generation of practitioners were gathered together the proportion in which they would be found necessary or desirable would be much nearer one in thirty or forty. The whole subject was, however, so fully discussed at the Obstetrical Society, and reported in your columns some two or three years since, that it would be presumption on my part to say anything further.

Nov. 6th, 1882.

"TRICYCLES."

*To the Editor of THE LANCET.*

SIR,—Permit me to note, in correction of the view of your correspondent of last week, a possible danger to women in tricycle-riding. Quite lately a patient of mine aborted after a long tricycle-ride. She herself mentioned this as a probable cause.

Islington, Oct. 30th, 1882.

I am, Sir, yours respectfully,

J. CHALMERS.

### SICK ALLOWANCES WORKMEN.

In reference to the measures which the German Parliament has been considering relative to the provision for workmen suffering from illness, it has been feared in some quarters that the scheme, if carried into effect, would encourage workmen to simulate indisposition with a view of profiting by the enactment. A petition has been sent from the Saxony coal district, which states that one of the local benefit societies used, up to the year 1879, to give a sick allowance varying from 55 per cent. of the normal wages in cases of slight indisposition to 72½ per cent. when the illness was of a severe character. When, in 1880, this scale of allowance was reduced by about one quarter, there was a decrease of about 45 per cent. in the amount which the society was called on to pay, while the general sanitary condition of the neighbourhood had not improved. The number of claims showed even a greater reduction. The petition likewise urges that the option which workmen would have of contributing at the same time to several provident organisations should be withdrawn, and that in any legislation on this subject care should be taken that the position of a workman who claims upon a sick fund should not be of such a nature as to render it more profitable for him under some circumstances to be at home than to be following his occupation.

Mr. A. Davidson.—The question was decided at the Southwark Police-court on Feb. 18th, 1882, in a case in which the magistrate dismissed a summons with costs against the School Board (see THE LANCET of Feb. 23rd, page 329).

Mr. F. T. Batchelor.—The Royal Medical Benevolent College, Epsom. Office, 37, Soho-square, whence a prospectus may be obtained.

Mr. Parnell.—We have frequently commented on the risk of the spread of contagious diseases by means of letters and books.

Mr. W. W. Morgan.—We fear we should not have space for the publication of an article of the nature described.

M.D. has not enclosed his card.

### ENGLISH SPORTS.

*To the Editor of THE LANCET.*

SIR,—The following report is extracted from the *Daily Telegraph* of Wednesday, Nov. 1st :—

"Catching the Stag.—Our Oswestry correspondent telegraphs: 'The annual sport of catching the stag to be hunted on the anniversary of the Earl of Powis's birthday took place yesterday morning in Powis Castle-park, Welshpool. His lordship and a number of equestrians—ladies and gentlemen—were present, and a large field of pedestrians. The stag was pursued by men on horseback and on foot, but not by hounds. After an hour's pursuit the stag fell dead. His lordship gave another stag, which ran for about an hour up and down the park, and was ultimately taken in the net. The stag seemed somewhat distressed, and after his horns were cut off the fine animal died. This second fatality created a great sensation, and the hunt was at once abandoned.'"

Assuming the above to be true, it would be interesting to know whether his lordship and friends belong to the anti-vivisection party. I am surprised that such gross brutality is allowed in a country where vivisection, for possible and probable good to human kind, is guarded by most stringent laws, and which possesses a Society for the Prevention of Cruelty to Animals. Without further comment on the apparent inconsistency of the law on the subject,

I am, Sir, yours obediently,

Battersea-park, S.W., Nov. 3rd, 1882.

A. PHILLIPS HILLS.

Dr. R. de Musgrave Clay.—The pamphlet is a reprint from the Transactions of the Colorado State Medical Society, 1882, and is printed by Edwin Price and Co., Denver, Colorado.

Mr. Phillips Hill, Mr. Chittenden, Dr. Lownds, and others.—No doubt the proceeding is objectionable.

M.R.C.S.—We are not aware.

### "REMOVAL OF HAIR FROM THE FACE."

*To the Editor of THE LANCET.*

SIR,—Your correspondent, "A Puzzled Practitioner," asks in your last issue "by what means he can permanently remove a patch of hair from a prominent position of a patient's face?" May I suggest the following treatment, which I have seen very successful in several instances. It is applicable both for the removal of hair and moles.

A small cantery is necessary. It should be something of the following form :—From a small bone handle passes a stem of platinum-wire three inches long, curved at a right angle half an inch from the end, which resembles a blunt needle. At the angle is a bead-like bulb, which serves as a reservoir for the heat when in use. The bulb and point having been made white hot in the flame of a spirit-lamp, the affected skin (previously shaved) is to be deeply punctured by a number of stabs, close together, and over a space of about a sixpence. Repeated heatings of the cantery will be required, but the process is almost painless, and when the sore heals a white cicatrix will appear, free from pigmentation or hair bulbs. The same process can be repeated at subsequent sittings until the whole affected area is cured. I do not remember the name of the cantery or the maker, but I could easily procure these particulars should your correspondent desire it.

Plymouth, Nov. 5th, 1882.

I am, Sir, yours, &c.,

G. C.

## THE ASSISTANTS' EXAMINATION AT THE APOTHECARIES' HALL.

A CORRESPONDENT directs our attention to this examination and to the useful and deserving character of the men who pass it, and their fitness for the dispensing work of medical men, hospitals, and dispensaries. We see no objection to the use of the letters he specifies, if they are not used unnecessarily, or in a way to convey the impression that they imply medical qualification.

## "INUNCTION IN SCARLATINA."

To the Editor of THE LANCET.

SIR,—Your correspondent, "Cutis," having apparently had his faith shaken as to his hitherto satisfactory treatment of scarlet fever by the inunction of camphorated oil, has appealed to your readers for their opinions or experience of the matter. While I cannot lay claim to any personal practical knowledge of this particular mode of treating our worst eruptive pestilence, still, after a fairly extensive observation of the too-familiar disease, and reasoning *a priori* from well-established and acknowledged facts, I must say I should be inclined, if you will allow me, to add my veto to that of his experienced friend.

There cannot be a doubt that two most important objects in our treatment of the fever are diminution of temperature and elimination of the fever poison, be it what it may—presumably bacterial. Now, it is difficult to conceive how inunction into the general integument can possibly accomplish these; and in truth it is not easy to understand what therapeutic process can possibly be initiated, or what benefit can be secured by its employment. The oil must have the effect of clogging up, more or less completely, the openings of the multitudinous ducts of the sweat-glands, through which, as one of the emancipatory channels, nature is endeavouring to remove the ever-growing poison, as well as the results of the general tissue-change, now abundantly present, due to the elevated temperature. And there is the more danger in thus checking this eliminative function just when the vital processes are weak and the skin congested and its function to some extent paralysed by the pyrexia which the non-elimination would only tend to sustain or even raise. Elimination from the general surface ought rather to be encouraged and helped instead of checked and weakened; the extensive cutaneous area, with its enormous supply of secreting structure, ought to be sedulously utilised. For certainly, owing to the close structural and functional intimacy and similarity of the skin and the internal organs—more especially the kidneys—a vast amount of additional labour must vicariously be imposed on the renal function of tissue and poison removal if the work of the great skin-gland be in abeyance. There is every reason to suppose that the scarlatinal poison produces congestion of the tubules of the kidney as well as of the skin and mucous membranes, and they are now further overburdened with the task of removing the excessive nitrogenous waste of the febrile state; so that any check to cutaneous transpiration which the dense oil molecules must effect cannot, I think, but be injurious not only to the kidneys, but to the fever-stricken system generally. The tissues thus become doubly poisoned: heat-loss and waste-removal are more or less interfered with, as well as the escape of the virus.

I am aware the late Dr. W. Budd advocated the use of antiseptic inunction in the desquamative stage for the hygienic purpose of preventing the spread of the infective material, and this may be less objectionable now that the pyrexia is gone and tissue-change less active; but even here, from some cases in my recollection, I cannot but think that while it may be a decided good for others, it is of very doubtful advantage to the patient.

Judging, then, from these considerations, I should say that inunction may be a perilous proceeding, because, by diminishing cutaneous elimination, it may increase the blood-poisoning, and cripple ultimately the renal excretory work, and is thus calculated to induce albuminuria and acute rheumatism—evils which are quite apt enough to follow under even the most favourable conditions. If "Cutis" has hitherto entirely escaped these results in the course of his inunction treatment, I cannot but regard him and his patients as fortunate, and heartily congratulate him. Either his cases must have been of a mild type, or our physiology and pathology are visionary and hypothetical.

Much the most satisfactory treatment—if any treatment of this eruptive fever can yet be considered satisfactory—I have found to be the wet pack-sheet or cold bath at the very onset of rising temperature, combined with the internal administration of salicin and carbonate of soda, and local antiseptic applications to the fauces as required. Surface elimination is thereby encouraged, while the temperature is usually materially lowered.—I am, Sir, yours faithfully,

D. BEATTIE BAIN, M.B., C.M. Ed.

Tay-street, Dundee, Oct. 31st, 1882.

## "FORTUNATELY HIS MERITS DESCEND TO HIS SON AND SUCCESSOR."

To the Editor of THE LANCET.

SIR,—The above heading is an extract from a paragraph in a recent daily paper referring to the lamented death of an eminent surgeon.

It is to be regretted that statements of this kind should get into the lay press; they savour too much of "the business carried on as usual" character to be agreeable to the medical reader, and a gentleman thus eulogised must always regret the false position he is placed in by his injudicious admirer.—I am, Sir, yours obediently,

Dalby-square, Cliftonville, Margate

WM. KNIGHT TREVES.

Nov. 2

## "EDUCATION BASED ON THE LAWS OF HEREDITY."

To the Editor of THE LANCET.

SIR,—The article that appeared in your columns of October 28th on the above subject opens a field for discussion of an interesting and important nature, for though the subject is familiar to the psychological physician, it has not received much attention from the rank and file of the profession, who have such excellent opportunities for instructing and counselling parents and teachers. There can be no doubt that not only should the education of the individual child be conducted with an intelligent recognition of its hereditary tendencies both mental and physical, but a careful observation should be kept of his innate proclivities and tastes, and if these coincide, as is very frequently the case, with a certain shape, development, and size of cranium, an opinion may be formed, not necessarily an infallible one, but of sufficient general correctness to be well worth consideration, in deciding the details and lines of education, and to influence the selection of his vocation in life. By such a system how many failures in life such as we frequently witness might be avoided? How many clergymen, for instance, whose lives are a perpetual repression of their natural tastes and inclinations, might have succeeded well, and even distinguished themselves, as colonists, farmers, engineers, soldiers, or lawyers? They would have been far happier individually, and would not have occupied a position they could not adorn to the exclusion of a man whose hereditary mental and moral characteristics were of a congenial kind, and to whom in consequence the study, the restriction, and the duties of clerical life were not irksome, but pleasurable. I am not writing as an advocate for the revival of the pseudo science of phrenology, but I think few will dispute that the size and shape of the head is a guide to the measure of intellectual capacity, and the possession of certain proclivities and tastes; and if we can direct the selection of a vocation in accordance with these innate proclivities and preferences—or, at all events, not in direct opposition to them—we shall be rendering a service to both the individual and the community. At present I am convinced the great majority of middle-class parents bestow very little thought on the probable fitness or unfitness of a boy for a given vocation. If an opportunity offers for what is termed "a start in life," it is often seized without any consideration as to whether the hereditary characteristics of the recipient are such as will render the duties of the position congenial, or likely to be well performed; and the result in some cases is suggestive in a measure of an attempt to make a sheep-dog out of a greyhound, or a retriever of a mastiff. Another important study with the same objects in view is the diathetic tendencies of a child, and the knowledge of these we chiefly gain from observing his parents and blood relations. It is well known, for instance, how unhealthy, as a rule, are the offspring of a gouty father and a strumous mother; and those who had the advantage of hearing the late Professor Laycock lecture on this subject can testify to the sagacity and truth of his observations and teaching. How many boys and girls at school have been harshly treated who would have been spared had the teacher possessed the requisite knowledge and training to recognise that what is often termed "dullness," "obstinacy," "temper," "nervousness," &c., are most frequently beyond the child's control, and should not be punished as faults, but regarded as congenital deficiencies and deformities which, by skilful treatment, may, and probably will, in time disappear. I think the time will come when the public will recognise the value of skilled medical advice in these matters, and also on another equally if not more important matter—namely, the probable result as regards mental and physical health of offspring likely to be produced by the union of persons possessing certain hereditary tendencies to one or other class of constitutional disease. If the importance of this were more widely known and appreciated it would in due time have a perceptible influence for good upon our national health and our average longevity; our asylums would have fewer inmates, and we should not in practice so frequently meet with cases of "debility," "neuroses," "spinal irritation," "skin diseases," &c., not to speak of the innumerable shades of morbid mental condition, which form the most intractable and disappointing class of cases that come under our care.

I remain, Sir, yours faithfully,

DOUGLAS W. ESHELBY, M.D.

Nov. 6th, 1882.

Mr. N. W. Davies.—Compliance with the request involves no responsibility of the kind mentioned.

Mr. Shuttleworth.—We regret we cannot find space for the reports.

## CASE OF IMPERFECT DEVELOPMENT.

To the Editor of THE LANCET.

SIR,—The following case of imperfect development occurred in my practice last week, and as it appears of somewhat an unusual nature, I send you an account of the same. The original has been sent to the museum of the College of Surgeons. The placenta was attached to the upper part of the child's skull, and took the place of any bone in that situation, and also of any dura mater, as the portion of brain which protruded, owing to a rupture occurring during birth, was destitute of that membrane. There were no fingers on the left hand, only a thumb; and the left leg completely twisted outwards. The child was born before my arrival, and I found it crying strongly. Although it was evidently a case of partial placenta prævia, there seems to have been but very little hæmorrhage at the time, although a week before the patient appears to have lost considerably. The mother is the wife of a strolling actor, and is slightly deformed from old hip mischief.

I am, Sir, yours faithfully,

Violet-bank, Lower Norwood, Oct. 27th, 1882.

JOHN B. HARRIS.

## THE OIL OF MALE FERN.

To the Editor of THE LANCET.

SIR,—The question as to whether the oil of male fern is a poison when administered in small doses is one by no means devoid either of interest to the practitioner or of importance to the public. In my opinion it must be regarded as such, at least in the case of individuals of a certain temperament—viz., the nervous.

In 1866 I recommended a friend—a thin, spare man, possessed of extreme pallor of countenance, and aged about twenty-three years—to make trial of the drug. He took but a single drachm, and that drachm followed, after the lapse of ten hours, by a tablespoonful of castor oil. The results were as follows:—Diarrhoea, nausea, vomiting, colonic spasms, and semi-collapse for about two days; nausea, a burning sensation at the epigastrium, and inability to stand erect for about a fortnight afterwards. A very slow and tedious convalescence. At this date—twenty-six years since taking the dose, please to recollect—the bare mention of the drug causes him to shudder, and to declare that he has still the smell of it remaining in his nose.

Was he not actually and veritably poisoned? Is he still, to some extent, suffering from the toxic influence of the medicine? Will he ever become perfectly free from that influence?

I am, Sir, yours faithfully,

Canterbury, Nov. 1st, 1882.

JOHN BEADNELL GILL, M.D.

Mr. C. Wilson.—We have no experience of the use of the preparation for the purpose named.

## TRACHEOTOMY TUBE.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to draw the attention of the profession in your columns to a new tracheotomy tube which Messrs. Maw, Son, and Thompson have manufactured for me. It is made of the new material, celluloid, is cleanly, light, and very smooth, and possesses a quality which is not found in india-rubber or metal—viz., the property of being readily moulded by immersion in hot water to any shape required.

Having recently performed tracheotomy in a case of malignant disease of the oesophagus, I found that the growth was pressing upon the trachea to such a degree that the india-rubber tubes became flattened. It occurred to me that a tube made of celluloid would be sufficiently firm to resist any pressure from without, and the result has so justified my expectations that I can confidently recommend them to the profession.

I am, Sir, yours faithfully,

Gay-street, Bath, Nov. 7th, 1882.

F. KING GREEN, F.R.C.S.

## "HAMAMELIS VIRGINICA."

To the Editor of THE LANCET.

SIR,—I have used a tincture of the above, supplied to me by Gale and Co., 15, Boulevard-street, Fleet-street, in numerous cases of hemorrhage during the last two or three years. A formula for a tincture is to be found in Squire's Companion to the Pharmacopoeia, 1830 edition, and I obtained a good deal of information as to its use from Dr. S. Ringer's seventh edition, p. 312. In a severe case of hæmorrhæmorrhæ occurring in the month of August the hemorrhage was satisfactorily controlled by the small dose recommended by Dr. Ringer.

I am, Sir, yours truly,

Rugby, Nov. 5th, 1882.

J. INGLEBY MACKENZIE.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Pettigrew, St. Andrews; Sir E. Lechmere, London; Sir W. MacCormac, London; Dr. Hume, Newcastle-on-Tyne; Mr. Ragg; Mr. Paterson, Edinburgh; Mr. Thomas Smith, Woodley; Messrs. Sturrock and Sons,

London; Mr. Wallis, London; Mr. E. Owen, London; Mr. Purnell, London; Mr. Rogers-Tillstone, Brighton; Mr. Lowndes, Liverpool; Dr. Lediard, Carlisle; Dr. Minchin; Mr. Roger Williams, London; Dr. King Green, Bath; Mr. Shann, York; Mr. Davies, Bridgend; Mr. Knight Treves, Margate; Dr. Ellis, London; Mr. Phillips Hill, London; Dr. Thompson, Omagh; Dr. Morgan, Newport, Mon.; Mr. Newton, Cambridge; Dr. Gramshaw, Gravesend; Mr. Wheeler, Ilfracombe; Mr. Shadwell; Mr. Chittenden, Lee; Mr. Masterman, Stourport; Dr. Perkins, Hobart; Mr. Gentles, Derby; Dr. Milner Fothergill, London; Mr. Laver, Colchester; Mr. Millican, Kington; Dr. Johnson, London; Messrs. Edis and Co.; Dr. Charles, Cork; Mr. Poppleton; Mr. Morton, Halstead; Messrs. McKesson and Co., New York; Mr. Allt, Wittersham; Mr. Donald W. Day, Norwich; Dr. Eben. Watson, Glasgow; Mr. Pycroft, Starcross; Mr. Guttridge, London; Dr. Saundby; Dr. Drinkwater, Edinburgh; Dr. Pope, South Shields; Mr. Park, Fence Houses; Dr. Herman, London; Dr. Tilden, Birmingham; Dr. Weatherley, Portishead; Mr. Trueman Wood, London; Mr. Savory, London; Dr. Southey, London; Mr. Sydney Jones, London; Mr. J. E. Adams, London; Mr. Price, Wolverhampton; Mr. Scott, Manchester; Messrs. Laundry, Birmingham; Dr. Redwood, Rhymney; Miss Cartwright, Boston; Dr. March, Rochdale; Mr. Nutt; Dr. Alleyne Nicholson, Aberdeen; Mrs. Moffat, Chester; Mr. Jelley, Totnes; Dr. Fitzgibbon, Dublin; Dr. Dobell; Dr. Edwards, Cheltenham; Mr. Romeike; Dr. Cameron, Huddersfield; Mr. Bligh, Droxford; Dr. Batten, Gloucester; Mr. Martin Coates, Salisbury; M.D.; A Layman; J. M. R.; G. C.; G. W. D.; &c. &c.

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# Introductory Address

DELIVERED IN THE

## UNIVERSITY OF GLASGOW,

To the Students of Medicine of the Session 1882-83.

By W. T. GAIRDNER, M.D.,

PROFESSOR OF MEDICINE IN THE UNIVERSITY, AND PHYSICIAN-IN-ORDINARY TO THE QUEEN IN SCOTLAND.

GENTLEMEN,—I appear before you to-day at the request of my colleagues, not, certainly, without a feeling of satisfaction and even pleasure in my task, but also with a most serious sense of responsibility. Only on two previous occasions has it fallen to my lot to address to medical students the very first words of exhortation at the opening of a new session—once in Edinburgh, in 1856, and once in Glasgow, in this university, but not in these halls, in 1866. When we consider that sixteen years have elapsed since the last of these occasions, and that during this interval almost all of my then colleagues in the Medical Faculty have either been taken from us by death, or have passed into an honourable retirement, the very facts themselves seem to raise the question, Where shall we all be after another sixteen years? And although I am assuredly not bound to answer this question, and have no personal misgivings leading me to despair of being permitted to labour for some years to come on your behalf, yet it cannot but be present to my mind that this *may* be the last occasion for me, as it is the first for some of you, on which words like those I have it in my mind to speak may remain to be spoken between us. Let us, therefore, strive together to make the present occasion one which we may look back upon, if God will, as tending to confirm in us whatever of good, honest purpose we are conscious of having devoted to our work in the past; and not devoid, also, of some new inspirations or glimpses of insight as regards the unknown future that is before you, and equally before all of us, your teachers. I am sure that I speak the mind of all of them when, in welcoming you anew to these benches, we add the expression of an earnest desire, or prayer, that we may also be enabled to perform our share in the duty aright, and that the good work done and the friendly associations formed during the session of 1882-83 may be of such a nature as to be an abiding influence for good over all the years to come.

In considering the materials before me for a new Introductory Address, it is impossible to avoid looking back for a moment on these two former addresses. I would fain not absolutely repeat myself, and yet there is much of what falls to be spoken which could only be spoken again in similar, if not identical, words to those already used. It would not be altogether impossible, perhaps, to commit this justifiable plagiarism without a chance of detection, on the present occasion. For introductory addresses are, like the occasions that give rise to them, soon forgotten, at least by all who are not immediately concerned in them. But I am not without hope that such reminiscences as cling to my own mind of these earlier addresses may be turned to account, not for the purpose of reproducing their ideas, but rather of inquiring how far the progress of the medical art has, in any degree, confirmed or controverted the impressions entertained of it by a teacher sixteen or twenty-six years ago. And with this view I intend, as soon as possible, perhaps in a few days, certainly some time between now and Christmas, to place at your disposal the whole of these addresses, including the present, so that you may at your leisure, if so minded, follow out with more full understanding and appreciation the few suggestions, imperfectly expressed as I fear they will be, called forth by the present occasion.

And while in this retrospective mood, I am reminded that only the other day we had set before us, in the shape of a leader in *The Times*,<sup>1</sup> and in connexion with the opening this month of the various medical schools in London, a singularly clear and luminous appreciation of the changes introduced into medical study and practice in England, as the consequence of the Medical Act of 1858; from which any-

mous, but not unauthorized, statement it may be admissible to borrow a few sentences as an illustration of our present position; keeping in view always that the writer of the article in question, well informed and thoroughly impartial as regards his own division of the United Kingdom, has had England, and apparently England alone, in view, in describing the state of medical education before 1858, and the changes gradually effected, owing to the legislation of that year. Were one at liberty, indeed, to guess (for everyone knows we can do no more) at the authorship of that particular article, to see with the mind's eye the Vulcan that forged the thunderbolt of Jupiter on that particular morning, I should be disposed to say that, judging from internal evidence alone, the brain that guided the hand that wrote that particular article was also one of the most active of those recently at work in elaborating the report of a Royal Commission appointed to inquire into the Medical Acts, with a view to their consolidation and amendment. If this be so, it gives, for us, an additional interest to the sentences of that article which I shall presently lay before you; and although it is by no means my intention to make this address in any respect a political or controversial one, it is certainly a fact to be noted that an Englishman, presumably well acquainted with the facts, and speaking of England, and for England alone, in the columns of *The Times*, should employ the following expressions as regards the state of medical education a year or two before the passing of the Medical Act of 1858, and yet a year after my first introductory address to medical students in 1856:—

"Five-and-twenty years ago, except in the case of the small number of men who graduated in medicine at Oxford or Cambridge with a view to consulting practice as physicians, the education of a medical student commenced by an apprenticeship to a licentiate of the Apothecaries' Company, which was then the chief source of the medical qualifications of general practitioners. The apprenticeship was rendered necessary by the Act of 1815, from which the Company derived its powers, and it usually commenced at about the age of fourteen years, so as to break prematurely into school education. The first year of the apprenticeship was often spent in the work of a surgery boy, varied by the preparation of medicines, and by the attainment of some knowledge of their properties. The later years were devoted to learning the business of conducting a medical practice, the art of talking to patients, and so forth; and, when the apprenticeship was concluded, a short term of hospital study formed a prelude to the single examination which, when passed successfully, permitted the candidate to work his will upon the sick under the protection of the law. Originally, the full term of five years' apprenticeship was served in the house of the master; but as the term of hospital study<sup>2</sup> was gradually extended from one year to nearly three, the two demands were found to consume an inordinate amount of time, and the last two years of apprenticeship were commonly remitted, and were suffered to form part of the period of hospital study. Even then the total period of professional as distinguished from general education extended over about six years; and, as the examination might be passed at the age of twenty-one, was usually commenced not later than fifteen."

I interrupt the quotation at this point simply to say that one has to go back a long way in the history of medical education in Scotland to find a state of matters at all resembling the one here described. We had our errors and deficiencies, no doubt, and to some of them I shall allude more or less distinctly before I have done; but at no time within my recollection, nor, I think, within the recollection of those who preceded me, and whom I remember as my own instructors, was it even possible in Scotland to mistake a "surgery boy" of fourteen, prematurely withdrawn from school in order to manufacture pills and potions, and run errands, and make himself generally useful in a "shop" where he was under indentures to an "apothecary," for a regular student of medicine. To whatever extent the apprenticeship system held its ground in Scotland twenty-five or even fifty years ago (and far be it from me to say that in the hands of such men as Abercrombie, and others like him, it was not a system capable of much good), it was always

<sup>1</sup> To a reader unaccustomed to the phraseology here employed, it may be necessary to explain that "hospital study" throughout this quotation corresponds to what in Scotland would be called regular medical study within the curriculum, whether in hospital or not. In the London schools, which are all attached to hospitals, this is well understood, but not so in Scotland.

controlled by a regular academic discipline, emanating mainly from the universities, but largely reinforced, I am bound to say, by the coördinate influence, and often rivalry, of some of the corporations in building up what is now called the medical curriculum. In Scotland, at the period here referred to, a medical student so-called, was rarely less than seventeen, or, at the very earliest, sixteen years of age; and he was bound at the very outset to constitute an *annus medicus*—i.e., to engage in an amount and kind of real study which effectually precluded the possibility of his being allowed to run wild as a "surgery boy," such as is alluded to in *The Times*' article; a type from which the Bob Sawyer, and Ben Allen of Dickens' well-known story was only a too natural outgrowth. I venture to claim for the Scotch medical student of twenty-five years ago, even while admitting many deficiencies in his education both general and professional, that he was (saving a few sad exceptions) for the most part not only bound over to learn, but really in earnest in learning, the scientific as well as the practical work of his profession; that he was not devoting days or years which should have been occupied by ordinary school training, to "the preparation of medicines, and the attainment" (by chance) "of some knowledge of their properties;" but that he was, as I hope and believe you are, seriously impressed with the need of really scientific training as a foundation, and actually carrying out such training in anatomy and chemistry, even during his first year. Moreover, it lies strictly within my personal experience in 1856, when I had already taught several classes of Practice of Medicine, some of them numbering more than 120, to declare that the type of medical student existing at that time in Scotland was one which it was quite easy and natural for me to address as an assembly, not of undisciplined schoolboys out of school, but as "gentlemen" preparing, not without the solemnity and gravity proper to men, for the great business of life. I will add that this has been my uniform experience of medical students as a class from first to last; and I appeal to the words of both my introductory addresses in proof of the fact. I affirm that it would have been practically impossible to use the words of these two addresses, seriously and sincerely, to a body of men in whom the Bob Sawyer element formed any considerable intermixture; and I claim for our Scottish system of university and other regular medical education whatever credit may accrue to it from that fact.

I now return to the quotation from *The Times*; but what remains of it, though most important to us, is very short:—"The Medical Act of 1858 introduced changes by which apprenticeship was abolished and the hospital course extended to four years, so that up to the age of seventeen school education might be continued. In order that the opportunity thus given might not be neglected, the student was required to pass an examination in general knowledge before he was permitted to commence his hospital career, and two professional examinations were instituted in place of one. The general result of the change was to occasion a marked advance in the intellectual status of students and of young practitioners. They lost, it is true, the familiarity with the management of a practice which apprenticeship was calculated to afford, and they lost opportunities of seeing many common forms of disease which are hardly severe enough to enter hospitals, but they gained more than an equivalent for these losses in their better education and their greater self-respect. They gained an advance in intellectual training which rendered them better able than their predecessors to grapple with the complicated problems so often presented by disease."

It thus appears that the changes introduced by the Medical Act of 1858 into English medical education were in a great measure those which had been in operation in Scotland long before, under the influence of our three teaching universities, and the medical schools associated with them in Edinburgh, Glasgow, and Aberdeen. Not that I wish you to infer that our state was all that could be desired, or even all that, under more favourable conditions of medical legislation, it might have become. The Apothecaries' Company, which I by no means wish to disparage, inasmuch as it has honourably striven to fill a position left to it by the other corporations, and thus to maintain the organisation of the medical profession in England, long enjoyed a practical monopoly for its licentiates of most of the offices in that division of the kingdom which formed the usual introduction to general practice. The Royal College of Physicians during the same period long declined to admit, even as licentiates, any but the graduates of Oxford or Cambridge, thus aiming at a

degree and kind of exclusiveness which effectually barred all possibility of its becoming the college of the medical profession. The Royal College of Surgeons, with a much more generally accessible, and therefore more popular, diploma, confined its whole attention to anatomy and surgery, under the theory that the other branches of a complete medical education were the province of the sister college, or of the apothecaries. Hence the anomaly of the "double qualification" which distinguishes England from almost every civilised country in Europe, for it involves the still more serious anomaly of the "single," or, as it may justly be called, the *half-qualification*, in virtue of which a man may enter into practice capable of performing operations, but entirely ignorant of medicines, and the diseases requiring their use; or, *vice versa*, capable of dispensing medicines, but almost entirely ignorant of anatomy and of surgical operations; and in either case far too much of a mere craftsman, far too little of an educated professional man.

The Scottish universities early perceived this anomaly, and long before the Medical Act of 1858 was passed, a regular curriculum of study had been instituted which was unquestionably (though still defective in many points) far more complete than anything hitherto attainable in Great Britain as a qualification for general practice. Not only so, but by a preliminary training in what we should now call the elementary biological sciences, botany, natural history, chemistry, comparative anatomy, and physiology, the mind of the student was opened to more than merely utilitarian views of his profession; the "surgery-boy" type, to which I have already alluded, was effectually eliminated, and replaced by a far higher kind of professional culture, founded upon a broad and generous estimate of the utmost that was then held possible between the ages of seventeen and twenty-one, to fit a man for the practice of every department of a profession which requires, and fully engages, all the energies of a well-disciplined intellect. It is true that in respect of what may be called scholastic training the Scottish graduates were often found deficient; the trifling modicum of Latin which in my time represented the whole of the non-professional culture required being a very poor substitute for the M.A. degree of Oxford and Cambridge, or any of the other insignia of the ideal academic man. True, also, that on the other side it was sometimes objected that the Scottish graduate in medicine was not sufficiently conversant with the details of compounding and dispensing powders and pills and mixtures, and, above all, draughts (at 2s. 6d. a piece) to be taken two, three, four, or five times a day; in other words, that he had not sufficiently mastered the technical details by which his neighbour, the English apothecary, was able to accomplish the great ideal of the developed "surgery-boy" type—the dispensing of immense quantities of "physic" in the most complicated prescriptions, to pass unquestioned down the willing throats of Her Majesty's lieges. But in spite of these two grave deficiencies, and perhaps many more in detail, of a more real character than either of them, the Scottish University medical graduate has struggled on, with every precedent and every national prejudice against him, to a position of great credit and influence in the sister kingdom; and what is far better than that, to a more and more elevated conception of his art and the sciences on which it rests. The cause of this gradual elevation of his ideal is that the universities, which did not wait for the Medical Act of 1858 to make a beginning, were, nevertheless, fully prepared to advance with the times, and carry out as rapidly as possible all the improvements suggested by that Act and by the Medical Council which it created. A Royal Commission, appointed in 1858, in accordance with the Universities (Scotland) Act, enabled them greatly to improve their internal organisation, just at the time when the Medical Act was initiating the revolution in English medical education and practice to which I have already referred. And now we are able to cite the very words of another Royal Commission, to show that our labours have not been in vain. "We readily acknowledge," write the Commissioners on the Medical Acts in 1882, "all that the Scottish Universities have done for medical teaching and examination, and we should hesitate to make any recommendation which, in our belief, would interfere with their usefulness or prosperity. We do not propose to interfere in any way with their teaching, nor do we believe that students will cease to recognise the cheapness and excellence of their teaching." These, gentlemen, are not the words of Scotmen, or of Scottish graduates; for on this Commission of eleven members there is only one



Scottish M.A., who is also a professor in Oxford, and one Scottish medical professor, who is also M.B. of the University of London; the others being a peer, a bishop, an eminent English judge, a distinguished statesman, an equally distinguished naturalist, and others quite removed from the least suspicion of any but a dispassionate judgment upon the facts presented to them in evidence, so far as we or you are concerned.

The two addresses which I propose to reprint along with this one will, I trust, convey to you some idea of the direction and scope of these advances in medical education; not perhaps, by any distinct and separate statement of them, but by the glimpses they afford of the aspirations, hopes, and fears on your behalf of one who has been associated with medical students, almost without interruption, since he was a student himself; and this, not in the class-room alone, but in the hospital, and at the bedside of the sick, for nearly thirty years. This double relation to you as your teacher, continued over so long a period, may perhaps be considered to give the weight which comes from experience to suggestions in themselves not otherwise remarkable or profound; at all events you will, I have no doubt, receive them as tending to show how much the mind and heart of a university professor are put into his work, and how much the labour of teaching is for all of us lightened by the secure conviction that we possess your sympathy in all honest efforts to raise the work to a higher level. I am also glad to be able to tell you, and especially the juniors among you, that the testimony of all my colleagues goes to show that an increasingly high standard is being attained, gradually, almost from year to year, and that in particular the studies of the first year in anatomy, biology, and chemistry, show, to a very marked degree, increasing thoroughness. As I attach the greatest possible importance to these studies, not only in respect of their actual details of fact, but still more as a training of the mind into the paths of observation and reasoned experiment, which lie at the very root of all safe and sound medical education, let me press upon you the importance of continuous diligence and zeal at this the very commencement of your studies. Be assured that the labour of acquiring even what is commonly called *practical* information and skill in your profession will be greatly lightened, and your success greatly aided, by application to what is, and must ever be, the only foundation of a medical art that reaches beyond the merest empiricism. And now that all these departments may, according to the arrangements of this, and I believe all the other Scottish Universities, be studied in the laboratory as well as in the class-room, you may be assured that all the benefits which, in the first of these addresses, I ventured to anticipate for the development of practical methods of teaching, will be yours. It is, indeed, the increase of these methods in every department of our work that is mainly characteristic of these latter years of our Scottish University medical education. New buildings, new arrangements, new apparatus, new instruments of research, are everywhere found necessary, not only to convey the old truths, but to interrogate nature directly as to what is and what is not truth. And this *habit of mind*, which is nowadays not less than essential for success in every medical inquiry, can never be so easily and pleasantly acquired as in the first year of your studentship, in the fascinating pursuit of biological research, whether in the animal or the vegetable kingdom. "Don't think, but try," said that mighty man of biological science, John Hunter; not that he meant to discourage thought or intellectual activity, for his own was of the most unresting character; but that in his opinion all intellectual energy should resolve itself into active work, in the way of experiment and observation. This habit, so different from that of the mere literary student, finding his inspiration and materials alike in the knowledge that is got from books, must be acquired as completely as possible before you come to engage in clinical studies, for it is only to a limited extent that we can, in these, afford you the means of acquiring it. How are we to teach you effectually the fleeting phenomena of disease, if you have not for yourselves investigated the corresponding phenomena of health? How instruct you either in the one or the other to any purpose unless you have systematically cultivated your own faculties of observation and experiment by active personal research?

In the second of the introductory addresses to which I have referred I used these words in characterising the existing state of the science and art of medicine:—"The art of medicine is at this moment in a peculiar position.

The day of *orthodoxies* is over; the day of *real science* is only just dawning." It is worth while to return to these words for a moment, were it for no other reason than to inquire if the dawn has been at all brightening into day since they were written. The sixteen years since these words were written have been years of immense activity in research, and very much of what has been done in them tends, at least, to fulfil the promise of a medical art of the future founded not on mere hypothesis, still less on dogmatic statements fortified by authority, but on accurate, continuous, and patient demonstrations of fact. In the first place, the art of diagnosis is constantly being improved by the introduction of new methods; and the basis of all these methods consists in this, that diseases hitherto quite obscure, or called only by conventional names corresponding to their most obvious symptoms, are being daily defined and rendered into much more exact conceptions in the light of an improved physiology and pathology, resting upon observation and experiment; so that what were formerly mere ancient names, surrounded by a halo of antiquity and traditional learning and skill, are now recognised symbols guiding the mind to well-understood lesions, as of the brain, spinal cord, heart, arteries, lungs, organs of special sense, and other well-defined points of the living economy, where, in many instances, the presence of the change, or lesion, can be actually demonstrated by such novel instruments as the sphygmograph and cardiograph, laryngoscope, ophthalmoscope, &c. I mention these newer instruments of precision, as they have been justly called, without prejudice to the much older and more established means which are now in the hands of every practitioner—the stethoscope, microscope, thermometer, and simple applications of chemical analysis—all of them employed in accordance with modern pathological investigations of a far more exact kind than any known to those great and wise men, from Hippocrates and Galen downwards to Hoffmann and Boerhave, from whom the art of medicine derives, or derived until the present century, the greater part of its current nomenclature of diseases. This great progress in the direction of realism in diagnosis is apparently quite boundless; for no one can tell, nay, no one can even conceive, how far the progress of a very accurate physiology and pathology, based upon physical and experimental science, may lead us in the years to come; any more than anyone could in these latter years, by mere inspiration or study, have anticipated the splendid researches of Pasteur, the triumphs of antiseptic surgery, or the discovery of Koch's tubercle bacillus.

The mention of these splendid achievements, mainly of the last twenty years, and the last of them only of yesterday (as it were) recalls the fact that it is not only, perhaps not even chiefly, through the perfection of diagnosis, that the medicine of to-day is advancing from dawn into daylight. The enormous labours, the multiplied and varied observations and experiments, that have been bestowed upon these modern researches, in the genuine spirit of exact physical investigation, show that the progress even of diagnosis, and much more of the prevention and treatment of disease, is coming to depend to a greater extent than ever before, upon that discipline of the mind which is to be found only among the consummate masters of physical science. Every day and every year removes us further from the period when it is possible merely to make chance hits in therapeutics, and so, by an individual happy thought, or particular prescription or nostrum, to compete with those who are investigating cautiously and experimentally the results of remedies in disease. The thorough investigation of remedies, in their action both on the healthy and diseased organisation, is proceeding at a rate that seems, I confess, sometimes to be almost too rapid for security, but which has resulted, and no doubt will yet result, in achievements not less remarkable than the advances in diagnosis. And here let me give in my adhesion, in passing, to every word of the admirable address delivered the other day to the students of the Veterinary School by my colleague, Professor Cleland.<sup>3</sup> Like him, I am not personally engaged in experiments on living animals, and have no reason to expect that I shall soon, or perhaps ever, be so engaged. But I hold it to be all the more on this account necessary to protest against a law under which neither the invaluable experiments of Pasteur on the bacillus of anthrax, nor those of Koch on tubercle, could legally have been performed in this country without

<sup>3</sup> Glasgow Medical Journal, November, 1882.

repeated special applications to the Secretary of State, which might with great probability have been refused, or unreasonably delayed. Punish cruelty by all means, and repress it by restrictive enactments, provided you can devise such enactments as will strike impartially at the cruelties of science and of sport; but for a Parliament which tolerates, or even encourages the latter to single out men of science, some of them the most distinguished benefactors both of mankind and of the animal creation, and to place them under ban, forbidding them the freedom of action that is conceded to all other men until they are proved to have done amiss, is to my mind one of the most monstrous and inconsistent, if not hypocritical, positions that any Legislature could assume.

The rapid progress of sanitary and preventive medicine during the last twenty-five years is a subject on which I might well detain you, were it not that I feel that this address has already run to a length sufficient for its purpose. Nor is it necessary, nowadays, to draw special attention to this point. For the progress here has not been from dawn, but from almost absolute darkness into daylight. Every newspaper, every monthly magazine teems with the popularised results of sanitary investigation. He that runs may read. And nowhere less than in Glasgow are we likely to be allowed to forget the importance of this line of investigation, or the many admirable results that have been brought to light by our excellent medical officer, Dr. Russell. The danger rather is, in my opinion, that feeling ourselves so well served, and at the same time so well represented in him, the medical profession at large will cease to interest itself in details which can be so easily handed over to a large and well-organised staff of public officers. This, I think, would be a great evil for us, not less than for the public. For preventive medicine, or the scientific study of the causes of disease with a view to their removal, is an integral part of the art of medicine in general, and cannot be withdrawn from the consideration of its professors without great injury to their function as healers. For these reasons, which I have always insisted upon in detail at every fitting opportunity in my own course of practice of medicine, I should be sorry to see the preventive medical service, or as it is called, the *sanitary* work of the medical profession, too completely specialised, and thus separated altogether from the rôle of private practitioner, as has been too much the tendency of late years. To you, as students, I would strongly recommend not to lose sight of either aspect of your future duties. Having acted as a public health officer for nearly ten years previous to 1872, I am able to speak from personal conviction of the valuable effect of such a career in educating the mind towards the recognition of some of the highest duties of the practitioners in the ordinary sense. And this education I shall hope to convey to you, in principle, even if I shall leave to others (as must need be) the development in your instruction of the daily increasing details which form the proper subject of a distinct sanitary course.

Gentlemen, I have done. All that remains for me is to wish you, on behalf of my colleagues and myself, a prosperous, animated, and a successful session. That will not be wanting, if you and we together approach our work in the right spirit. Be in earnest. Be diligent. Be modest and truthful. Help us, as we desire to help you, by mutual sympathy in our joint labours. Finally, *ora et labora*. Look for the blessing from on high. And if modern science seems, at times, to wean your minds away from God, look again, and look further and yet nearer, till in the reign of law you can perceive a truly divine order; in nature a living force behind nature; in the mystery of your own will the faint image of a higher will than your own, neither less nor more mysterious in its essence; in the endless descent of species, whether by evolution or otherwise, the infinitely multiplied reflection of a relationship to Him, who, while He is the Father of our spirits, and the framer of our bodies, is also "nigh to everyone of us," the Father of all the families of the earth, from everlasting to everlasting.

**SURGICAL SOCIETY OF IRELAND.**—The following office-bearers have been elected:—Council: E. H. Bennett, W. Colles, Anthony Corley, Henry G. Croly, Kendal Franks, E. Hamilton, J. S. Hughes, Archibald Jacob, Rawdon Macnamara, E. Mapother, H. Minchin, E. Stamer O'Grady, G. H. Porter, B. W. Richardson, W. Roe, P. C. Smyly, W. T. Stoker, William Stokes, W. Thomson (Hon. Sec.), R. L. Swan, Jolliffe Tufnell (Hon. Sec.).

## THE UNITY OF SURGICAL PRINCIPLES IN WOUND AND FRACTURE TREATMENT.<sup>1</sup>

By SAMPSON GAMGEE, F.R.S. ED.,  
CONSULTING SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

WOUNDS and fractures are alike interruptions of continuity,—the former of the soft, the latter of the hard parts. They differ in the density of the tissues involved, and proportionately in the time required for reunion; but they are essentially similar in processes of repair and principles of treatment. In wounds and fractures, division of tissue is the essential fact which gives rise to a common chain of events—mobility, disordered innervation, and effusion,—which become causes of ulterior pathological results, if their development be not checked by proper treatment. The indication, common to the vast majority of wounds and fractures, is to bring the severed parts together and keep them so during the process of repair. How that indication shall be fulfilled—what peculiar appliances are demanded by injuries in particular situations, and by such complications as contusion, hæmorrhage, and inflammation,—are questions traversing the whole domain of surgery: fit themes for a treatise, only admitting of cursory treatment in a paper for an evening's discussion. It will be my endeavour only to select for comment those salient principles and points of practice on which agreement is most to be desired and nearest of attainment.

Firstly, as to the reduction of fractures of the limbs; that should be immediate, and maintained with the nearest practicable approach to immobility, a rule of practice of which no other in surgery admits of fewer exceptions. In selecting from amongst the numberless contrivances for maintaining immobility, preference should be given to those which admit of accurate moulding to the limb, including the joint above and below the seat of injury. It is beyond question that, with wood and iron splints, many surgeons have for generations achieved excellent results in fracture treatment; but, for comfort to the patient and freedom from complications, moulds are best; they can be constructed with a great variety of materials—plaster, gum and paraffin, millboard (plain or soaked with dextrine), gutta-percha or pro-plastic felt. The last-named and dextrined millboard are, I think, the most handy and efficient; but, where all are good in principle, choice may well be left to the predilection which grows out of individual experience. Whatever splint or mould be used, let it be well padded, and I know no pads equal to those made with absorbent gauze and cotton, which possess practically indestructible elasticity. The materials of which bandages are made, still more the method of bandaging, are of the first importance. Uniform elastic compression powerfully contributes to preventing muscular contraction, and *pro tanto* securing immobility. It prevents extravasations, and, when they do occur, promotes their absorption. I employ pressure in the treatment of all fractures, with perfect elastic padding, light, yet decidedly compressive, smooth bandaging, without ruck or reverse. It is many years since I used one of the unbleached calico bandages common in most hospitals. Preference should be given to these soft, bleached, absorbent bandages. A depth of two inches is the handiest, the rapid spiral the most convenient, comfortable, and efficient, mode of application. In bandaging a leg, for instance, having previously padded it, a couple of circular turns are made just above the ankle. The roller is then carried along the dorsum of the foot, and a circular turn made around the roots of the toes. With a few figures-of-8 the foot, including the heel, is covered; the roller then carried spirally along the front of the leg to the knee, here made fast with a circular turn. Alternately ascending and descending figures-of-8 complete the elastic investment. The method is applicable, with trifling variations of detail, to all parts of the body. Whenever practicable, suspension will be found of the utmost service as an addition to the means of maintaining immobility. The suspension of a limb in two or more loops of bandage or leather is not what is here meant; that is comparatively fixed elevation, of unquestionable advantage for position, but not a perfect swing; for this a fine cord is even better than a chain. The greater the motility of the suspending medium,

<sup>1</sup> Read before the Medical Society of London, Nov. 6th, 1882.

the more completely does it oscillate and exhaust any motor power communicated to the limb; in other words, the fragments of a suspended broken limb, once perfectly adjusted, can be kept at rest in direct proportion to the perfection of the swing.

Another form of suspension, different in principle and mode of application, but still very useful, is that of suspending a weight to a limb. It overcomes muscular contraction by steadily exhausting it, and alone, or in combination with moulds and pressure to an injured part, is of great service in maintaining immobility. Assuming so much conceded for the treatment of a simple fracture, agreement would probably be less complete, if a fracture complicated with swelling, sanguineous or inflammatory, were in question. But in such a case, no less than in the simple one, should reduction be immediate, with elastic compression, absolute immobility, and oscillatory suspension. Digital compression of the main artery will assist in promoting absorption. In a very few hours the outside of the apparatus becomes loose, and its elastic construction admits of fresh padding and compressive bandage, without disturbance of parts, and with unfailing benefit in promoting absorption, checking inflammation, and consolidating repair. The additional complication of a wound or a bleb makes no substantial difference; given a compound fracture, only let the fragments be immediately and accurately adjusted, the wound closed with all necessary provision for perfect drainage, the limb immobilised compressed and swung, and, in the vast majority of cases, the fundamental indication will have been carried out, reducing the compound to a simple fracture, and treating both on identical principles.

If a simple fracture, say of the clavicle because it admits of easy observation, be not at once immobilised, material is thrown out between and around the broken ends of the bone the deposit thickens, the part becomes hot and painful. Such a condition is best seen in those, happily, rare cases in which a fracture of the clavicle goes for some days undiagnosed. Immobilise the limb and the callus vanishes, all the more rapidly if compressed under an elastic pad. Given a flesh wound in most parts of the body; if the edges be at once accurately brought together, and kept so, provision made for deep and surface drainage, and immobility maintained, direct union takes place, all the more surely if the part be kept in a position to favour venous return and prevent arterial afflux. Here, again, perfectly smooth elastic compression is of the greatest service, not merely in maintaining contact of the deeper, as well as of the superficial, lesion, but in restoring the balance between elastic resistance and blood pressure, which is the normal condition of living parts. Let a flesh wound, like the one we have just been considering, not be accurately adjusted; let it be treated with water dressing or a poultice, with the limb dependent and not immobilised. The edges become tumid, the wounded surface discharges and stinks, the surrounding skin is red, tumid, and painful. In this state, raise the limb to empty it of its blood, approximate the edges, resort to elastic compression and immobilisation, swelling and pain vanish as if by magic, and healing proceeds, just as in the case of the fracture with swelling which we were considering a few minutes ago. A fracture with a wound complicating it, the condition generally known as compound fracture, will be found amenable to treatment on the principles enunciated with the happiest results.

My remarks have hitherto been directed to injuries of the limbs. Their truth and practical value are equally well, if not better, illustrated in injuries of the head, with some modifications rendered necessary by the condition of parts. In a fracture of the vault of the cranium without wound, the great indications of rest and prevention of extravasation are fulfilled by keeping the patient in comparative darkness, in the horizontal position, with an ice-cap. No wounds do better than scalp wounds under dry dressings, elastic compression, and a minimum of subsequent interference. An adaptation of the same principles, according to the exigencies of particular cases, will ensure success in the treatment of a large proportion of compound fractures of the skull. The question of trephining is one of special and exceptional interest, to which it would be here impossible to do justice. But as I have no wish to shun difficulties, and to restrict the scope of discussion, I may briefly state that there are very few cases in which I consider trephining justifiable in fractures of the skull. I have practised it, and seen others do it, with happy result; and I can conceive of cases in

which I should not only trephine, but be prepared to incise the membranes and the substance of the brain, to fulfil local indications of effusion and compression. But if we go back to the early days of this controversy, and trace it down to our own time, I am clearly of opinion that more people have owed their death, than their life, to the trephine.

To ensure absolute rest in wounds and fractures, immobility should be secured to the utmost practicable extent, while the reparative process is going on; but no longer. Every surgeon knows how much mischief results from rest too long persisted in. The experience only affords another illustration of almost every truth, psychical and physical; carried to extremes it becomes a vice. With this reservation, the practical application of which must depend upon the exigencies of particular cases, immobility is one of the most powerful factors in surgical therapeutics. A corollary of that proposition is infrequent dressing. On this point the agreement of surgeons at home and abroad has grown very manifestly during the last few years. Whatever the nature of the injury, it is scarcely possible to be too accurate and complete in first dressings. Then watch the thermometer and the pulse, the patient's expression and the state of the skin; and so long as those cardinal indications point to safety, dress as infrequently as possible. To this end absorbent dressings contribute materially, and if they be not sufficient to ensure perfect drainage, one or more tubes may be employed for the purpose. By keeping them long, and carrying them out through the pads, it is easy to collect the discharge in a pad lightly placed over the end of the tube, so as to combine frequent removal of discharges with immobility of the apparatus.

Experience proves that the more absolute the immobility, the more evenly the limb is compressed, the closer attention is paid to position, proportionately less are irritation, vascular turgescence, and consequent effusion. The healing part shrinks as it consolidates, and dries in direct proportion as its nervous and vascular life is controlled. "That under dry and infrequent dressings, absolute rest, physiological position, and elastic pressure, most wounds and fractures heal," is a proposition which I have striven to defend since I formulated it years ago. The argument so far has been in the same direction, and that because experience only confirms its soundness.

(To be concluded.)

## NOTE ON THE USE OF BOROGLYCERIDE IN THE TREATMENT OF WOUNDS.

BY HENRY A. LEDIARD, F.R.C.S. ENG. & M.D. ED.,  
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ON March 19th of this year I was some distance from home, consulting with Dr. Walker, of Stapleton, in this county, and he mentioned to me that a new antiseptic (boroglyceride) was creating some stir in Germany, and offered to provide me with some if I would use it and record my experience. Accordingly a few weeks later I received four ounces, which were dissolved in water and used in the strength of 1 to 20 and 1 to 40. In appearance boroglyceride is like large cakes of isinglass, of the colour of gum acacia, sticky as toffee, and has a slightly warm taste of indefinite and transient character. In solution it is colourless and almost tasteless.

We are now in possession of a few facts in reference to the use of this new antiseptic as applied to wounds, many of which have been treated with it, but owing to the supply from Dr. Walker having scarcely kept pace with the demand, the trial has not been as complete as could have been desired. A case of Syme's amputation for ankle-joint disease was treated with boroglyceride from the first—i.e., the flaps were washed with the solution, and the stump wrapped in lint steeped in 1 to 40 solution; the subsequent dressing consisted in washing out the cavity and using lint as before, the result being as excellent as, but not more excellent than, I have seen in similar cases treated with dry lint. The stump kept sweet to the nose, but the drainage-tube and pus squeezed from the stump were not so. It is probable that we used the solution

too sparingly; and allowance must be made for this, for occasionally we had to wait for the arrival of a fresh supply. Another case of railway smash of the foot (Syme's amputation also) which was not healing kindly (Listerism having been relinquished on account of putrefaction), was treated with boroglyceride, and although healing was neither interfered with nor accelerated, yet smell was unquestionably kept down. Several wounds, the result of either accident or surgical operation, have also been treated with boroglyceride with satisfactory results, and the conclusions I have arrived at so far are as follows: For open wounds or wounds with open cavities boroglyceride in solution will be found to be a non-irritating and powerful antiseptic, in no way interfering with natural healing processes, and in no degree troubling the skin around a wound; but where shut cavities exist, as in stumps after amputation, although syringing with the solution be adopted, yet the discharge collecting within is not kept sweet. I feel sure that much remains to be done to develop the use of this new antiseptic, which, on account of its non-irritating properties, will prove of much value in the treatment of wounds. To claim for any antiseptic a value beyond one's experience would be to court distrust, and I prefer to speak hopefully rather than positively.

Mr. Barwell's paper in THE LANCET of May 13th certainly supports our experience of the value of boroglyceride, but we have not succeeded in preventing rises of temperature, any more than we have succeeded in obtaining union without one drop of pus, neither have we seen remarkable results as to healing by first intention; in fact, the results may seem to be *nil*. I think the use of stronger solution than 1 to 40 or 1 to 20 may be tried, and the lint around the wound should be kept constantly moistened with the solution. As far as I am aware boroglyceride is innocuous, a matter of great moment, when one recollects how many patients have been poisoned by doses of carbolic acid by inadvertence, how many untoward symptoms have been put down to the use of the carbolic spray and absorption of carbolic acid.

I hope on a future occasion to add more to this brief note, which must conclude with an acknowledgment of thanks to Dr. Walker, who manufactured the boroglyceride himself.

Carlisle.

### THE DIFFERENTIAL DIAGNOSIS BETWEEN HYSTERICAL PARALYSIS AND POLIO- MYELITIS ANTERIOR.

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IN the experience of every practitioner there must have occurred cases of paralysis in women upon which he has been called upon to decide whether the affection was due to serious organic disease of the nervous system, or to that more protean disorder to which we give the name of hysteria. In many such instances there is often the greatest possible difficulty in arriving at a satisfactory conclusion, and the perplexity of the medical attendant is proportionate to the responsibility he assumes in expressing an opinion, and the important issues upon which his verdict depends. That grave errors in judgment on this complicated problem have frequently been made, must be within the knowledge of all, resulting in misfortune to the patient, discredit to the profession, and a triumphant harvest to the charlatan.

Polio-myelitis anterior, or, as it is more commonly called, "infantile paralysis," is more especially liable to be confounded with hysteria, as the symptoms and progress of the case are very similar in both. The paralysis resulting from this serious organic disease of the cord attacks the adult, both in its acute and chronic forms, much more frequently than is generally believed. It is obvious that to make a clear distinction between these two disorders is of the highest importance, as the treatment suitable for the benefit of the one would be useless, or even injurious, if applied to the other. A consideration of this question appears at the present time to be worthy of discussion, as recently there has been a revival of certain energetic measures in the treatment of paralysis of a supposed func-

tional and emotional origin; and Drs. Weir Mitchell, Playfair, and others have recorded successful cases of great interest and importance. Although it is admitted that certain procedures were followed by the most satisfactory results when employed by competent physicians, in properly selected cases, it must equally be granted that the same treatment would in different instances be followed by the most disastrous effects. The writer has not infrequently seen young women condemned to a couch for years, supposed to be suffering from spinal or uterine affection, which a little energy and determination on the part of the physician would have cured in a few weeks. On the other hand, not less often has he met with unfortunates who were scoffed at and otherwise ill-treated as being nervous and hysterical, or imagined to be exaggerating or feigning disease, when in reality they were suffering from an organic lesion of the nervous system. This confusion has arisen from the extreme difficulty in many cases of accurately diagnosing between paralysis, arising on the one hand from organic degeneration of nervous structure, and on the other as a result of emotional or so-called hysterical causes. It is assumed in text-books and by the profession generally that the differentiation between these is easily defined, but as a matter of fact even when the greatest care is taken this is not always the case, and after the fullest investigation much doubt remains.

With the view of illustrating this position let us take a case which not infrequently occurs in practice. A young woman suddenly or gradually becomes paralysed in the lower extremities. This may, in a few days, weeks, or months, in different cases, become complete or may remain partial. There is no loss of sensation, no muscular rigidity, no cerebral disturbances, or any affection of the bladder or rectum. The patient's general health may be robust, or it may be delicate. She may be of emotional and hysterical temperament, or, on the contrary, of a calm and well-balanced disposition. At first there is no muscular wasting, but as the disease becomes chronic the limbs may, or may not, diminish in size. The entire extremity may be affected, or only certain groups of muscles. Finally, the disease may partially or entirely recover, or may remain almost unchanged for years.

With such a clinical picture before us we have to ask, What is the diagnosis of such a paralysis? The description applies with equal fidelity to either hysteria or polio-myelitis, and by depending on symptoms alone it is in such doubtful cases that the decision of the question seems to depend on the accidental fancy of the medical attendant, and which so frequently results in an erroneous view being taken of the case. It is granted that the problem is a difficult one, and even a careful analysis of the symptoms does not appear greatly to assist its solution. The patient when attacked with the paralysis may be in perfect health, or the reverse; she may, or may not, be hysterical; there may be some assignable cause, or not. In all these circumstances the loss of motion may be either due to polio-myelitis or hysteria, as the former occurs with equal frequency in the robust and in the delicate, and the latter as often appears in apparently the most healthy persons as in the most nervous; the first is as likely to be present in hysterical subjects as in the reverse, and the second may follow a cold, injury, or other supposed origin of organic disease. In short, although it is true that hysterical paralysis frequently occurs in persons evidencing other nervous or emotional symptoms, these are by no means necessary to establish the diagnosis, as some of the most intractable forms of this affection have occurred in women of apparently phlegmatic temperament and well-balanced minds. Again, polio-myelitis is as likely to attack the hysterical subject as any other, and thus further complicate the inquiry. The paralysis appearing suddenly, or very gradually, applies equally to polio-myelitis or hysteria. As in the acute form of the first, the loss of motion may ensue in a few hours, and in its chronic form it may proceed very slowly and insidiously. In both the process may be partial or complete. It may attack one or more limbs, or only part of an extremity; indeed, special muscles, or irregular groups of these alone, may be affected. All these particulars equally apply to both forms of paralysis under consideration. In each the sensibility may be intact, the intelligence and special sense unimpaired, and the functions of the rectum, bladder, and other organs of the body healthy. If muscular atrophy existed to a marked extent at an early period of the disease we might exclude hysteria, but in many instances in this respect there is

nothing definite to be observed. The limbs in both forms of paralysis may for a long time appear of natural size. Muscular wasting, if it exists, may be obscured by an increased deposit of fat, and the hypertrophy of other structures. Again, if paralysis has existed for any length of time, the limbs may become smaller, not necessarily due to degenerative atrophy, but to simple emaciation from functional disuse. Thus, as in paralysis resulting from both hysteria and polio-myelitis, the symptoms and general progress of the disease are in many cases identical, it becomes a serious practical difficulty to definitely determine whether in a given case answering to the description already detailed, it is due to degeneration of the anterior cornua of the cord, or to that less formidable affection, hysteria.

To solve the problem, as in other branches of medicine, we must not depend on symptoms alone, but, as far as possible, should bring physical phenomena to our aid for the accurate determination, demonstration, and measurement of facts. Exactly in proportion as we thus supplement our senses, so do our powers of precise research and investigation succeed. Although important advances have been made in other fields of medicine by the utilisation of optics, acoustics, and other practical sciences, as evidenced by the employment of the ophthalmoscope, speculum, stethoscope, thermometer, &c., in diseases of the nervous system such methods of exact inquiry have hitherto been conspicuous by their absence. In recent times, as this want has been appreciated, endeavours have been made to supply the demand. The most successful of these is the employment of electricity as a diagnostic agent; and although our knowledge of its properties is not as yet fully developed, we have even now at our disposal such information on the subject as proves of invaluable service in the differentiation of many nervous disorders. It has already been pointed out that by symptoms alone we are not able, in many cases, to distinguish between paralysis resulting from organic disease of the anterior cornua of the cord and that due to hysteria. When we turn to physical signs, we find that there are at least two which give us definite information on the subject. These are—(1) the reflex actions following cutaneous irritation or percussion of tendons, and (2) the effects of electrical stimulation.

1. *The Reflex Actions.*—When polio-myelitis involves any reflex arc, the reflex motions associated with the track interfered with are destroyed. In the case, therefore, of paralysis of the lower limbs, resulting from this disease, all the cutaneous and tendon reflexes are absent. In hysterical paralysis, on the other hand, these phenomena are not abolished. They are usually normal, and not seldom are actually exaggerated in degree, so that not only are those which naturally exist much increased in intensity, but new reflexes not found in health are developed. Here, then, is a marked distinction between hysteria and polio-myelitis. Although this rule applies generally, it must be admitted that it is not without exception. Reflex acts vary somewhat even in healthy persons, and in rare instances have not been obtainable. Again, it is just possible that in degeneration of the anterior cornua certain parts of their substance might be preserved, and although paralysis existed, certain reflexes might be elicited. In hysteria also the reflexes are sometimes absent for reasons not easily explained. Such cases, however, are extremely rare, and the general law holds good that in paralysis from polio-myelitis the reflexes are impaired or abolished, while in that from hysteria they are normal or increased.

2. *The Electrical Reactions.*—These are for the most part definite and conclusive. In acute polio-myelitis the excitability of the affected nerves is very rapidly lost, so that in from a week to ten days after the onset of the paralysis the response is altogether abolished to the electric stimulus. Very soon afterwards the muscles are affected, and then ensues all the characteristic quantitative and qualitative changes met with in neuro-muscular affections. In the chronic forms of the disease the same takes place, but in a more gradual and progressive manner. In hysterical paralysis, on the other hand, the electrical reactions remain practically normal. In some cases there may be quantitative increase of response, indicating hyper-excitability of the nervous system, but these changes are slight in degree, and there are never qualitative alterations. In very chronic cases also, in which the patient has been bedridden for years, there may be quantitative diminution of response due to prolonged disuse of the muscles, or to increased resistance to the current from an augmented deposition of subcutaneous fat as the result of

want of exercise. In such cases the loss is never complete, and the change is one of degree only, and not of character.

Thus in electricity we have an agent which enables us in the large majority of cases to detect with accuracy and certainty between polio-myelitis and hysteria, and, so far as my own experience has gone, I have never met with a case of the former which did not present some characteristic abnormal reactions, nor an instance of the latter in which these were developed.

It is to be observed that great care and much dexterity and experience are necessary for profitable electrical investigation. It cannot be exactly asserted that an expert alone is necessary for this purpose, but certainly it cannot be satisfactorily conducted except by those who, through knowledge and practice, have overcome the technical and manipulative details necessary for its successful performance. The system of wildly dabbing sponge electrodes on the skin without a definite method, is absolutely useless as a means of deducing trustworthy diagnostic data, and it is the popular use in this way which has hitherto been so fruitless and brought a valuable physical agent into discredit. A novice, ignorant of the use of the stethoscope, would hear little or nothing on applying it to the chest, and still less would he deduce those important conclusions which the experienced physician would recognise. Precisely in the same way is electricity a means towards an end, which can only be put in successful operation by a practical knowledge of the agent employed, with dexterity and experience in its administration.

It would be out of place here to describe either the method of procedure or the particulars of the reactions found in the two forms of paralysis under discussion. These have elsewhere been considered in full detail.

The general conclusions to be drawn from the foregoing remarks are:—(1) That, judging from the history, symptoms, and progress of the case, in a large number of instances it is difficult or impossible to diagnose between paralysis from hysteria or from polio-myelitis; (2) that a correct differentiation between them is of the highest importance, as the treatment successful in the one is useless or may be injurious in the other; (3) that in order to arrive at a true diagnosis, we must as far as possible apply physical agents in their investigation; (4) that in the diseases under consideration the conditions of the reflexes, resulting from physical manipulations, afford us valuable information, although open to certain exceptions; and (5) that electricity supplies us with an agent which, in the large majority of cases, will definitely enable us to correctly decide whether a given paralysis is due to organic disease of the anterior cornua of the cord, or to that affection to which we apply the term hysteria.

## ON BONE-SETTING (SO-CALLED).<sup>1</sup>

By R. DACRE FOX, F.R.C.S. EDIN.,

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THIS is the first time in the history of the British Medical Association that so-called bone-setting has been seriously discussed, and I think it is matter for congratulation that we have at last set ourselves impartially to examine the practice, notwithstanding that it is almost exclusively employed by a class of persons who are without our pale. The literature of bone-setting is scanty. Dr. Wharton Hood's handbook, giving an account of the late Mr. Hutton's method of setting free stiff limbs, is, so far as I know, the only attempt at a systematic exposition. There are, in addition, some papers scattered through the various journals, by Mr. Adams, Mr. Howard Marsh, and others, stating their opinion as to what cases are most likely to be benefited by the forcible bending of joints, and giving instances of ill results that have followed such treatment in unsuitable cases. For nearly three years I was assistant to the late Mr. James Taylor, M.R.C.S., of Whitworth in Lancashire, the last direct descendant of a family that had practised

<sup>1</sup> Abridged from a paper read at a discussion before the Surgical Section of the annual meeting of the British Medical Association at Worcester, 1882.



bone-setting in that village for more than two hundred years, and I think I may perhaps be able to throw some light on the subject of this discussion.

Much misconception exists as to the practice of bone-setters; many of the methods of treatment popularly attributed to them have no other existence than in the imagination of ignorant patients, whose stories we as a profession are perhaps rather too ready to believe. It is certain that some families—notably the Taylors, Huttons, and Masons—have by their manipulative and mechanical skill justly acquired a great reputation. In what has their practice consisted? First, in the treatment of fractures, recent dislocations and sprains; secondly, in the cure of stiff joints, resetting of fractures, and correction of deformities. The general impression in the profession appears to be that the bone-setter's art consists of nothing more nor less than the forcible and reckless "cracking up" of stiff joints so as to make the lame man walk as if by a miracle. The practice at Whitworth was a large one, furnishing constant employment for at least two active men, and consisting chiefly of the cases I have mentioned. Speaking from memory I do not believe that fifty joints of all sorts were "cracked up" during the time I was there; but it was not an uncommon event to have to put up half a dozen fresh fractures and twice as many recent sprains in a single morning. In the North of England the origin of nearly all the men who are fairly good at bone-setting can be traced to the Whitworth surgery, and while, so far as I know, the Taylors in their various settlements at Whitworth, Todmorden, Lockwood, and Oldfield Lane were the only qualified surgeons who practised bone-setting; amongst the hills and dales of Lancashire, Yorkshire, and the Lake district, there were many who did so without being qualified, some of whom, I must in all fairness say, put up fractures uncommonly well. But apart from the legitimate credit they have won by the skill displayed in their handicraft, they owe some of their success to the carelessness or indifference of the general body of practitioners, who are apt to overlook little injuries which often become very painful and troublesome. It sometimes seems to me that it is beneath the dignity of the ordinary practitioner to employ any active treatment whatever for a sprain. It is hardly fair then to gauge the work of bone-setters solely by their method of treating diseased joints (probably the most unsatisfactory class of cases in the whole realm of surgery), but we ought also to take into account the patience and skill they display in the treatment of injuries for which they are not unfrequently consulted by the patients of qualified practitioners. I have no desire to hold a brief for every idle fellow who calls himself a bone-setter, but I am anxious to give credit where credit is due, and to explain that the art of bone-setting is not what it is often thought to be, a mere mixture of charlatanism and good luck.

I purpose chiefly to consider that class of cases to which Mr. Adams and Mr. Marsh have more particularly referred. Dr. Hood (*loc. cit.*) has made out a somewhat extensive list of causes for stiff or weak joints, but I think he had in his mind rather what was *likely* to come to the bone-setter than what actually did come. From my own experience I should classify weak joints as follows:—

1. Those that have become stiff from enforced rest.
2. Those that have become stiff from chronic disease.
3. Joints stiff from injury to the bones entering into their formation.
4. Joints stiff and weak from sprains, including displacement of tendons and partial luxation.

Apart from the previous history of the case, and the evident existence of constitutional disease, there are some external appearances which help to distinguish cases and to afford indications for treatment, and of these the bone-setters have learned by experience to avail themselves.

1. In the first class I have mentioned, the stiffness of the structures about the joint impeding its movements is the result of purely mechanical causes, is in fact simply due to prolonged disuse. No cause for functional activity exists, and consequently the elasticity, the flexibility, and power of adaptation to movement in the parts about the joints not being required, they become stiff and rigid. No degenerative changes, however, take place, and they are capable of being recalled into activity unimpaired. In such a joint the bony points and the outlines of the tendons and ligaments about it, seem unnaturally prominent, probably from absorption of the adipose and connective tissue; the rigid ligaments impart a sense of hardness, and if the limb be flexed to its

utmost it shows considerable resiliency. Such joints may, I believe, be "cracked up" without fear of consequences, and this constitutes one of the successful operations of bone-setters. My own recollection carries me back to some apparently almost miraculous results. I am convinced that *suddenness* ought to be insisted upon in doing this; the advantages derived from it being, I believe, mainly due to the fact that it is less likely to set up any irritation in the joint than the "dragging" of gradual extension.

2. In the next class of cases, in which stiffness is due to degenerative changes, the external appearances are exactly reversed, the outlines of the joint are more or less gone. In these cases, no matter the character of the disease, manipulative interference is positively vicious; and while it is in them that ignorant bone-setters do so much mischief, the better informed, by the use of splints and well-applied pressure, are highly successful in their treatment.<sup>2</sup> I am sorry to say very many cases of this kind come to bone-setters which have not been properly treated before, owing to their not having been recognised, especially hip-joint disease.

3. In the third class of cases, in which a fracture has taken place into the joint, causing stiffness, the condition is due to disturbed relationship of the bones from faulty setting, and is recognised by comparison with the bony landmarks of the sound limb. In these cases forcible treatment does good, though of course the result is in proportion to the amount of bone-displacement, but it should be supplemented by passive movements for some time. In joints stiff after diagonal fracture through the condyles of the humerus, so common in children, I have seen many most gratifying results; one in a boy about twelve years old, whose elbow had been stiff three years, is especially impressed upon my mind.

4. In the fourth class of cases, and those to which I would draw particular attention, I include lameness and weakness, the result of the various forms of injury, which we group together under the general term "a sprain." I affirm most unhesitatingly, from an experience of some hundreds of cases, that nothing has done more to lower the prestige of regular practitioners, and to play into the hands of unqualified bone-setters, than the way in which so many practitioners tamper with a sprained joint. Sprains, of course, vary greatly in severity; they may be broadly divided into two kinds, of which one consists merely of a temporary over-distension of the parts around a joint, which rest and anodyne applications soon cure, while the other involves pathological results of a much more serious nature. A *severe* sprain is the sum of the injuries that the parts in and about a joint sustain, when, by their passive efforts, they exercise their maximum power of restraint to prevent luxation. Under such conditions I conceive the following changes to take place in the integrity of a joint. In the case of the synovial membrane, temporary hyperæmia accompanied by pain, and some slight effusion into the cavity of the joint. In the case of the tendons, overstretching and loosening of the lining membrane of their sheaths, more or less disturbance to the adjacent cellular tissue forming the bed of the tendon groove, and hyperæmia with exudation of plastic fluid, subsequently forming adventitious products. In the case of the non-elastic fibrous ligaments—firmly attached at either end to the adjacent periosteum—overstretching, mostly involving partial rupture, with swelling, softening, and disintegration of their structure. It is beyond the purpose of this communication to draw attention to the plan of treatment adopted by bone-setters under these circumstances; it is, however, described in a paper of mine, of which an abstract is given in the *British Medical Journal* of Sept. 25th, 1880. The stiffness of a sprained joint is *partial*. The surface is generally cold, and more or less œdematous, and each joint has one particular spot in which pressure causes acute pain; the bone-setters have learned by experience the situation of these spots, and this fact has done more than anything to strengthen the popular faith in their intuitive skill; they certainly form an important guide to treatment, since they indicate the seat of greatest injury to the ligaments and point out where their power of passive resistance has been most severely tested, and where adhesions are most likely to have formed. Dr. Hood, in his record of Mr. Hutton's practice, has enumerated some of these painful spots; the chief of them are as follows:—

1. Over the head of the femur in the centre of the groin,
- <sup>2</sup> Rheumatic cases sometimes do well for a time, but invariably relapse.

corresponding to the ilio-femoral band of the capsular ligament (which is most severely stretched when the thigh is over-extended, as when the trunk is flung violently backwards, the commonest cause of a sprained hip).

2. For the knee-joint, at the back of the lower edge of the internal condyle—in other words, at the posterior border of the internal lateral ligament, where it blends with Win-elow's ligament, and where the semi-membranous tendon is in intimate relation with it. These parts suffer most because, as Mr. Morris says, "During extension they resist rotation outwards of the tibia upon a vertical axis," and a sprained knee is almost always caused by a twist outwards of the foot.

3. For the shoulder at the point corresponding to the bicipital groove, because in nine cases out of ten a man sprains his shoulder to prevent himself from falling, his hand grasps the nearest support, the body is violently abducted from the arm, the long head of the biceps is called upon to exert its utmost restraining power, the bicipital fascia is overstretched, and the tendon very often displaced.

Again, for the elbow the painful place is at the front of the tip of the internal condyle; the fan-shaped internal lateral ligament has its apex at that point, and it is most stretched in over-supination, with extreme extension of the forearm. On the front of the external malleolus, at the apex of the plantar arch, the tip of the fifth metatarsal bone, the styloid process of the ulna, the inside of the thumb, and the annular ligament in the front of the wrist, are respectively the most painful spots when those joints are severely sprained.

The manipulative part of the treatment of joints stiff from being sprained may be briefly said to consist in pressure over the part most injured, and momentary extension of the limb, followed by sudden forcible flexion. The method of doing it varies with each joint, and I can with confidence refer you to the descriptions given by Dr. Wharton Hood, as being faithful word-pictures, supplemented, too, by very accurate drawings.

The following are some of the lesser injuries the non-recognition of which has frequently come under my notice at Whitworth. In the upper limb: Fracture of the tip of the acromion; partial luxation of the acromio-clavicular and sterno-clavicular joints (often happening to men who carry weights on their shoulders); partial dislocation of the long head of the biceps, with over-extension of the bicipital fascia (common in men who throw weights or use a shovel, as malsters or navvies). Dislocation of the head of the radius forward on the condyle, which is very common in children, and has a marked tendency to cause stiff elbows; fracture of the tip of the internal condyle; overlooked Colles' fracture; partial luxation of the head of the ulna (impeding supination of the hand, and having a tendency to gradually grow worse); severe sprain at the carpo-metacarpal joint of the thumb (very common in stonemasons, and caused by the "jar" of heavy chisels).

In the lower limb: Fracture of the fibula just above the malleolus and at its tip (these are fruitful sources of lameness, often overlooked, and, if of old standing, very troublesome to treat); partial rupture of the ligamentum patellæ at its insertion into the tubercle of the tibia, which is much more common than is ordinarily supposed;<sup>3</sup> neglected over-stretching of the ligaments of the plantar arch, and tearing of the plantar ligament at its insertion into the os calcis; rupture of the penniform muscular attachments of the tendo Achillis, and muscular hernia in the calf.

I trust I shall be forgiven if I have dwelt too much on the *docteurie* of some of us, but I am sure so-called trifling injuries deserve more attention at our hands, since living at the high pressure men do nowadays, with every part of their bodies taxed to its utmost capacity, the slightest impairment of the mechanism of a limb must be an incalculable source of personal annoyance, discomfort, or disability.

<sup>3</sup> I have seen almost complete rupture unrecognised; while tearing of the ligament from its extensive insertion into the surface of the tibia is very frequent.

THE MUSICAL SOCIETY OF UNIVERSITY COLLEGE, LONDON.—This Society, having secured the co-operation of Mr. Alberto Randegger, will hold its first practice meeting in the Mathematical Theatre on Friday, November 24th, at 4.30 P.M.

## CONGENITAL CYSTIC HYGROMA.<sup>1</sup>

By EDMUND OWEN, F.R.C.S.,

SURGEON TO ST. MARY'S HOSPITAL.

IN the volume of the Transactions of the Medical and Chirurgical Society for the year 1839 is a paper by Mr. Cæsar Hawkins upon the subject of the present communication. It is, so far as I know, the first treatise that we have upon these cystic growths, and I very much doubt if any matter of importance, either as regards their pathology, diagnosis, or treatment, was left by Mr. Hawkins for future writers to fill in.

Congenital cystic hygroma is by no means of unfrequent occurrence, and it is strange that so little notice is taken of it in our works on general surgery.

The first case to which I will direct attention is that of the little girl that has just been examined by the meeting. She is now between three and four years old. A few days after birth her mother noticed a swelling under the right side of the tongue, which, on being shown to the doctor who attended her, was called a "ranula." He refused, however, to interfere with it. The supposed ranula grew, extending across the floor of the mouth and amongst the muscles behind the symphysis of the maxilla, until a definite tumour appeared against the angle of the jaw. The little patient was then brought to me, when I told the mother that nothing was to be done to the tumour, which, as it was growing rapidly, might entail serious consequences. My impression is that this enormous mass has now ceased to grow. It is certainly harder than it was, though its cystic nature is still quite evident. It is not tender, nor does it apparently interfere with the child's health or with the nutrition of the skin. I am still content to watch and wait.

The second case is that of a boy of five months who was under my care at the Children's Hospital. He had a cystic hygroma of the size of a walnut in each subclavian region and in each axilla; it was doubtful whether the upper and lower tumours were in communication. Mr. Thomas Smith saw the child with me, and we agreed that no active treatment should be undertaken. When I next saw the little patient, after an interval of three weeks (the mother lived at a distance, and was not led to expect much from treatment), the upper pairs of tumours had almost met across the episternal region; there was difficulty on swallowing, and commencing oedema of the eyelids and of each upper extremity. Translucency showed the cystic nature of the superficial part of the subclavian masses. A week afterwards the mother came to tell me that the child had died on the previous day, and that the tumours had gone on growing so that at last the child could hardly breathe. She said also that the oedema of the hands and arms had gone on increasing until the day before the death, and that the legs and thighs had towards the last days also begun to swell. Her opinion was that death was caused by suffocation. No post-mortem examination was made.

Here, then, are reports of two cases of, so far as one can tell, a similar pathological nature, in one of which fatal complications brought on a sudden termination, whilst in the other a quiescence which one hopes is genuine seems to point to the fact that activity of growth has given place to spontaneous degeneration or atrophy. It is impossible to say what course a cystic hygroma may take; whether it is about to undergo immediate or future growth, or whether it is about to undergo interstitial changes which shall reduce it to a "loose pendulous bag of fat." Inflammation of the tissues, either spontaneous or induced, will at times determine their atrophy, and from the increasing hardness in the case of the little girl, I suspect that such a change is at hand. As Mr. Hawkins remarked, some of these tumours look as if they could be easily dissected out, but to remove one from the neck the operator may have to work around the carotid vessels and possibly behind the pharynx. I once dissected such a tumour from the side of the chest, and even then I had to root it out from beneath the border of the latissimus dorsi. Mr. Hawkins suggested that their treatment should consist in puncture of the larger cysts, and in the application of pressure and counter-irritants. To which

<sup>1</sup> Read before the Medical Society of London, Nov. 6th, 1892.

one might perhaps add that in certain cases atrophy may follow the inflammation caused by the presence of one or more setons through the mass. Probably spontaneous inflammation is their most desirable complication.

In conclusion, I would remark that, as in the first case, a congenital cystic hygroma in the sublingual region may be mistaken for a ranula, an error in diagnosis which is more likely to lead to disappointment than to damage. That in whatever situation it may occur it is apt to be mistaken for a subcutaneous nœvus, or for one beneath the mucous membrane; and, lastly, that at times the resemblance to a fatty tumour is extremely close.

A second child exhibited possesses the remains of a hygroma on the arm. The patient has been three years under observation, but the mass, which now resembles a diffuse fatty tumour, was, when first under observation, of evident cystic formation. This is the only instance which I have seen of a congenital cystic hygroma situated upon an extremity; their favourite seat is the armpit and the floor of the mouth.

Seymour-street, W.

## PENETRATING WOUND OF THE ORBIT, INVOLVING THE BRAIN;

NO MARKED SYMPTOMS UNTIL THE THIRD DAY.

By ENGLEDDUE PRIDEAUX, L.R.C.P., M.R.C.S., &c.

W. T—, aged twelve, was playing with two other boys on the morning of Feb. 24th. The boys had hazel sticks about two feet long and half an inch in diameter, pointed at one end and cleft at the other, and in the cleft they fixed stones. One boy in slinging his stone let the stick slip, which went off with the stone and struck the patient in the right eye, entering by the pointed end. The boy pulled the stick out and walked home, about a mile, and told his father he had been struck in the eye. His mother bathed the eye, which appeared uninjured, and thought no more about it. They remarked that blood came from his nose and mouth. However, the boy remained well until the following Saturday. When he got up that morning his eyelids were so swollen he could not open them; he complained a good deal of pain. His eye was poulticed, but he was not kept in bed. He took his meals; and beyond complaining of the pain was not otherwise affected. In the evening, after he had taken his tea and gone to bed, he was found insensible, and I was sent for. When I arrived the boy was quite unconscious and very restless, turning over and over. Pulse 120, regular; temperature 101°. The eyelids were so much swollen I could not open them. A little pus was oozing out at the inner angle of the eye and some coming down the nostrils. He was quite unable to swallow. I placed a little calomel upon his tongue. The next morning he was quieter, his attention could be arrested by shouting to him. I got him to swallow a few spoonfuls of milk. Pulse and temperature the same. He died the same night, becoming more and more comatose during the day.

I made a post-mortem examination, and found a small external penetrating wound at the inner angle of the eye, but all the structures of the eyeball were quite uninjured. Internally I found a small ragged hole, large enough to admit the little finger, at the junction of the sphenoid and ethmoid bones. The under surface of the anterior lobe of the right cerebrum was completely destroyed. On placing the brain in water it all washed away, leaving a large ragged cavity the size of a duck's egg, and in which were two pieces of bone each as large as a threepenny piece. The whole brain was highly congested, with a patch of fresh lymph as large as a shilling under the dura mater at the vertex.

Wallington, Somerset.

PRESENTATION.—On the 9th inst. Dr. Scott Orr, on behalf of the nurses of the Glasgow Royal Infirmary, presented Dr. Thomas, for fifteen years superintendent of the infirmary with a large and handsome silver tray, bearing a suitable inscription. The testimonial was given as a token of the regard of the donors for Dr. Thomas, and as an evidence of their high sense of the efficient manner in which his various duties had been performed, and of the kindness which he had invariably shown to them.

A Mirror

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alla pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. IV. Proœmium.

### MIDDLESEX HOSPITAL.

#### TWO CASES OF FRACTURE OF THE SKULL IN YOUNG PATIENTS.

(Under the care of Mr. GEO. LAWSON.)

THE two following cases show from what severe injuries of the head young patients may recover. In the first case there was an indented fracture of the skull; and although there was a considerable depression of bone, yet, with the exception of a slight drowsiness for a few hours after the accident, the child had no cerebral symptoms, and left the hospital after three weeks quite well; indeed, he was only detained in the hospital because it was probable that some head symptoms might arise. The second case is very remarkable. The child fell the height of seventeen feet from a loft on to the stones below. There was without doubt a fracture of the vertex extending into the base of the skull, as was evidenced by the repeated vomiting of blood, the altered shape of the skull, and the intense and prolonged coma. The child was admitted on September 30th in a state of deep coma, and she remained in a state of unconsciousness five days, until October 5th, and unable to swallow any food except three teaspoonfuls of milk on the afternoon of the 4th. During this period she was fed with nutrient enemata. To account for this prolonged insensibility there must have been severe brain lesion, and yet the child has recovered, and now, without any apparent discomfort, is able to play with her toys, and behave as if she suffered no inconvenience from the injury. Another interesting point in the case is the time which elapsed before she was able to speak. It was not until the sixteenth day after the accident that she could be induced to answer any question, although, apparently, she often tried to say something.

CASE 1. *An Indented Fracture of Skull; very Slight Head Symptoms; Recovery.*—John G—, aged sixteen months, was admitted into Bird ward on July 8th, 1882, with an indented fracture of the skull. Shortly before being brought to the hospital the child fell off a high stool, and in his fall his head came into direct contact with the abrupt end of the leg of another stool which had been overturned.

*State on admission.*—There was a depression in the skull just above and to the left of the occipital protuberance, which corresponded exactly to the end of the stool. The depression was about one-tenth of an inch deep, visible to the eye, and the sharp edge of the surrounding bone could be easily felt with the finger through the integument. The child seemed drowsy, but, with this exception, there were no cerebral symptoms. The anterior fontanelle was not completely closed, but the posterior fontanelle was quite filled in with bone. An ice-bag was applied to the head, and the child kept quiet in bed.—9th: The child seems very well, and in no way affected by the accident. He soon recovered from the drowsiness, and eats and sleeps well, and plays well.—20th: The child has been kept in the hospital lest head symptoms might arise. He is very well and cheerful. The indentation, so marked on admission, is much less, the depressed bone having been partially raised towards the surface.—31st: As the child seems quite well he was discharged from the hospital. There was still a slight depression of the bone.

CASE 2. Ethel D—, aged six, was admitted into Bird ward on Saturday afternoon, September 30th, 1882, having just fallen from a stable loft on to the stone paving below, a height of seventeen feet. She was standing on a chair playing, when she tipped forwards and fell head foremost on to the paving, her head first striking the ground.

*State on admission.*—The child was in a state of profound coma. The left side of the head was very large from an extensive hæmorrhage beneath the scalp. Soon after her admission she vomited a quantity of blood, and twice the next day threw

up blood, but in less quantity. She was unable to swallow, and a teaspoonful of milk put into the mouth ran out again. Ordered an ice-bag to the head, and to have an enema of beef-tea and an egg, an ounce and a half every four hours.—Oct. 1st: The child still lies in a state of coma. Has vomited once some blood. Neither moves nor speaks. To continue the enema, as she is unable to swallow.—2nd: The child remains in the same unconscious state, but she shifts her position and draws up her legs, and is at times restless. She is unable to swallow. To continue the enema.—3rd: Still unconscious and unable to swallow; and although repeated attempts are made to give the child a teaspoonful of milk, it always runs out of the mouth. As she is very restless, and with difficulty kept in bed, a wooden frame has been placed around the bed, to keep her from falling out. To continue the enema.—4th: To-day the child seems to be better. She is still very restless. During the afternoon she swallowed about three teaspoonfuls of milk. As the bowels have acted twice the enema is given at longer intervals.—5th: The improvement has continued. She has taken half a teacupful of milk by the mouth, and is gradually regaining consciousness, and will look up when spoken to. The swelling of the side of the head is much diminished, but still there is fluctuation beneath the scalp on the left side of the head. To continue enema.—6th: The child is much better; she sits up in bed, and takes food. Ordered chicken, and milk with bread-and-butter. Omit enema. She has not yet spoken, although she clearly understands what is said to her. From this time the improvement continued. She began to play with her toys, and to take an interest in things around her. She would frequently try to speak, but was apparently unable to do so. The first time she spoke was on October 15th, when she answered "Yes" to a question put to her by the nurse. For the next two or three days she could only be induced to say "Yes" or "No."—24th: The child is now rapidly approaching convalescence. She talks freely, and plays all day on the bed with her toys. The blood beneath the scalp has been absorbed, and the left side of the head (the part on which she fell) is considerably flattened, but it is gradually regaining its natural shape. She has never complained of any pain in the head. There have been no paralytic symptoms either of the extremities or any of the parts supplied by the cranial nerves. The child will be kept for some weeks under observation in the hospital.

### NORTHAMPTON GENERAL INFIRMARY.

A CASE OF ACUTE CHOREA COMPLICATED BY PERICARDITIS, ENDOCARDITIS, CELLULITIS, ETC.

(Under the care of Dr. FRANK BUSZARD.)

FOR the following interesting notes we are indebted to Mr. J. Oswald Lane, assistant house-surgeon.

J. D—, aged fifteen, was admitted on June 19th into the hospital with the following history:—He is one of a family of eight children, all of whom are rather delicate, but the patient himself has never been laid up before the present illness; has never had rheumatism; no history of shock or of overwork of mind or body; has always been a sharp lad, and no members of the family have been affected with nervous disease. The first appearance of the present illness showed itself on June 6th, when he was seized during the night with excruciating pain in the right leg, followed the next morning with "snatching" of the muscles of the right half of the body, though both sides of the face were affected. These movements became gradually more marked and general. Two days before admission he first began to wander, while at times insensible; at others very noisy; cracking of skin also noticed.

On admission the choreic movements were general and of the most marked form, especially so of the face and arms. He was very noisy, crying out furiously; at times sensible, but unable to answer in articulate sounds. Skin very dry and cracked, lips fissured, tongue brown, covered with sordes. There were distinct signs of hyperæsthesia; pupils dilated and sluggish to the action of light. Pulse 120; temperature could not be taken.

June 20th.—Passed a very noisy and restless night, delirious at times though occasionally sensible; spasmodic movement of the muscles still just as marked, and is unable to articulate words or swallow.—21st: Much quieter, whilst the

choreic movements have almost stopped; power of articulation and swallowing just the same, while the respiration is very jerky; there is a distinct pericardial murmur with no increase of dulness. Pulse 124. Urine shows an increase of urea.—23rd: Movements still present; can now swallow liquids; sometimes utters articulate sounds and nods when asked questions. Area of cardiac dulness increased, friction; bronchitic sounds; signs of inflammation in left forearm; also of right wrist and hand. Pulse 130; respiration 35. Temperature, morning 99° 6'; evening 98° 6'.—25th: Choreic movements abated. Can now say some few words, such as "Mother," "Nurse," "Yes," "No." Sordes less; bronchitic sounds to be heard, while the cheeks are flushed. Incision was made into the left forearm, when a large amount of pus was evacuated. Skin still cracked. Pulse 128; respiration 38. Temperature, morning 99°; evening 100°.—26th: Pulse 133; respiration 32. Temperature, morning 100°; evening 100° 2'. Cellulitis still increasing, as also the area of cardiac dulness.—27th: Temperature, morning 100°; evening 100° 2'.—28th: Temperature, morning 100°; evening 100° 4'.—29th: Temperature, morning 98° 8'; evening 102°. A large amount of purulent discharge from the incision made into the left forearm; right hand swollen, but no feeling of fluctuation. Tongue cleaner; appears better though still extremely prostrate; choreic movements have entirely disappeared; he is able to speak more distinctly, but only a few monosyllables. Bowels confined; appetite improved. Respiration 30, at times irregular and laboured. Pulse 132.—30th: Temperature, morning 99°; evening 102° 2'. Discharge copious.

July 1st.—Temperature, morning 102°; evening 101° 8'.—3rd: Temperature, morning 100°; evening 102° 4'. An incision was made into the palm of the right hand, when a large amount of curdy sanguineous pus exuded. Abdomen tympanitic; heart's area of dulness has gradually increased, no endocardial murmur to be heard; appetite improved. Pulse 126, not wiry; respiration 32.—4th: Temperature, morning 99° 6'; evening 103° 8'; discharge copious.—8th: Temperature, morning 100°; evening 103° 2'. Discharge from right hand, though copious, has diminished in quantity; some swelling of the right arm below elbow; no joints affected; area of cardiac dulness has increased downwards, and towards the axillary line no exocardial murmur, but a distinct soft systolic murmur can be heard at the apex; tongue fairly clean; takes nourishment well; some flatulency. Pulse 128; respiration 32.—9th: During last night he perspired copiously and does not seem so well this morning; this was accounted for by a collection of deep-seated pus in the right forearm, which was evacuated by incision. Temperature, morning 101° 2'; evening 102° 2'.—13th: The patient has improved the last few days; his temperature has gradually defervesced; his speech is much improved, as he now talks correctly but slowly; expression brighter and tongue clean. Temperature, morning 99°; evening 99° 2'.—19th: The last two days his febrile symptoms have become marked, while he complains of tenderness in right palm of hand, and some slight pain in right thigh. Temperature, morning 98° 8'; evening 102° 2'.—20th: Another incision was made into the right hand, giving a free exit for purulent matter; during the next few days the febrile symptoms greatly diminished, and he improved rapidly in general health.—30th: From the time of the last notes the patient has gone on gradually improving, his temperature has been normal for several days, and all the discharge has stopped. He is now allowed out of bed; the systolic murmur has become much more marked, and can be heard over a larger area than previously. He was discharged on August 6th convalescent, the systolic mitral murmur alone remaining.

*Medicinal treatment.*—During the first ten days after admission small doses of chloral and digitalis were administered, followed then by the liquor cinchonæ (Battley's) in five-minim doses every four hours. He was kept on the latter treatment for one week, when sulphate of magnesia in twenty-grain doses every four hours was administered. This was continued for three weeks, when iron and quinine were given him till his discharge.

*Remarks.*—This case here recorded has several features of interest in connexion, amongst which may be enumerated:—1. Marked choreic movements developed themselves previous to any apparent signs of pre-existing pericardial mischief, inasmuch as the physical signs which manifested themselves on the third day after admission were those of commencing pericarditis, as the subsequent history of the case will show. 2. Pericarditis followed

by endocarditis presented itself without any assignable cause; there was an entire absence of any rheumatic history in *propria persona* or hereditary. 3. The severe phlegmonoid inflammation of the cellular tissue which developed itself; this probably being of a pyæmic nature, dependent upon the existing cardiac complication. 4. The acuteness of the attack in the male sex, with subsequent recovery.

### ESSEX AND COLCHESTER HOSPITAL.

UNUNITED FRACTURE OF OLECRANON; ENDS UNITED BY OPERATION; CURE.

(Under the care of Mr. LAVER.)

CHARLES C—, aged thirty, a mariner, was admitted on Oct. 27th, 1881, for ununited fracture of the olecranon. On examination the two portions of bone were found to be sufficiently apart to allow two fingers to be placed between them. This separation caused loss of power, and there was also some tenderness on pressure. The accident (a fall on the deck at sea) by which the fracture was produced occurred on August 13th, 1881. His arm was properly placed on a splint, but with the result above mentioned, and it was determined to try to unite the fragments, and for this purpose on November 4th an operation was performed under full antiseptic precautions. The bones were exposed, scraped, drilled, and wired together with stout silver wire, the joint syringed out with carbolic water, and the arm placed on a front splint. On the 6th the limb was dressed; there was a slight stain of discharge, but no inflammation. On the 11th it was dressed again, and the stitches were removed. On the 20th it was dressed, and then there was no discharge. When dressed on the 25th there was no discharge, and the wound was healed.

On December 22nd, the wire in being removed snapped off and could not be taken out. The patient could move his arm freely without pain, and union had taken place, and he was discharged on leave of absence.

Jan. 2nd, 1882. — Patient returned, complaining of a pricking sensation; it was found to be caused by the broken wire, which was cut down upon and removed.

Feb. 6th. — Long extension splint, which had been on his arm, removed. On the 20th he was discharged cured, with perfect union and full power.

Remarks. — The case was kept a long time on the splint in consequence of the man's occupation, and the unfortunate accident of the wire breaking in further lengthened it.

## Medical Societies.

### ROYAL MEDICAL & CHIRURGICAL SOCIETY.

*The Endemic Hæmaturia of the South-east Coast of Africa. — The Life History of the Liver Fluke.*

THE ordinary meeting of this Society was held on the 14th inst., J. Marshall, Esq., F.R.S., President, in the chair. There was an unusually large attendance of Fellows and visitors. The evening was devoted to the interesting subject of parasitic diseases, especially the Bilharzia and Fasciola hepatica. A paper on the former subject, written by the late Dr. Lyle of Durban, was communicated by Dr. J. Harley; and Drs. Cobbold and Crocker exhibited specimens of the parasite and allied forms. Mr. Thomas related his admirable research into the life history of the liver fluke. He deserves the credit of having conclusively determined the species of mollusc that acts as intermediary host of this parasite, so destructive to our flocks. He exhibited numerous specimens, and his relation of the developmental changes of the fluke was illustrated by diagrams. Other specimens of parasites were exhibited by Professor Ray Lankester, Dr. Bastian, and Dr. S. Mackenzie.

The following is an abstract of the paper on the Endemic Hæmaturia of the South-east Coast of Africa, by the late Dr. VASY LYLE, of Durban. (Communicated by Dr. JOHN HARLEY.) The author, in the first place, discusses the physical characters of the infested country, and the extent of the country infested. He states, as an almost completely

proven fact, that the Bilharzia infests the whole eastern littoral of Africa, from Egypt to the Cape; and that the entozoon found amongst the people of the Nile valley is identical with that found in South Africa. It appears to inhabit the sluggish parts of rivers and low marshy lands, and to be absent from high lands; the interior plateau of South Africa being free from the disease. The present immunity of Port Elizabeth is attributed to the substitution of rain water stored in tanks for that of wells and pits. Opportunities were obtained of examining the bladder in a case of the disease, and both the male and female parasite. The bladder in one case was healthy near the neck, but crossed thence diagonally to the fundus by fungous-looking growths, and the mucous membrane over these was granular and ulcerated, and contained embedded ova. One female Bilharzia was dissected out. The author agrees generally with the description given of the parasite, but differs in some minor points. In reference to the symptoms and progress of the disease, the author remarks that no symptoms of the affection have been observed antecedent to the appearance of the hæmaturia, the general course of the disease being that described by Dr. Harley in his communications to the Royal Medical and Chirurgical Society. Illustrative cases are given, and one of them contains the evidence of a Kaffir on the prevalence of the disease amongst the natives. — Dr. COBBOLD had brought to the Society specimens of urine from five out of seven cases that had been lately under his care. One of these, which a year ago was loaded with blood, was now quite clear, but still contained ova, and the ciliated embryos hatched from them were shown under the microscope. He also exhibited specimens of the adult Bilharzia sent him by Professor Leuckart and Sir J. Fayer, as well as specimens of the parasite from oxen and sheep, differing from the human varieties in the spindle shape of the ova. After referring to the discovery of the parasite by Bilharz in 1851, and his own discovery of it in a monkey in 1857, the speaker said that its clinical bearings and geographical distribution were dealt with by Dr. J. Harley in his paper read before the Society in 1864. The parasite had since been found in India as well as in Natal. Although from analogy it was thought to have its intermediate host in molluscs, the variety of mollusc had not been found—probably not a British form. He described the three modes of dealing with the disease as the "heroic," the "do-nothing," and the "rational" plans of treatment. Of the first Dr. Allen had lately given an example, advocating injection into the bladder of saturated alcoholic solution of eantonin. This produced severe cystitis, and the fact quoted in support of its efficacy, that the patients did not return for further treatment, was capable of an opposite inference to that given by Dr. Allen. The second plan was based on the idea that patients will out-grow the affection. But Dr. Cobbold had under his care in 1870 a girl who was passing an enormous quantity of the ova, and is now strong and well. The treatment then adopted was tonic and nutritious, which succeeded, he believed, in saving her life. He therefore recommended treatment to support the system—quinine and iron, ample food, &c. Buchu was useful, and in bad cases it might be well to try such parasitocides as perchloride of mercury, given internally. — Dr. CROCKER referred briefly to the case from which the embryos and ova of Bilharzia that he exhibited were taken. In that case the hæmaturia, which had been profuse, was now almost absent; but ova were still being found. The nature of the disease was detected by examining the clot microscopically. — Dr. J. HARLEY believed that the parasite gained ingress into the bladder through the urethra while bathing. It is not common in females, but almost every lad in infested districts suffers from it, and it was a practice with the natives to tie a tape round the penis to prevent its entrance. Although in Cairo the disease seemed to be taken by drinking water, in Natal, the view he held seemed more likely, especially as the parasite was located in the pelvic organs. He had early advocated treatment by injections into the bladder, and had used iodide of potassium and oil of male fern for this purpose. Dr. Harley referred to a case so treated with success. As to the apparent disappearance of the disease, mentioned by Dr. Vasy Lyle, Dr. Harley cited an instance of two young men from Port Elizabeth, who were said to have had the disease in boyhood and were supposed to be free from it when seen by him (Dr. Harley). But he found ova in the urine of each, and had later to attend them for attacks of renal colic and oxalic calculi. Dr. Harley concluded by referring to the author of the paper, who was a type of the



honest scientific worker, and who seems to have been the only medical man in South Africa who had devoted such labour and patience to the investigation of this disease.

At the invitation of the President, Mr. A. P. THOMAS, M.A. (of Oxford), then described his researches into the Life History of the Liver Fluke, researches which had been undertaken at the request of the late Professor Rolleston on behalf of the Royal Agricultural Society. After mentioning the ravages made by the liver fluke (as many as 3,000,000 sheep being lost by it in this country in the year 1879-80) and referring to the fact that hitherto the search after the particular mollusc supposed to harbour its larval form had been futile, Mr. Thomas described his plan of work. He thoroughly searched meadows for every species of mollusc likely to be an intermediary host, dissecting them without success, until at length he succeeded in finding in the small *Limnæus trunculatus*, a cylindrical worm or *Reedia* containing cercaria. The cercaria is of tadpole shape, and has the peculiar habit of encysting itself directly it is brought into contact with any solid object, the material for encystation being exuded from some lateral masses in the body of the larva. For some time the inquiry was arrested because of his inability to find any more specimens of the *Limnæus trunculatus*, even where they had abounded in the previous year. In last July, after floods, however, he found an ample supply in the flooded meadows. The snail in question is more truly amphibious than a water snail, is very small—about a quarter of an inch long—and wandering along the damp roots of grass, its presence may readily be overlooked. He now proceeded with infection experiments, and succeeded in proving that this mollusc was the sole intermediary host of the common fluke. At the same time he was enabled to study fully the metamorphosis of the latter. The liver fluke is very prolific, but so long as the ova remain in the liver they undergo no further change. In artificially hatching them, the embryo is seen to leave the egg by the sudden giving way of the operculum; and once in water the cilia with which the body of the embryo is covered came into action. The free swimming embryo has a spindle shape and is provided with a double eye spot (two masses of pigment), and is very sensitive to light. If the embryo comes in contact with a *Limnæus trunculatus* it begins to bore into its shell, the head papilla becomes elongated and sharp, and by a sudden movement the boring is effected, and the body of the embryo passes into the snail. As soon as it gets into the snail the body contracts, its outer layer is cast off, and it degenerates into a sporocyst. By proliferation of cells lining the body cavity and of cells in the body walls, masses of germinal cells are formed from which the cercaria is developed. The sporocyst usually develops in the pulmonary cavities of the snail and the parasite gets into the liver, feeding on the liver cells. The cercaria is formed by the rounded germ-masses becoming elongated, one end being pinched off to form a tail. When the cercaria has escaped and become encysted, it remains quiescent until swallowed by the sheep; when the cyst being dissolved the embryo fluke finds its way into the liver ducts of the sheep. Mr. Thomas concluded his statement by pointing out that the real preventive of the disease is salt, a small quantity of which will not only kill the larvæ of the fluke, but the *Limnæus* also. The salt should be scattered over all land where the snail is believed to be present. It had also been found useful to feed sheep on salt, and this had been long a practice among farmers who had found it valuable in preventing sheep rot, but who had not thoroughly carried it out. Many other animals, including man, were liable to be infested by flukes, and in the case of man the parasite might be introduced through watercress.—Dr. COBBOLD said that he exhibited specimens of flukes from the elephant, giraffe, &c., and that even whales, porpoises, and dolphins were liable to such parasites. He thanked Mr. Thomas for having conclusively proved the *Limnæus trunculatus* to be the intermediary host of the common fluke; and remarked that, curiously, a year ago he had believed that Leuckart had made the same discovery. But he had since heard that Leuckart thought it was another species of *Limnæus*, so that Mr. Thomas had succeeded in a search which the great German helminthologist had been so long pursuing.—Dr. J. HARLEY mentioned the case of a labourer who died from this disease, twenty-six flukes being found in the hepatic ducts, and the symptoms being most obscure. It was ascertained that his diet had consisted chiefly of bread and cheese, often accompanied by watercress.—Dr. MACLAGAN mentioned that a gentleman in Dor-

setshire had told him that in 1879-80 he had lost none of his sheep from this disease, whilst all round there was great mortality. His immunity was attributed to his flocks being fed with salt.—The PRESIDENT thanked Mr. Thomas for his lucid exposition, and pointed out the great importance of the study of diseases of animals as throwing light on those of man, and of the importance of prevention in such diseases. It was a reproach that our troops should be exposed to such disorders, when the means of prevention were not far to seek.

## CLINICAL SOCIETY OF LONDON.

### *Hysterectomy.—Spina Bifida.—Diastasis of Clavicle.—Local Treatment of Diphtheria.*

THE ordinary meeting of this Society was held on Friday, Nov. 10th, Mr. J. Lister, President, in the chair. For the first time, in accordance with the new regulations, card specimens were shown. The President announced that he had heard from Prof. Pantaleone of Rome, expressing his gratification at the honorary membership of the Society recently conferred upon him. Mr. Clutton's cases of spina bifida excited a good deal of discussion, at the close of which the President nominated Messrs. Clutton, Pearce Gould, Howard Marsh, and Parker as a committee to inquire into and report to the Society upon the results of Dr. Morton's treatment of this deformity.

Mr. GOLDING BIRD narrated a case of Removal of a Fibroid Tumour, with Extirpation of the Uterus, that had ended fatally. The patient was thirty-seven years of age, and had had the tumour for three years. Its increasing size, the pain and weight accompanying it, and the repeated and prolonged attacks of nausea occasioned by it, compelled her to seek surgical relief. The tumour—the size of the uterus at six months—grew from the anterior wall of the cervix, and lay between this and the bladder, with the latter of which it was intimately connected. The uterus itself was all but drawn out of the pelvis, and the two ovaries, both cystic, could be felt through the abdominal parietes, and prior to the operation were thought to be bosses on the tumour. The operation was fully described, and special mention was made of the use of an apron of green carbolised protective well tucked in over the intestines when the abdomen was opened, whereby they were easily kept out of the way and sheltered from the spray. The tumour had its peritoneal investment circumferentially divided where it was reflected on to the pelvic walls or viscera, and it was then shelled out from its bed, the broad ligaments being previously divided. The union with the uterus was intimate, and had to be severed, while the connexion of the fibres of the tumour with those of the bladder rendered the operation very difficult. All bleeding was stopped with carbolised silk ligatures, and the peritoneum, where divided between the rectum and bladder, was united with a continuous suture at the completion of the operation. The uterus and ovaries were removed after the tumour, a pedicle being formed out of the cervix uteri; it was tied in four parts, as in Erichsen's method of tying *nœvi*. Before the closure of the peritoneum a rent in the bladder had to be carefully sewn up; a catheter was tied in. The general conduct of the case was like that of ovariectomy. For forty-eight hours all went well, and then severe vomiting set in, which eventually exhausted the patient, and caused her death on the fourth day. The post-mortem showed repair to have been perfect as far as it had gone; there was no evidence of the urine having passed beyond the limits of the bladder. There was no suppuration, and only slight pelvic peritonitis. There did not seem to be enough to account for the vomiting, and the author explained this symptom as depending upon some idiosyncrasy of the patient, inasmuch as when she had typhoid fever ten years before, vomiting severe enough to threaten life was then the most prominent symptom. The specimens removed at the operation and the parts reserved at the post-mortem were exhibited.—Mr. KNOWSLEY THORNTON would like to ask Mr. Golding Bird as to two points in the case which his record seemed to omit: What was the pulse rate? He did not attach much importance to temperature alone in these cases, but had frequently seen patients die of incessant vomiting without any marked high temperature, but with a constantly ascending pulse. He believed such deaths were from septic absorption. In

this case everything was specially favourable for such a result, in spite of the use of Listerian details, because the uterine stump, which always contains causes of putrefaction, was ligatured and then enclosed with a mass of other wounded and ligatured tissues in a space between the closed peritoneal flaps and the tissues forming the floor of the pelvis, with no possible outlet for effused materials except through the cervical canal, which was closed by the constricting ligatures. Supposing the fluids in this space putrefied, as was most likely to be the case, their only outlet was through the sutured flaps into the peritoneum, and, doubtless, this was the origin of the eight ounces of red serum found there after death. The wounded bladder, with catheter tied in, would also be a very likely centre for sepsis spreading into the peritoneum. The absence of anything to account for death, when the post-mortem is made, is a special feature in these cases of septicæmia. The very peritoneal absorption which causes death itself removes the evidences. The second point he would ask for information upon was, What was the sufficient reason for such a serious operation? Mr. Bird had stated that the patient was in fair health, and that menstruation was not excessive. The fibroid was evidently quite a small one. What was the justification for this fearful operation? The authorities had long laid it down as a rule that hysterectomy for fibroids was only justifiable when life was in danger, either from hæmorrhage, excessive growth of the tumour, or some other cause. The mere wish of the patient ought not to be considered in these cases. He had himself on some previous occasions expressed sanguine views as to the future of hysterectomy, but recent observations and experience had led him to modify these views somewhat, especially as it was becoming the fashion to remove the uterus for fibroid disease in cases in which there were no urgent symptoms. The results of the operation recently in this country by the wire *serre-nœud*, and in Germany by the elastic ligature, were very encouraging, but the operation was still a very dangerous and formidable one, and ought only to be undertaken in grave cases. From what Mr. Bird had said as to the condition and position of the ovaries in this case, it seemed to have been a specially suitable one for removal of the uterine appendages, and this has been proved to be a much safer and a more successful process. Mr. Lawson Tait had pointed out a fact which he himself could corroborate—viz., that the ovaries are very commonly cystic along with fibroids of the uterus. Mr. Tait thought that the cystic ovaries cause the fibroids, but they are too often absent for this to be true. Mr. Thornton was long very sceptical as to the cure of fibroids by the removal of the uterine appendages, but he had now convinced himself that Mr. Tait was right in this matter. He had tried the operation in a small number of carefully selected cases, and had met with uniform success; all the patients had recovered; and all in the course of from five months to a year had lost their fibroids by gradual absorption. He did not attribute the result to the mere removal of the ovaries, but chiefly to the great alteration in the blood-supply, when all the enlarged vessels about the ovaries and tubes were tied. He had tested the operation in cases of subperitoneal fibroids, mural fibroids, and fibro-cystic disease, and in all the result had been equally good. With the statistics of this operation as to mortality, he did not think hysterectomy was justifiable without a previous trial of the safer operation of removal of the uterine appendages. At the same time it must be remembered that this operation was often a very difficult and dangerous one, and might end in the necessity for the performance of the still more dangerous hysterectomy from uncontrollable hæmorrhage. This accident happened to himself in two of his early cases. In reply to a question from the President, Mr. Thornton said that his cases of removal of the uterine appendages had not only all recovered, but had in course of time their uteri restored to their normal condition.—Mr. GOLDING BIRD replied that Mr. Bryant had advised him to proceed at once to removal of the entire organ rather than attempt incision of the uterine appendages at first. He had relied more upon the temperature than the pulse, especially as the patient was liable to great rapidity of the pulse from emotional causes.

Mr. CLUTTON related a case of Spina Bifida cured by Injection of Iodine. When three weeks old a child was brought to St. Thomas's Hospital, and was found to be a well-nourished, healthy child, with the exception of the above imperfection. The spina bifida was situated in the lumbar region, small, and with exceedingly thin walls. The impulse

when the child cried was very marked, and the aperture in the lower canal large. There was no paralysis of the lower limbs, and the cyst, examined by transmitted light, did not appear to contain the cauda equina. The skin had been so stretched that the walls were quite translucent, and would evidently have soon given way and allowed the fluid to escape. A week after it was first seen, and when the child was four weeks old, the cyst was injected with a drachm and a half of Morton's fluid, as little as possible of the contents of the sac being allowed to escape; a pad with collodion and bandage completed the treatment. The mother was instructed to keep the baby on its back, and prevent, as far as possible, the gravitation of the fluid into the vertebral canal. The constitutional disturbance was very slight, and on the third day the child was in its usual health. The cyst began immediately to shrink, and by the end of a week the skin was in loose folds. At the end of the third week there was nothing to be felt of the spina bifida, except a small puckered lump of cutaneous tissue. Mr. Clutton also mentioned a case of Occipital Meningocele, which he had treated by injection of iodo-glycerine without any effect, good or bad. And also another case of Lumbar Spina Bifida, with a very thin sac, in which the injection of about a drachm of the iodo-glycerine solution was immediately followed by the sudden death of the child.—Mr. MORRANT BAKER asked whether in the last case any fluid was withdrawn previous to the injection, and also what position the child was placed in. The record of such cases was very valuable as a guide to practice.—Mr. PEARCE GOULD asked Mr. Clutton whether in his first case the sac was covered with skin, and whether the fluid withdrawn contained sugar. The most favourable cases for injection were those in which the deformity consisted only of a hernia of the dura mater, the fluid being arachnoid fluid. As an instance of the fact that spontaneous cure occasionally occurred in the worst cases, he described a case of a very emaciated infant who was recently under his care with a large lumbar spina bifida which had burst, and a great part of the sac had sloughed; yet the tumour underwent a spontaneous cure, although the child died of marasmus.—Mr. A. E. BARKER had operated upon a case very much like the last one referred to by Mr. Clutton. The child was kept upon his back for some time after the injection. The operation had not the slightest effect upon the tumour, and he heard later on that the tumour burst and the child had died.—Mr. HOWARD MARSH mentioned the case of a child four months old. The tumour was not large, covered by fairly healthy skin, but was increasing. He injected the tumour with about one drachm of the iodine solution; the child became completely collapsed and died immediately after the operation. At the Children's Hospital the results on the whole have not been successful.—Mr. C. HEATH said that the injection of iodine into the cavities of the brain and spinal cord was not necessarily fatal. He had had under his care a case of anterior meningocele in a child six years old which had been previously injected with iodine by Sir James Paget without injurious effects. He thought that talipes calcaneus was very common in these cases.—Mr. R. PARKER had injected about twelve cases without meeting with any fatal result like Mr. Clutton, or other visible effect of the injection, but he had had only one successful case. The result depended upon the size of the spinal aperture, and whether the spinal cord were involved or not. In his successful case the sac was covered with healthy skin, and he injected less than half a drachm of the fluid every week for some weeks. He thought talipes calcaneus was not always present in some cases it was unilateral or equino-varus.—Mr. GODLEE added a case to the list of successful cases. The tumour was small, with a thin wall, and was cured by a single injection.—Mr. BENNETT had had only one case of this kind, and there the injection was unsuccessful. The sudden death after the injection of the tumour might be a mere coincidence in some cases, as was shown by a recent experience of his own. Not long ago he planned to inject a spina bifida on a certain day, but owing to the child being then unwell he postponed it, and the child died from convulsions while going home in the omnibus.—Mr. MORRANT BAKER mentioned a case in which the tumour was cured, but hydrocephalus increased, and gradual loss of power in the lower limbs came on.—Mr. CLUTTON said that in all his cases the child was kept lying on the back, and he injected slowly; he only withdrew a small quantity of fluid, and that gave a distinct reaction of sugar. In both cases

there were patches where there was no skin at all, and the sac was like tissue paper. In the first case there was no raw surface, in the latter the sac was partly ulcerated. The aperture of the sac into the theca vertebralis does not correspond with the size of the aperture in the bones.

Mr. CHRISTOPHER HEATH related a case of Separation of the Epiphysis of the Clavicle by Muscular Action. A boy, aged fourteen, whilst raising his arm violently to bowl at cricket felt something give way at his collar-bone. The inner end of the clavicle was found to be unduly prominent, and presented a sharp edge beneath the skin, quite unlike the smooth end of a bone, covered with articular cartilage. The supra-sternal notch was quite distinct and equally defined on both sides, and a thin lamella could be felt on the right side, intervening between it and the gap caused by the starting forward of the inner end of the clavicle. The treatment consisted in laying the patient down, when the bone at once slipped into its place, and it was retained by a plaster-of-Paris bandage. Mr. Heath referred to the great rarity of the accident, and the diagnosis of it from dislocation of the clavicle, and insisted upon the great utility of the plaster-of-Paris bandage in fractures of the clavicle and humerus.—Mr. LISTER said this case was exceedingly interesting and rare, if not unique. The diagnosis was no doubt correct, both from the sharpness of the projecting fragment and the presence of the lamella in the site of the injury.

Dr. GOODHART read a paper on Six Cases of Diphtheria treated by the local application of Borax or Boracic Acid. In four a saturated solution of boracic acid in glycerine was used, the application being made in part by a hand spray, in part by the laryngeal brush, and as often as every two hours in some cases. In the other two a diluted solution of the glycerine and boracic acid was used. The first case was a very severe one, and it died from renal complications on the seventh day; but the boracic acid and glycerine seemed to be so successful in relieving the throat symptoms, and in preventing the re-formation of the membrane, that it was determined to try it again. Of the other five three had croup as well as membrane on the fauces; one had nasal diphtheria; all had albuminuria. All recovered. Tracheotomy was necessary in one case, and the glycerine and boracic acid were freely applied to the interior of the trachea and larynx from the wound, and to the surface of the wound itself, and it seemed to be very beneficial in loosening, dissolving, and preventing the re-formation of membrane. In another case it is believed that tracheotomy would have been necessary had not the vigorous application led to the expulsion of membrane by the mouth. In all cases it seemed to give such relief that very little difficulty was experienced in carrying out the treatment. Both borax and boracic acid have been occasionally in use as a topical application in diphtheria, doubtless, for a long time past, but not, so far as is known, with any decided success; nor can it be supposed that any remedy will not often show a good proportion of failures in combating a disease such as this. It is enough to say that these agents are known to be good antiseptics, that their action is harmless when not beneficial, and that they are certainly useful in some cases.—Dr. PHILLIPS had carried out the treatment in the first of Dr. Goodhart's cases. He referred to two other cases similarly treated, in each of which tracheotomy was performed in a few hours, and every attempt to remove the membrane was made; but the children died, and in each case the membrane was found extending down into the smaller tubes. The strength of the solution is one part of glycerine to three of borax diluted with an equal part of water when used as a spray.—Dr. O'CONNOR had notes of nearly forty cases of diphtheria, but he had not met with much success in the use of a watery solution of boracic acid. He thought the best application on adults is a solution of chlorate of potash. He had often found that the membrane reappeared on its original site, thinner but evidently of the same nature as at first.—Dr. LONGHURST thought the treatment was good because it was non-irritating; much good was not to be looked for from local treatment of a disease which is essentially constitutional.—Mr. LISTER remarked that each physician extolled his own application for diphtheria. He had received striking reports of series of cases without any fatal issue treated locally by tincture of iodine. But its infective character clearly showed it was a local disease. Boracic acid is a wonderfully efficacious antiseptic, as is seen when it is applied to putrid onychia, for example.

It may very well act in this way on the membrane in diphtheria. Boracic acid, by the aid of heat, may be mixed in any proportions with glycerine.—Dr. GOODHART said that the constitutional nature of the disease was no argument against local treatment, as the disease is so often fatal from its local effects.

The following card specimens were shown:—1. A Case of Transpatellar Excision of the Knee, by Mr. Golding Bird. 2. A Man from whom the Tongue and part of the Lower Jaw were removed in 1876 for Epithelioma, no recurrence, by Mr. C. Heath. 3. A Case of Spontaneous Partial Dislocation of the Clavicle, in association with Lateral Curvature of the Spine from an unreduced Dislocation of the Hip, by Dr. Clippingdale. 4. A successful Case of MacEwen's Operation for Genu Valgum, by Mr. Keetley.

## MEDICAL SOCIETY OF LONDON.

### *Congenital Cystic Hygroma.—The Treatment of Wounds.*

At a meeting of this Society, held on the 6th instant, Mr. F. Mason, President, in the chair,

Mr. EDMUND OWEN exhibited two cases of Congenital Cystic Hygroma, and read a short paper on them (see p. 845).—The PRESIDENT was not satisfied that the tumour on the side of the cheek communicated with the cyst beneath the tongue.—Mr. BRYANT remarked that the cases were seen in a later stage, and no communication between the larger tumour and the mouth was to be found. He advised enucleation and removal. In its present state the smaller tumour might be taken for a congenital naevus. In three cases he had noticed hygroma to be associated with imbecility.—Mr. OWEN, in reply, admitted that perhaps there was no communication between the two cysts in the first case, but he thought they were connected by fibrous tissue. In the second case, he thought the hygroma was degenerated. The difficulties of removal of the cyst in the first case were very formidable.

Mr. SAMPSON GAMGEE then read a paper on the Treatment of Wounds (see p. 840).—The PRESIDENT asked if Mr. Gamgee made any difference in treatment between hospital and private cases.—Mr. W. ADAMS coincided entirely with the principles laid down by Mr. Gamgee. The exclusion of air and water were the leading features of his own practice. Wounds from which air and water were excluded ran the course of subcutaneous wounds. He presumed that Mr. Gamgee excluded water as favouring decomposition. What did Mr. Gamgee use when wounds required to be washed? The principle of firm support and even compression was unduly neglected in modern practice. Richardson's colloid styptic he used extensively in his own practice, and knew nothing of the kind so valuable.—Dr. RICHARDSON suggested that it deserved to be determined by surgeons what was the precise thermometric indication for taking off the dressing from a wound. What account, in respect to rise of temperature, ought to be made for natural reaction? What degree of temperature should be considered as necessary to determine interference with the dressing? What time of continued increased temperature should be allowed to elapse before such interference? There ought to be a fair approximative general rule on this subject. Referring to the practice inculcated in Mr. Gamgee's paper, he said that in principle it dated long back. It was a treatment more or less in use ever since Friar's balsam was known as a remedy for wounds. It contained the true secret of Sir Kenelm Digby's expectant non-interfering method; it was the method enforced in a past century by Belloste; it was a method which, in this country, has from the last century into the present held its own. It had sometimes been supplemented by extraneous and fanciful procedures. Sir Kenelm Digby and his adherents had supplemented it by introducing, as an adjunct, the sympathetic powder with which the sufferer was taught to polish the weapon which caused the wound, as if that were a part of the cure; and in our day we had seen it supplemented by procedures which in future times would read, he believed, as equally unnecessary and nonsensical. Mr. Gamgee had brought the practice back to its true physiological bearing by showing that the sustenance of life in the injured part itself was the cause of success in healing, apart from any mysterious local surroundings or imaginary destructive agencies. In cases where there is bleeding from a wound that has been inflicted some time, and

from which there is offensive odour, Dr. Richardson agreed with the author that the iodised was more effective than the styptic colloid. He agreed equally in opposing the employment of water for dressing wounds, and recommended for cleansing purposes proof spirit, containing tannin and glycerine, a solution which was at once a good wash and a good styptic. Dr. Richardson concluded by urging that the profession ought to continue on the splendid historic lines that had been laid down for it in the past, and that if, instead of pursuing this course, it allowed itself to be led away by the hypotheses of men, however distinguished, who did not belong to it, and did not understand its practical work, it would go down altogether in fact as well as in estimation.—Mr. PAGE did not think the thermometer a sufficient index of danger by reason of the various nervous temperaments of the different patients, which determined a rise in temperature in the reaction after a wound. Mr. Gamgee's paper was based on sound physiological principles; but he could not agree with Dr. Richardson's strictures on Listerism, which he thought would always be regarded as an effort to restore natural conditions to the seat of the wound.—Mr. E. OWEN corroborated Mr. Page's remarks about the varying degrees to which the temperature might normally rise in different persons.—Mr. BRYANT agreed with Mr. Page that Mr. Gamgee's paper was based on physiological principles. He noticed that Mr. Gamgee seemed to advocate light pressure by bandaging, not the firm pressure he formerly recommended. He agreed as to the importance of immobility in wounds of soft parts. Mr. Gamgee had hardly emphasised the advantage of drainage as much as he might have done. To secure free drainage was a most important indication, and caution should be used in dressing wounds in such a manner that free drainage was not permissible. Though not a "spray and gauze" man in any sense, yet he had faith in the action of the drugs known as antiseptics, which obviated the tendency to decomposition induced by water. Mr. Gamgee eschewed water altogether in dressing. He recommended also his principle of letting wounds alone as much as possible. The degree of elevation of temperature was as important an indication as persistence of elevation. Isolated rises were of little consequence. Persistence after the second or third day was of much consequence.—The PRESIDENT had for many years practised Mr. Gamgee's method, as a rule in private practice, and occasionally in hospital practice, although this was rather difficult in a hospital imbued with the doctrines of Listerism.—Mr. GAMGEE, in reply, said he did not trouble too much about the arrest of bleeding. He shut the wound up as quickly as possible, and under this system he never had secondary hæmorrhage. It was on accurately fitting universal pressure that he relied, not on localised hard pressure. He never sealed wounds without allowing free drainage. The washing of wounds should be as slight as possible; too much was injurious. He could find no difference, physiological or practical, between boroglyceride and glycerinum boracis (B.P.), with an excess of borax. He warmly advocated the study of Dr. Richardson's book on the healing of wounds, and mentioned certain facts showing the influence of mental excitement on the elevation of temperature in surgical cases. Many great operations were accomplished without any rise whatever. He treated private and hospital patients in precisely the same manner. The secret of Mr. Lister's success was the consummate skill and care with which those whom he had educated were trained to carry out their treatment.

#### EPIDEMIOLOGICAL SOCIETY.

A MEETING of this Society was held at University College, Gower-street, on Wednesday, November 1st, Dr. George Buchanan, President, in the chair.

Dr. NORMAN CHEVERS read a paper on the Sanitary Defects of the Site of London and its Environs, of which the following is an abstract. He was of opinion that notwithstanding all that modern land and town drainage had effected in the way of improvement, the most prevalent and worst diseases of the United Kingdom are due to the survival of thousands of acres of unreclaimed marsh land, and to the presence of thousands of miles of sewers, drains, and ditches, which retain, exhale, and exude as much as they void. The Celtic and Roman founders of London chose their position mainly because it was defensible in war, and

without any knowledge of the laws of malaria. The superficial geology of London may be represented by an oval cup of London clay and brick earth, extensively traversed and margined by marsh alluvium across the longer diameter, of which irregular heaps of more or less sandy gravel form a broken line of slight elevation. The greater part of Roman London was seated on good building ground. Originally marshes or swampy soil surrounded the entire land aspect of modern London, with the exception of an isthmus on the north-west. The whole line of the northern hills had, at its foot, oozy soil, into which the drainage of the uplands sank, to be only partially carried off by streams. The City was also protected on the north side by Finsbury and Moorfields, formerly a vast swamp. To the east London is bordered by the extensive marshes of the river Lea and the Thames, and east of these marshes extend vast tracts of the Essex and Kentish marshes, sixty miles to the sea. The Kentish marshes extend also to the south border of London, and those parts of the City now bearing the names of Bermondsey, Southwark, and Lambeth, were especially notorious, almost down to the present time, for the occurrence of ague, dysentery, and remittent fever, amongst the inhabitants. Originally the marshes westward were as injurious to the public health as those to the east; Westminster was almost an island even in Queen Elizabeth's reign, and St. James's Park was liable to be flooded up to 1682. Even now South Belgravia is threatened with inundation from the Thames. Northward of this part of London the ground is more or less elevated, and gravel and clay are found more abundant. Dr. Chevers next pointed out that much of the ground upon which houses are now, and have been for centuries, built consists of made earth; for instance, that in Finsbury-fields in 1549 one thousand cartloads of bones were deposited, and upon this was laid the soilage of the City, all of which has long since been built over. He then briefly alluded to the significance of the Anglo-Saxon word *ey* in many of the place names of London, as showing that the localities were originally paludal; and mentioned a few facts which indicated the great prevalence in old times, and as late as the end of the seventeenth century, of dysentery and intermittent fever in London. Dr. Chevers urged the necessity for a great national movement for the reclamation and utilisation of marsh lands near London, and that a Royal Commission should be appointed to inquire into the whole question and adequate funds raised. He believed trees might be planted on the Essex and Kentish marshes which would in a few years mitigate the severity of the east wind; that all kinds of manufactures not requiring night service might be carried on there; and that market gardens and reservoirs for fish for markets might also be made, and thus render the lands not only more salubrious, but more valuably productive than they are at present. He concluded by saying that every landlord should be under legal obligation to satisfy his tenant whether the site of his house had been a marsh, a brickfield, a burial-ground, or a plague pit; whether the house is built upon concrete, and whether there are diseased cesspools near the building. In the discussion which followed, the President, Sir Joseph Fayrer, Surgeon-General Hunter, Surgeon-Major Don, Dr. Thorne, Mr. Shirley Murphy, Dr. Henderson, Mr. Long, and Dr. Balfour took part.

#### NORWICH MEDICO-CHIRURGICAL SOCIETY.

THE first meeting of this Society was held on the 7th inst. at the Norfolk and Norwich Hospital, Dr. Barnes (Eye), the President, in the chair.

An exhaustive retrospective address of the work done during the past year was read by Mr. T. L. Lack.

Mr. F. C. BAILEY (Norwich) exhibited a specimen of a Double Fetal Monstrosity, united apparently by the sternum; the specimen was reserved for dissection in order to demonstrate the bond of union.

Dr. MCKELVIE (Cromer) exhibited a fibro-sarcoma of the neck removed post mortem; the tumour had existed about fifteen years; it measured 32 in. by 30 in., and weighed 17½ lb.

AN Exhibition of the International Inventors' Institute will be opened permanently on December 1st, 1882, from 9 A.M. to 5 P.M., free to the public, at Dashwood House, New Broad-street, London.

## ABSTRACTS OF

## INTRODUCTORY LECTURES

*Delivered in the Dublin Hospitals and Medical Schools,  
Session 1882-83.*

## ROYAL COLLEGE OF SURGEONS' MEDICAL SCHOOL.

MR. JACOB said that was an occasion of much importance to the College, and also of extreme interest to himself personally, for it was the first occasion on which he had assumed, in its full entirety, the mantle of his father. That day they inaugurated the last session of the hundredth year since the foundation of the College; and, moreover, on that day was to be opened the new school of anatomy attached to the College. They had, a few days since, initiated the first examination held under the new system, which they looked forward to as a regenerative step, and also legislation was impending, of which no one could tell the results, but which was fraught with important results to the College and to surgery in general. In a few words he then sketched the progress which had been made in Irish surgery down to the present time. In 1812 the first State grant was made, £35,000 having in all been contributed, and in 1828 the College was called upon by charter to support itself. A museum and laboratory were established by the College out of its own funds in 1835. In 1844 the apprentice system was reformed, and a supplemental charter was granted transferring the authority and power of the College from the censors and members to Fellows. The income of the College was £7000 a year, and it had a museum containing 7000 preparations, and a library containing 20,000 books, it being only second in the United Kingdom to the Hunterian library and museum in London. The lecturer concluded by referring in terms of praise to the new educational scheme of the College.

## MATER MISERICORDIÆ HOSPITAL.

MR. KENNEDY observed that clinical instruction can be but imperfectly understood if not preceded by a short preliminary course in the dissecting-room and in the physiological lecture hall. Anatomy and physiology form the basis of all medical and surgical knowledge, and are inseparable elements in the study of disease. To treat serious diseases, not knowing their history, their pathology, their progress, their dangers to life, and the sequelæ they may entail was in the highest degree culpable. The majority of the students, after completing the prescribed curriculum, would be commissioned by the State, either in military or civil life, to battle with disease, and frequently in quarters isolated, and perhaps often in cases of urgency beyond the reach of the immediate assistance of brother members of the profession. Let them picture to themselves the mental anxiety of a man possessing honesty or humanity who thus, unassisted, is called on to treat a rebellious disease. Each disease, or rather each division of diseases, would require the highest faculties of the mind to be put into constant and vigorous action, and applied unreservedly for a considerable time before they could effectively deal with any of them. A knowledge of fevers could only be acquired in the fever wards of a hospital, and the College of Physicians, showing their full appreciation of the subject, now requires a special certificate in the diseases referred to. The present member for Dublin was the author of a most valuable work on fevers, and to him they also owed the rejection of a Bill that, if once made law, would compel them to become the public informants of domestic affliction, and would destroy the confidential relations that exist between patients and their doctors. They all knew that the natural guardians of families were only too eager to adopt the sanitary suggestions of their medical attendants, and it could be easily understood how strongly they would resist, during a time of grief, the vexatious visits of sanitary inspectors. The medical gentlemen entrusted by the public with the health of the poor could do all that is necessary. Let the arduous labours of these gen-

tlemen be more fully appreciated and more generously rewarded, and let it be incumbent on them to report on the sanitary condition of the poor of their respective districts, and have power to remove any and every cause of contagion. To do more than this would be to increase the danger to the public health by inducing the concealment of contagious disease, and consequently, the neglect of the necessary precautions.

## ADELAIDE HOSPITAL.

THE inaugural address was given by Mr. KENDAL FRANKS, who hoped that the new session would be characterised by work, not the spasmodic effort that brought them to the ward to see a curious case, or to the theatre because a capital operation was about to be performed, but the honest work which was the outcome of a steadfast purpose, a determination not to rest satisfied with the dead level of mediocrity, but, by taking advantage of every opportunity which was afforded, to prove themselves fit to occupy a foremost place in the profession which they had chosen. In the wards they would learn what books could not teach, and what they learned there was that which they would value most hereafter. Other work neglected might sometimes be made up for by increased diligence afterwards, but the knowledge gained by daily contact with the sick could never be picked up by a system of cramming at the last moment. The object which they had in view was not merely to pass examinations and to become legally qualified. The profession which they had chosen demanded from them more than that. It required that when they had by law been declared competent to take charge of the lives of their fellow-beings, they should not be found wanting. He did not intend that morning to occupy their time by rehearsing the rapid strides which medicine and surgery had lately made, progress which would mark the nineteenth century as the most eventful in their history; but he would call their attention to one discovery which had done much to revolutionise both branches of their profession, and one which promised to show that, far as we have gone, we are still but children playing on the shore of an unknown and boundless ocean. He alluded to the germ theory. Hostile critics had brought every refinement of scientific research to bear upon it, but it stood the trial, whether of experiment, or the microscope, or the electric beam, and had emerged from the ordeal, no longer a theory but an established fact. In medicine it was now almost universally accepted. Fevers were no longer looked upon as smouldering fires that burnt up the system, or as humours devouring the frame; but were recognised as the result of a living "poison" that had been sown in the system, and had grown and multiplied during the stage known as the stage of incubation until it had poisoned the whole being. The organism which caused diphtheria, a form of what was called micrococcus, had been recognised, and its life history scanned. There was scarcely a malady which had hitherto so baffled the skill of the physician and mocked his every effort as the dreaded disease of hydrophobia. Yet the germ theory had shown the insidious poison which lurked within the system long before it attacked its victim. Experiments were being made to show whether by a process of inoculation after the victim had been bitten he might not be protected against the dreadful outburst of the disease. When this was established the germ theory and its development might claim a glorious triumph. The germ theory had recently been brought to bear on tubercular diseases. By a series of elaborate experiments Koch had at last discovered the source of this terrible scourge to be a micro-organism. He has isolated it, cultivated it, and inoculated with it. Was it too much to expect that as knowledge increases and earnest workers still labour on, some means shall be found for striking down the malady now dragged to light?

## RICHMOND HOSPITAL.

MR. THOMSON dwelt on the results of antiseptic surgery. There appeared, he said, at present hardly any part of the body too far removed from the surgeon's knife; but this would not have been possible had not the torch of medicine gone before to lighten the track they were to follow and make their way plain. It was in proportion as they advanced



in the knowledge of medicine that surgeons had been enabled to achieve the brilliant triumphs which made the nineteenth century the greatest in the history of surgery. But while much of this had been due to medical progress, there had been other causes at work not less powerful. The science of sanitation had been gradually operating in the same direction. Pure air, roomy wards, good food, the classification of patients suffering from infectious disorders, intelligent nursing, and all that was meant by cleanliness, had come to be regarded as contributing materially to the success of surgical treatment. Cleanliness in surgery was a term somewhat different in meaning from that ordinarily applied to it by the laity. It did not alone mean palpable concrete dirt, dusty floors, and dirty dressing, but it also signified the dirt which was impalpable—the dirt which only clung about the wards in the shape of viewless contagion, which was not less dirty though hidden from view. Under the old method of treating wounds the mortality was very high, but if they turned to the more recent developments of what was understood as antiseptic surgery, as taught by Lister, they would find a very great change indeed. He showed that in wounds or fluids undergoing putrefaction there were present certain organisms or germs, indefinite in structure, but definite in the outline, to be easily recognised by the aid of a microscope. He proved, as he thought indisputably, that if these germs could be excluded or their vitality destroyed when they made an incision into soft parts, and their access afterwards prevented by means of a dressing so prepared that all air passing through it must have its contained organisms killed, they could keep the wound antiseptic or unpoisoned, and thus reduce it to the state of a subcutaneous one. Mr. Thomson concluded by stating that at no time were there workers so many, so thorough, so industrious, and at no time had the demands upon energy been so urgent.

#### MEATH HOSPITAL.

AFTER some introductory remarks, Mr. SMYLY said he wished to tell the students what they intended to do for them, and what was expected from them in return. In the name of the Medical Board he promised that they would do all they could to impart what they knew, and in return they expected the students to learn what they could, always bearing in mind there was much in medicine and surgery which could not be explained to the ignorant, and there was much room in every branch of the profession for differences of opinion. Since they parted last summer great changes had taken place, not only in that hospital but in the profession. In the hospital the standing committee had expended a large sum of money in improving the sanitary condition of the house. Not long since every ward was in direct communication with the main drain, and the patients were constantly suffering from erysipelas and other forms of poisoning from bad air; but now all that was altered. They had now a clean and pure house, and bright and well-ventilated wards. The full acceptance of antiseptic surgery was a great step in advance, and they might now hope to see a succession of operations free from the horrors of blood-poisoning. Since they last met, the Royal College of Surgeons had instituted a new mode of examination, and instead of one final examination on most complicated and various subjects, they had in their wisdom substituted sessional examinations. In this way the process of testing the students' knowledge was brought into immediate contact with the process of teaching, and practical courses of lectures had been substituted for theoretical. He hoped this would be more fully carried out, and the yoke of compulsory attendance on lectures removed from the neck of the much-enduring student. The change made by the Royal College of Surgeons consisted in setting down certain definite subjects to be learned during the year, and the result to be tested by examination at the end of each term. It had been the fashion to run down a certain class of teachers—the so-called grinders—but he considered it was not just to do so, for they were the result of a system. General culture and athletic sports occupied very important places in the education of medical men. In adopting medicine as their profession they should always remember that they were walking in the steps of Him who went about doing good, healing the sick.

#### ST. VINCENT'S HOSPITAL.

DR. QUINLAN said that on that occasion they could hardly do better than consider recent researches upon infective zymotic disease, and the etiology of pulmonary consumption, a scourge to humanity, which up to the present had not been considered to be infective, but which had been proved to be so under certain circumstances. The whole subject was profoundly interesting and important, particularly in relation to the successful efforts which had been made for the attenuation and dilution of zymotic poisons—a plan which opened up a vista of preventive medicine of the most useful kind. The lecturer then described the various stages of zymotic diseases, and the experiments of pathologists which had revealed the true nature of those diseases. He referred to the investigations of Pasteur on the subject of chicken cholera, and the cultivation of the bacillus anthracis—the cause of aplenic fever in sheep—and of woolsorters' disease in man. Typhoid fever, he said, was popularly supposed to be due to bad smells and sewer-gas, but it was really due to the germs contained in these; and in reference to this there were two noteworthy points. One was that if sewage be poured through Italian rye-grass, the spongioles destroy all germs, and leave the resulting fluid so far harmless. The other was that, although germs will pass through the finest filters, filtration through spongy iron entirely destroys them. Up to a recent period it was generally believed that pulmonary consumption, although of a hereditary type, was not an infective disease. The matter had been set at rest by the discovery of Villemin that tubercle was inoculable, and this was followed up by Koch, who discovered the tubercle bacillus, cultivated it, and communicated it to animals. It was a consoling fact that tubercular bacilli, unless kept outside the body at a temperature of 100°, at once die, differing, fortunately, in this respect, from those of aplenic fever, which sometimes linger for years where animals were kept.

### Reviews and Notices of Books.

*A Dictionary of Medicine, including General Pathology, General Therapeutics, Hygiene, and the Diseases Peculiar to Women and Children.* By Various Writers. Edited by RICHARD QUAIN, M.D., F.R.S. London: Longmans, Green, and Co. 1882.

#### [FIRST NOTICE.]

THE generic term "dictionary" includes under it a great variety of learned works. Not only is it applied to volumes dealing solely with etymological subjects, but it is employed in medicine to such elaborate writings as are to be found in the "Dictionnaire de Médecine," the "Dictionnaire des Sciences Médicales," and the "Dictionnaire de Médecine et Chirurgie"—the composition of which, although placed in many hands, is the labour of a generation. Strictly such works deserve the title of cyclopædias, a term which is being now extended to works not completed in the alphabetical arrangement—as witness Ziemssen's "Cyclopædia of Medicine" and the American "Encyclopædia of Surgery" now in course of publication. The English works most allied in character to these latter are the *System of Medicine* and the *System of Surgery*, edited by Dr. Reynolds and Mr. Holmes respectively. In all these works the idea of co-operation in their composition has been fully carried out—a plan absolutely necessary in the present day, when medicine has extended its limits so widely. One of the first books published on this plan was the well-known "Cyclopædia of Practical Medicine" projected by Dr. A. Tweedie, and edited by him in conjunction with Drs. J. Forbes and Conolly. Some of our readers may remember the issue of this work, which came out in parts in the years 1833 to 1835, and which numbered among its contributors some of the leading physicians of the day. Among them there still remain with us Drs. Tweedie, Bisset Hawkins, and J. C. B. Williams. It was very popular with the profession, the

edition, which was a large one, being completely disposed of, but yet it is a work which is now almost forgotten and seldom referred to, sharing in this the fate of the equally well-known "Cyclopædia of Anatomy and Physiology" edited by Dr. Todd. Such works remain, however, to mark the state of medical knowledge of their time, and they contain much that is of permanent value. The "Cyclopædia of Medicine" opened with an article on the History of Medicine from the pen of Dr. Alison, and closed with a bibliography, which seems meagre nowadays as contrasted with the bibliographies of the modern French dictionaries referred to above.

Turning now to works less extensive and elaborate, and planned more upon the lines of the one under review, it is interesting to find the same conception carried into execution by an Englishman one hundred years ago. There is before us as we write a folio dated London, 1775, which has the following title: "A New Medical Dictionary or General Repository of Physic, containing an Explanation of the Terms and a Description of the various Particulars relating to Anatomy, Physiology, Physic, Surgery, Materia Medica, Pharmacy, &c. &c.; each Article, according to its importance, being considered in every relation to which its usefulness extends in the Healing Art. By B. G. Motherby, M.D." We know nothing of the author of this work beyond what may be gathered from its pages, but we should imagine that this constituted the first real attempt in our language to collate the facts of medical science in the form of a dictionary. Nor is it simply a lexicon of terms, many of the articles being of considerable length. It is interesting to note how many terms then current have fallen into desuetude, and how many remedies then in vogue have been abandoned, whilst the descriptions of disease and the interpretation of symptoms might have been written in the time of Hippocrates. A comparison of this work with the present "New Medical Dictionary" shows strikingly the great advances made in medicine during this century. We have, however, opportunities of comparison, not with a work published a century ago, but with one the appearance of which is separated from us by barely a generation—that, namely, to which the late Dr. Copland devoted the best years of his life. His Dictionary was in many respects unique. Its publication extended over fourteen years (1844 to 1858), whilst its compilation was the labour of thirty years. It may confidently be predicted that no single individual will ever again attempt such a task. No single intellect can deal adequately with the whole science of medicine and its numerous branches, and no amount of study will enable a man now to succeed in such a task to the extent that Copland succeeded in his day. Although an abridged edition of his work was issued so recently as 1860, it, like the Cyclopædia, has now but few readers. It has simply fallen "out of date"—a fate which necessarily comes to all such compilations in process of time, and the sooner when the subjects with which they deal are in a state of transition. For the utility of dictionaries of science, as indeed of all systematic treatises upon subjects which are constantly expanding, is almost limited to the years of their appearance; and the main difficulty in all such works is to ensure that on their publication they shall be abreast of the time. For all that, one cannot but admire the patience and learning of the man who did what Copland did; and we may be permitted to quote the following tribute, which is to be found in the Roll of the Royal College of Physicians. Speaking of the Dictionary and its author, Dr. Munk says:—

"Considered as the production of one man, this work is one of the most extraordinary that has ever appeared for its size, comprehensiveness, accuracy, and learning, and although necessarily inferior in certain respects from its very plan to some works of a like kind, the composition of a large body of writers associated for the purpose, it is superior to these in the general unity of the principles and practice laid

down in it, and assuredly excels them all in depth and variety of research. The information amassed in these volumes is literally enormous, and must excite astonishment as the production of one individual; but when it is further considered that the whole of the materials were most carefully selected from all existing sources, most patiently digested, elaborated, and arranged into compact and simple forms easily accessible and readily available, it is not easy to point out in the whole of medical literature any work by a single hand so much calculated to excite admiration of the industry and talents of the author. In every article contained in the volumes the reader cannot fail to be struck with the writer's most extensive learning, which has enabled him to collect knowledge from all authorities, ancient and modern, foreign and domestic, and he will, at the same time, be no less surprised than gratified at the singular power which has arranged the whole so lucidly, and in such systematic order. Thirty years of Dr. Copland's life were devoted to the Dictionary. He laboured on it alone and unassisted. His labours, which he tells us were incessant for many years, were persisted in under circumstances and contingencies which few could have endured. He received no assistance in furtherance of his undertaking, nor, as he adds, with his knowledge of human nature, could he have accepted any."

It is time to turn to the work before us that has just been published by Messrs. Longman. It is a bulky volume of upwards of 1800 pages. It is now many years since it was first projected, and its appearance, long expected as it has been, must be a great source of relief and gratification to those concerned in its production; particularly to the editor's able coadjutors, Drs. F. T. Roberts and Mitchell Bruce, whose names in our opinion should have appeared on the title-page, and upon whose shoulders so much of the labour of its compilation has devolved. The task these gentlemen have had so long in hand was no easy one, for besides the work of collecting, editing, and supervising contributions, no doubt excising redundancies and making needful additions, they have themselves had to contribute largely to the text of the volume. We may assume that they furnish all those articles that require no detailed exposition, all those to which no signature is affixed, whilst they appear as signed contributors to upwards of 120 articles, some of considerable extent and research; as the articles on Anæmia, Morbid Conditions of the Blood and on Rheumatism by Dr. Bruce; on Gout by Dr. Roberts.

In carrying out the plan of the work they have been ably aided by a host of writers, physicians and surgeons, the work being distributed mainly amongst those who have paid special attention to the various subjects dealt with. To give only a few instances. Sir James Paget contributes an article on Pathology and another on Symmetry; Sir W. Jenner writes on Deformities of the Chest; Drs. Bastian, Buzzard, Gowers, Ferrier, Brown-Séquard, and Long Fox on Diseases of the Nervous System; Dr. Broadbent on Fever and some of the Specific Fevers, as well as on Chorea; Dr. Grainger Stewart on Bright's Disease; Dr. Murchison, Legg, and Ward on Diseases of the Liver; Drs. Allchin and Oliver on Diseases of the Stomach and Intestines; Mr. Durham on Intestinal Obstruction; Dr. Lauder Brunton on Pathological Chemistry, including the Urine; Dr. Parkes on Public Health; Mr. Netten Radcliffe on Epidemics, Plague, &c.; Miss Nightingale on Nursing and Nurses; Drs. Green, Powell, Waters, and Symes Thompson on Diseases of the Lungs. Sir Erasmus Wilson takes the main share of Diseases of the Skin, a few articles being contributed by Drs. Tilbury Fox, Liveing, and Sparks; Mr. Simon writes on Contagion; Diseases of the Eye are dealt with by Messrs. Carter, Streatfeild, and Nettleship; of the Ear by Mr. Dalby; Diseases of the Heart by Drs. Bruce, Bristowe, Quain, Shapter, and Wardell; of Aorta and Aneurism by Dr. Hayden and by Mr. Holmes. Dr. H. Weber writes on Hydrotherapeutics; Drs. Stevenson, Poore, and Ferrier on Medico-legal Subjects and Toxicology;

whilst Surgical subjects are dealt with by Messrs. Gascoyen, Callender, Hutchinson, Durham, Holmes, M. Beek, and Godlee; Gynæcology by Drs. Barnes, Playfair, and Herman; Diseases of Children by Dr. Eustace Smith; subjects of General Pathology and Morbid Anatomy by Drs. Cayley, Payne, and Gee, whilst Professor Greenfield contributes articles on Micrococci and Malignant Pustule. In fact this summary, incomplete as it is, and written after a general survey of the work, suffices to inform us that the principles of selection of writers were discriminating and judicious; and much of the success and permanent value of the work will rest on them. It would be obviously impossible to attempt a thorough and critical survey of this work of many hands; but all we propose to do in this and the succeeding notice is to select a few of the more important articles to show our readers what to expect within the pages of this bulky volume. In fulfilment of this intention we may just glance at the work of those contributors who have passed away since they penned the articles which remain as the final mementoes of their labour. It is sad to find that one-tenth of the whole band has thus departed, and it seems but due to them that we should notice their work first before proceeding to that of those who remain.

The subjects of Abdominal Aneurism, Diseases of the Aorta, and Thoracic Aneurism are contributed by Dr. Hayden, and are marked by the thoroughness and care with which his large work on Diseases of the Heart is characterised. Of all methods of treatment of aneurism he gives the preference to that of rest and restricted diet; but he does not omit to state that surgical measures have in some cases proved successful; whilst he mentions such medicinal remedies as iodide of potassium, aconite, and ergotine injections, so much approved by some. Dr. Peacock goes over ground well trodden by him before in the articles on Congenital Misplacements and Malformations of the Heart; he also contributes the article on Influenza. Dr. Murchison in like manner deals with Jaundice. Sir J. R. Cormack treats of Croup, Diphtheria, and Diphtheritic Paralysis; and in the first-named article he clearly shows that membranous croup is not the product of simple acute inflammation, but agrees with French writers, with G. Johnson, Jenner, and others, in regarding it as due to the diphtheritic poison. These articles are well worth reading and pondering; for they exhibit in a small compass the solution of many difficulties. Dr. Lockhart Clarke contributed the articles Infantile Paralysis, Locomotor Ataxy, and Progressive Muscular Atrophy, which are detached, perhaps unwisely, from the series of articles on Diseases of the Spinal Cord, contributed by Dr. Bastian. We do not think sufficient stress has been laid by the lamented *savant* upon the "gastric crises," and the joint affections of ataxy, and could have wished that each of these articles had been more thoroughly revised than appears to have been the case. No better choice as the writer upon Anæsthetics, Artificial Respiration, and Resuscitation could have been made than that of Mr. Clover, whose remarks on these subjects will be read as embodying the fruits of a wide experience. The paper on Causes of Disease, by Dr. Pearson Irvine, is a model of systematic writing, and full of suggestiveness. Dr. Parkes has contributed the article on Public Health, which occupies fifteen of these closely printed pages, and deals with the subject as regards—(1st) cities and towns; (2nd) villages; (3rd) houses; ending with remarks on vital statistics. A few additions have been made to the article by Dr. Buchanan. Dr. Seaton writes on Vaccination, and medical men will do well to study this concise statement of the undoubted efficacy of the measure from so high an authority. This article has been revised by Dr. Collie. Dr. Sparks devotes several pages to the important subject of the Treatment of Disease by Climate, and also contributes

papers on certain skin affections, as Lupus, Pemphigus, and Purpura. Dr. Silver gives a clear and accurate description of Addison's Disease, and also a short article upon Suprarenal Capsules. The same writer deals in an excellent manner with Diabetes Mellitus; but here, again, we are reminded of the rapid progress of science, in that we find no mention made of lipæmia and fat-embolism, as a cause of so-called diabetic coma; or indeed of any detailed reference to this latter termination (one of the most frequent in the disease) at all. Dr. Stephen Ward contributes papers on certain diseases of the liver—e.g., Albuminoid Disease, Enlargement, Fatty Disease, Functional Disorders, and Hydatid Disease; Dr. Tilbury Fox writes a few short paragraphs on certain skin affections—e.g., Dysidrosis, Impetigo Contagiosa, Epiphytic Skin Diseases, and Tinea; and Mr. Harry Leach has articles on Quarantine and Scurvy. The names of two surgeons close this list—viz., of Mr. Callender, who contributes the articles on Abscess; and of Mr. Gascoyen, those on Diseases of Cartilage, Condyloma, Fumigation, and Mucous Tubercles.

### "POISONING FROM BRAWN."

To the Editor of THE LANCET.

SIR,—In connexion with the notice in an article in your issue of the 11th inst., of a report by me of a series of cases with severe gastro-intestinal disturbance following the consumption of pork, you will perhaps allow me to state that since the report in question was written I have had the opportunity of comparing the micro-organisms therein referred to with drawings of those found by Dr. Klein, in the well-known Welbeck ham-poisoning cases, and engraved in the last Report of the Medical Officer to the Local Government Board; and that in both cases the bacilli appear to be morphologically identical. I am quite aware of the unreliability of conclusions as to the nature of bacilli, drawn from considerations of form alone, but with this reservation, the identity in the two cases goes far to prove the specific nature of the disease. I have placed some mounted microscopic specimens obtained from the brawn which produced the symptoms at the disposal of the Local Government Board, in case it should be thought worth while to obtain the opinion of the original observer of the bacilli in the Welbeck cases as to the identity of the micro-organisms in the two cases. These outbreaks are not only most interesting from a pathological point of view, but of some importance from a medico-legal one. As in the two fatal cases, which occurred in the first series of cases reported by me, the illness was so sudden and short, and the symptoms so much resembled those of irritant poisoning, that a coroner's inquest was held in both cases.

I am, Sir, yours, &c.,

Shrewsbury, Nov. 15th, 1882. W. N. THURSFIELD, M.D.

THE CASE OF DR. ABRATH.—At Westminster, in the Court of Queen's Bench, before Mr. Justice Field and Mr. Justice Stephens, Sir H. Giffard has moved, on behalf of the plaintiff in the case of Dr. Abrath and the North-Eastern Railway Company, for a rule nisi for a new trial, on the ground that the verdict which was given for the defendants was against the weight of evidence, and on the ground of misdirection. Their lordships granted the rule asked for. It will be remembered that the action respecting which the rule was last week asked was one brought by Dr. Abrath against the North-Eastern Railway Company to recover damages for alleged malicious prosecution respecting his treatment of a patient, who subsequently recovered damages for injuries sustained in a collision on that railway.

THE THIRLMERE WATER SCHEME.—The award in the suit brought by Countess Ossalinsky, the proprietor of land at Thirlmere, against the Corporation of Manchester, has been announced. The arbitrator finds the Countess entitled to £64,445, and a sum of either £6000 or £4000 additional, contingent on the view that may be taken of a special point in the case.

# THE LANCET.

LONDON: SATURDAY, NOVEMBER 18, 1882.

WITH the general purport of Mr. CHURCHILL'S letter on the subject of Children's Diseases being made a Specialty at General Hospitals (published in our present issue) we heartily agree, although we cannot subscribe to all the arguments set forth, some of them appearing to us, in fact, rather irrelevant. Amidst the various contending views as to the proper plan of medical education, it is very necessary to bear in mind the commonplace requirement that a medical school ought to equip a man as far as possible with the necessary knowledge and skill for general practice. On the whole, it is perhaps for the best that the old apprenticeship system is rapidly passing away. But in trying to substitute more scientific methods, it behoves us to endeavour to retain as far as may be its special advantages, amongst which may be reckoned the familiarising the student with the symptoms and treatment of simple everyday complaints. A considerable proportion of the general practitioner's daily work consists in midwifery and the treatment of the ailments of children. With the first we are not at present concerned; but as to the second, it must be confessed that many a distinguished graduate has found himself launched in practice and very much at sea in the simple routine of examining children and prescribing for them.

One point to which Mr. CHURCHILL refers—viz., the testimony of students who have held even for a short period clinical appointments at children's hospitals—is certainly worthy of attention. It would indeed be well for us, in regard to the subject of this letter and many other defects of medical education, if we could take into our councils some of our best young general practitioners. Many men, both old and young, give up in despair the complete physical examination of a child who begins to cry, and thus it happens that often an empyema is allowed to go on unchecked, and cases of severe heart diseases to drift on unsuspected by men who in regard to adults would be incapable of flagrant blundering. The prompt recognition, and, what is more to the point, the reasonable suspicion, of the on-coming acute specific diseases, is one of the lessons which a man has mostly to learn for himself, sometimes at the cost of much chagrin and damage to his early reputation. Finally, in all that concerns the bringing up of infants and children the young doctor starts in practice often woefully ignorant. In the lying-in room the baby is consigned to the care of a monthly nurse, who is often obstinate and conceited in proportion to her ignorance. On any question of feeding, or washing, or clothing, the young doctor's advice is seldom asked, and probably with good reason, for he knows little more about an infant than about a puppy, and his solitary notion is often that it should be kept covered up. With regard to older children, the *laissez faire* method of many medical men on the subject of keeping the neck and extremities warm, the use of cold or

warm baths, the kind of food and the intervals between meals, and a score of other points in which mothers ought to have guidance, deserves only to be mentioned to be condemned.

It is obvious from these and many other illustrations which might be given that some more complete practical instruction is needed in our medical curriculum with regard to children's diseases. It may also be added that a properly organised children's department is of the greatest possible value, from the teacher's point of view, for demonstrating clinical medicine. With a little tact, which every man ought to acquire, a child may be examined in such a complete way as is scarcely practicable with regard to adult patients. For exercise in the study of what is called the "facies" of disease, children are quite invaluable. Further, in many of their acute ailments we may with a good conscience watch the spontaneous tendency to recovery untrammelled by drugs, and in many of their chronic diseases we have excellent material for testing the beneficial action of therapeutic remedies.

In some of the general hospitals there are already children's wards, and the real question at issue is, How can they be best utilised for teaching purposes, and not merely for a convenient classification of patients? We quite agree with Mr. CHURCHILL'S view, that for teaching purposes the nominal association of midwifery and gynecology with children's diseases should be severed. The association has long been obsolete in fact, and ought no longer to be maintained on the prospectuses. There is a real danger, then, of the proper teaching of this department being left out in the cold. Ought a special physician and a special surgeon to be devoted to it, or should each member of the senior medical and surgical staff have his allotment of children's beds? For our part we incline to the first plan, subject to rearrangement at definite intervals, so that each officer may in his turn have for a time full control of the medical or surgical children's beds contemporaneously with adult cases, it being understood that during his tenure of office a separate clinique is made of the children's department. It is never to be forgotten that the members of a hospital staff need constant education alike with the students, in order to keep their knowledge and methods broad as well as deep. For this reason, although we strongly approve of special departments, we look with much apprehension on the further increase of specialists at hospitals.

In regard to the out-patient children's practice, which, from the practitioner's point of view, is quite as important as the in-patient work, we hold that there ought to be at every general hospital a separate day at least once a week for children's cases only. This might be taken by one of the assistant-physicians and one of the assistant-surgeons, just as in some of the hospitals the throat cases and skin cases are taken by members of the staff in turn, without relinquishing their general work.

Thus, with a special clinical course on children's diseases, and an out-patient day for children's cases, we believe the general hospitals might fairly meet the needs of the student in this direction. We should deprecate the giving a course of systematic lectures on children's diseases, because they ought not to be severed from the course of general medicine, and the multiplication of systematic lectures is a weariness

to both students and teachers. We also fail to see the advantage of a rigid classification of medical and surgical diseases from which Mr. CHURCHILL seems to expect such great things. We think that, in the interests of the patient, and for the furtherance of knowledge, the boundary line should be a very elastic one, and with regard to children more even than with adults, because in them disease is so much more generalised.

THE path of experimental inquiry into the nature of puerperal septicæmia is beset with many difficulties. The disease is, unhappily, not rare, but its occurrence is usually under conditions which do not facilitate experiment, and the results obtained are always incapable of strict verification. The circumstances of the origin of the disease, and its intensely contagious character, leave little doubt of its dependence on an organised virus, and when our investigations into the nature of bacteria are more complete, important additions to our knowledge of the character, forms, and origin of puerperal septicæmia may be looked for. The presence of organisms in the disease has been abundantly demonstrated. WALDEYER found that the peritoneal liquid was simply an emulsion of bacteria, and in animals inoculated with this the same bacteria were found; and HEIBERG, as long ago as 1873, maintained that the system was invaded with bacteria from the uterus in all infectious forms, whether purulent lesions were produced in the body or not. STEURER traced lymphatics filled with bacteria, from a diphtheroid path in the vagina, as far as the diaphragm and the pleura. An important step in the investigation was made by DOLERIS under the direction of PASTEUR. He examined the lochial discharges, and the blood, of puerperal women, and cultivated artificially the organisms which he found. In the former were many species of bacteria, the large bacteria of suppuration, and the bacterium termo, both aerobic forms, needing an oxygenated medium for their existence, and causing no serious danger to patients. They grow in the neighbourhood of the external genital organs, and are rare in the deeper parts. On the vulva were also micrococci, single, double, and in chaplets, some minute, others larger, and probably of a different species, since they are rarely met with in series. The organism which DOLERIS believed to be the real agent of puerperal septicæmia is a special form, anaerobic, developing in media which contain little oxygen, and best in those in which there is none. It is rarely met with at the vulva, but is usually abundant in the deeper genital parts. When the sequelæ of labour are normal, the lochial discharge contains none, or almost none, of these organisms, but they are never absent in the fetid discharge, and in women who have died from puerperal fever they are scattered abundantly in all the tissues, and especially in the lymphatics. He believes that in the rapid form of septicæmia, which kills in three or four days, the blood contains two forms of bacteria, rod-shaped elements in addition to the septic form; but when the disease has a longer course, micrococci are abundant in the blood in different degrees of evolution. When there is suppuration, whatever the position of the pus, whether in veins, joints, or on a serous membrane, pleura or peritoneum, the double micrococcus predominates. The blood, however, does not seem to be a very

suitable medium for the growth of microbia. They only grow actively when they are still, or almost still. In the vessels they are only abundant at the seat of a thrombus, but the lymphatic system is that in which their development is most rapid, whence they come into the blood, and pass into the viscera, and the rapidity of their development in some cases appears to be almost inconceivable. Out of the body they lose their virulence after the third culture. To some extent the researches of DOLERIS have been confirmed in Italy by MASINI and FERRARI. They believe that the infective agent is a "vesicular" body, pyriform and punctiform, which is constantly found in the blood of patients suffering from the disease, and is also reproduced in animals, to which the malady is communicated by inoculation. The rods are only met with in cadaveric liquids.

MASINI believes that these organisms are not peculiar to the puerperal forms of septicæmia, but that the same elements occur in other septic processes. This opinion is also held by the distinguished investigator of Lyons, Professor CHAUVEAU, who is conducting an extensive series of experiments regarding puerperal septicæmia, from which we may hope to gain, before long, new and important facts relating to the disease. At present he has only described (to the Société des Sciences Médicales at Lyons) certain preliminary results which he has reached. It was discovered by D'ESPINE in 1873 that rabbits are particularly prone to suffer from the infection of puerperal septicæmia. In this respect they present a striking contrast to guinea-pigs, which resist the infection, although so susceptible to other forms of blood-poisoning. D'ESPINE showed that if pus from a case of puerperal peritonitis is injected into the vagina of a pregnant rabbit, a condition is produced apparently identical with puerperal fever in the human subject. HAUSSMANN, repeating these experiments, has ascertained that the injection causes no symptoms if the period of gestation has not exceeded fifteen days, but after this period abortion is certain, and is followed by septicæmia. If serum from one rabbit thus dead be injected into the gravid uterus of another, the effect is still more rapid; the animal dies in a few hours, without any purulent exudation into the peritoneum. Rabbits have therefore been employed by CHAUVEAU in his experiments. He has succeeded in producing every known degree of puerperal septicæmia, grave and benign, acute, subacute, and chronic. He does not find, when the virus is injected into the tissues, that the condition of the animal has any influence on the result. He has succeeded equally well with males and females, and with young animals and old; in all the symptoms and lesions observed are nearly the same. Nor does he find that the condition of pregnancy materially influences the result, although, towards the end of gestation, or after delivery, the peritoneum seems to inflame rather more rapidly. The result varies a little, however, according to the mode by which the virus is introduced. If the injection is into the peritoneum, a purulent infiltration forms in the skin around the point at which the needle perforated it, and may remain for several months. Death usually occurs in five or six days from the time of the inoculation. Peritonitis, more or less severe, is always present. There is much effusion, containing large numbers of the special micrococcus, sometimes single, sometimes double. The peritonitis was usually associated with double



urisy and pericarditis. The cutaneous lymphatics near point of inoculation are full of pus, and the nearest lymphatic glands are also purulent. If, however, the animal dies very rapidly, in less than twenty-four hours, no peritonitis may be found, although the blood contains the infective micrococci in great abundance. These seem to grow especially in the branches of the portal vein, for blood taken thence possesses extreme virulence. An injection of the virus into the subcutaneous tissue of the abdominal wall gives nearly the same results. Sometimes, however, it is ineffectual; occasionally death is extremely rapid; and, as a rule, wherever the microbes penetrate suppuration occurs. An injection into veins causes no local inflammation. The animals die from the general infection, and the only lesion usually found is congestion or extravasation of blood in the lungs.

A remarkable fact was ascertained in the case of three rabbits, which, although suffering from the effects of the inoculation, ultimately recovered, at least partially. They appeared to have acquired a perfect protection from the disease. It was impossible to produce in them experimental septicæmia. They had undergone, as it were, a septicæmic vaccination. This result naturally led CHAUVEAU to endeavour to obtain a benign virus, which might confer immunity without causing a dangerous illness. He is now making experiments by the method of the attenuation of virus employed by TOUSSAINT, which consists in submitting it to the action of heat. The results of the experiments are not yet sufficiently complete for publication. The fact remains, however, that one attack of puerperal septicæmia protects a rabbit from another. It cannot yet be affirmed that this is true also of the human subject, but CHAUVEAU believes that there are some facts which point in this direction.

THE recently issued report of the Commissioners in Lunacy dealing specially with the statistics of lunacy as recorded on January 1st last, shows that both the number of the registered insane and their ratio to population exhibited a further increase during last year. The number of the insane of all classes had advanced to 74,842, against 36,762 in 1859, the first year embraced by the statistics of the Commissioners. The proportion of total lunatics to population had increased in those twenty-three years from 1·87 per 1000 to 2·83. These figures show that the amount of recorded lunacy, after due allowance for increase of population, was 52 per cent. greater on the 1st of January last than it was twenty-three years previously. As the numbers here dealt with include lunatics of all classes, pauper and private, and those residing with relatives or in workhouses, as well as those detained in public asylums or in licensed houses, no amount of interchange between these classes can of itself account for this steady increase in the number and proportion of registered lunatics. The figures support the conclusion that the recorded increase of lunacy is due to the accumulation of pauper patients in asylums rather than "to an annual production of fresh insanity disproportionate to the yearly increase of the population." It is true that the recent increase has occurred exclusively, and the increase since 1859 has been mainly, among pauper lunatics. It is also true that the proportions of pauper lunatics in asylums, in workhouses, and residing with relatives and

others, have shown a marked change during the past twenty-three years. In 1859 18 per cent. of pauper lunatics resided with relatives and others, whereas on 1st January last only 9 per cent. received out-door relief. The proportions in workhouses in 1859 and 1882 were almost identical, but as the large metropolitan asylums for imbeciles at Levensden, Caterham, and Darenth are legally classed as workhouses, the proportion of the insane in workhouses proper has really declined. The proportion detained in asylums has increased from 57 per cent. in 1859 to 66 per cent. in 1882. The actual result of the influences constantly tending to bring out-door lunatics into workhouses, and to transfer lunatics from workhouses to asylums, has been a net transfer of 9 per cent. of the registered pauper lunatics from out-door residence into asylums. It is obvious, however, that such transfer *per se* will not account for the steady increase in the aggregate amount of these three classes. The accumulation theory requires further definition and elucidation. It is quite possible that the present registration of the insane, by the various authorities responsible for their care or treatment, is more complete than it was twenty-three years ago. This may account for some of the recorded increase. Apart, however, from this source of explanation, the only apparent source of the accumulation by which it is sought to explain the apparent increase of lunacy is the decline in the death-rate of the increasing proportion under treatment in asylums, compared with that which prevails among the decreasing proportion in workhouses, and residing with relatives and others. Here, unfortunately, the statistics of the Lunacy Commissioners fail to supply the necessary facts for estimating the results of accumulation arising from this cause. No figures are given showing the death-rate among the insane, either in workhouses or residing with relatives and others. The Local Government Board are, we presume, primarily responsible for this important omission. The figures are, however, absolutely necessary for testing the real value of the accumulation theory as an explanation of the constant increase in the proportion of total lunacy. We fully believe that accumulation is taking place in our asylums, and that it is largely due to the cause above-mentioned, but further statistics are necessary to establish the theory, as well as the extent of its operation. In connexion with this subject we published a few years since some elaborate statistics of mortality in the Metropolitan Asylums for Imbeciles, showing that the death-rate in those institutions, which averaged 140 per 1000 in the first three years of their existence, declined to 82 in the three years 1877-79. These figures afford ground for concluding that much accumulation of so-called lunacy would have been prevented if the metropolitan imbeciles had been left in the imbecile wards of the metropolitan workhouses. We want, however, further facts in this direction.

It is not to be doubted that the Committee of the Royal College of Physicians, to which the consideration of Dr. ACLAND's resolutions has been referred, will realise the great responsibility which will be incurred by the College if it seems to take a step which may be misconstrued. We do not doubt at all that, with the known views and dispositions of the two English Royal Colleges, it would be very easy to construct a Board of Examiners that would

amply satisfy public and professional opinion, and the creation of which would be a great and long-deferred boon to unfortunate students who have two boards to pass where they should have only one. As we said last week, such a board might go far to solve the vexed question of a Conjoint Board "so far as England is concerned." But this is saying very little indeed. It is not an English problem that calls for solution; it is a British one. It is that there are irrepressible rumours of the inequality of examinations that ought to be above all suspicion of inequality; and that the members of the profession holding diplomas from one part of the country are told by leading members of the Medical Council, by the Medical Council itself, and by the Royal Commissioners, that the examinations they have passed are "too elementary," and that the diplomas they possess afford no guarantee of a competent knowledge of medicine, surgery, and midwifery. What cure for these complaints and evils will there be in the creation of a good board merely in one division of the kingdom? Absolutely none; but only a greater probability that students will be driven to boards in other divisions where, it may be thought, things are conducted more easily and cheaply.

The resolutions of the Royal College of Physicians set great store on the authority of the Royal Commission. Yet we have great misgivings as to whether the College, in entertaining these resolutions, is acting loyally either to the Royal Commission or the Government. Surely it would be a higher course in the English Royal Colleges, which have throughout these controversies displayed more public spirit than their sister Colleges, to go to the Government and say that they are fully prepared to subordinate their interests to the main recommendations of the Report, provided that the corporations in other parts of the kingdom do the same. It may be said that a conjunction of the two English Colleges will in no way place them in a worse position if the Government should introduce a Bill. Perhaps not. But what is wanted is compulsory legislation without delay. The energy of the Colleges should be directed to this end, and to the termination of this intolerable state of suspense and mutual disparagement. The two Royal Colleges of England owe it to themselves not to be led off the track of thorough reform by Dr. ACLAND, who has always been timid and temporising in this matter. It will be a great disappointment to the profession if the College of Physicians, with Sir WILLIAM JENNER at its head, who has been more thorough and more in sympathy with the profession than any of his colleagues, takes a step which will be misconstrued, if it is not initiated, by the enemies of reform; just at the moment when it is commended by a Royal Commission.

THE following standing rule of the Royal College of Surgeons has just come into operation, and will no doubt stimulate students to be better prepared for the membership of the College:—"When a candidate referred on the Pass Examination for the diploma of member shall have exhibited such extreme ignorance in the examination as, in the opinion of the Court of Examiners, to render it desirable that he should be referred for a longer period than six months, he shall, before his admission to re-examination, produce a certificate of having attended the surgical practice and clinical lectures on surgery of a recognised hospital for a further period of nine or twelve months, as the Court shall determine."

## Annotations.

"Ne quid nimis."

### ROYAL UNIVERSITY OF IRELAND.

AT a recent meeting of the Senate the following alterations as to the courses for medical examinations were adopted:—  
1. As to certificates of acquaintance with mental diseases, candidates will not be required to produce certificates of having attended courses of lectures on these diseases; but every candidate for the M.B. degree will be required henceforth to produce a certificate of attendance for three months in a recognised lunatic asylum, where clinical instruction is given. 2. After the year 1883, all candidates for the degree of M.B. will be required to exhibit proficiency in the use of the ophthalmoscope and laryngoscope. 3. After the year 1883, all candidates for the degree of M.Ch. will be required to present a certificate of having attended a three months' course of lectures on operative surgery. 4. After the year 1883, all candidates for the degree of M.Ch. will be required to pass a special written examination. In 1884, a studentship will be awarded for proficiency in experimental physics and chemistry, and the following year for proficiency in biology (including physiology, zoology, and botany), and in geology (including mineralogy and physical geography).

### NYCTALOPIA AND HEMERALOPIA.

Two interesting etymological papers appear in the tenth volume of the Royal London Ophthalmic Hospital Reports, from the pens of Dr. Greenhill and Mr. Tweedy, with the object of fixing the signification of the terms *nyctalopia* and *hemeralopia*. These terms were in use at a very early period of medical history, and one of them, "*nyctalopia*," was used, and in one passage defined, by Hippocrates himself. It is natural, then, to inquire what his definition was, and it appears that in all the older editions of his works the passage runs, "Οἱ δὲ τῆς νυκτὸς ὁπῶντες, οἱ δὲ νυκτὸς καλεόμεν, κ.τ.λ." ("Those who see at night, whom we call *nyctalopes*.") But in 1864 Ermerins, in his splendid edition of Hippocrates' works, considered the passage in question to be corrupt, and that the word *οὐχ*, "not," which of course entirely alters the sense, had been accidentally omitted. Dr. Greenhill supports Ermerins' emendation, on the grounds, first, that one of the MSS. of the Hippocratic writings in the great library at Paris had originally the word *οὐχ* before *ὁπῶντες*, which, though erased, is still plainly visible; and secondly, Celaeus, in translating this passage of the "*Prorrhetica*," gave the signification night-blindness to it. Galen again, in the latter part of the second century, interpreted *nyctalopia*, as used in the Hippocratic collection, to signify night-blindness, and therefore clearly held the true reading to be *οὐχ ὁπῶντες*, though in works deemed on other grounds of doubtful authenticity he is made to use the word in the sense of day-blindness. Galen also makes a comment upon the sentence which shows that he regarded the word as compounded of *νύξ*, "night"; *δαός*, "blind"; and *ὤψ*, "eye." After Galen, Orbasius, Aëtius, and Paulus Aegineta, to whom other names of great weight might be added, employed the term *nyctalopia* to signify night-blindness. But Mr. Tweedy supplies additional evidence in support of the emendation of the ordinary text of Hippocrates, drawn from a consideration of the medical aspect of the cases to which the term is applied. Thus he points out that the affection was described by Hippocrates himself as occurring especially in children and young adults; in those who have dark eyes and small pupils, whilst it is exceptional in married women and in healthy maidens; that it was customary for eruptions to appear about the ears on the seventh or eighth day; that the formation of abscesses

and spontaneous diarrhoea are to be regarded as favourable prognostics; that the treatment should consist of bleeding, cupping, purging, and the ingestion of the liver of the ox steeped in honey; and lastly, which is of great importance, that the disease may be complicated with swelling of the gums, bleeding from the nose, ulcers on the legs, and enlarged spleen—in a word, with the symptoms of scurvy, which is just the condition in which night-blindness is apt to occur. Mr. Tweedy has further drawn up a table from which we learn that, except in the disputed passage of Hippocrates quoted above, and in the doubtful Galenic work, no author of repute used the term "nyctalopia" to denote *day*-blindness before the seventeenth century. At this period, for some unexplained reason, the meaning of the term became uncertain, and with the eighteenth century the term hemeralopia came into frequent use with the ancient signification attached to it of nyctalopia, "night-blindness," whilst the sense of nyctalopia became reversed and came to signify "night-sight." After the eighteenth century, Mr. Tweedy remarks, only a few names can be found to support the original meaning. To those he mentions, however, several might be added, especially John Quincy, who in the tenth edition of his *Lexicon Physico-Medicum*, published in 1787, gives the derivation of the term nyctalopia—from *νύξ*, night, and *ὄψ*, an eye—night-blindness. "Some have said it is those who see by night, others say it is those who cannot see by night; however, it is by the moderns generally understood to signify that disorder in which, as the night approaches, the patient loses his sight and remains blind until the morning, at which time the sight returns and continues all the day." And again, Parr, in his *London Medical Dictionary*, gives nyctalopia (from *νύξ*, night, and *ὄψ*, an eye): "Night-blindness; Imbecillitas oculorum. It is now understood to signify that disorder in which as the night approaches the patient loses his sight and remains blind until the morning." Parr adds, that in Vogel's *System* and in Linnæus' and Vogel's *Genera* the meaning of the terms hemeralopia and nyctalopia were reversed. It is, of course, greatly to be desired that the signification of medical terms should be fixed and invariable; and it is therefore to be hoped that all those who in future use the term Nyctalopia will employ it in the sense which Dr. Greenhill and Mr. Tweedy have with so much industry and acumen shown to be the original and correct sense, and regard it as indicating night-blindness.

#### CASUALTY COINCIDENCES.

It has been often noticed by hospital surgeons that severe, curious, or out-of-the-way accidents seem to occur in groups, and that when one patient is admitted with an unusual injury, a second of a somewhat similar character may be expected shortly to follow. This "fortuitous coincidence" has been illustrated lately at the Middlesex Hospital. About five weeks ago, within ten days, five patients were brought into the hospital who had fallen from houses—three from windows and two from stable-lofts. During the past week two accidents of a similar and unusual kind were admitted within twenty-four hours. On Wednesday evening a lad, aged fourteen, had his foot torn off by machinery; and on the following morning before ten another lad, aged nineteen, was taken to the hospital with his hand lacerated also by machinery in a similar manner. The following is a brief account of the cases: At about seven o'clock in the evening the first boy, aged fourteen, was getting on the stool on which he stood for the purpose of lifting off the papers from the printing-press, when he slipped and was caught by his left foot in the fly-wheel which was in motion, and was carried round by it three times before the machine could be stopped. When admitted it was found that his foot, with the boot, was wrenched from his leg, and was hanging only by the tendons.

The tibia, which was bare of integument for about four inches, was unbroken, but standing away from the foot; the fibula was broken off just above the malleolus. On the following morning another accident very similar to the preceding one was admitted. The lad, aged nineteen, had been cleaning the engine whilst in motion, and was walking away when his foot slipped on some grease, and his right hand slid down the back of the cylinder and was caught at the bottom by the crank, which seized the thumb and tore the ball of it from the palm of the hand, breaking its metacarpal bone and wrenching it away from its articulation with the trapezium. The wrist-joint was laid open, and the integument detached from the palm of the hand. These cases came under the care of Mr. Lawson, who amputated in the one case the leg and in the other the hand. Both cases are doing well.

#### CAVENDISH COLLEGE.

CAVENDISH COLLEGE, named after the Duke of Devonshire, the present Chancellor of the University, who takes great interest in it, and has contributed in various ways to it, was founded in Cambridge, as many of our readers are aware, for the purpose of enabling students to enter the University at a younger age, and to pass through it at less expense than is usually done. It purposed to supply an evident want, for the expenses of a university course prevented many from entering upon it who greatly aspired to it; and the success of the College has justified its institution. A handsome building has been erected, in which the students live under the control and direction of a principal or warden, and they attend the university courses, present themselves for examinations, degrees, &c. The expenses are reduced to a minimum, not amounting to more than £80 or £85, which includes university fees and other educational expenses, as well as board and lodging during the term time, and also during the long vacation. Thus far, however, it appears to have had no distinct university recognition; the students were ranked as non-collegiate students, and were under the superintendence of the board for those students. Now this has been altered by a grace of the Senate, passed on November 9th, for the recognition of Cavendish College as a public hostel of the University. By this the College has been placed upon an independent footing, as an integral factor in the University, and the students are now upon an equality with the students of other colleges, and will no longer be upon the non-collegiate list. We heartily congratulate the College upon this acquisition of an independent position, and wish it the additional success that seems likely to accrue from it. We have often expressed the desire that increased facilities should be given for obtaining the degrees of the old universities. Not that we would lower the estimation in which they are deservedly held. The maintenance of that estimation must depend upon the culture required to obtain them and the tone and character of those who possess them. We are well aware that higher education implies longer time, and therefore greater cost. But this renders it more desirable that the cost should be reduced to the minimum, so as to increase to the utmost the number brought within the beneficial influence of the university course. Let a good standard of education be maintained, and let those who aspire to it come and drink with as little money and at as little price as possible. The increasing number of those intended for the medical profession who are resorting to the University proves the desire in the profession for university education and the status it gives, and is a good indication both for the University and the profession. These students are not generally persons of affluence, and such an institution as Cavendish College cannot but commend itself to them.

## SYNTHESIS OF URIC ACID.

IT is stated that Dr. Horbatschewsky, of the Vienna Chemical Institute, has succeeded in forming uric acid synthetically. As is well known, all attempts to produce this substance artificially have hitherto failed, and considerable doubt has existed with regard to its exact constitution, though it is generally represented as consisting of one radical of tartaric acid and two of urea. From the fact that uric acid under powerful oxidation splits up into molecules of urea, it has been assumed that this body is one of the substances through which every particle of albumen passes before it is thrown out of the body, and on this assumption it has been taught that when oxidation is imperfectly performed there is an accumulation of insoluble uric acid in the blood, which replaces some portion of the urea which ought to be formed. It is upon this view that the doctrine of *lithæmia* has been founded. On the other hand, there are a few who believe that uric acid in the human body in health, and even in disease, is formed in only very minute quantities, and that its pathological importance is to be referred rather to its insolubility than to its excessive production in the system. They hold that though uric acid contains residues of urea, it is not necessarily an antecedent of the latter, and that it is more probable they both start from a body containing at least some of its nitrogen in the form of cyanogen, and that the final cause of divergence lies in the fact that urea is the form best adapted to a fluid, as in the case of mammalia, and uric acid to a solid, excrement, such as is met with in birds and reptiles. This view is strengthened by the increasing evidence we have that the chief antecedents of the uræa in the blood are partly the kreatine, formed in muscle and elsewhere, and partly the leucin and other like bodies formed in the alimentary canal. A writer, who has recently investigated the question from its clinical aspects, remarks that if this view be accepted, uric acid will be regarded as a consequence, and not a cause, of the manifold disorders to which it has been said to give rise; that when it is deposited, the fact of the occurrence of the deposit will have to be referred to the insolubility of the minute quantity that exists in human blood, rather than to any excessive production in the system, and that attention will then be primarily directed to the discovery of the circumstances which lead to the deposit of this insoluble substance, rather than to vague generalisations concerning its over-production from hepatic derangement or gouty proclivities.

## ELECTRO-PYROTECHNY.

IT is asserted, we know not whether "on good authority," that certain theatrical managers contemplate the use of the electric light as a means of producing the semblance of sparkling gems, displayed on the moving persons of fairies, demons, and sprites, in spectacular burlesques or pantomimes to be presented at Christmas-tide. If this be the fact the attention of the Secretary of State should be at once directed to the matter. It is not a question for the Lord Chamberlain, but for the Home Secretary; and we shall hope to hear that an interrogatory has been addressed to Sir William Harcourt in the House of Commons on an early day, bringing the matter under his official cognisance. Great precautions will be necessary to ensure safety. It is not, as everybody who has any practical acquaintance with electric apparatus should be aware, necessary to run the exceptional risk of carrying an accumulator about the person. A very small portable battery, scarcely larger than that contained in the staff now employed for lighting lamps and candles in many private dwellings, would suffice for the purpose of producing the appearance of a brilliant gem. The statement which has been made in one at least of the daily newspapers is, therefore, exaggerated. It cannot, however, be disguised that

there is a danger to be dreaded. The artistic designers of stage spectacles vie with each other in the magnificence of their conceptions, and they are little likely to be content with small effects. If anything of the sort indicated is produced it will be some exceptionally magnificent display of electro-pyrotechny. We shall have thunderbolts hurled from the hand of Jupiter dancing a breakdown, or flashes of lightning played by contortionists and coryphæes; with possibly an electric demon whose diabolic splendour will be dependent on the continuity of some chain which he drags about the stage, and which may "accidentally" entangle some one in the electric circuit. The electric light is at present a pretty toy, and it is probably one that cannot be kept out of the hands of scenic artists, but it should not be allowed to be used without precautions of perfect sufficiency to prevent the accidental discharge of the destructive current in wrong courses. Enough has already been accomplished in the way of killing persons by electricity when that agent has been clumsily or ignorantly employed for legitimate business purposes. It is needless to run the risk of striking the performers in a Christmas pantomime dead by a reckless indulgence in electro-pyrotechny.

## PUERPERAL FEVER AND THE PRACTICE OF MIDWIFERY.

MR. ROWBOTTOM, the borough coroner for Wigan, has just held an inquest on a woman who died from puerperal fever, which had in all probability been conveyed to her by a midwife who attended her in her confinement. The jury were anxious to censure this woman, and also expressed an opinion that it is desirable that midwives should be certificated as competent to follow their calling before being allowed to practise. Since the first week in September from ten to twelve deaths have been registered in the town of Wigan from puerperal diseases, and others have occurred. Eight of these cases have been attended in confinement by this midwife, and it was owing to this fact that Mr. Barnish, the medical officer of health, made known these cases to the coroner. The coroner deemed it his duty to hold an inquiry on the next case that occurred in the practice of this midwife. It was shown, however, at the inquest, that she had ceased to attend any more cases after being warned. Mr. Rowbottom has undoubtedly done good service in calling public attention to this matter by holding an inquest, and this will also have an effect in preventing other women who follow the same calling from spreading such a fatal disease. The midwife in this particular instance could not believe it possible for her to carry infection to those she was attending, although every case she went to succumbed, thus showing how necessary it is that some proof of competency should be shown by this class of persons, who are largely employed by the poor in our manufacturing towns.

## BREACH OF THE MEDICAL ACTS IN LIVERPOOL.

LEWIS GEORGE WYNN has been fined £5 for unlawfully using the title of M.D. He has been committed to take his trial for having signed a vaccination certificate, using the name of Dr. Kennedy. He said it was with Dr. Kennedy's consent. Dr. Kennedy is a graduate of the University of Edinburgh, and said the defendant was a very good vaccinator, and that he (Dr. Kennedy) had never hesitated to sign a certificate of a vaccination that had been done by him. He denied that he had ever authorised him to sign his name. We cannot but regard the practice of signing vaccination certificates for other persons as a very improper one. It is clearly contemplated that a gentleman shall only certify where he himself has vaccinated. To certify cases vaccinated by an unqualified person is to defeat the law.

### RECOVERY OF CHARGES FOR SERVICES RENDERED BY AN UNQUALIFIED ASSISTANT.

WE publish in another column a legal decision delivered by Mr. Commissioner Kerr, in reference to a subject of great importance to practitioners—namely, their right to charge, or their power to recover, for services rendered to patients by their unqualified assistants. Should this decision of Commissioner Kerr's be confirmed, it will entirely invalidate medical charges either in private or public practice for services rendered by an unqualified assistant. Even as it is, it is sufficiently disturbing to practitioners who have employed unqualified assistants in a way that has hitherto been sanctioned by the profession—namely, in strict subordination to and co-operation with themselves. Commissioner Kerr observes, "The law says that a doctor cannot recover for medical advice given by his assistant." The unqualified assistant told his honour that the patient preferred to be attended by him. But this only intensified the dissatisfaction of the judge, who said, "That only makes the case worse. I may tell you that you are liable to be indicted, and perhaps you will be so one of these days if anything goes wrong." Judgment was given for the defendant. This decision seems to us in advance of anything yet delivered by judges; though logically it may be inferred that as a medical man must be registered to recover charges for his own attendance, so his assistant must also be registered for recovering charges for services rendered by him. But if we mistake not, there are decisions to the contrary of this. Mr. Glenn in his "Manual of the Laws affecting Medical Men," says, p. 193, "A registered practitioner may maintain an action for professional services rendered by an unregistered assistant, and it would seem that where such services are performed by a firm of two persons, one of whom is registered and the other not, the firm may recover on a joint claim." (See *Blogg v. Pinker's Ry. and M.*, N.P. 125.) But this and such decisions were prior to the passing of the Medical Act.

### CROUP AND DIPHTHERIA.

PROFESSOR E. HENOCHE draws attention, by means of a paper published in the *Berliner Klinische Wochenschrift* of Oct. 2nd last, to the difference which, according to his view, exists between the non-specific croupous angina and true diphtheria, diseases which he believes are not sufficiently discriminated. At the outset he expresses his conviction that there is such a thing as a non-specific croupous pharyngitis, and he regards croup as only being identical with diphtheria, whether in its pathological or other relations, in the same way as a small-pox pustule resembles a pustule produced by vaccinia or as the result of the inunction of tartar emetic. Any so-called croup having a specific origin is, he alleges, diphtheritic. With a view to the better distinction of the two diseases he points out that the non-specific croupous pharyngitis is generally characterised by the suddenness of the febrile invasion, whereas in diphtheria the fever is at the onset only slight and insidious in its progress. A much less constant difference lies in the fact that in the non-specific disease a single tonsil is, in the first instance, much more frequently affected than is the case in diphtheria. So also the extension of the membrane to the palate, and especially to the back of the pharynx, must always be regarded as highly indicative of true diphtheria, and the implication of the mucous membrane of the nasal passages is a certain sign of that specific disease. On the other hand, certain indications to which importance is at times attached are, according to Professor Henoch, comparatively unimportant. Thus, albuminuria, generally regarded as a symptom of diphtheria, is often absent in undoubted cases of that disease, and micrococci, when dis-

covered by the aid of the microscope, are of little value for the purposes of diagnosis, not only because they are found everywhere in the mucous membrane about the pharynx, but because no definite microphyte has been shown to be associated with diphtheria. The difficulty attaching to a correct diagnosis should, however, in the Professor's opinion, never interfere with measures of prevention, and hence he urges that where there is the least doubt as to which disease is being dealt with, isolation should be rigidly enforced. Professor Henoch proceeds to point out that the disease known as scarlatinal diphtheritis is essentially distinct from specific diphtheria, and, according to his experience, the failure to distinguish between them is largely due to the fact that scarlatina and diphtheria are often treated in the same wards, and that patients, whilst convalescing from the one, contract the other. Cases are cited to show how patients recovering from scarlet fever associated with marked throat lesions have contracted true diphtheria, and it is further shown that in patients who have undergone the operation of tracheotomy for diphtheritic croup, scarlatina with throat ulceration has subsequently intervened, the reception of the scarlet fever being greatly facilitated both in such an instance and in the case of convalescence after extensive diphtheritic throat lesions by the fact of the exposure of a wounded surface to that scarlatina poison. In such instances it is, however, suggested that a correct diagnosis will be aided if it be borne in mind that the throat ulcerations due to scarlatina follow on, and do not precede, the diphtheritic symptoms. In some of these instances the characteristic sequelæ of the two diseases have, in the later stage, been found mingling together, in a manner which might easily be regarded as affording some proof of the unity of the disease, had it not been for the clear distinction between them which was possible at an earlier period of the patient's illness.

### SMALL-POX IN SOUTH AFRICA.

THE presence of small-pox in Cape Town and its vicinity is still exciting great alarm in the minds of the inhabitants of the infected districts, and very energetic efforts are being made to cope with the scourge. The *Port Elizabeth Telegraph*, of the 14th ult., contains a long report of a meeting of the citizens of Uitenhage, presided over by the mayor, at which twelve proposals were agreed to for the protection of the community against the spread of the disease. These proposals included provision for the thorough supervision of houses, the proper supply of lymph, periodical and punctual returns of cases of attack, the regulation of burial of victims to the malady, increase in the public medical staff, and the swearing in of a sufficient number of Europeans and trustworthy natives as special constables to aid in carrying out the law. At Cape Town the deaths from small-pox in the month of September numbered 435. The proportion of vaccinated to unvaccinated in the fatal cases appears not to have been ascertained, but this is a matter which should not be overlooked.

### THE GENERAL INFIRMARY AT LEEDS.

THE authorities of the Leeds Infirmary have decided on increasing the surgical staff of the hospital by the appointment of two assistant-surgeons, on whom will devolve the duty of seeing the surgical out-patients who attend at the institution. We are surprised that a reform which has been required for so many years has been so long delayed, and we would further point out that assistant-physicians are also demanded for the full working of the hospital. The number of medical out-patients is even greater than the surgical, whilst the medical staff is less numerous; and so the authorities must, willingly or unwillingly, soon come to this conclusion. The candidates for the



new appointments include Mr. McGill, who is especially well known as an anatomist and a teacher. He is not only versed in the details of aseptic surgery, but by the introduction of salicylic silk has placed a valuable dressing at the disposal of surgeons who adopt this method. His treatment of an aneurism of the left subclavian artery by temporary compression applied directly to the first part of the vessel attracted much attention at the Medico-Chirurgical Society some six or seven years ago, and marked him out at once as an original thinker as well as a bold operator.

#### ACADEMY OF MEDICINE IN IRELAND.

THE scheme for the amalgamation of the several medical Societies of Dublin has been finally adopted, but will not come into operation until the officers and council are elected, which will take place on the 18th inst. The Academy will commence its meetings this session, and will be composed of fellows, members, and student associates; all the members of the present Societies—the Medical, Surgical, Pathological, and Obstetrical—may join as fellows or members without entrance fee, on payment of the subscription for the current year: two guineas and one guinea respectively. There will be four sections—Medical, Surgical, Obstetrical, and Pathological—and two sub-sections—Anatomy and Physiology, and State Medicine. The sections will be each managed by a president and a council, and the sub-sections by a chairman and a committee. The Academy will also have a president, who will hold office for three years. A meeting of the promoters, consequent on a requisition received by the President of the College of Surgeons, was held last Monday, to consider the question of voting, when a discussion took place on some points of detail which were come to at a previous meeting. An objection was made as to the Surgical section not being sufficiently represented, they having been reduced to ten instead of twenty-one, as in the present Surgical Society. Mr. McDonnell proposed a resolution to the effect that it was inexpedient to make any change in the rules adopted, which was seconded by Dr. Moore, President of the College of Physicians, and finally adopted by a large majority.

#### ACTION OF OXYGENATED WATER ON THE ANIMAL ORGANISM.

COLASANTI and CAPRANICA (*Arch. Italiennes de Biologie*, vol. ii.) have made a series of experiments on dogs with oxygenated water,  $H_2O_2$ , and find that when made to absorb it they experience toxic effects and rapidly die. Toxic doses vary with the size of the animal, 25 c.c. proving fatal to a dog weighing three kilos, or six and a half pounds, and 75 c.c. to a dog weighing thirteen kilos. The intoxication manifests itself on all the functions of the body, but especially on those of the spinal cord. The excito-motor power of this centre is over-excited, the manifestations of which are convulsive phenomena, tetanus, and locomotor ataxy. The physico-chemical phenomena of the tissues are also profoundly modified, for it produces strong glycosuria before death. The disorders of the economy result from the decomposition of the oxygenated water in contact with the living tissues. The phenomena consecutive upon intoxication with oxygenated water are identical with those observed by Paul Bert following the action of compressed oxygen.

#### BANQUET TO THE MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.

PREPARATIONS for this banquet, to be held on Tuesday next, at Willis's Rooms, are in a state of forwardness. Sir Garnet Walseley has accepted the invitation to be present, and other distinguished guests are expected.

#### ARBITRARY REDUCTION OF SALARIES OF UNION OFFICERS IN BALLYMENA.

THE guardians of the Ballymena Union have determined on serious, and almost wholesale, reduction of the salaries of the medical officers of the Union. One happy gentleman, Dr. Ross, is excepted, on the ground that he was exceedingly attentive to his duties, and had held his appointment for a long time. The midwife, too, escapes. But the *Ballymena Observer* gives the following account of the fate of others:—"The salaries of Dr. Dysart, Portglenone; Dr. M'Kay, Clough; Dr. Chestnut, Ahoghill; Dr. Hays, Glenwherry; Dr. Courtenay, Galgorm; Dr. Picken, Toome; and Dr. Dickson, Broughshane, were reduced from £90 to £87 10s. each, while the salary of Dr. Gilmore (apothecary, Ballymena Dispensary) was reduced from £52 to £42. The matter with reference to the salaries of the relieving officers was postponed in the meantime." A proper motion to take the opinion of the Local Government Board on the question was rejected by a majority of two, and with some very discreditable and disrespectful allusions to the Local Government Board. We trust, nevertheless, that the minority will bring this matter under the notice of the Local Government Board, and secure justice to a class of men who cannot be injured without hardship to the poor whom they serve, and serve well.

#### "FLOGGING IN BOARD SCHOOLS."

WE have not a word to say against the use of the "birch" applied to the proper part of the person, and moderately and wisely used as a punishment for the graver offences of children, such as lying, dishonesty, wilful disobedience, and the like offences; but caning children on the hands and for trivial acts of wrong-doing is not to be tolerated; and we doubt very much whether the masters of Board schools should be entrusted with the power of chastising the poor little urchins who are placed in their power. However that may be, it is a scandal that schools under the *ægis* of the Board should be allowed to be so conducted that the fear of "flogging" keeps children away from them. The idea of two teachers holding a little boy down on a desk while the master canes him, as is the alleged manner of procedure at some of these schools, is irritating, and stirs the mind with a vehement wish to have the opportunity of serving the officials—who, dressed in a little brief authority, so abuse it—as they serve their pupils.

#### THE WAYNFLETE PROFESSORSHIP OF PHYSIOLOGY.

A STATEMENT appeared last week in a contemporary to the effect that Dr. Burdon Sanderson had been induced to become an opponent of Dr. Gamgee in his candidature for the new Chair of Physiology. We have reason to believe that this is a mistake. Dr. Burdon Sanderson has, no doubt, been spoken of as a possible occupant of the chair, but he has made no application to the electors, and we understand that he has received no suggestion from any of them that he should become a candidate.

#### HEALTH OF VENTNOR.

A DECIDED contradiction is given to the statement that typhoid is prevalent in Ventnor. According to Dr. Woodford, the medical officer of health, there were only three cases of typhoid in 1881, and there have been only three under treatment this year. Of these, Dr. Woodford says, two were imported. All recovered. Five of the chief practitioners in Ventnor, in a letter dated November 2nd, aver that there is not a single case of typhoid under treatment at the present time in the town.

### THE NORWICH VACCINATION INQUIRY.

At the moment of going to press, we have received a copy of the official reports on the Norwich Vaccination Inquiry. It is impossible in this issue to do more than make brief reference to them. But a hasty glance at the reports is sufficient to cause a feeling of surprise in the mind of the reader. There is a complete absence of that thoroughness of investigation necessary for the solution of the problem which it was the inspector's duty to study. Conclusions have been come to for which there would probably be little foundation if the facts had been duly investigated and considered. It is this circumstance which we suppose has led to the publication of a memorandum addressed by Dr. Buchanan, F.R.S., the Medical Officer, to the President of the Local Government Board, showing that the conclusions which have been arrived at by the inspectors are certainly not borne out by the evidence, and that many important considerations which might have led to an elucidation of the use of erysipelas have been overlooked.

### BOTANY AND COMPARATIVE ANATOMY AT CAMBRIDGE.

THE Board of Medical Studies at Cambridge has just presented to the Vice-Chancellor its report, recommending that attendance on lectures on Botany and Comparative Anatomy be no longer compulsory on medical students, although the examination in those subjects will be continued. The recommendations have not yet actually been adopted by the University. It is argued that if attendance on lectures on Botany and Comparative Anatomy be no longer enforced, these subjects will then, in this respect, be placed upon the same footing as Physics. There is, at present, no requirement compelling medical students to attend a course of lectures on Physics; and this arrangement is, it is stated, found to work satisfactorily.

### CONCEALMENT OF BIRTH.

THE case of Charlotte England, on which we lately commented, terminated curiously. She was found guilty, but strongly recommended to mercy. The child, it may be remembered, was found between two beds in a piece of calico, and the surgeon, Mr. Ford, believed it had been born alive. She had previously borne a good character, and it was intimated that if she was allowed her freedom the father of the child would marry her. This prevailed with judge and jury, and she was dismissed, bound over in her own recognisances in £20 to good conduct. Decisions of this sort are very kind to mothers under such circumstances, but very hard upon babies, and certainly do not tend to check the practice of infanticide.

### SIR THOMAS WATSON, BART.

THE state of this revered physician has during the past week been one of increasing weakness, and, we regret to state, of increased suffering. Indeed, so distressing is his present condition that those to whom the loss of so great and good a man will cause the most acute pain, can but hope and pray for his speedy release.

### MEDICAL ADVERTISING IN THE LAY PRESS.

THE Royal College of Physicians of Ireland is to be congratulated on the decided tone of its resolution condemning the practice of advertising medical works in the lay press. It will be remembered that the London College a few months since passed a resolution which limited censure to the practice of "extensively" advertising, whilst the question of advertising in the lay press was left altogether to the

conscience of the Fellows. The Irish College has, however, spoken with no uncertain sound on this important matter, by declaring that the advertisement, by any of its Licentiates, Members, or Fellows, of "medical works in other than medical publications" is censurable by the College.

### MR. ANTHONY TROLLOPE.

MR. ANTHONY TROLLOPE is suffering from aphasia, with some loss of power of the right side. He has never at any time been unconscious, and there has been nothing of the nature of a fit. His intellect remains unimpaired, and he is perfectly cognisant of everything that is being done for him. The attacks of shortness of breath, from which he has recently suffered, distress him from time to time, but he continues to progress favourably. Dr. Murrell visits him daily, and Sir William Jenner has seen him twice in consultation.

THE annual course of five lectures, free to the public (as required by the will of Mr. Brown), will be delivered by the Professor-Superintendent of the Brown Institution (Dr. C. S. Roy), in the theatre of the University of London, on the afternoons of the 20th, 22nd, 24th, 27th, and 29th of the present month, commencing each day at half-past five o'clock. Subject: "On the Experimental Pathology of the Heart."

DR. ARTHUR VERNON MACAN has been elected to the post of Master of the Rotundo Lying-in Hospital, Dublin, in the vacancy caused by the retirement of Dr. Lonbe Athill. There was little interest connected with the appointment, as it was a foregone conclusion that Dr. Macan would be elected.

THE Sandbach Local Board have been threatened with dissolution by the Central Board for inattention to the request of the latter Board for information with respect to the sewage-disposal of the town, also for delay in taking steps towards providing a proper water-supply.

IN the report presented by the General Purposes Committee to the Brighton Town Council last week, the expenses connected with Dr. Richardson's inquiry were stated to be £535, whilst those arising from the investigation of Sir J. Bazalgette amounted to £224.

AT the College of Physicians in Ireland an election for an examiner in sanitary law and in sanitary engineering, to examine candidates for the certificate in Sanitary Science for the ensuing year, will take place on December 1st.

PERHAPS it may be well to remind intending competitors that the essays for the Triennial and Jacksonian Prizes of the College of Surgeons must be sent in on or before Saturday, the 30th prox., addressed to the Secretary of the College.

DR. SEDGWICK SAUNDERS, medical officer of health for the City of London, reports for the week ending the 4th inst. a death-rate of 8.11 per 1000—a rate lower, he believes, than any yet recorded for the same area.

THE guardians of St. Saviour's Union have agreed to pay 1s. a day for a pauper patient sent to Guy's Hospital for treatment, the case being one of ophthalmia.

THE Treasurer of the Lincoln Lunatic Hospital has received a legacy of £200, under the will of the late Mr. William Keep, for the benefit of the institution.

## THE MINUTES OF EVIDENCE BEFORE THE ROYAL COMMISSION ON MEDICAL ACTS.

### II.—THE INEFFICIENCY OF THE MEDICAL COUNCIL.

*Examination of Sir JAMES PAGET, Bart., F.R.S.*

246. (*Lord Camperdown.*) Can you suggest any better central body than the present Medical Council?—No.

247. Then the chief function of the Medical Council in connexion with the questions of study and examination would apparently consist, in your opinion, in supervising and reporting upon these matters?—Yes.

248. And not in exercising any direct authority?—I would have them exercise no direct authority. They should have power to check manifest and grave wrongs, but not to interfere in any manner in matters of detail.

249. Would you kindly give us your reasons?—I think that all these questions of detail are managed best by those who are nearest both in time and local relations to the teachers and the schools. The conduct of the schools must in great part be determined by the examiners; the conduct of the examiners must in great part be determined by what is possible in the schools; and therefore the relation between examiners and schools cannot to my mind be too close. Then next above the examiners are the several licensing authorities, whether separately or in conjoint boards; and they would be much nearer to the office of teaching and examining than the Medical Council can be. The Medical Council of necessity consists for the most part of seniors and persons who, I dare say with great justice, are elected to that high dignity; but they are not for the most part such as have lately been engaged in practice or in examining, and are not completely familiar with the progress of science at the present time, or with the manners of teaching in the schools.

253. With regard to the present constitution of the Medical Council you are aware, no doubt, that there has been a considerable demand for direct representation from a certain portion of the profession, or at all events from certain persons who profess to represent the working profession?—Yes.

254. You, I believe, gave your opinion on the subject on a former occasion?—Yes.

255. Would you mind repeating it shortly?—It seems to me to be just one of those cases in which public feeling should be satisfied. It seems to be deemed desirable by the public feeling that the profession should be represented on the Medical Council. I think it will make no difference, whatever in the manner or the quantity of work done by the Council, and for the satisfaction of the feeling I think it should be granted. I have no other motive for thinking so.

256. I think you have already said that the addition of a few members to the Council, or the taking away of half a dozen members, would make, in your opinion, very little difference in the working qualities of the Council?—Very little difference.

257. You have no doubt considered the relative share of the representation on the Medical Council which belongs to different individual bodies. Do you consider that there ought to be any change in any instance?—No, I have no clear opinion on the matter. It seems to me, as often as I have thought of it, to be in the same condition of apparent inconsistency as I am told the constitution of the House of Commons is, where the 4,000,000 of London are represented by only the same number of members as might be found in some small set of boroughs in the country.

258. In the House of Commons they are talking of redistribution schemes; would anything of that kind in this case be desirable?—I think it might be, as soon as the House of Commons has made a satisfactory redistribution.

387. Would you give the Medical Council any power of saying that the schemes adopted by the several conjoint bodies were reasonably uniform as to value?—Yes, reasonably uniform.

388. I mean not fixedly uniform?—Yes, reasonably uniform, and that the standards were so too.

488. (*Mr. Simon.*) Am I right in thinking that your view of the organisation to be desired would be something to this effect, that in each division of the United Kingdom there should be a Board constituted of the existing authorities?—Yes.

489. Those authorities to be placed under the supervision of a General Council?—Yes.

490. That, General Council having for its functions to make broad regulations upon matters of education?—Very broad ones.

491. To see to the reasonable uniformity of qualifications as between the three divisions of the United Kingdom?—Yes.

492. And in relation to all three divisions, so far as might be necessary, to keep up as high a standard as the circumstances of the time would allow of medical education?—If it is meant that it should be left to the Medical Council to raise the standard, I do not agree to it. I should leave that to the several bodies and the Medical Council should approve; but I should not regard the Medical Council as the best judge of either the time, or the method, or the degree of raising it.

493. You mean that if there was a difference between the standard of one division and another the General Council would form its opinion whether the lower of the two was too low?—Yes.

494. And would act accordingly?—Yes.

495. And would in that sense act in the maintenance of a higher standard?—Yes. As I understand the question, it is, would you grant more power to the Medical Council—that is, should the Medical Council have more power to compel. I do not think it should have that.

496. I was speaking of the tendency of what its influence should be. It is the body to which one would look to see influence in favour of the higher standard where there was difference between the divisions as to their particular standards?—Yes.

497. And you would look to the divisional boards constituted out of existing authorities to regulate the details of education?—Yes.

498. And to appoint directly or indirectly the examiners for this purpose?—Yes.

499. And it was that sort of plan, as a voluntary plan, that you would have in England by the action of the Committee of Reference of which you were chairman?—Yes.

500. But you think it would be a good thing that a similar arrangement should be adopted in each division of the kingdom. I do not mean similar in details, but similar in principle?—Similar in general principle.

*Examination of Prof. PAGET, M.D., F.R.S., of Cambridge.*

883. (*Chairman.*) Now, let me ask you a question with regard to the number of the Medical Council. Do you think that it would be possible to reduce the present number of the Medical Council?—It would not, I think, be right or wise to reduce it as things are at present. In the first place there are six nominees of the Government. I think my experience of those gentlemen, while I was for eleven years a member of the Medical Council, was that they were very efficient men, indeed; their voice was a very useful one in the Medical Council. I think any reduction in their number would be an alteration for the worse. Then the others (with the exception of the President) are representatives of the different licensing bodies. Now, under the Act of 1858, the doings of any one of those bodies are liable to be discussed by the Medical Council publicly, and they are even liable to be brought up before the Privy Council. These bodies are, all of them, subject to a certain amount of control by the Medical Council. The Council has a controlling power over their proceedings with reference to medical diplomas and degrees. I think that is an abundant reason why these bodies have a right to be represented on the Medical Council. Being in a certain sense governed by the Medical Council, they have a right to be represented in it. Of course, in the case of a conjoint board, that state of things might be altered. Besides that, there is another very good reason for it, the chief business of the Medical Council being to deal with medical education and medical examinations, I think those nineteen bodies are the very bodies of the whole country fittest to select persons suitable for the purpose.

884. Would you be disposed to make any change in the representation of the various bodies on the Medical Council?—There they are. If I had been consulted before 1858 I should have made one or two little differences. I think it is not quite fair that the University of Edinburgh should be linked with Aberdeen. I think the University of Edinburgh should have been linked, certainly, with St. Andrews, which has not anything like the same claim to being individually represented.

5. You are aware of the cry which has arisen for direct representation of the general profession in the Medical Council?—Yes.

3. Would you give us your opinion upon that point?—My opinion is, that persons elected in the way which has been proposed would not add to the efficiency of the Medical Council for its principal duty—namely, that of controlling and directing medical education and medical examinations; before I do not think it is for the interest of the public to have persons elected in that way, but (I think there is a great deal to it) I think persons elected in that way would more than the present members represent the interests of the mass of the medical profession, and now and then subjects have been brought before the Medical Council which have been subjects not of medical education generally, or at all, but subjects relating to measures affecting the interests of the medical profession. If the questions be brought before the Medical Council, then, I think, there is some ground for a claim on the part of the profession to be more directly represented.

In the year 1878, I think, the Government requested the opinion of the Medical Council on two points; one was the propriety of admitting women on the Medical Register, and the other was the admission of colonial and foreign graduates to the register on different terms to those on which British graduates are admitted. Both those were questions affecting the interests of the mass of the profession at large; and I think if such questions be discussed by the Medical Council the mass of the profession have some claim to be directly represented in it. The only other thing I have to say about it is that I think this question is of far less importance than it has been made either one way or the other. I would add one single word, if it were determined that such persons should be elected, I think the inconvenience and turmoil of those general elections should be minimised. It has been proposed that those members should be elected for five years. I would suggest, if that were the case, that imposing one of those members should resign, or become incapacitated, or die, that that single vacancy should not be filled up by another general election, but that the vacancy could be filled up by the Government, or in some other less troublesome way than by a general election, so that the profession might not be disturbed by those elections more frequently than necessary. I see that a Bill, which is now before Parliament, and which was, I think, brought in by Mr. Hardcastle (it is dated 1881), proposes a Medical Council consisting of twenty-six members, appointing six by direct representation, and leaving out of representation the Faculty of Glasgow, the Apothecaries' Society of London, and the Apothecaries' Hall of Dublin. I think if a Medical Council were established in the mode proposed in that Bill then such vacancies as might occur in the way I have mentioned, that is accidental vacancies, might with propriety be filled up in each division of the kingdom by those bodies which are left out of representation.

857. Do you wish to add anything to your evidence on the licensing question?—No, I think not; I do not remember anything.

Professor HUMPHRY.

The following suggestions were handed in by Professor Humphry in reference to the

#### Medical Council.

*Functions.*—Not to be regarded as representing certain bodies, but as acting in the interests of the public, with the view that the qualifications of those entering the profession may be sufficiently high, but not so high as to lead to undue diminution of the numbers.

To receive and consider education and examination rules from the conjoint board. In case of non-approval, to confer with the board. If necessary, to make representation to the Privy Council.

To adjust differences between the combining authorities on the board, and between the latter and the medical schools, with appeal to the Privy Council.

To make suggestions to the board respecting education and examination.

To visit examinations conducted under the board and under the medical authorities.

To see that the examinations and rules, and fees, in the three divisions of the kingdom are nearly equal.

To prepare and publish the Pharmacopœia.

To keep and publish the Medical Register, and to strike off names from it as at present.

To report annually to the Privy Council their proceedings, statements respecting education and examination, a financial statement, &c.:

#### Constitution:—

6	to be appointed by Crown as at present.
2	" " by Conjoint Board for England. <sup>1</sup>
1	" " " " " " Scotland. <sup>1</sup>
1	" " " " " " Ireland. <sup>1</sup>
2	" " " " " " by whole profession in England.
1	" " " " " " Scotland.
1	" " " " " " Ireland.
14	

Members of the board not to be members of the Council unless appointed as such by the board.

Appointment of four members by the profession a concession to wishes of profession, not as being a good mode of appointment.

Appointment of four members by conjoint boards, for the purpose of maintaining good relations between the board and the Council.

Present Medical Council has worked as well as councils usually do, as well as could be expected, seeing that it is composed of members, busy men, from the three divisions, and had to harmonise the views and interests and customs of the three divisions. Its influence has been considerable. The representation of several authorities by its members has facilitated improvements. Visitation of examinations has been beneficial, but it needed to be supplemented by visitation of schools.

Absolute authority should not be vested in the Council, however composed. Better that one body (the board) should make rules for education and examination, and conduct the examinations; and that another body (the Council) should consider and report upon these rules to the Privy Council. The intervention of the Privy Council would be rarely necessary.

The number of medical authorities might with advantage be reduced.

Foreign and colonial practitioners should be required to pass the practical and clinical parts of the Board examination, in the same manner as those who have passed the examinations at the British universities.

#### Examination of Dr. JACOB, of Dublin.

Dr. Jacob said (examined by the *Chairman*) the subject of direct representation had been repeatedly discussed in the last six or seven years by the Irish Medical Association, and as often the Association had petitioned Parliament in favour of this change.

1352. Speaking from your own knowledge, do you believe that the general body of practitioners really attach great value to direct representation?—I do decidedly.

1353. Is that because they regard the Medical Council as charged with the duties of supervising general study and examination, or is it because they regard it as a sort of medical parliament at which general questions affecting the medical profession would be entertained?—The feeling of the profession in Ireland, so far as I understand it, is that the General Medical Council has not been successful in the purpose for which it has been established by reason of its misconstitution; part of its misconstitution being the omission to represent the medical practitioner, and the representation of the licensing bodies being altogether excessive and redundant.

1354. In what way has the Council failed, in your opinion, to represent the medical practitioner in Ireland?—In the subjects in which the general working practitioner is daily interested. For instance, the practice of the profession by unlicensed persons has not been dealt with by the General Medical Council at all; on the contrary, the Council has definitely declined to enter upon any course of checking unlicensed practice whatsoever; and the result of that is that, both in Ireland and elsewhere, the practice of the profession by unqualified persons has gone on unchecked, and has achieved great proportions. The feeling of the profession, also, is that even if this function were not neglected by the General Medical Council, the presence of direct representatives in the Council is necessary to counterbalance the

<sup>1</sup> Professor Humphry proposes to leave out of the Conjoint Boards for England, Scotland, and Ireland, respectively, the Apothecaries' Societies of England and Ireland and the Faculty of Physicians and Surgeons of Glasgow.

excessive influence of the licensing corporations in that body.

1355. Do you consider that Parliament in passing the Act of 1858 intended that the Medical Council should deal with this question of unqualified persons practising?—I am strongly of that opinion.

1356. In your opinion, did the Act of 1858 give to the Medical Council the power of dealing with that question?—Certainly. I think they possess that power.

1357. Would you point out to me what clause gave them that power?—I think they have power under the 40th section of the Act of 1858. That section says: "Any person who shall wilfully and falsely pretend to be, or take, or use the name or title of a physician, doctor of medicine, licentiate in medicine and surgery, bachelor of medicine, surgeon, general practitioner, or apothecary, or any name, title, addition, or description implying that he is registered under this Act, or that he is recognised by law as a physician, or surgeon, or licentiate in medicine and surgery, or a practitioner in medicine or an apothecary, shall, upon a summary conviction for any such offence, pay a sum not exceeding twenty pounds."

1358. You see the important part of it is, "or any name, title, addition, or description implying that he is registered under this Act?"—Yes. No effort whatsoever has ever been made by the General Medical Council, so far as I know, to enforce these penalties against persons practising without qualification.

1359. Where does the Act say that the Medical Council is to enforce these penalties?—The Act does not put it upon the Medical Council to do so. But I consider that inferentially it is the duty of the General Medical Council to carry into effect the objects for which the Medical Act was constructed, and that the suppression of illicit practice was one of those objects which has not been carried into effect.

1360. Then Parliament has not imposed that duty upon the Medical Council, I understand?—It is not stated in the Medical Act that the Medical Council is charged with that duty; but the Council is charged generally with the administration of all the purposes of that Medical Act, this being one of those purposes.

1406. (*Master of the Rolls.*) Although I have not been here from the commencement of your examination, I understand that you are in favour of direct representation, as it is called, on the Medical Council?—I am.

1407. Do I understand that you wish the functions of the Medical Council to remain as they are, or to be extended?—I think that the powers which the Medical Council now possess might be made more definite and more explicit; but I think it possesses most of the powers—in fact, I would say all the powers—necessary, if they were made more explicit and definite.

1408. Do you think that those powers could be more usefully exercised, without the attendance of the public press at their debates?—No, I think they would be much less usefully exercised in that way.

1409. Have you directed your attention to the proportionate representation which you would like? I do not understand that you wish all the members of the Council to be elected by direct representation?—Certainly not.

1410. What proportion would you say?—The method of reconstruction which, if I were asked my opinion, I would suggest would be, firstly, that the Medical Council, as it at present stands, should be materially reduced in number; first, by disfranchising certain bodies which seem to me not to have a right to appear on the General Medical Council, and, secondly, by coalescing together other medical bodies whose functions are somewhat analogous, and whose share in licensing is not very large. And having so reduced the numbers, I would then add six direct representatives.

1411. And how would you elect those six; would you have separate ones for England, Ireland, and Scotland?—Yes.

1412. I suppose they would be divided in some way between the three divisions of the kingdom?—The branch registers of each of the three parts of the kingdom would supply the means of division.

1413. Then each of the divisions of the kingdom would elect one or more members of the Council; how do you propose to elect them?—In the same way as ballot elections are generally held, by sending round a voting paper at a given

date; certain members being nominated, and their names contained upon this voting paper, let the vote be given. This voting paper being sent round from the Branch Medical Council to all the practitioners appearing on the register of that Council at their registered addresses, and having been filled up, would be returned duly signed; and then the votes should be totted up. This election I would propose to be held every three or five years.

1414. You think that that would be a sufficient guarantee; that it is not very likely that people would take the trouble to commit fraud in such an election?—No, I believe not. Besides, I believe that arrangements, which would get rid of any chance of fraud, are quite capable of being made for voting by paper. In the case of synod elections in the Irish Church they are largely held now by paper votes, and there is a machinery by which it can be done without any danger of fraud. My calculation is that this would cost about £200 to the General Medical Council every three or five years, and my opinion is that that £200 would be amply repaid to the Council by the corrections in the Medical Register which the election circulars would bring home to them. The Medical Register now is an inaccurate document, from the fact that a man once placed upon the register cannot be removed from it except under the Act of Parliament, and by compliance with certain clauses of the Act of Parliament; and if he dies without the knowledge of the registrar, or removes from one place to another, or retires from practice without giving notice, as happens in many instances, his name then still appears. Therefore, I take it, the expense incurred in this matter need not be considered, as the thing itself would yield a return irrespective of the elective return.

1594. (*By Mr. Cogan.*) Which do you think should be disfranchised and which coalesced?—I am strongly of opinion that the Apothecaries' Company, both in Dublin and London, should cease to send representatives, and I think that the Glasgow Faculty has ceased probably to have a claim. Those are the three bodies which I would name as open to disfranchisement, and as to coalescence, I should think that the University of Durham might advantageously be conjoined with some other body in returning a representative. I do not like to individualise, but I am quite clear with reference to those that I have named.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6058 births and 3522 deaths were registered during the week ending the 11th inst. The annual death-rate in these towns, which had been equal to 21.4 and 21.3 per 1000 in the two preceding weeks rose to 21.7 last week. The lowest death-rates in these towns last week were 12.9 in Brighton, 15.6 in Wolverhampton, 15.7 in Leicester, and 16.5 in Norwich. The rates in the other towns ranged upwards to 28.2 in Liverpool, 28.3 in Cardiff, 28.4 in Manchester, and 32.4 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 468, showing a further decline from recent weekly numbers; 131 resulted from scarlet fever, 101 from measles, 98 from "fever" (principally enteric), 59 from diarrhoea, 46 from whooping-cough, 27 from diphtheria, and 6 from small-pox. The lowest death-rates from these zymotic diseases were recorded in Plymouth and Leicester, and the highest in Sunderland and Cardiff. Scarlet fever showed the largest proportional fatality in Sunderland and Cardiff. No fewer than 19 of the 27 deaths from diphtheria in the twenty-eight towns were recorded in London. Small-pox caused 4 deaths in London, and 1 both in Wolverhampton and in Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which had declined in the three preceding weeks, from 84 to 70, were again 70 on Saturday last; 13 new cases of small-pox were admitted to these hospitals during the week, against 8 and 7 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 355 and 347 in the two preceding weeks, further declined to 330 last week, and were 126 below the corrected weekly average. The causes of 114, or 3.3 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Plymouth, Derby,



Huddersfield. The proportions of uncertified deaths largest in Oldham, Halifax, Hull, Sunderland, and Castle-upon-Tyne.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which the four preceding weeks had steadily increased from 24.3, declined again to 22.0 in the week ending the 11th; this rate exceeded by but 0.3 the rate that prevailed in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had declined in the six preceding weeks from 117 to 85, were 89 last week, and equal to an annual rate of 3.8 per 1000. The deaths from diphtheria in the Scotch towns, which had been 16, 19, and 24 in the three previous weeks, further rose to 25 last week, of which 6 occurred in Glasgow, 5 in Dundee, 5 in Aberdeen, and 4 in Edinburgh. The 21 deaths from diarrhoea, including 8 in Glasgow, were one above the number in the previous week. The 15 fatal cases of whooping-cough, however, showed decline from the increasing numbers in recent weeks; 5 are returned both in Glasgow and Dundee. Of the 12 deaths from measles, 8 occurred in Dundee and 4 in Glasgow. The deaths referred to "fever," which had been 12 and 6 in the two previous weeks, rose again to 11 last week, of which 6 occurred in Glasgow. Four of the 5 deaths from scarlet fever were also returned in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had increased from 100 to 135 in the four preceding weeks, were 130 last week, and 2 above the number in the corresponding week of last year. The causes of 88, or 17 per cent., of the deaths in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 22.5 and 20.4 per 1000 in the two preceding weeks, rose to 27.7 in the week ending the 11th inst., and exceeded that which prevailed in any week since the middle of May last. During the first six weeks of the current quarter the death-rate in the city averaged 22.9, against 19.9 in London and 18.3 in Edinburgh. The 185 deaths in Dublin last week showed an increase of 51 upon the number returned in the previous week. The deaths from the principal zymotic diseases, which had been 8, 13, and 14 in the three previous weeks, were again 14 last week; they were equal to an annual rate of 2.1 per 1000. The deaths from "fever," which had been 5 and 7 in the two previous weeks, rose to 8 last week, and exceeded the number in any week since the beginning of September. The fatal case of diphtheria was the first recorded within the city since the end of September. The deaths both of infants and elderly persons showed a considerable increase upon the numbers returned in recent weeks.

#### THE SERVICES.

Brigade Surgeon W. R. Oliver, A.M.D., has received orders to join at Colchester for duty in the Eastern District.

Surgeon-Major W. D. Wilson, A.M.D., has received orders to hold himself in readiness to return to Egypt for duty.

ARMY MEDICAL DEPARTMENT.—Brigade Surgeon George Langford Hinde has retired on temporary half pay; Brigade Surgeon-Nicholas Ffolliott has been granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major William Fuller Bennett, M.D., has been placed upon temporary half pay on account of ill health.

ADMIRALTY.—To be Hon. Surgeon to Her Majesty: James Jenkins, Esq., C.B., M.D., retired Inspector-General of Hospitals and Fleets, vice Dr. Johnston, deceased. Deputy Inspector-General of Hospitals and Fleets Samuel S. D. Wells has been promoted to the rank of Inspector-General of Hospitals and Fleets, in Her Majesty's Fleet, with seniority of Nov. 10th.

The following appointments have been made:—Fleet-Surgeon Charles H. Slaughter, to the *Northampton*; Surgeon Anthony R. Lynch, to Sheerness Dockyard, vice Breton; Fleet Surgeon James Thomson, to Chatham Dockyard, vice Charles H. Slaughter.

## Correspondence.

"Andi alteram partem."

### THE DISCOVERY OF TRICHINA SPIRALIS.

To the Editor of THE LANCET.

SIR,—In the lately issued edition of "Quain's Dictionary of Medicine" I found, under article *Trichina*, the following: "A genus of nematoid worms originally established by Professor Owen for the reception of the minute spiral flesh-worm (*T. spiralis*). This entozoon was first discovered by Sir James Paget when a student at Bartholomew's Hospital."

As in the paper<sup>1</sup> originally establishing the genus and species I detailed the series of microscopical observations supporting such conclusion, made in the conviction of their originality, and that the knowledge so gained was acquired prior to any other information on the subject, the statement by Dr. Cobbold, the writer of the article above quoted, may lead to the inference that my zoological conclusions were based upon facts due to another and prior observer, and may render me liable to the suspicion of having done injustice to Sir James Paget.

I still retain the letter accompanying the portions of muscle of the subject received in the dissecting-room, transmitted to me by Mr. Thomas Wormald, then (Feb. 3rd, 1835) Demonstrator of Anatomy at St. Bartholomew's Hospital. It is as follows:—

"Dear Owen,—I send you some sort of organised being, as I believe, which occupies the muscles of a subject under dissection at St. B. H., and, as I know you are a keen hand for parasitical things, from 'crabs' downwards, I send the enclosed for your inspection.—Ever yours sincerely,

(Signed) "THOS. WORMALD."

The honest, downright character of my correspondent is a fixture in the memories of all who knew him. Had the discovery of the nature of the "organised being" been made at the date of that letter by any student or officer in the anatomical school, it would have spread through the dissecting-room, and it is inconceivable that Wormald would have failed to mention the fact.

No other notice or information whatever had reached me of this case with its peculiar muscular condition. On the day after receiving the letter and specimen I replied by informing my friend that the calcareous specks were cysts enclosing one or more microscopic worms, the nature of which I should shortly publish. My worthy correspondent died in the conviction of my rightful claim as discoverer of *Trichina spiralis*, as I was assured by his son, Mr. P. H. Wormald, shortly after his father's decease. The only student at St. Bartholomew's, at that time an expert in microscopical research, was Arthur Farre (now M.D., F.R.S.), who communicated an acceptable addition to the anatomy of *Trichina spiralis* to the *London Medical Gazette*, December, 1835, under the conviction, common to the medical school, of my independent relation to the species as its discoverer.

It was not until I had completed my researches and drawings that I learnt that Mr. Paget had taken portions of the muscles of the same subject to the botanical department of the British Museum, where the microscope of Robert Brown had enabled him to recognise the wormlet in the cyst, and this I did not fail to state in the paper above cited.

I am, Sir, your obedient servant,

RICHARD OWEN.

Sheen Lodge, Richmond Park, Nov. 14th, 1892.

### A NEW AND VERY DELICATE TEST FOR GRAPE SUGAR.

To the Editor of THE LANCET.

SIR,—While using picric acid as a test for albumen in the urine, I have, as it were by a happy accident, come upon what I believe to be an extremely sensitive test for grape sugar, whether in the urine or elsewhere. The history is briefly this:—Amongst my morning patients on Tuesday, Nov. 14th, there were two whose urine, as I knew from

<sup>1</sup> Transactions of the Zoological Society, Feb. 1835, p. 315, Pl. xii.

previous examination, contained albumen and a trace of sugar. To the first specimen I applied what is known as Moore's test for sugar—i.e., boiling with an equal bulk of liquor potassæ. The quantity of sugar being small, the brown colouration was very slight, and it occurred to me to add a small quantity of a saturated solution of picric acid to the boiling mixture, when in an instant the liquid assumed a deep purple, almost black, colour. I tried the same experiment on the second specimen of slightly saccharine urine with the same result. When equal volumes of liquor potassæ and a saturated solution of picric acid are mixed, there is usually a precipitate of picrate of potash; on boiling the mixture the precipitate is dissolved, and forms a transparent orange-red liquid. On adding a small quantity of saccharine urine to this liquid and continuing the application of heat the colour is rapidly deepened. The deepening of colour produced by the action of sugar is rendered more striking when the liquor potassæ is only slightly tinged yellow by a small amount of picric acid. It would seem that the effect of the picric acid is to intensify the reaction between the caustic potash and the sugar.

Having obtained this result, I added to the boiling mixture of liquor potassæ and solution of picric acid a drop or two of diluted grape juice, with the same intense deepening of the colour.

With a solution of cane sugar no change of colour occurred; but when the cane sugar had been converted into grape sugar by boiling with hydrochloric acid, the addition of a very few drops of the solution to the boiling mixture of liquor potassæ and picric acid solution caused immediately the same intense deepening of the colour as occurred with the addition of the saccharine urine.

As a result of these few but decisive experiments, I venture to say that by boiling this strongly alkaline solution of picrate of potash with a liquid suspected to be saccharine, we have a test for grape sugar far exceeding in delicacy the liquor potassæ test, or indeed, any other known test for that substance. It appears that the effect of the picric acid is to increase to an extraordinary degree the delicacy of Moore's well-known test for glucose.

I have ascertained that a solution of crystallised picrate of potash boiled with a solution of grape sugar causes no change of colour; the presence of caustic potash in excess is essential for the development of the reaction. I have also ascertained that 1·5 parts by weight of grape sugar dissolved in 10,000 parts of distilled water may readily be detected by this extremely delicate colour test. It is probable that the true limit of delicacy of the test exceeds this rather rough estimate, but I have given directions for more accurate determinations to be made, the results of which I hope soon to communicate.

I am, Sir, yours faithfully,

Savile-row, W., Nov. 15th, 1882.

GEORGE JOHNSON.

## SHOULD DISEASES OF CHILDREN BE MADE A SPECIALITY AT OUR GENERAL HOSPITALS?

To the Editor of THE LANCET.

SIR,—Any proposal for extending the teaching capacity of our general hospitals so as to provide more thorough grounding for students in a subject which is certain to occupy a very large share of their attention as general practitioners deserves careful consideration. At the same time it must not be supposed that any radical change in the corporate teaching of our medical schools is required. The healthy rivalry which has for many years existed between the different metropolitan schools has had the effect of securing for most of them a very efficient staff of lecturers and teachers. By the gradual introduction from time to time of more practical teaching the students have been brought face to face with subjects which require close individual study, and it has been found much easier to impress their minds with the minutest details of medical science. The lecturer on physiology, for instance, finds his task much lightened, knowing that by practical demonstrations in the laboratory he can teach through the eye and hand, as well as the ear,

truths which if only once heard are very likely "to slip the memory." As a rule students have neither time nor inclination to attend the clinics at the special hospitals. It has, therefore, been found necessary to establish special departments at our general hospitals for the study of diseases of the eye, ear, skin, and throat, &c. Not that these subjects were passed over in the previous arrangements for a complete curriculum, but that with the growth of knowledge it was found necessary to isolate each subject and appoint a separate teacher for each department. Those who have devoted much attention to the study and treatment of diseases of children will, I think, be ready to endorse what I have said as to the importance of making this a separate department at our larger hospitals. I shall doubtless be met by the objection, "Where do you propose to draw your line up to which the symptoms and treatment would be as for children, and beyond which the patient must be treated as an adult?" The answer is obvious—viz., that as "nature abhors a vacuum," so does she hate definitions. It is equally obvious that ranged on either side of puberty are patients placed under the same external conditions, suffering from the same exciting causes, but requiring treatment of a very diverse character, and that because of the vastly different constitutions and susceptibilities of children and adults. If I need to give an illustration, it is furnished by the carefully constructed tables of doses in our materia medica according to the standard of age. The student naturally infers from this that, given the general symptoms of a disease, it only requires to measure out the quantity, and not the quality, of the treatment in proportion to the age of the recipient. A casual perusal of the examination papers suffices to show that this is the *fons et origo mali* requiring consideration and amendment.

Before proceeding to define the details of the change which seem to be desirable, I must clear the ground by stating generally what provision is now made for students to acquire a knowledge of the injuries and diseases peculiar to children, of the symptoms which specially characterise the manifestations of disease and injury at all ages, and of the importance to be attached to correlative signs and symptoms as regards diagnosis, prognosis, and treatment, with a view to defining the distinct method of treatment in certain cases of the same disease in children as distinguished from adults. At many of our general hospitals there are special wards for children, but this seems designed more as a convenience than for special study. I am not aware that at any hospital a course of lectures is given on the diseases of children, either clinical or systematic.

At every medical school the obstetric physician includes in his syllabus of lectures "the diseases of children," or at least he is regarded as the authority on this subject. The reason, I suppose, for amalgamating these two departments under the superintendence of the professor of gynaecology is that the expert who undertakes the responsibility of divorcing a woman from her child is considered the proper person to medically superintend the early months of its independent existence. I can also understand why the obstetric physician claims to wield the *armamentarium chirurgicum* in cases of abdominal tumour affecting women. It is quite another question whether this is a wise and proper division of labour. The teaching of obstetrics and gynaecology is a subject so vast and wide that little opportunity can be left for discoursing upon the diseases of children or upon the surgical treatment of abdominal tumour. I cannot but think such "a triple alliance" is calculated to prove disastrous both to the teacher and the taught. Physicians are not allowed to dispense medicines; why not restrict their use of surgical instruments? Then, as regards surgical diseases of children: do they not require special study? With the gradual introduction of "arms of precision" as aids to diagnosis, it might be thought that the *tactus eruditus* of the surgeon would be required for the delicate handling of such instruments.

I do not know exactly how much knowledge of pathology a surgeon is supposed to possess; but this I know, that little by little the physicians are claiming authority over diseases which have always been considered to belong to the special domain of the surgeon; and this just in proportion as the local manifestation becomes subordinate to the constitutional taint. Diseases of the throat and skin have gone, membranous croup becomes diphtheria by the same migratory process, rickets is about to surrender its former allegiance, syphilis is a febrile disorder requiring a siege train of medi-

experts and police to compass its downfall, and internal wars, so far as "the better half" of mankind is concerned, fall before the knife of the obstetric physician. The son will soon have nothing left to appraise himself with joint disease, stricture, hæmorrhoids, and tumours. I expect to save a general stampede, and the public from being cajoled into the idea that operating surgeons are only justified to use a knife, and that very sparingly. A conference of hospital surgeons and physicians might with advantage take this in hand and appoint a committee to draw up a list of diseases, arranged under different headings, and then approved the list could be printed and suspended in waiting-rooms of hospitals to enable the executive to classify the patients according to a recognised plan. In the absence of such a system of classification great mistakes are made, time is lost in transferring the patients from one department to another, and occasional disagreements between colleagues are engendered thereby. At our general hospitals no attempt is as a rule made to treat the children separate from adults in the out-patient department. The sights and sounds which meet the eye and ear of children at often be very prejudicial to their moral and physical well-being.

I would sum up my arguments in favour of the establishment of a separate department for children as follows:—The arguments in favour of any speciality having a separate department apply equally and more forcibly as regards children. 2. Students acquire imperfect ideas as to the specific nature and treatment of disease in children when these are prescribed for at the same time as adults, having no united time for proper classification. 3. It is most important to give students special facilities for becoming acquainted with the diseases of children, as these must constitute the bulk of their practice in after-life. 4. The testimony of those who have held clinical appointments at hospitals for children is that the knowledge thus acquired of a very different character from that usually obtainable at our general hospitals. 5. The present time seems opportune for making such a change, when a new nomenclature is being prepared, as it would be the first step in the direction of a scientific classification of medical and surgical diseases. 6. The fact of assigning medical diseases to young children to the care of the obstetric physician leaves the corresponding surgical diseases unprovided for specially. 7. In the diseases and injuries of children the symptoms are so markedly characteristic, and the treatment and general management of the little patients are so different that a special department seems a natural sequence. 8. The pathology of diseases of children would receive a fresh impetus, and scientific surgery would gain by the change.

Surgeons must not think that my proposal would involve the surrender of some of their possessions. On the contrary, by a proper classification of diseases many more would come under their superintendence. If one hospital surgeon undertakes the charge of all children under eight or ten years of age, the other surgeons will divide amongst them the surgery of adults, and thus the work is reorganised, and the students reap the benefit of the change as well as the patients. What I desire to advocate is a short course of lectures on the diseases of children, and a proper classification of diseases—medical and surgical.

Meanwhile I think I might say, on behalf of myself and my colleagues at the Victoria Hospital, that we shall be happy to welcome all students who desire to attend our clinics for the purpose of studying the diseases of children.

I am, Sir, your obedient servant,  
FREDERICK CHURCHILL, M.B.

Cranley-gardens, S.W., Oct. 1882.

## THE CONTAGIOUS DISEASES ACTS.

To the Editor of THE LANCET.

SIR,—Dr. Macnamara seems to imagine that a Lock Hospital under the Contagious Diseases Acts, and a voluntary Lock Hospital, are one and the same thing. He probably never made a greater mistake in his life. In voluntary hospitals like the Dublin Westmoreland Lock, a female patient is free to come and go. She gets such treatment as she requires, and no doubt gratefully listens to such gentle admonition and advice as may be tendered by the chaplain

and others. But it is a very different matter in the Lock Hospitals under the Contagious Diseases Acts. No woman can be admitted there unless she is registered as a common prostitute, and subjected to medical introspection. Do you know what registration as a prostitute means? What Dante wrote over the gates of hell—"Abandon hope, who enter here!" It means, in the words of the talented editor of the *Westminster Review*, "Ostensible social degradation; it sets upon them the mark of infamy; it compels them to commit themselves absolutely to a life of prostitution as a condition of continuing to exist." It is, in the words of Dr. Mireur, of Marseilles (see his great work on Prostitution), "the sinister stroke by which women are cut off from society, and after which they no longer belong to themselves, but become merely the thing of the administration; they are cut off not from society only, but from heaven, from hope, and from the power to repent." Now, if Dr. Macnamara wished to prevent women from applying for treatment when diseased, he surely could not devise a more effectual deterrent than this; in fact, so great is women's abhorrence of the system that only one in ten, or one in seven, of undoubted prostitutes can be forced upon the register either here or elsewhere. Dr. Macnamara seems to fancy that the few who are forced upon the register may be reformed when in hospital, but they must be diseased first, or they would not be sent to hospital, and surely that is not a desirable consummation. Moreover, the unanimous testimony of the whole of the rescue societies is that when women have been brutalised by periodical introspection, it is impossible to reform them. Let anyone who doubts this statement drop a post-card to the Rescue Society, 85, Queen-street, Cheap-side, London, and utilise the information he will receive in reply. As to the advanced stage of disease in which some women apply for treatment, there are many circumstances to be considered before we can pronounce an opinion on such conduct. Perhaps the woman did not know of the existence of the Lock Hospital, or was little aware of the kind treatment she would receive under Dr. Macnamara's skilful care. To make the most of such institutions information must be diffused; women must have every inducement to come forward, and none to turn away. The doors must be as it were always open, but they must be opened by Christian charity, and not by the police. The advanced stage of disease to be observed on the voluntary side of the London Lock is entirely owing to the want of accommodation; the cases are so largely in excess of the number of beds, that only the worst can be admitted. As the late Mr. Acton remarked, "The prize of a bed was offered to successful severity, and therefore it is no wonder that bad cases are to be seen in voluntary Lock Hospitals." In fact, Dr. Macnamara's evidence, if he did but know it, is all in favour of voluntary Lock Hospitals, and dead against the Contagious Diseases Acts. Balzac used to say that it was impossible to reform a woman but by the influence of a passion and a sentiment—love and religion; and such cynics, I am afraid, would laugh at Dr. Macnamara's tales of reformation. Let that be as it may, however, my experience has taught me that the lowest harlot is quite as anxious to be cured of venereal disease as any peer of the realms; I should say more so. And I am sure that voluntary institutions, well conducted, will accomplish infinitely more good than any vain and aggravating efforts at police control.

I am, Sir, your obedient servant,  
EDGAR BECKETT TRUMAN, M.D.,  
Physician to the Hospital for Women, Nottingham.  
Nottingham, October 31st, 1882.

## NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

THE Medical Officer of Health for the borough has presented a report as to the presence of zymotic diseases in Newcastle during the fortnight ending Oct. 28th, 1882, of which the following is a summary:—Small-pox 32 cases, enteric fever 28, scarlet fever 42, typhus 7, diphtheria 1, continued fever 1. Upon the whole, as regards zymotic diseases, there had been a decrease of seven on the previous fortnightly return. Scarlet fever is still epidemic at Walker, where there had been ten deaths during the last month;

also some cases of small-pox. At Wallsend there had been several cases of scarlet fever, two proving fatal.

At Gateshead the subject of whitelead poisoning has very properly occupied the attention of the authorities, and at the board of guardians it was stated that cases of poisoning came under notice every week. After some discussion a memorial was presented to the Local Government Board, calling its attention to the serious loss of life and injury to health involved in the employment of females at whitelead works, and suggesting the expediency of regular medical attendance being made at such works, and the necessity of machinery being introduced to do the most dangerous part of the operations. It was mentioned in the discussion that when visits of inspection were made to lead works attention was called to a class of persons who had been employed at them for years, and who still enjoyed good health; but if inquiry was made into the nature of the work these people performed, it was quite different from that done by the poor people who suffered from lead-poisoning, and thus became a burden to the ratepayers. This request of the guardians seems to be a reasonable one. The worst of the whitelead manufacture is that the most dangerous part of the operations is carried on by the hands of females and young persons, who are naturally less able to resist the subtle influence of the poison.

There was a very interesting meeting held here on last Tuesday night of the North of England Microscopical Society, Mr. Mason Watson, treasurer, in the chair. Mr. N. H. Martin exhibited "Coles' Studies in Microscopical Science," comprising histological, botanical, and petrological preparations, with photographs and descriptions. The care with which these preparations were mounted excited admiration in the members present, and their general fidelity to nature was freely admitted; at the same time, from the conversation which ensued, it would appear that some of the speakers considered that the practice of staining microscopical preparations was open to some objections; at all events it was thought that staining should never be resorted to for mere ornament, and from a microscopical point of view was only allowable when, from chemical action or otherwise, it rendered structures more distinct. The Society, which is connected with the Royal Microscopical, is doing a good but quiet work in creating and fostering a love of natural science through microscopical pursuit.

The Bishop of Newcastle is making his presence felt here. The other day he made the round of the infirmary with Mrs. Wilberforce, and the other night he presided at a flower mission concert—that is, a very useful organisation whereby flowers are collected and distributed to poor patients laid up in our medical charities and elsewhere. Yesterday he preached, at the Cathedral of St. Nicholas, to the Mayor and Corporation. On this occasion the ceremony of "churching the Mayor," as it is called, takes place, and the collection, a good one, was taken in aid of the Hospital Sunday Fund. He made some pointed allusions to our profession; indeed, the bishop is evidently a working one, constantly taking part in aiding some of our charitable or philanthropical societies.

It is stated in our newspapers that the recently closed sanitary exhibition here was not a financial success. Various causes are assigned for this, such as the great popularity of the Tynemouth Exhibition, which was held at the same time, and which drew an attendance of upwards of 150,000 persons. Then, again, an impression had got abroad that the exhibits were commonplace and uninteresting, than which nothing could be more absurd, but the public taste is a curious thing and very difficult to discover, as many have found out to their cost. The exhibition building was placed in a most awkward and out-of-the-way situation, and this may have had something to do with the failure. The exhibition itself was most varied, instructive, and useful, and you will be glad to hear that many of the enterprising exhibitors were well rewarded for their trouble and expense in receiving a large number of orders for their manufactures.

A course of ambulance lectures is announced to begin here to-day by Mr. G. E. Williamson, assistant-surgeon to the infirmary, and having charge of the ophthalmic department there. The lectures are to be illustrated by the lantern and other means. The subject has fallen into good hands, and is certain to be well and lucidly treated by Mr. Williamson.

Newcastle-on-Tyne, Nov. 12th, 1882.

## SCOTTISH NOTES.

(From our own Correspondent.)

JUDGING from Professor Pettigrew's introductory, and Professor M'Intosh's magnificent address at St. Andrews, the teachers in the science side are determined to shake the dry bones of that ancient, but somewhat somnolent, seat of learning. Professor Pettigrew strongly animadverted upon the almost complete want of encouragement given to science studies, passed a high eulogium upon these as helps to the highest culture, and eloquently argued for increased scope being given to work in the arts department, so that men might know something of themselves, and of what passes around them. I hope that the college authorities, for whom evidently the address was primarily intended, will, in laying their claims before the intended Executive Commission, give due heed to Dr. Pettigrew's suggestions. St. Andrews is at present threatened with death from general atrophy, and if there is any chance of rejuvenescence, it is probably through the help of science that vigour can be restored.

Dr. M'Intosh met a large audience of students and friends—chiefly the latter I fear—on Monday, and gave a summary of work done in marine zoology, in which he showed what a wonderful advance has recently been made. The simple quotation of Professor Edward Forbes' dictum, that animal life probably ceased at a depth of 300 fathoms, and the remembrance of the almost innumerable specimens obtained by the *Challenger* and other expeditions, at depths as great as from one to five miles, are sufficient to indicate the strides recently taken in this department of observation. Dr. M'Intosh went on to show the absolute want of zoological stations along our coast, forgetting evidently to refer to Dr. Cossar Ewart's successful efforts in this direction at Aberdeen, and proceeded to argue in favour of the equipment of several of these, but more especially one placed near the bay of St. Andrews, so rich in animal and vegetable life. This work is one demanding serious effort, and Dr. M'Intosh's enthusiasm could not lead him in a direction likely to be more profitable to science.

The Duke of Buccleuch, with his usual liberality towards the districts with which he is connected, has provided Dalkeith with an elegant and commodious hospital. The building was thrown open for public inspection a few days ago, and is now ready for the reception of patients. Consisting of two storeys, the upper floor is divided into airy and agreeable wards, which are capable of accommodating about fifty patients. Means of isolation for infectious cases are provided by a suitable arrangement of the wards, and the existence of separate staircases. The necessary accommodation for the staff of nurses and the efficient working of the institution is provided on the ground-floor, and recent improvements have been freely utilised. Ventilation, both of the house and the drainage system, has been carefully considered, and, as a further hygienic advantage to the inmates, a large space of ground has been left for outdoor recreation. The police commissioners of the borough have suitably furnished the hospital, which has been handed over to them for the use of the inhabitants.

The centenary of the Montrose Royal Asylum and the recent extensive addition to the accommodation provided for patients there, have been taken by the Directors as a fitting opportunity for showing their continued confidence in Dr. Howden, the physician-superintendent, and they have raised his salary from £700 to £850.

After litigation in the English Court, it has been decided that the terms of Dr. Donald Fraser's bequest do not entitle the Scottish Society for the Prevention of Cruelty to Animals to the £10,000 claimed. The treasurer and trustees of the Donald Fraser Bequest to the Blind at Inverness were named as residuary legatees, and the decision of Mr. Justice Fry is that they have established their claim. If my memory serves me aright, the handsome legacy in dispute is that which, originally intended for the University of Edinburgh, was otherwise disposed of on account of Dr. Fraser's objection to the experiments upon animals supposed to be carried on in the institution named.

Various local scientific societies have recently held their first meeting for the season. The activity of the Perthshire Society of Natural Science is specially noteworthy, and



be commended to gentlemen interested in similar ties elsewhere. After much exertion on the part of the Council, the friends of the Society were induced to subscribe in of over £2000 for the purpose of securing suitable rises as museums, lecture-rooms, &c., and since the building was opened a few months ago, the members have been most assiduous in furnishing specimens for the museum with the intention of having a complete collection illustrating the Perthshire natural history. In the interest of science generally, local societies are much more profitably engaged in establishing good local collections than in getting together a feeble imitation of our great natural history museums; and when intelligently guided, as the Perthshire says has been by men like the present Professor Geikie of Edinburgh, and Dr. Buchanan White, F.L.S., of Perth, such associations may be of the greatest value in completing knowledge of the fauna and flora of our country.

Mr. Wragg has again completed for the year his work at the Meteorological Observatory on Ben Nevis, the highest station in Great Britain. Though his work is so well known, its importance appreciated by all interested in the subject, it appears that the Scottish Meteorological Society is at the utmost difficulty in providing the necessary funds for the erection of a permanent observatory; and for its total endowment £5000 is the sum required, and it will be unfortunate if such a valuable agency must be dropped without the want of timely pecuniary assistance.

### ITALIAN NOTES.

(From our own Correspondent.)

THE elections under the extended suffrage and the *scrutin* *liste* have wrought little change in the composition of Parliament, except in the greater number of professional candidates who have been returned. Like other continental nations, Italy sees no incompatibility between medical practice and a seat in the Legislature, and, as in Germany, Austria, Hungary, France, and Spain, she counts among her most active and able public men the consultant physician and the occupant of the University Chair. Between twenty and thirty representatives of her various professions, exclusive of that of law, are now also members of the Chamber of Deputies, to say nothing of the scientific and literary phalanx which reinforces her Upper House. Her Minister of Public Instruction is Dr. Guido Baccelli, one of the leading consultants in the Peninsula; and a prominent debater of the opposition is Dr. Tommaso-Crudeli, whose researches in pathology shed lustre on the *sapienza*, and in a published form, dedicated to his master Virchow, are now engrossing the attention of other schools. The first volume, entitled *Istituzioni di Anatomia Patologica*, containing his maturer work on germinal miasms—particularly malarial infection—was as much to interest the thoughtful practitioner at home and abroad. With the universal recognition of public hygiene as one of the legislator's primary subjects, the presence of such men in any Parliament is more than justified; while cognate questions like the extinction of the phylloxera pestatrix and the prevention of floods, peculiarly urgent in Italy, would of themselves account for the preponderance of the scientific element in her Chamber.

Thanks, indeed, to such inspiration, the Italian Government has drawn a cordon round the vine-culture—a blockade which the phylloxera has not yet been able to run. The floods are, however, a more grievous opprobrium of public hygiene than ever, mainly from their prevention having been treated as exclusively a question of engineering. The destruction of forests, whether by the woodcutter or by frost or conflagration, is chiefly to blame for the heavy localised rainfall, which, in the Alta Italia, swells the mountain-streams in a few hours to torrents and the lowland rivers to lagoons. Of what avail is the engineer's embankment when the hillside, denuded of its forest, sends down the water in tons instead of gallons, and the swollen affluents contribute to the main streams in proportional excess of their hitherto estimated volume? For such visitations the remedy is not mechanical, but physical—the restitution to the uplands of their despoiled verdure, and with it the means of detaining and distributing the moisture and regulating the rainfall. Italy has, at length, awakened to this necessity

and is encouraging the plantation of trees, particularly the eucalyptus, in appropriate places, holding out substantial rewards to the landowners who succeed best in clothing the hillsides with wood. The example of her French neighbour is having a wholesome effect upon her. Twenty years ago, or rather more, Savoy passed from her to France, and took with it the *damnsa hereditas* of autumnal inundations due to the reckless destruction of forests. The Emperor Napoleon immediately set himself to avert these unwelcome visitants, and restored to the old sub-Alpine territory its former pride of waving woods and lustrous foliage. In ten years Savoy was its former self again, and, thanks to its plantations, the floods that have visited it since 1872 have done but little material damage, in striking contrast with the desolation and misery they annually cause to the Italian motherland.

After the floods, the pellagra. This scourge, which was to have been abolished with the grist-tax, is now worse than during its incidence, and the physicians and philanthropists of the pellagrose districts have founded a society of prevention and cure. Its prospectus is before me, and provision is first to be made for the relief, and if possible, the restoration to health of the actual sufferers, and next for the removal, or at least the minimising, of the conditions under which the malady originates and spreads. For the former end, the pellagrose subjects are to have systematic treatment, according to the method of Lombrosi, in their homes or in hospital, while their children are to receive artificial lactation. For the latter end a hot-air drying apparatus is to be instituted for the garnered maize, and the Anelli oven is to be employed wherever practicable; the "economic kitchen," already in working, is to be extended and maintained; the feeding of the peasantry is to be watched, particularly to prevent the consumption of spoiled maize; and instruction is to be given in cleanliness of person and of home, and to make the people as far as possible the intelligent custodians of their own health. To carry out these provisions, resources are drawn from the Government, from the provincial and communal funds, from the donations of private individuals, and from the annual subscriptions of the associates. These latter are divided into two classes of both sexes, the active and the contributing: the active will charge themselves with the artificial lactation of the children, with the care of the pellagrose, and with the hygiene of the peasantry; while the contributing will subscribe at the rate of six francs a year. I expect to have soon a favourable report of this urgently needed and well-organised society.

The University of Palermo adds another to its specimens of teratology. In the neighbouring Castellbuono a woman was lately delivered of a female child with two heads well planted on the trunk, symmetrically proportioned, and with regular articulations, after a normal gestation of nine months. One head and the left arm presented first; but for several hours no further progress was made, and the child (such is the custom) received baptism. It was dead before the arrival of the surgeon, who, on extricating it, found the first head with the tongue protruding, and firmly fixed between the lips, the eyes also protruding, in token of the evident asphyxia. The second head was in the same condition, while the upper region of the trunk, in correspondence with the median point of the heads, was deeply lacerated down to the abdomen; the laceration was due to the forcible delivery necessitated by the resistance of the second head. The unfortunate mother died after forty-eight hours' suffering.

Rome, Nov. 6th, 1882.

### MEDICAL TRIALS.

CITY OF LONDON COURT.—NOVEMBER 4TH.

(Before Mr. Commissioner KERR.)

RECOVERY OF CHARGES FOR SERVICES RENDERED BY UNQUALIFIED ASSISTANTS.

BLOCK v. POETTING.

THIS was an action in which Mr. Moses Block, doctor of medicine, of 19, Chiswell-street, sought to recover from Mr. Richard Poetting, of 6, New Basinghall-street, the sum of £3 3s. for medical services rendered. Mr. Pease, solicitor, appeared for the plaintiff, and Mr. Lawrence, solicitor, for the defendant.

Mr. Emile Bransome, the plaintiff's assistant, said that



the charges were fair and reasonable, and that the defendant had been attended by himself and his employer.—His Honour: Are you a qualified medical practitioner?—Witness: No, but my employer is.—His Honour: But did you attend the defendant?—Witness: Yes, on behalf of Mr. Block.—His Honour: You had no right to do so.—Mr. Pease: Is this not a similar case to that of a clerk attending for a solicitor?—His Honour: No; the law says that a doctor cannot recover for medical advice given by his assistant.—Mr. Pease: But here the plaintiff is instructed; and sometimes he called upon the defendant, and sometimes the assistant did.—Mr. Lawrence: But did Mr. Block do all the work?—Witness: No; but he saw defendant several times during his illness.—Mr. Pease: Surely, your Honour, this is a monstrous defence?—His Honour: Indeed it is not.—Mr. Pease: Why should a medical man be compelled to call personally on a patient any more than a solicitor or counsel upon his client?—His Honour: Lawyers, unfortunately, are allowed to do extraordinary things. The law, however, says that if a doctor send his assistant to a patient the assistant must be qualified. I must find for the defendant; but will give leave to appeal if you like.—Mr. Pease: The defendant does not deny that he was attended.—Witness: And he preferred to be attended by me as he knew me.—His Honour: That only makes the case worse. I may tell you that you are liable to be indicted, and perhaps you will be so some of these days, if anything goes wrong.

Judgment was then given for the defendant with costs.

### MEDICAL NOTES IN PARLIAMENT.

In the House of Commons, on Thursday, the 9th inst., the report was presented of the Commission appointed to inquire into the subject of Criminal Lunacy; as was also a return of the number of deaths on board emigrant ships.

On Monday, Mr. Biggar gave notice of a series of questions as to the removal from Belfast Asylum to the workhouse of an inmate named Nelson; and Dr. Cameron intimated that he will question the Lord Advocate with regard to the diversity of powers of sanitary supervision and administration granted to local authorities in Scotland.

#### *Union Medical Officers.*

Dr. Farquharson asked the President of the Local Government Board whether his attention had been drawn to the case of "Grubb v. the Chesterton Board of Guardians," and the decision and comments of the Cambridge County Court judge thereon; whether the Local Government Board would modify their consolidated orders so as to prevent in future the contingency of a district medical officer summoning his board of guardians to pay him his extra fees; and whether he would lay upon the table of the House a copy of the correspondence between Dr. Martin O'Connor of Chatteris, Cambridgeshire, the Local Government Board, and the North Witchford Board of Guardians, Cambridgeshire, relative to the refusal of the latter body to pay a fee claimed by Dr. Martin O'Connor.—Mr. Dodson said he had seen the newspaper report of this case, in which a Poor-law medical officer obtained judgment for extra medical fees for attending a poor woman who had met with an accident. In regard to the proposed modification of the general order, it did not appear to him that the Local Government Board could so alter it as to prevent a medical officer taking legal proceedings against a board of guardians for extra medical fees if they declined to pay, or, on the other hand, require the guardians to pay such fees when not legally due. In regard to the correspondence, that would be produced if the hon. member liked to move for it.

#### *Vaccination.*

Mr. Hopwood asked the President of the Local Government Board in regard to the alleged inoculation of French soldiers with disease by vaccination, which occurred in December, 1880; whether he would think it right to lay upon the table all the information he had obtained on the subject.—Mr. Dodson said he could only repeat that the information which he obtained was so incomplete that it threw no further light on the subject, and he saw no advantage in laying it on the table of the House as it stood. At the same time, he was as anxious as his hon. and learned friend could be to obtain full particulars on the subject, and he had again requested the Foreign Office to endeavour to

ascertain whether the French Government had made any further inquiries into the matter, and to afford the Local Government Board further knowledge on the subject.

Mr. A. Moore gave notice of a question relating to the reports received by the Irish Local Government Board as to the state of the emigrants' lodging-houses in Londonderry; and Lord George Hamilton intimated that he will make inquiry as to the refusal of the English Local Government Board to allow the Whitechapel Board of Guardians the means of obtaining a periodical inspection of the homes of boarded-out children.

On Thursday, in reply to Mr. Healy, Mr. Trevelyan explained that although the salaries of Irish coroners were payable half-yearly, the county treasurers usually deferred payment until the eve of the next assizes, when they had the necessary funds in hand.

#### *Health of the Troops in Egypt.*

Mr. Childers, replying to Sir H. Tylor, stated that the present percentages of sickness amongst the army of occupation in Egypt were 7 per cent. amongst the infantry and cavalry, and 11 per cent. amongst the artillery; but these percentages were gradually diminishing as the sicknesses of individuals came to an end. Sir Andrew Clark went to Egypt a week ago to inquire whether any improvements were desirable in the barrack arrangements and hospital accommodation; and meanwhile no expenditure on those services had been spared.

#### *The Army Medical Department in Egypt.*

Sir T. Lawrence asked the Secretary of State for War why the name of Surgeon-General Hanbury, commanding the Medical branch of the Egyptian Expedition, was omitted from the Parliamentary Vote of Thanks to the general officers and others of the Expedition; whether Surgeon-General Hanbury did not hold the relative rank of Major-General, and was of the same rank as the other Major-Generals whose distinguished services were specially acknowledged in the despatches of the General the Commander-in-Chief of the Expedition; and why the names of Deputy Surgeon-General Colvin Smith and the medical officers of the Indian Contingent were omitted from the despatches recommending the promotion of medical officers in the last despatch of the General Commanding-in-Chief.—Mr. Childers had to say, speaking on behalf of the First Lord of the Treasury and the First Lord of the Admiralty, who, with himself, were responsible for the language of the Vote of Thanks, that they followed the precedents, according to which it was not usual to mention departmental officers. He saw no reason for enlarging the already long list of names. As to the second question, it was true that Surgeon-General Hanbury held the relative rank of major-general. As to the third question, it was not for him to ask the Commander-in-Chief of an army why he either excluded or included in his despatches the names of particular officers, but, as a matter of fact, Sir Garnet Wolseley wrote a supplemental despatch, which would appear to-morrow, and in which he observed the name of Deputy Surgeon-General Colvin Smith.

#### *Prevention of Floods.*

In reply to Mr. Peel and Sir A. Otway, Mr. Dodson said he was aware of the damage and sickness caused by the floods at Strood and elsewhere, and he was fully sensible of the importance of giving the inhabitants of river basins power to avert these evils, but he was not now prepared to state what course the Government would pursue.

#### *The Attempt to Shoot Judge Lawson.*

Mr. W. Corbet asked the Chief Secretary for Ireland, having regard to the antecedents of the man Patrick Delany, and the circumstances under which he had been arrested on a charge of attempting to shoot Mr. Justice Lawson, whether he would direct a medical examination as to the mental condition of the prisoner.—Mr. Trevelyan said he had no intention of interfering with a matter which was already fully provided for by law.

PRELIMINARY steps have been taken towards the establishment of a cottage hospital at Abingdon. The sum of £638 has already been collected for the purpose, and a subscription of £50 per annum for the two or three years from the starting of the hospital has been promised.

## Medical News.

**ROYAL COLLEGE OF PHYSICIANS OF LONDON.**—The following gentlemen passed the Primary Examination: the Licence on the 9th inst.:

John Geo Adams, William Rushworth Ashworth, Charles Barlow, Thomas David Collis Barry, Lancelot Bathurst, Robert Sewell Batson, Reginald Treacher Bowden, Albert Bowhay, Joseph Thos. Boyd, Jabez Pratt Brooks, Samuel John Brooks, Robert Marston Bruce, Leopold Burroughs, Wm. Arthur Cahill, Herbert Bertram Cavell, Herbert William Chambers, Arthur Fredk. Gambell Codd, Arthur Wandesforde Comber, Charles Thomas Thornton Comber, Arthur Zell Claydon Cressay, Arthur Crossley, Domingo Antonio De Montbrun, Pedro Louis De Montbrun, John Patrick Cronly Dillon, Arthur Herbert Dodd, Walter Harry Dodd, Joseph Bowerman Drew, Herbert Ebenezer Edlin, Dennis Cawood Embleton, Henry Collen Ensor, Charles Ewart, Courtenay Jas. Fuller, Thomas Frederick Gardner, Gustavus Geo. Gidley, Charles Ernest Goddard, John Harley Gough, Walter Spencer Anderson Griffith, Harry Harlock, John William Harris, Hilary William Haydon, Harry George Henderson, George Frederick Hentsch, Hugh Gardner Hill, Chas. John Holton, George Hope, Joseph Duncan Howe, Francis Rowland Humphreys, Edwin Guy Hunt, Alfred William Hunton, Edward Jessop, Eugene Numa Joly, Hedley Gordon Jones, John Edw. Evans Jones, Herbert Arthur Kent, Charles Edw. Liesching, William Leppingwell Livermore, Arthur Maude, Charles Metzgar, John Perrett Millington, Henry Geo. Hawkins Monk, Joseph John Oakman, Harry Marmaduke Page, Herbert Lloyd Parry, Edmond Wm. Paul, Edmund John Penny, Alfred Ernest Albert Pettingill, Ernest Willmer Phillips, George Gordon Owen Phillips, Josiah Northey Phillips, Richard Pinhorn, Alexander Yates Reilly, Herbert Ellis Rowell, John Jones Rowland, George Jervis Rugg, Charles John Sharp, Albert Smith, John Henry Spitzly, Hubert Samuel Stockton, Henry John Thornton, Hugh Champneys Thurston, Rankai Totsuka, Geoffrey Frederick Travers, Edward Tull Trevor, Frederick Wenman Turtle, Thomas Unicorn, Arthur Wm. Wheatly, William Whitworth, John Grant Wilson, Harrie Yeo, Wm. Hamond Young.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen, having passed the required examination for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on Monday last:

Atkins, George, L.R.C.P. Lond., Yealmpton, Devon.  
Baker, William Brain, L.S.A., Banbury.  
Boxall, Robert, L.R.C.P., Cranleigh, Surrey.  
Bromley, Henry Urgent, Braintree.  
Butterworth, Samuel, L.R.C.P. Edin., Rochdale.  
Coombe, Charles Frederick, Wrothing.  
Furnival, Francis Henry, L.S.A., Nottingham.  
Heathcote, Ralph George, L.R.C.P. Edin., Manchester.  
Herman, Christian Lawrence, M.B. Edin., Cape Town.  
Lister, Joseph Herbert, L.S.A., Hantley-street.  
Littlewood, John Oacrott, L.S.A., Sutton-in-Ashfield.  
Priestley, John, L.S.A., Greenheys.  
Shirley, Matthew Bernard, L.R.C.P. Edin., Leeds.  
Smith, W. A. Winwood, L.S.A., Kensington-gardens-square.  
Statham, Reginald Whiteside, L.S.A., Walsworth.  
Waring, John Arkle, L.R.C.P. Edin., Prince's-gardens.  
Wilson, George, M.B. Edin., Lockerbie, N.B.  
Wyborn, Samuel, L.S.A., Windsor.

The following gentlemen were admitted Members of the College on Tuesday last:

Aslanian, Bedros, L.S.A., Van, Turkey.  
Banham, William Wilfred, Barnsley.  
Beauley, William Crump, M.B. Dub., Bloomsbury-square.  
Bown, Arthur Thomas, Bath.  
Dacre, John, Leeds.  
Dale, Walter Frederick, L.R.C.P. Lond., Coleshill.  
Guinness, Thomas Archibald, Greville-place.  
Harriss, Henry Jones, Filton, near Carmarthen.  
Hall, Alfred, Ashbourne.  
Hind, Wheelton, Honington, Suffolk.  
Hoar, C. de Sambler, Campden-hill-gardens.  
Horrocks, William Henry, Liverpool.  
Maye, John, L.S.A., Kingsbridge, Devon.  
Myles, James Percival, L.R.C.P. Lond., Bristol.  
Porter, Guy David, Abbey-gardens.  
Price, Thomas William, Birmingham.  
Salter, George Herbert, L.R.C.P. Edin., Mount-street.  
Smith, James Edward, L.S.A., Hammeramith.  
Sells, Hubert Thomas, Merrick-square.  
Sunderland, Septimus, Birmingham.  
Winder, William Henry, Manchester.

The following gentlemen were admitted Members of the College on Wednesday last:

Bailey, Charles Frederic, Norwich.  
Caiger, Frederick Ford, Gloucester-street.  
Cardwell, Thomas, Reading.  
Crick, William Thorne, L.R.C.P. Lond., Great Glen, Leicester.  
Cuff, Robert, Camden-road, Blackheath.  
Dakin, William Radford, Edith-road.  
Davis, John Warren, L.S.A., Milford Haven.  
Dun, Walter Angus, L.R.C.P. Lond., Cincinnati.  
Ellison, William Augustine, Windsor.  
Fraser, James Alexander, Blackheath.  
Harrison, John, L.R.C.P. Edin., Braintree.  
Hodges, Herbert Chamney, Walton, Herts.  
Kennings, William Munro, Newcastle.

Kinch, George Henry, L.R.C.P. Edin., Hilldrop-crescent.  
Leon, Greville Ewing, L.S.A., Hamilton, Bermudas.  
Masters, Edgar Ernest, Lewisham.  
Mead, Herbert Remington, L.R.C.P. Edin., Blackheath.  
Smith, Howard Lyon, Tollington-park.  
Taller, George Arthur, Brosley, Salop.  
Woodhouse, Alfred E. Clayton, Hanover-square.

Mr. Thomas Bryant, the newly elected member of the Court of Examiners, in the room of Mr. Birkett, took his seat at these meetings.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 9th inst.:

H. B. Matthias, W. H. Pinches, H. C. Parsons, M. G. Robinson, and J. C. Barker, St. Bartholomew's Hospital; E. Goodall, Guy's Hospital; E. F. Jones and A. M. Whitehead, London Hospital; A. E. Read, St. George's and St. Thomas's Hospitals; J. Pieterse, F. Todd, F. I. Dewes, St. Thomas's Hospital; P. E. Maitland, Madras Medical College; J. J. Dickinson, London Hospital and Cambridge School; F. Farrow, Owens College.

Of the 90 candidates examined during last week, 23 failed to satisfy the Board, and were referred for three months' further anatomical and physiological study.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Nov. 9th:

Aslanian, Bedros, Dixon-street, L. Marsh.  
Holdsworth, William, Freeman-street, Grimsby.  
Jacob, Arthur Howard, Bernard-street, Russell-square.  
Llewellyn, James Davies, Glyn-neath, Glamorganshire.  
Mosse, Herbert Henry, Sutton, Surrey.  
Peckett, Arthur Wm. Chalmers, Burgoyne House, Southsea.  
Robinson, William, Great College-street.  
Sturges, Frank, Eckenham, Kent.  
Wheatly, Arthur William, Bralles, Warwickshire.  
Young, William Hy. Frome, Pastor-place, Brighton.

The following gentlemen also on the same day passed the Primary Professional Examination:—  
Norton Gilbert Gilkes, London Hospital; William Dymos Stevenson, Middlesex Hospital.

**ALDERMAN W. F. CROSKEY, M.D., C.M. Ed.,** has been elected Mayor of Lewes for the ensuing year.

**MISS ANNA GRAYDON** has left £1000 to the Adelaide Hospital, £500 to the Hospital for Incurables, and £500 to St. Mark's Ophthalmic Hospital.

An asylum for the poor in Halifax, N.S., caught fire at midnight, and thirty-five of the helpless inmates were burnt to death.

At the instance of the Pharmaceutical Society of Great Britain, a druggist was proceeded against last week at the Stockport County Court for describing himself over his door as "Analytical Chemist," he not being registered. The defendant was fined £5 and costs.

**VACCINATION GRANTS.**—The following gentlemen have received the Government grant for efficient vaccination in their respective districts:—V. Wanostrocht, M.B., of Eserick, York; Mr. C. W. Morris, Chipping Campden (fourth time).

**THE MEDICO-PSYCHOLOGICAL ASSOCIATION.**—The usual quarterly meeting of this Association was held at Bethlem Hospital on Wednesday evening, Nov. 8th. In the absence of the President, the chair was taken by Dr. D. Hack Tuke. Dr. Mercier read a paper on the "Conditions of Life affecting Insanity"; and Dr. Julius Mickle communicated some particulars on "Traumatic General Paralysis." An interesting discussion followed in each case, and, owing to the lateness of the hour, a paper by Dr. Fletcher Beach on "Atrophy of the Brain" was taken as read.

**HULL GENERAL INFIRMARY.**—The centenary of this charity was celebrated on the 12th inst. This hospital commenced as a temporary erection, and the present building in the form in which it was first raised was opened in 1784. In 1838 a large wing was placed at each end of the building at a cost of £3000; and more recently there have been added a new block at the back of the main portion, and several detached fever wards. The committee hope to raise £10,000 for the purpose of providing a convalescent home in connection with the infirmary. The meetings on the 12th were attended by several noblemen and influential residents of Hull, and in the evening a demonstration of the Friendly Societies of the town took place, the members of which were addressed by the Archbishop of York, who, in his wonted genial manner, commended the efforts made by the working people on behalf of the hospital, and gave them some good advice on the questions of temperance and thrift.

**THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.**—The addresses to workpeople on subjects connected with health that were delivered last year under the direction of the Committee of the Manchester and Salford Sanitary Association are to be continued at intervals during the present winter, in addition to the series of "Health Lectures for the People," which are to be given in the Association Hall, Peter-street. The first of these addresses was on the subject "How to keep out the Cold," and was delivered on the 7th inst., at the goods yard of the London and North-Western Railway Company, London-road, by Dr. Ransome, lecturer on public health at Owens College. The audience consisted of about 150 workmen.

**METROPOLITAN ASYLUMS BOARD.**—At the meeting of the Board on the 11th inst. the reports of the Fever and Small-pox Hospitals were presented. These showed that in regard to fever cases in the fortnight, 42 had been admitted to Stockwell, 70 to Homerton, and 14 to Fulham, while 12 convalescents had been transferred to Hampstead. In all 154 fresh cases had been admitted in the fortnight, 21 had died in the same period, and 138 had been discharged, leaving 671 under treatment, as against 652 a fortnight ago. Of the whole number, 506 were scarlet fever cases, 37 were typhus cases, and 123 were cases of enteric fever. In respect to small-pox, only 15 cases had been admitted in the fortnight, 5 had died, and 15 had been discharged, leaving 68 under treatment, a decrease of 9 on the number remaining a fortnight ago.

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

**ALPIN, WILLIAM, M.R.C.S., L.R.C.P.Lond.,** has been appointed Senior House-Surgeon to the Metropolitan Free Hospital, vice A. Cohen, M.D., B.Ch., resigned.

**ANDREW, WILLIAM, M.B., M.Ch.Ed.,** has been appointed Medical Officer for the Fourth District of the Lancashire Union.

**ANNES, F. R., M.R.C.S.,** has been appointed Junior House-Surgeon to the Metropolitan Free Hospital, vice W. Alpin, M.R.C.S., L.R.C.P.Lond.

**ASHE, ST. GEORGE, L.R.C.S.I.,** has been elected Medical Officer of the High-street Dispensary, South Dublin Union, vice Dr. E. H. Byrne, resigned.

**BARR, JOHN, M.B.,** has been appointed Medical Officer of Health to the Rialton Local Board, Lancashire.

**BARR, THOMAS, M.D., C.M., F.F.P.S.Glas.,** has been appointed Aural Surgeon to the Sick Children's Hospital, Glasgow.

**BROWN, J., L.R.C.P.Lond. &c.,** has been appointed Medical Officer of Health to the Borough of Bacup.

**BEATSON, GEO. THOMAS, M.D., C.M., L.R.C.S.Ed.,** has been appointed Extra Dispensary Surgeon to the Western Infirmary, Glasgow.

**BUCKLEY, HENRY CHILD, M.D., C.M.Aber., M.R.C.S., L.S.A.Lond.,** has been reappointed Medical Officer of Health for the Llanelli Urban Sanitary District.

**CAMERON, HECTOR CLARE, M.D., C.M., F.F.P.S.Glas.,** has been appointed Surgeon to the Sick Children's Hospital, Glasgow.

**CAMPBELL, WILLIAM, M.B., C.M.,** has been appointed House-Surgeon to the Royal Infirmary, Glasgow.

**CHRISTIE, JAMES, M.D., F.F.P.S.Glas.,** has been appointed Dispensary Physician to the Western Infirmary, Glasgow, vice Coats, resigned.

**COATS, JOSEPH, M.D., F.F.P.S.Glas.,** has been appointed Pathologist to the Sick Children's Hospital, Glasgow.

**DAVIDSON, JAMES H., M.B., C.M.Ed.,** has been appointed House-Surgeon to the Royal Infirmary, Glasgow.

**DUNN, THOMAS S., M.B., C.M.,** has been appointed House-Surgeon to the Royal Infirmary, Glasgow.

**EVANS, THOMAS, M.D., L.R.C.S.Ed.,** has been reappointed Medical Officer of Health for the Newquay Urban Sanitary District.

**FINLAYSON, JAMES, M.D., F.F.P.S.Glas., L.R.C.S.Ed.,** has been appointed Physician to the Sick Children's Hospital, Glasgow.

**FLEMING, WILLIAM JAMES, M.D., F.F.P.S.Glas.,** has been appointed Extra Surgeon to the Sick Children's Hospital, Glasgow.

**FORSYTH, ROBERT, M.D., M.Ch.Glas.,** has been appointed Medical Officer for the Birral District of the Dewsbury Union.

**GELLATLY, ANDREW, M.B., M.Ch.Ed.,** has been appointed Medical Officer for the First District of the Ashton-under-Lyne Union.

**GEMMELL, SAMSON, M.D., C.M., F.F.P.S.Glas.,** has been appointed Extra Physician to the Sick Children's Hospital, Glasgow.

**HUDSON, ERNEST, M.R.C.S., L.S.A.Lond.,** has been elected Junior Assistant House-Surgeon to the Sheffield Public Hospital and Dispensary, vice Mr. H. B. Fletcher, resigned.

**HUES, JAMES JOHN, M.R.C.S.,** has been appointed Medical Officer for the Handsworth District of the West Bromwich Union.

**JONES, B., M.R.C.S., L.R.C.P., &c.,** has been appointed an Honorary Surgeon to the Holloway and North Islington Dispensary, vice Scott, resigned.

**LAWRIE, WILLIAM J., M.B., C.M.,** has been appointed House-Surgeon to the Royal Infirmary, Glasgow.

**LEISHMAN, WILLIAM, M.D., F.F.P.S.Glas., L.R.C.S.Ed.,** has been appointed Physician to the Sick Children's Hospital, Glasgow.

**LUCAS, R. CLEMENT, M.B., B.S.Lond., F.R.C.S.Eng.,** has been appointed Surgeon to in-patients at the Evelina Hospital for Sick Children, vice Mr. W. Marrant Baker, resigned.

**MACEWEN, WILLIAM, M.D., C.M., F.F.P.S.Glas.,** has been appointed Surgeon to the Sick Children's Hospital, Glasgow.

**MENISH, JAMES, M.B., C.M.,** has been appointed House-Physician to the Royal Infirmary, Glasgow.

**MENIVER, E. ORR, M.B., C.M.Ed.,** has been appointed House-Physician to the Royal Infirmary, Glasgow.

**NEWMAN, DAVID, M.B., C.M., F.F.P.S.Glas.,** has been appointed Extra Dispensary Surgeon to the Western Infirmary, Glasgow.

**QUENNEL, JOHN COOPER, M.R.C.S., L.S.A.Lond.,** has been appointed Medical Officer of Health for the Ougar Rural Sanitary District.

**REID, THOMAS, M.D., F.F.P.S.Glas.,** has been appointed Ophthalmic Surgeon to the Sick Children's Hospital, Glasgow.

**RENTON, J. CRAWFORD, M.B., L.R.C.P.Ed., L.R.C.S.Ed., F.F.P.S.Glas.,** has been appointed Dispensary Surgeon to the Western Infirmary, Glasgow.

**RICH, A. CRESWELL, M.B.Lond., M.R.C.S.,** has been appointed Pathologist to the Liverpool Royal Infirmary, vice F. T. Paul, resigned.

**SEMPLE, ANDREW, M.B., C.M.,** has been appointed House-Physician to the Royal Infirmary, Glasgow.

**STEWART, CHARLES W., M.A., M.B., C.M.,** has been appointed House-Physician to the Royal Infirmary, Glasgow.

**TUDOR, JOHN, M.R.C.S., L.S.A.Lond.,** has been appointed Consulting Surgeon to the Dorset County Hospital.

**WILLCOCKS, FREDERICK, M.D.Lond., M.R.C.P. & M.R.C.S.,** has been appointed Assistant-Physician to Charing-cross Hospital.

**WILSON, JAMES L., M.B., C.M.,** has been appointed House-Physician to the Royal Infirmary, Glasgow.

**WILSON, WILLIAM MACKNIGHT, M.B., C.M.,** has been appointed House-Surgeon to the Royal Infirmary, Glasgow.

**YOUNG, CHARLES STEWART, L.F.P.S.Glas., L.S.A.Lond.,** has been appointed Assistant Medical Officer to the Barnhill Hospital, Glasgow, vice Dr. Taylor, resigned.

## Births, Marriages, and Deaths.

### BIRTHS.

**GANGE.**—On the 9th inst., at Court-street, Faversham, the wife of Frederick A. Gange, M.D., of a son.

**GIBSON.**—On the 4th inst., at Stanley House, Blackstock-road, Finsbury-park, N., the wife of J. C. Gibson, L.R.C.P., L.R.C.S., of a daughter.

**KIDD.**—On the 5th inst., at 60, Brook-street, W., the wife of Percy Kidd, M.B., of a son.

**MACCALL.**—On the 7th inst., at Hope Bank, Kersal, the wife of William McCall, M.D., of a daughter.

**NAISMITH.**—On the 9th inst., at Ayr, N.B., the wife of W. J. Naismith, M.D., C.M.Ed., of a daughter.

**PHILLIPS.**—On the 20th ult., at Cheltenham, Gloucestershire, the wife of A. R. Phillips, L.D.S.R.C.S.E., of a son.

**WYNDOWE.**—On the 12th inst., at Bathaston Lodge, Bath, the wife of S. Jardine Wyndowe, M.D., Deputy Surgeon-General (retired), of a daughter.

### MARRIAGES.

**ALLT-NEVE.**—On the 8th inst., at St. Botolph's Church, Aldersgate, by the Rev. Alfred R. Clemens, Nathaniel William Allt, L.K.Q.C.P., Surgeon, of Poplar-place, Wittersham, Kent, eldest surviving son of Terence Allt, Esq., Rathmines, Dublin, to Catherine Fanny, eldest daughter of T. R. Neve, Wittersham.

**BENTHAM-SHARP.**—On the 2nd inst., at St. John's Cathedral, Hong Kong, Robert Bentham, Surgeon, R.N., son of R. Bentham, M.D., of London, to Ellen Lydia, daughter of the late F. Sharp, of Norwich.

**POUNDS-LEWIS.**—On the 30th Oct., at St. Saviour's, South Hampstead, T. Henderson Pounds, M.R.C.S., L.S.A.Lond., eldest son of Capt. Pounds, R.N., to Katharine, eldest daughter of James Lewis, R.N., of Adelaide-road, N.W.

**WARD-TUKE.**—On the 13th inst., at St. Mary's Cathedral, Edinburgh, Alfred Ward, M.B., of Anston, co. York, youngest son of William Sykes Ward, of Denison Hall, Leeds, to Emily Elizabeth, only daughter of John Batty Tuke, M.D., F.R.C.P.E., Charlotte-square, Edinburgh.

**WYLIE-CLARKE.**—On the 7th inst., at Christ Church, Skipton, William Wylie, M.D., L.R.C.P.Ed., of Skipton, eldest son of the late E. Wylie, Esq., of Fourtowns, co. Down, to Edith Jane, youngest daughter of the Rev. W. H. Clarke, M.A., Vicar of Christ Church, Skipton.

### DEATHS.

**ASKHAM.**—On the 9th inst., at Clovelly House, Woking Station, Surrey, Henry Francis Askham, M.R.C.S., late Medical Officer of Her Majesty's Convict Prison, Portland, and formerly of Dartmoor and Woking Prisons, aged 47.

**BRICKWELL.**—On the 9th inst., at Somersham, Hunts, Henry Brickwell, M.R.C.S., L.S.A.Lond., aged 65.

**CROFT.**—On the 10th inst., at Bicester, at the residence of his father-in-law, Jonas Paxton, John Henry Croft, M.R.C.S., L.S.A.Lond., aged 42.

**DE GRAVE.**—On the 13th inst., at the residence of his nephew, Edward Perronet Sells, Morland-road, Croydon, John Francis De Grave, M.D., M.R.C.P.Lond., M.R.C.S., Past Master of the Society of Apothecaries, in his 92nd year.

**GOULD.**—On the 15th inst., at 16, Queen Anne-street, London, Katie, the dearly-loved wife of Alfred Pearce Gould, F.R.C.S.Eng., aged 27.

**KINGSTON.**—On the 11th inst., at Church Lawford Rectory, Warwickshire, Peter Nugent Kingston, M.D., late Consulting Physician at Westminster Hospital, aged 77.

**NOOTT.**—On the 4th inst., at Quay-street, Cardigan, Henry Curtis Noott, L.R.C.P.Ed., M.R.C.S., aged 33.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, Nov. 16th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Nov. 10	29.66	W.	41	39	..	52	35	..	Hazy
" 11	29.61	W.	42	39	..	43	36	..	Bright
" 12	30.12	W.	35	34	..	44	30	..	Foggy
" 13	29.98	E.	42	41	..	47	32	.06	Raining
" 14	29.93	N.E.	41	38	..	42	36	..	Overcast
" 15	29.79	E.	39	37	..	43	34	..	Cloudy
" 16	29.09	N.	35	35	..	44	31	.32	Snowing

## Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

## DR. DOBELL'S CHANGE OF ADDRESS.

A LARGE correspondence, for which we cannot find room, has reached us on this subject, including a letter from Dr. Dobell himself, to the effect that the profession is a brotherhood, and that the intimation of a change of address by one of its members is to be regarded as an act of social courtesy and a means of preventing inconvenience to patients and their advisers. The objection to it, of course, is that it is liable to great abuse, and to be done in an advertising sort of way. When done by consultants it ought to be strictly limited to professional brethren in the habit of consulting them. The feeling with which Dr. Dobell's card has been received is probably to be explained chiefly by the circumstances that it has been distributed on a very wholesale scale, and to many who were not in the habit of consulting him, and who had not even the pleasure of knowing him. The intimation of a change of address, if restricted severely to those who have a right to be informed, is never resented; where it is resented there must be some deeper explanation.

Mr. C. P. Chittenden will see that we have treated of one of the subjects of his letter elsewhere.

Mr. Jessop (Leeds).—Mr. Barraud, Oxford-street, London, W.

## LACTRINE.

To the Editor of THE LANCET.

SIR,—As you have recently handled scientifically the subject of the medium through which the rays of the electric light should pass so as not to injure the eyesight or produce painful sensations, I venture to ask your attention to a new variety of glass, which softens the electric light without diminishing its luminant quantity. This glass is termed "lactrine," and it resembles, almost in the degree of facsimile, the opal gem, being less cloudy and absorbent than the common opal glass, and of a finer and purer quality. A perfect specimen of "lactrine" glass may be viewed in the shop of Messrs. Wolff, tailors, London-bridge, having been recently placed there by the Metropolitan Brush Company. Contrasted with the alabastrine glass, adopted for the most part by the electric companies, this shows to the greatest advantage, and that it has met with favour among electricians, I augur from the fact of its being now exclusively used by the Hammond Company, and this, too, both for arc-lights and for incandescents. Lactrine can be tinted if desired, and as an article of manufacture its prime cost exceeds that of alabastrine by the merest trifle, while it does not require the eye of a connoisseur to decide which of the two is the more artistic and effective, as well as the better protector of the eye.—I am, Sir, yours, faithfully,

The Lactrine Syndicate, 151, Cannon-street, E.C.

Nov. 13th, 1882.

C. READE.

## CHLORATE OF SODIUM IN STOMATITIS.

To the Editor of THE LANCET.

SIR,—In the concluding paragraph of a paper by Drs. Ringer and Salmon, on "the Action of the Salts of Sodium, Ammonium, and Potassium," appearing in your issue of Nov. 4th, the value of chlorate of sodium in ulcerated conditions of the mouth is pointed out. May we crave a few lines to say that its application in this way is not altogether new, as for the last three years we have made chlorate of sodium pastilles, forming one of a series of medicated throat pastilles which we originally prepared at the suggestion of Dr. Prosser James, and which have been exhibited at the Cambridge and other meetings of the British Medical Association and elsewhere. These pastilles, however, have never been brought before the notice of the profession in the advertisement pages of the medical journals, and are consequently but little known.

We are, Sir, yours faithfully,

Plough-court, Lombard-street Nov. 15th, 1882.

ALLEN &amp; HANBURYS.

## Medical Diary for the ensuing Week.

## Monday, Nov. 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Haward will show a Man with Intra-Thoracic Aneurism.—Dr. Frederick Hicks will show Instruments for the Treatment of Intra-Thoracic Abscess.—Dr. Thorowgood, "On the Treatment of Intra-Pleural Effusions."

## Tuesday, Nov. 21.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. The following specimens will be shown:—Fatty Degeneration of Walls of Heart; Microscopical Specimens of a New Disease of Lymphatics; Embolus from the Left Auricle of the Heart; Syphilitic Gumma in Wall of Left Ventricle; Testis in the Perineum with Congenital Hernia; Unusual form of Growth in the Bladder; Rickets in a Baboon.

## Wednesday, Nov. 22.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

HUNTERIAN SOCIETY.—3 P.M. Mr. Jonathan Hutchinson, "On Certain Diseases allied to Erysipelas."

## Thursday, Nov. 23.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

HARVEIAN SOCIETY.—Harveian Lectures: Mr. Henry Power, "On Ophthalmic Medicine and Surgery in relation to General Practice."

## Friday, Nov. 24.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

QUEKETT MICROSCOPICAL CLUB.—3 P.M. Mr. B. W. Priest, "On the Statoblasts of the Fresh-water Sponges."

CLINICAL SOCIETY OF LONDON.—Dr. Cavay, "On Two Cases of Symmetrical Congestive Motting of the Skin" (patients will be shown).—Mr. J. E. Adams, "On a Case of Lumbar Nephrectomy for Carcinoma."—Mr. R. J. Godlee, "On Two Cases of Intussusception in Infants treated by Abdominal Section."—Dr. Dyce Duckworth, "On Two Cases of Subcutaneous Rheumatismal Nodes" (one of the cases will be exhibited).

## Saturday, Nov. 25.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

## THE CHOLERA AT MANILLA.

THE following is an extract from a private letter received by a gentleman in Manchester from Manilla, and published in the *Manchester Guardian* :—

"We have had the cholera here in about its worst form, I suppose, since the mortality in Manilla and suburbs alone may be put down at not far from 20,000, or about 10 per cent. of the population. The death-rate got up to 1500 one day, but now, thank God, it has got down to 80 odd, and is diminishing fast. As if this was not calamity enough, we have had a strong typhoon for several days, and last night and this morning two long and nasty earthquakes. It is a sweet country to live in. It has been a perfectly horrible time, worse than the earthquakes of 1880. Trenches have been dug in different places, and the dead buried like carrion. They dug a trench at Santa Luca, and within twenty-four hours had buried 112 bodies in it, three and four deep. We went to the Governor-General about it, and got a stop put to it. These 112 all came from San Miguel. At the Loma there were 762 buried in one day; for a week the death-cart and coffins were going night and day, and the streets were quite deserted. By order, bonfires have been burning in front of every house for more than a fortnight. No men can be got to load lighters or work anywhere. What Chinese or Indians could be caught in the streets were pressed by the veterans into the service of carrying the dead. Provisional hospitals have been opened all round, in which about 90 per cent. of the patients are said to have died."

## UNIVERSITY OF BRUSSELS.

WE do not publish the lists of the new graduates of foreign universities.

## "INUNCTION IN SCARLATINA."

To the Editor of THE LANCET.

SIR,—As this subject is important, and as so little appears to be forthcoming regarding it, I beg space for a few lines. For about a year I have ceased to prescribe inunctions in scarlatina and in pulmonary diseases. Clinical observation is often misleading—*post hoc propter hoc*; but I fancy that I have observed an aggravation of symptoms after rubbing in oil, and I now object to interfere with the respiratory, excretory, and temperature regulating functions of the skin for reasons similar to those anyone would have against coating over the respiratory surface of the lungs, &c. The skin is an organ as well as the liver or the lungs, and is it not true that dyspnoea, anasarca, and fever may be produced in, say, a frog or a rabbit by simply varnishing its skin?—that radiation of heat is lessened from the surface, say, of a liquid by the superimposition of a thin stratum of oil, and that evaporation from such a surface is diminished by the oil? Does not the interference with the action of the skin (plus the disorder of the nervous system) explain the origin of the inflammatory affections of the chest with which we are daily familiar, and the congestions and ulcerations of the duodenum after burns? Does not congestion or inflammation, with exudation and consequent inability of the skin to perform its natural functions, explain scarlatinal dropsy? Why make matters worse by rubbing in oil?

In scarlatina I direct my patients that the whole of the skin be well sponged with a warm, strong solution of borax, which, while it dissolves the epidermis, also, let us assume, renders the virus innocuous, promotes cutaneous respiration and excretion, reduces temperature, and mixes readily with the sudoriferous, and saponifies the sebaceous matters. After the boracic wash the skin is entirely and thoroughly to be moistened with thin glycerine, which promotes an exosmotic current, soothes and relieves the congestion of the skin, and keeps any dry epidermic dust from floating about.

Of a few cases of scarlatina treated on these lines in a small practice I have twice had solitary cases in children of large families in small houses, but in both cases the mothers were diligent and attentive to instructions.

Glasgow, Nov. 9th, 1882.

I am, Sir, yours, &c., ROBERT WALLACE.

To the Editor of THE LANCET.

SIR,—An observation on inunction in scarlet fever may be interesting to some of your readers. I find inunction is never beneficial to the skin in scarlet fever or any eruptive fever, for any oily substance rubbed into the whole or greater part of the skin clogs its pores and checks its action at once, throwing additional work on the already overworked kidneys, the kidneys being invariably overtaxed in eruptive fever with high temperature. If the skin is left alone, I find it is very seldom that kidney trouble or anasarca follows, and if careful precautions be taken, by the poor as well as rich, the disease will seldom spread.

Chlorine gas, formed by sprinkling vinegar and water upon chloride of lime, makes one of our best disinfectants, and should be plentifully supplied in the infected house.

I am, Sir, your obedient servant,

Sackville-street, Nov. 13th, 1882.

JAMES STARTIN.

Mr. Thomas Smith.—We think the "nineteen bottles of lotion at 2s. 6d. each" a weak part of this case, calculated to produce a bad impression on a judge.

Mr. Turner (Norwich).—Yes, if very brief.

## SINGLETON'S OINTMENT.

To the Editor of THE LANCET.

SIR,—Will you or any of your readers kindly tell me what Singleton's golden eye-ointment is composed of?—I am, Sir, yours truly,  
November 15th, 1882.

RUSTICUS.

## EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE first Primary Examination for the present session for the Membership of the College was commenced on the 8th instant, when ninety candidates presented themselves, against ninety-one at the corresponding period last year. The following were the questions on Anatomy and Physiology submitted on the present occasion, when the candidates were required to answer four, and not more than that number, out of the six questions, from 1 o'clock until 3 for Anatomy, and from 4 to 6 for Physiology :—

## Anatomy.

1. The skull-cap and the subjacent dura mater having been removed, describe the manner in which you would proceed to take out the brain from the cranial cavity.
2. Describe the course and relations of the inferior vena cava; and enumerate the veins which it directly receives, in their order from below upwards.
3. Describe the ligaments which connect the os calcis with other bones.
4. Describe the external anatomy and relations of the kidney. What appearance does it present on section to the naked eye?
5. Give the dissection necessary to expose the superior profunda artery and its anastomoses.
6. Name the nerves of the larynx, and describe their origin, course, and distribution.

## Physiology.

1. Describe the structure and mode of growth of a long bone.
2. Describe the movement of the blood in the capillaries as seen with the microscope; and explain the chief phenomena which can thus be observed.
3. Explain the manner in which ordinary inspiration and expiration are accomplished.
4. Give the functions of the anterior and posterior roots of the spinal nerves, and the evidence on which your statements rest.
5. Explain the terms syncope, apnoea, dyspnoea, asphyxia. How is death produced by asphyxia?
6. What is the composition of milk? Describe the digestion and absorption of its organic constituents.

T. J. H.—The instructions are good and well stated. The initials had better be deleted.

## ON TRANSFUSION.

To the Editor of THE LANCET.

SIR,—In a paper on the above subject in to-day's issue of THE LANCET, Mr. Le Page writes: "My special intention is that of supplying the obstetrician with a safe and facile means of transfusing blood after post-partum hæmorrhage, where the diastolic system is practically dead, and the heart is dynamically incapable of action in consequence of the absence of fluid to act upon."

Are the means he supplies us with both "facile and safe?" I cannot conceive that it is a very facile matter, alone and unassisted, to retain both cannule in the veins of the donor and receiver of blood, with one hand, whilst "pressing the ball and releasing the lever" with the other, supposing the operator to have overcome the initial difficulties of opening the two veins and introducing the two cannule. The "diverticulum" to arrest the air bubbles, if any be left, in the tubing is ingenious, but surely it may be a source of some trouble in that, in filling the apparatus with the soda solution, it will want some dexterity to empty the branch of the air it originally contained. Again, the diverticulum will be useless as far as arresting air is concerned, unless it can be kept upright, or nearly so, throughout the operation. A serious objection to it is that it would undoubtedly be a focus for coagulation.

Mr. Le Page claims that his instrument measures the quantity of fluid transmitted. Well, so does Aveling's. The mere quantity as expressed in drachms and ounces of the blood or saline fluid introduced into the receiver's vein is not to the point. The operator stops when the patient rallies, or if he be transfusing, when he finds the donor has given as much as it is safe to lose. It is impossible to predict that the receiver requires so many ounces, or that the donor can give so much.

Mr. Jennings very clearly pointed out (THE LANCET, Sept. 16th and Sept. 23rd, 1882) that the many objections inherent in blood-transfusion, especially in the immediate method, practically disqualifies it for those cases which the accoucheur and the general practitioner most frequently have to face unexpectedly and without any assistance. I fall to see that Mr. Le Page has removed any of these objections; on the other hand, he has introduced to us a complex modification of Aveling's instrument.

All the dynamic effect required for the circulatory system is supplied in the saline-alcoholic fluid of Little (which in this class of cases is the sole effect which is desired), without one tithe of the risks or difficulties of the immediate method of transfusion. The supply, further, is unlimited and always accessible.

It would be interesting to know whether Mr. Le Page has ever used his apparatus in actual practice. The value of the intravenous injection of the saline-alcoholic fluid has been lately exemplified by the case published in THE LANCET on Sept. 16th, 1882, and within the last twenty-four hours it has come to my knowledge that this method has again been carried out with success in another case, at the London Hospital, by means of Jennings's "syphon," the notes of which I hope will appear in due course.

I am, Sir, yours faithfully,

Duke-street, Manchester-square, W.,  
Nov. 11th, 1882.

W. H. FENTON-JONES.



## TESTS FOR COFFEE ADULTERATION.

a work now in course of publication at Breslau, Professor Wittstein gives details of the tests which he regards as effective in the discovery of false colouring on coffee, such a process being, it is explained, resorted to in order to give to inferior and sea-damaged kinds the appearance of superior descriptions. To detect the presence of lead he recommends the placing of the suspected coffee-beans in diluted nitric acid (of 1.10 specific gravity), which is poured off after one hour, and further diluted with three times its bulk of water. By the addition of sulphide of hydrogen the lead is made to form a black precipitate. Another mode of colouring coffee-beans is said to be by the use of a greenish powder, composed of Prussian blue, chromate of lead, clay, and gypsum. In order to discover the presence of this colouring matter, warm distilled water is poured over a quantity of the coffee-beans. After a couple of hours they are taken out again, and the water is allowed to become clear. If gypsum has been used, the water is rendered turbid by chloride of barium. If Prussian blue has been used, it can be readily traced by applying potash-lye, which immediately changes its colour into brown. If this change does not take place, it may be inferred that indigo has been used instead of Prussian blue, and in that case nitric acid will destroy the colour. During the treatment with potash-lye the chromate of lead is more or less affected, and is partially or wholly dissolved; while if turmeric has been used, it only takes a brown colour. As a further test, hydro-sulphuret of ammonia is spoken of as being able to show the presence of chromate of lead if any blackening takes place.

## REGISTRATION OF STILL-BIRTHS.

r. A. J. Newman.—Our correspondent is under a misapprehension in believing that recent legislation has provided for the compulsory registration of still-births. No entries relating to still-births are made in the national register either of births or of deaths. The Births and Deaths Registration Act of 1874, sec. 40, provides that any person who "wilfully makes, gives, or uses any false statement or representation as to a child born alive having been still-born, or as to the body of a deceased person or a still-born child in any coffin, or falsely pretends that any child born alive was still-born, or makes any false statement with intent to have the same entered in any register of births or deaths, shall for each offence be liable, on summary conviction, to a penalty not exceeding £10, and on conviction on indictment to fine or imprisonment, with or without hard labour, for a term not exceeding two years, or to penal servitude not exceeding seven years."

ndymion.—There is no single work dealing with the principles of preventive medicine, and the information must be gathered from a series of works. As text-books, Parkes' work on Hygiene, together with Wilson's Handbook of Hygiene, are perhaps the best. An excellent list of the works in question is appended to the papers given at the Sanitary Science Examination at Cambridge, and published at the Cambridge depot, Paternoster-row, E.C.

## VICARIOUS MENSTRUATION.

To the Editor of THE LANCET.

SIR,—A peculiar case having occurred of the above nature in the district over which I have charge, I venture to inform you concerning it. A single woman, aged twenty-six, came to consult me concerning her right eye, which she says "is very dim, and difficult to see out of, especially at night." Upon the inner canthus, close to the entrance of the superior lacrymal canal, was a small papule. The pupils appeared normal and the eyes natural, though last month the cornea of the right eye appeared congested. She is a bilious subject, and has loss of appetite, and sickness in the morning. The breasts are small, but fairly well developed. The menstrual flow has never been regular, and if any appears it is very slight and colourless. She does not appear to be anæmic, and the heart sounds are healthy, though she complains of sickness and pain in the frontal region, and always in the right eye.

About the middle of August last profuse hemorrhage took place from the papule mentioned, and a colleague says "it spurted out as if from a wounded artery." After a pad of cotton-wool with a bandage had been applied over the part and she had gone home, it commenced again, and another medical man was summoned on the same day (Wednesday), who adopted similar treatment, and the bleeding from the eyelid stopped till Friday, but it came on again on the following Monday, in spite of ice, &c. It first began from the right inner canthus, then it occurred from the left inner canthus, of the eyes; then bleeding from the nose and mouth followed.

As it would appear to be a case of extreme rarity to have hemorrhage in this region "vicarious of menstruation," I have determined to watch the case. I am giving aperients, with ergot and bromide of potassium, and recommend rest and cold applied to the head, as the symptoms threaten to recur. I shall also endeavour to induce normal menstruation from the proper channel as the periods come round. So far my treatment is successful.

I should be glad if any of your readers would inform me of similar cases, and for their opinion concerning this one.—Yours truly,  
G. DE COURCY MORRIS, M.D.

York, Nov. 1882.

## THE POPULATION OF CANADA.

THE above question has been receiving attention in the continental press, with special reference to the difference in the rate of increase of the French Canadians as compared with that which is recorded to be the case in France. It is stated that Canada has a French speaking population of about a million and a quarter who are lineally descended from the Norman and Breton colonists, who numbered not quite 11,000, and who emigrated to Canada during the 150 years of French supremacy in that part of America. Since Canada ceased to belong to France there has been practically no emigration from that country; in fact, there has been a somewhat extensive emigration of French Canadians from Canada to the United States. The French colonists have increased in number from 1,032,000 ten years ago to the present population of 1,238,929 souls, being an augmentation of about 20 per cent.

## CELLULOID TRACHEOTOMY TUBES.

To the Editor of THE LANCET.

SIR,—Will you allow me to add my testimony to that of Mr. Green, in your last issue, as to the value of the above. About eight months ago Messrs. Mayer and Meltzer made me one, and I used it in May for a child on whom I performed tracheotomy for diphtheria. It answered the purpose very well indeed, and I have frequently used it since. Being probably the first tube of that material ever made or used, it did not quite meet all the requirements I look for in a tracheotomy tube. In such a case as Mr. Green's it is *par excellence* the tube to use, and the property it possesses of being moulded is an additional advantage. Moreover, in such a case no inner tube is required; but in cases of tracheotomy where there is much expectoration of mucus or membrane an inner tube is generally necessary. In my tube the inner did not glide easily within the outer tube, and was withdrawn with great difficulty, but such a defect is no doubt easily obviated.

After a fairly large experience in tracheotomy, I think the tubes advocated and used by Mr. R. W. Parker by far the best in the largest number of cases. In them the inner tube glides easily within the outer, and is as easily retained; the curve corresponds to the natural curve of the trachea, and it has the collar movement. I am having one of these tubes made in celluloid with such modifications as the nature of the material demands. The difficulty is to get tubes of the largest possible calibre with a maximum of strength and a minimum of general bulk.

I am, Sir, yours faithfully,

J. SCOTT BATTAMS,  
Resident Medical Officer, East London Hospital  
for Children.

Nov. 12th, 1882.

Hypatia.—There is no law to prevent obstetric practice by anyone. The chances are that if such an individual be allowed latitude enough he will come to grief. The address in question is Mr. Carpenter, 130, Stockwell-road, London, S.W.

## HOME FOR INVALID LADIES OF LIMITED MEANS.

To the Editor of THE LANCET.

SIR,—We have been requested to draw the attention of your readers to the present opportunity of filling some vacancies in the home for invalid ladies of limited means, which has been established here for the past four years. The object of this institution is to extend the advantages of one or two winters' residence in this climate to such ladies of limited means as may have a fair prospect of recovery and return to an active part in life, and it is thought that the profession will be glad to know of this institution, and will best bring it to the knowledge of those for whom it is intended.

We remain, Sir, yours faithfully,

A. J. FREEMAN, M.D., Medical Officers to the Home  
L. E. KAY SHUTTLEWORTH, J. for Invalid Ladies.

San Remo, Italy, Nov. 8th, 1882.

S. H. J. should consult our article in the Students' Number, published on Sept. 9th last.

Herrn Breikoff and Hartel (Leipzig).—We cannot exchange.

## POOR-LAW MEDICAL SERVICE AND BOARDS OF GUARDIANS.

To the Editor of THE LANCET.

SIR,—Assistant medical officers under the Poor-law system it appears may be dismissed by Boards of Guardians without the consent of the Local Government Board, they falling under the Consolidated Order 183. Such medical officers should insist on a certain amount of notice when they are first engaged, for, with the above powers, nothing prevents them from only getting twenty-four hours' notice of dismissal. In my case a month's notice was given me, with which I was not satisfied, and refused to accept it. However, the Local Government Board have written and said the guardians have the power so to act. Thinking this information may be of use for future candidates for similar offices, I have taken the liberty of sending it to you.

I remain, Sir, yours, &c.,

ASSISTANT RESIDENT MEDICAL OFFICER,

Nov. 14th, 1882.



## Inaugural Address

DELIVERED AT THE

GLASGOW INFIRMARY MEDICAL SCHOOL,

On November 1st, 1882.

By EBEN. WATSON, M.D., F.F.P.S. GLAS.,

SURGEON AND LECTURER ON CLINICAL SURGERY AT THE INFIRMARY.

MY LORD PROVOST AND GENTLEMEN,—I consider it an honour to be asked to take part in the interesting proceedings of this day. I congratulate you all—teachers and students alike—on your taking possession of the admirable building in which we are now met as the future home of the Glasgow Infirmary School of Medicine. I have in my time visited several such schools in this country and on the continent, and I will say that I have not seen any one better, if so well, adapted to the purposes of medical teaching. The lecture-rooms are well lighted, well aired, and suitably seated to give all a good view of the lecturer's table, while the laboratories are convenient, and well fitted up with the necessary appliances for work. On the whole, I feel sure that if my friends the lecturers have not ample audiences to listen to their prelections, and if you students do not make good and satisfactory progress in your studies, will not be the fault of the architectural arrangements or your comfort, or the educational requirements at your command.

Yours is comparatively a young school, and has much of its reputation still to make, and therefore I think it is a matter of no small congratulation to you that you have such a close connexion with one of the oldest and best schools of medicine and surgery in the West of Scotland—I had almost said anywhere to be found—I mean the Royal Infirmary. You share its name, and to some extent its high prestige, and situated as your building is you almost seem to form part of it. Yet here, in passing, I cannot but express the hope that the day is far distant when the management of the infirmary will depart from that catholicity which has hitherto characterised it, and when that institution shall become in any degree less of a common platform on which the teachers and the students of all schools may meet on terms of perfect equality, and be dealt with in a spirit of thorough impartiality. I am sure I may take it for granted that none of you would wish for such a change. You are willing to stand, as a school, on your own merits, and one of the chief of these must ever be the advantage you are able to take of that older institution which has been doing such good service in the past.

I believe it is eighty-eight years since our infirmary first opened its wards for the reception of the sick and wounded poor, and it is pleasant to let one's imagination wander over that long period and lose itself in the attempt to estimate the amount of good it has done, not only to the immediate objects of the charity, but also through the medium of the many generations of physicians and surgeons who have owed to it their training and their skill. Then there is another aspect in which we may well be proud of our infirmary, for it has amply borne its part in contributing to the advancement of the healing art. Much in this respect has been done indirectly, as I may say, by those who after studying here have gone far away from our city, but much has also been done directly and immediately in the very wards of the infirmary. I feel that I cannot and ought not to enter here into details of this subject, yet I may be allowed to give two examples of what I have now said. There has lately departed from among us a veteran in surgery—Dr. Andrew Buchanan—whose ingenuity, guided and called forth by his experience at our infirmary, has afforded us several new procedures, and specially one great operation which will make his name long remembered with esteem. Then you doubtless know that it was in the wards of the Royal Infirmary that Mr. Lister was led to make that application of Pasteur's discovery to the healing of wounds which has resulted in the antiseptic system of surgery—a system which has revolutionised the art, and now enables us to perform with safety operations at

which the boldest surgeons of former times would have stood aghast.

Now I have thus, in few words, brought before you the high and established reputation of the Glasgow Royal Infirmary as a field of medical and surgical training, not to boast of it, but for the purpose of urging upon you that your best policy is to make your character as a school mainly rest on its practical nature. Surely this is to be expected of a hospital school, and I think it will best recommend you to all concerned, to the authorities who legislate on medical education, as well as to the students who may fill your halls.

Some time ago medical education in this country, especially in England, was too practical. The young aspirant to our profession was sent as an apprentice to some general practitioner, and he was taught to make pills and potions, and by-and-by to visit patients, and only after this course of instruction was he sent to school or college to pick up what science he could. After that period came a reaction, and then the only desideratum appeared to be science, and not practice. It was to be taught by specialists, and studied without reference to its application. Natural history, botany, and chemistry, even anatomy and physiology, were to be studied by the perplexed and overburdened student as pure sciences for their own sakes. The idea of medical chemistry, of surgical anatomy, or of physiology, as the institutes of medicine, was scouted as far beneath the requirements of the day. But somehow it has been discovered that there is a mistake in all this; that such an education might make scientists, but would never make practitioners of medicine; and hence another reaction is, I think, now taking place, and I hope it will not be carried too far, in favour of more practice for our students, even if they learn less science. In proof of this you find THE LANCET, which is a very good index of opinion in our profession, enunciating the dictum that medical students of the present day are "under-educated and over-examined."

For my part, I would rather say that they are often not well—not quite rightly—educated. They are over-educated, if you like, in some things; and much under-educated in other things. Take physiology, for example, with the teaching of which I am very familiar. Is it not the fact that the time and the energies of the student are often wasted on what to him are trifles, while the great and important truths which are to regulate his practice are slurred over in so superficial a way that he is apt to lose sight of them altogether, and really not to know much about them? Some years ago I visited the physiological laboratory of a distinguished university at a considerable distance from Glasgow, and it so happened that some students were sitting at the table when I was shown round by their professor. He explained to me that they were answering the written questions for one of their degree examinations; and what do you think was the nature of the questions over which the perplexed students were cudgelling their brains? Were they about the functions of the kidney, or the liver, or the lungs, or any other important organ of the body? No. The students were required to describe certain very pretty physiological instruments, fine balances, sphygmographs, recording drums, &c., which were all placed before them on the table under their appropriate glass cases. I hope that did not form the whole of their examination in physiology; but the fact of this being such a remarkable part of it showed that in the lecture-room far too much importance had been put upon the methods of physiological investigations, while the results, the facts of physiology as applicable to practice, must have been proportionately less insisted on and drilled into the students' minds. The same thing might likewise be said of what are called the practical branches of the curriculum, though in my opinion all your studies ought to be practical from anatomy onwards. Suppose surgery, for example, to be taught apart from actual practice on living men and women, and anyone can see how useless it would be. The fine-spun theories of the lecturer may be plausible enough as he puts them, and the cases which he relates of course all turn out successfully, but one grain of demonstration in the wards of a hospital on the living subject must be acknowledged to be worth bushels of such oratory. The conclusion, then, to which we are necessarily driven is that lectures may be and ought to be the best preparatives, but are only preparatives, for work in the wards of the hospital; and I augur well for this school inasmuch as I hope and believe that the sentiments I have now expressed accord pretty nearly with those of your teachers, and that

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they will endeavour as soon and as constantly as they can to refer you to what they will excuse me for calling the best part of their teaching—viz., that which they show you in the infirmary.

With the other part of THE LANCET's dictum we have not so much to do here; but I have no objection to state it as my opinion that students are over-examined, because too much is required of them at that early stage of their history, and because their examiners are too often specialists in their branch who are apt to forget how defective was their own early knowledge, and also how little they know of the other subjects, on all of which the student is expected to be well informed. Surely too much is required of our students, regarded *en masse*. The bulk of them are destined to be general practitioners, and not operating surgeons or consulting physicians, and I think that the true remedy for much of the complaint now made, both of over-examining and with still better reason of unequal and uncertain examining, lies in the institution of a single board of experienced examiners, not being teachers, for each country, and a minimum qualification essential for all, but not essentially the only one for all. I say, let there be one qualification sufficient, but not more than sufficient, for a licence to practise, and let those who can and wish it add to that qualification other and higher qualifications, according to their circumstances and prospects in after-life.

But, as I must now draw these necessarily brief remarks to a conclusion, I wish, for the few minutes longer of your time which I can occupy, to urge still more specially upon you students to take fuller advantage than some of you do of the great hospital which is so near you now. Afterwards you may enjoy no such opportunities, and in your possibly distant practices you may often long in vain for another look into the wards to see how this or that case is managed there. My advice to you in plain words is, that you should seek for dresserships early in your career, so that you may have the right and be almost forced to come into actual contact with the patients. The more and the earlier you work with them the better will you be fitted for your future duties. You may not fully understand all that is said or done in the wards at first, but taken along with the instructions you receive in your classes, it is strange how quickly the required knowledge will come to you if you put your heart into your work. "Nulla dies sine linea" is a good old maxim, which in your case may be taken to mean, Let no day pass without its lesson learnt, its fact stored up in your memory. Then by the end of your sojourn here your minds will be filled with practical knowledge, and your heads and hands accustomed to bring that knowledge to bear on your patient's circumstances.

To stimulate your zeal I would remind you that the character and success of this school depend greatly on you. Your character and behaviour now will be regarded, and rightly regarded, as the index of the character which your school ought to bear; while your success hereafter will be its best recommendation to others. In short, I wish to more than hint at a qualification not often spoken of by lecturers, but which is almost as necessary for success in practice as a good knowledge of your profession—I mean quiet and gentlemanly manners, and a something in your style indicating kindly interest in all who consult you.

If you enter the graveyard of our cathedral and turn a little to the right you will come to the tombstone of Dr. Peter Low, the distinguished founder of the Faculty of Physicians and Surgeons of this city, and you will read in his quaint epitaph some such words as these—

"Though his physis sometimes failed,  
His pleasant humour aye prevailed."

I wish we could all have such a pleasant humour. Try to have it as yours from the first, and then your recollections of this happy student-time which you are now enjoying will be unclouded with regret; and in your future lives, if cares must come, they will be less bitterly felt by you because they will be shared, in sympathy, by others whom you have assisted and comforted in their troubles.

SOME of the leading settlers at Tikorangi, New Zealand, have published a testimonial to the zeal, skill, and kindness of Dr. J. Murray Gibbs in combating an epidemic of diphtheria with which the colony has been lately visited. Such an expression of gratitude is honourable alike to doctor and patients.

## ABSTRACT OF

## Lecture

ON THE

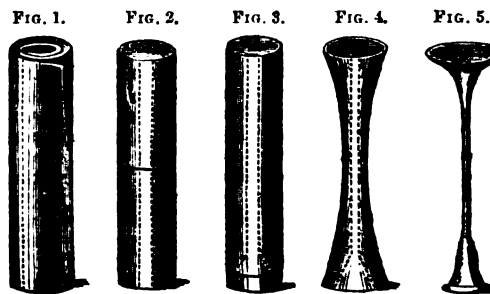
## EVOLUTION OF THE STETHOSCOPE.

By SAMUEL WILKS, M.D., F.R.S.,

PHYSICIAN AND LECTURER ON MEDICINE, GUY'S HOSPITAL.

INSTEAD of placing on the table every imaginary form of stethoscope manufactured out of every possible material gathered from the shops of the instrument makers, I will carry you back to the origin of the stethoscope, and you will see how, on the principle of selection and the survival of the fittest the primitive instruments have departed from the scene and are now only to be found amongst the fossilised curiosities, the relics of former ages, on the antiquated shelves of some very old medical practitioner. The stethoscope, as you know, was invented by Laennec. He relates how in the year 1816 he happened to recollect a well-known fact in acoustics of solid bodies conveying sound, and he goes on to say: "Immediately on this suggestion I rolled a quire of paper into a kind of cylinder and applied one end of it to the region of the heart and the other to my ear, and was not a little surprised and pleased to find that I could thereby perceive the action of the heart in a manner much more clear than by the application of the ear." "The first instrument which I used was a cylinder of paper formed of three quires completely rolled together and kept in shape by paste." Laennec then goes on to describe how he copied this roll of paper in wood, metals, glass and other substances, and finally he says: "In consequence of these various experiments I now employ a cylinder of wood an inch and a half in diameter and a foot long, perforated longitudinally by a bore three lines wide and hollowed out into a funnel shape to the depth of an inch and a half at one of its extremities. It is divided into two portions, partly for the convenience of carriage and partly to permit its being used of half the usual length. The instrument in this form—that is, with the funnel-shaped extremity—is used in exploring the respiration and rattle; when applied to the exploration of the heart and the voice it is converted into a simple tube with thick sides, by inserting into its excavated extremity a stopper or plug traversed by a small aperture and accurately adjusted to the excavation. This instrument I have denominated the *stethoscope*."

Fig. 1 represents Laennec's roll of paper, and Figs 2 and 3 the copy of this in wood as he describes. The latter figure



is drawn from an instrument kindly given me by Dr. Galton, of Norwood, being the stethoscope long used by his father. It does not separate into two pieces, but contains the plug which can be removed so as to leave the end hollow. Fig. 4 is the same instrument with the sides cut out to make it lighter and more elegant, the ear piece being the same as before and the mouth also hollowed out. This was the stethoscope used and recommended by the late Dr. Hughes. By making the instrument still more elegant and slender we have the modern stethoscope in endless variety, as in Fig. 5. It is thus very evident how the modern instrument has been framed out of the original block of wood which was made the counterpart of Laennec's roll of paper.

I know not who invented the instruments with flexible

tubes, but I have no doubt that a search into medical history could tell us. I remember, however, that the first flexible stethoscope which I ever saw was the one depicted in Fig. 6, and used by Dr. Golding Bird when he saw out-patients in the year 1843. Being much crippled with rheumatism, and therefore not wishing to rise from his chair, he found this instrument very convenient; he also was enabled to pass the ear-piece to gentlemen standing near him, whilst he held the cup on the part to be examined. I always thought it was his own invention. But, whether so or not, I do not think any great effort of genius was required to frame a flexible instrument, and then adapt it for the use of one or two ears. This being done, the next step would be to make two mouth-pieces to apply to the chest at different spots. Various modifications of these instruments have been made of late years, but the first notice of them I have any knowledge of in my reading is to be found in a letter to THE LANCET of Aug. 29th, 1829, by Mr. Comins of Edinburgh, headed "A Flexible Stethoscope." This was only twelve years after Leannec's invention. It is difficult from his description to picture the instrument, but it seems to have been composed

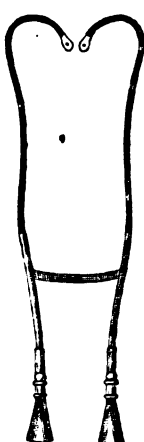
FIG. 6.



FIG. 7.



FIG. 8.



of jointed tubes, and made for two ears as well as one. Mr. Comins expresses his surprise that the discoverer of mediate auscultation did not suggest a flexible instrument, as he says "it can be used in the highest ranks of society without offending fastidious delicacy."

A very interesting fact was first pointed out to me by Dr. Andrew Clark, with respect to a peculiarity of the binaural in the objective appreciation of sounds; that if each ear piece be separately used, and any sound be made near the mouth-piece, it is heard in the ear itself, but if the two pieces are employed together the sound is heard at the spot where it is produced. The fact is very interesting in a physiological point of view, and further corroborates the theory as to the value of a double set of senses, or, in a word, of the body being made up of two halves, for just as the two hands feeling different parts of an object gain an idea of extension, and the two eyes by obtaining different views of any substance get a knowledge of its solidity, so in the same way the two ears listening to the same sound more thoroughly appreciate its objectivity.

If you look at this series of drawings you may perceive but little resemblance between the first figure and the last, but take them one by one and you will see that the figures are really progressive. My story of development is not imaginary, but historical.

**ABERDEEN MEDICO-CHIRURGICAL SOCIETY.**—At the annual meeting of the Aberdeen Medico-Chirurgical Society, held on Thursday evening, the following office-bearers were elected for the year:—President, Dr. John Urquhart; secretary and treasurer, Dr. James Rodger; librarian, William Fraser, surgeon; council, Drs. Beveridge, Garden, W. J. Simpson, Crombie, William Fraser; representatives to the North of Scotland Medical Association, president and secretary *ex officio*; Dr. Garden and Dr. J. C. O. Will elected.

## NOTES ON CONCUSSION OF THE SPINAL CORD AND BRAIN.

By WM. SCOVELL SAVORY, F.R.S.,  
SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

Is the current view of the immediate cause of the paralysis which follows a severe injury, as a fracture, of some portion of the spine, correct one? Can the loss, not only of voluntary motion and sensation, but also of excito-motor reflex power in the part below, which is the usual effect, be directly due to pressure on some limited portion of the cord by the fractured bone? In experiments on animals, when the spinal cord is divided at any point, after the shock of the operation has passed off—and this is significant,—the power of reflex action in the part below, as everyone knows, remains. Why, then, is it abolished after fracture? Is it not that the violence which is sufficient to produce fracture is severe enough to produce such concussion or disturbance of the cord below as to destroy its power as a nerve centre? Instead of the common statement that the loss of reflex function is due to pressure at a particular part, would it not be more correct to say that the loss of reflex power below is the result of violence which at the part where it was directly applied was sufficient to break and displace the bone, but which has also injured the cord beyond? At all events, if the loss of reflex function be due to the fracture, it must be indirectly; to some mischief by displacement or dragging inflicted along the cord, of course far beyond the part directly implicated in the fracture; but, at least in many cases, the evidence strongly points to concussion as the cause. In a few exceptional cases, although compression of the cord by the displacement of the fractured bones continues, the portion below recovers its function as an independent centre, for the power of reflex action in the lower limbs is, after a while, restored. The extension and persistence of mischief beyond the seat of visible injury surely claim more consideration than they have hitherto received. But in any case it is not clear why the part above does not to a greater extent lose its reflex power. One would imagine, I think, that the effect of such injury would usually extend almost equally, as indeed it occasionally does, in both directions. How is the clinical fact to be explained?

The curious fact that in concussion of the brain not only may there be complete loss of consciousness for a considerable period after the injury, but that in some cases after complete recovery there may be total loss of memory of all events which have happened shortly before the injury, has not perhaps received the attention it deserves. The following cases may be taken as examples.

The driver of a hansom cab was knocked off his box by an omnibus at the top of Newgate-street, and brought to the hospital in a state of complete unconsciousness from concussion. From this he speedily recovered; but, at least for several weeks after, when he appeared to be in every respect quite well, he could not in the slightest degree recollect what he had done or seen, or where he had been in the half hour immediately before the accident. It was known that within that time he had taken up a passenger at Cornhill, and driven along Cheapside and Newgate-street, yet of this he never had the faintest recollection; but for all events up to this time his memory was excellent.

Again, a gentleman was thrown from his pony at polo, and picked up quite unconscious, in a state of concussion. He recovered from this in the course of two or three hours, and in a few days was as well as ever. But he could never recollect some striking events in the game which occurred within half an hour or so of the accident; yet up to this blank period his memory was minute and accurate.

Now, what happens in such a case? I suppose no one can tell. The substance of the brain is shaken, and presumably for a time damaged in some way or disturbed; or, as we may say, its nutrition is temporarily impaired, and thus may subsequent loss of function be accounted for. The recollection of a bygone event shows that some impression which the brain receives at the time has been registered; and this must be, I suppose, by some change, however subtle, which is more or less durable. Does the violence of the concussion somehow interfere with the registration of



such change; wiping out, as it were, the record before the ink is dry? But such guessing; as this only shows how very far I am from understanding the fact.

## THE PATHOLOGY OF THE BLOOD IN INFLAMMATION.

By JAMES T. R. DAVISON, M.D. EDIN.,

SENIOR HOUSE-SURGEON, ROYAL SOUTHERN HOSPITAL, LIVERPOOL;  
LATE RESIDENT PHYSICIAN, ROYAL INFIRMARY, EDINBURGH.

THE results obtained from the examination of some hundreds of specimens of pathological blood justify me in enunciating, as a pathological law, that "during the active period of inflammation the leucocytes of the blood are increased in numbers." The behaviour of the leucocytes under the inflammatory influence constitutes a most important help towards finding out the existence of inflammatory lesions. I need only mention those cases of obscure internal abscess and the first stages of pneumonia as examples of conditions where occasionally it is next to impossible to recognise them with certainty, and where the examination of the blood may lead us a good way on towards arriving at a certain diagnosis. This alteration of the blood is, for practical purposes, more important than the "hæmatoblastic crisis" described by M. Hayem, for while the latter comes into play at or about the time of the crisis of acute disorders, the former exhibits itself from the very first, even within a few hours from the commencement of the inflammatory process. Thus while the "hæmatoblastic crisis" may for prognostic purposes be interesting, as indicating a favourable course of the disease, it possesses no diagnostic value; but the increase of leucocytes, by indicating the existence of an inflammatory process, and that from the very first, has a great diagnostic value, while it also is an element in prognosis, for the subsidence of the inflammation will be followed by a decrease of leucocytes.

It is well known that the leucocytes are found in greater numbers in the blood during the digestive process. How is this brought about? There is no necessity to assume that this increase is due to a more active formation of leucocytes in the spleen and other blood-forming organs. Recent pathology would favour the view that the increase of leucocytes in the blood is brought about reflexly by increased contraction of the splenic muscle and probably also of the lymphatic muscles, the point of origin of the reflex action being the gastro-intestinal canal. It has long been known that the spleen was capable of muscular contraction, and it has been left to Dr. Roy recently to discover that this contraction is rhythmical in time, and the directions through which nerve force influences this contraction. Dr. Roy believes that the spleen contains a nervous mechanism which regulates its contraction, but he has shown that this contraction is also affected by nerve influence from without—for example, stimulation of the peripheral end of a cut vagus causes contraction of the organ.<sup>1</sup> It is therefore probable that the contraction of the gastric muscle during digestion stimulates the pneumogastrio; that a nerve force is then carried to the medulla oblongata (Dr. Roy showed that stimulation of the vaso-motor centre in the medulla brought about contraction of the spleen), and thence is reflected through the vagi and splanchnics to the spleen, giving rise to increased contraction of its muscle, and thus to a discharge of leucocytes into the circulation. These leucocytes having performed their function, whatever that may be, probably return into the spleen and lymphatic glands, as they are no longer found in excess in the blood after the digestive process is ended.

Once admitting that the spleen can be made to discharge its leucocytes into the blood by a reflex action originating in the gastro-intestinal canal, and knowing the intricate and complicated connexions which exist in the sympathetic system, it will not be difficult to understand that the spleen can likewise be made to contract reflexly by a force originating in the arterioles and capillaries of any part of the body. In the inflammatory area a force—whether it be chemical, resulting from altered nutrition of the tissue cells,

or nervous, reflected from a distant part—paralyses the vaso-motor nerves of the arterioles. Either this same force, or one originating in the walls of the arterioles—the result of distension caused by increase of blood-pressure in the inflammatory area—is carried to the medulla, and thence reflected to the spleen, and thus the spleen is advised that migration of leucocytes is taking place, and a call is made upon it to supply the demand made upon the blood. In inflammation there is therefore a loss of leucocytes from the blood, and an effort of nature to replace them, but, as in the case of hyperpyrexia, nature over-does what is required of it; so here the supply from the spleen and lymphatic glands is greater than the demand, and therefore it is that during the active period of inflammation we find the leucocytes in the blood in such increased numbers.

The simplest form of inflammation that can be selected for examination of the changes in the blood is an abscess, for here there can be no suspicion of other influences being at work other than the inflammatory. If the abscess be acute and large the leucocytes are found in great abundance in the blood; but if the abscess be chronic, although it may be large in size, the leucocytes are not increased to such an extent. In the one case there is an active migration of leucocytes from the capillaries, and a consequent active demand upon the spleen and lymphatic glands; in the other case the migration is passive and small in quantity, and therefore the blood-forming organs are not called upon to supply a large amount of leucocytes. Small abscesses may also give rise to an abundant increase of leucocytes, and at other times to a slight increase only. Probably this difference depends upon the amount of tension and inflammatory fever present. In a case of abscess of the finger which had lasted for nine days, a small quantity of pus being present, but where the patient had passed sleepless nights, I found more leucocytes in the blood than in another case where a chronic abscess containing several ounces of pus had lasted for some months. After abscesses are opened the leucocytes in the blood begin to disappear, but sometimes the defervescence of these cells is interrupted by a secondary increase. When an abscess is opened tension is relieved, and the inflammatory process subdued, and the defervescence which then takes place is in accordance with the principle stated above, the demand for leucocytes being no longer present. The occasional secondary increase of these cells can easily be accounted for by an exacerbation of the inflammatory action. Next in importance to abscesses are scalds and burns, for in these we have an acute inflammation with visible effusion, which develops itself in a very short time, and thus we have an opportunity of examining the blood almost at the commencement of the inflammation. The leucocytes are always increased, and this increase I have noticed as early as two and a half hours from the application of the irritant, clearly proving that the blood-forming organs have acted reflexly and emptied themselves of part of their contents, for in such a short time as two and a half hours the spleen and lymphatics could not have formed all the extra leucocytes found in the blood. In cases of severe scalds and burns the excess of leucocytes may last for a long time, as a pus-secreting surface is left, and hence the migration of leucocytes continues. The same conditions exist in old discharging extensive surfaces, and the same excess of leucocytes is found in the blood. Again, the same principle is manifested in inflammation of serous membranes. In pleurisy the leucocytes may be present in very large numbers, diminishing with the lowering of the temperature. In pleurisy, as in other inflammations, a return of the temperature to normal is not immediately followed by a sudden and rapid decrease of the leucocytes. It is easier for the white corpuscles to enter the circulation than to leave it. Doubtless the lowering of the blood-pressure which takes place at the crisis of an acute inflammation favours the return of the leucocytes from the blood, for the consequent retardation of the peripheral circulation is the nearest physiological approach to pathological stasis, and thus the leucocytes are placed under the best possible circumstances to attach themselves to the capillary walls, and eventually to regain the lymphatic system. Still this cannot take place in a short time, and it is, therefore, that the inflammatory crisis is not immediately followed by a sudden and rapid decrease of the leucocytes. In peritonitis and acute bursitis I found the white corpuscles in excess. In a case of double effusion into the knee-joints four days old, with a temperature of 100·4°, I did not find an increase of the white corpuscles, and here I may state that my ex-

<sup>1</sup> Journal of Physiology, vol. iii., No. 3.

aminations hitherto have been made without the aid of the hæmacytometer, so that what I have observed was what was obvious to any eye educated to estimate the normal amount of leucocytes by glancing over different parts of the field, and thus when the increase of leucocytes was very slight, it would have been unappreciable to the eye; and in this way I must account for the apparent absence of the excess of leucocytes in this case, bearing in mind at the same time that a small migration of leucocytes, apart from tension and inflammatory fever, will call for a small supply from the blood-forming organs, and as the effusion subsided in this case, the amount of white cells it contained must have been small. Somewhat similar to this case are those of chronic synovitis of the knee and hip, and of chronic swelling of rheumatic joints. In all these instances the serous membrane is inflamed, but the inflammation is passive, the migration of leucocytes small, and hence in the blood we find the white corpuscles either normal in quantity or only very slightly increased. In acute rheumatism the white cells are always increased; sometimes the increase is very slight, and sometimes very abundant, and it appears that the greater the number of joints swollen, provided the swelling is accompanied by pain, the greater is the increase of leucocytes—that is, the increase of the cells keeps pace with the extent of the inflammatory serous surface. Once more, in inflammation of the mucous membrane the same principle is manifested. In acute bronchitis the excess of leucocytes subsides with lowering of the temperature and decrease of expectoration (if purulent); but if the temperature comes down and the expectoration remains of the same quantity the excess of leucocytes is not affected. It appears, too, that the leucocytes increase more when the expectoration is green than when it is of other kinds. The same increase is found in inflammation of other mucous membranes—in diarrhoea, dysentery, acute laryngitis, and cystitis. The results obtained from the examination of the blood of phthisical patients have been very interesting. The leucocytes are sometimes very abundant. I found that whenever high temperature, green expectoration, and auscultatory accompaniments were present together, the increase of leucocytes was well marked. On the other hand, if there were no accompaniments on auscultation and the expectoration was not green, even if the temperature was a little above normal and profuse night sweats were present, the increase of leucocytes was very slight. This clearly proves that the increase of these cells in phthisis is not the result of the cachexia, but is determined by an inflammatory action, or by the activity of pus-secreting surfaces of cavities, this latter action being practically inflammatory as regards the migration of leucocytes. In pneumonia the excess of leucocytes is generally very marked, and is thus of great diagnostic value. Lastly, in acute inflammation of other organs the same excess is noticed—for example, in tonsillitis, orchitis, eczema—and even in the inflammation excited at the seat of fractures of long bones.

(To be concluded.)

## THE UNITY OF SURGICAL PRINCIPLES IN WOUND AND FRACTURE TREATMENT.

By SAMPSON GAMGEE, F.R.S. ED.,

CONSULTING SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

(Concluded from p. 841.)

GENERALISATIONS are proverbially difficult in a science and practice like that of surgery. However sound be their foundation, however close the reasonings by which they are arrived at, their success in particular cases depends on the judgment, skill, and care with which they are applied. To the reservations already made I must add something on "dry dressing," which, unqualified, is a very misleading designation of this plan of treatment. It is certainly entitled to be called "dry dressing," inasmuch as water is not used, and even astringent or anti-putrescent lotions very sparingly so; but success demands attention to all the essentials of the physiological treatment of surgical injuries—immobility, position, and pressure, drainage and infrequent dressing, pure and non-putrescent materials; gentle, patient, and

skilled manipulation; intelligent and unceasing watchfulness of constitutional states.

Fresh wounds without loss of substance are particularly suited for the plan of treatment here recommended. They should be put up without water, the edges accurately in contact; always bearing in mind the necessity of providing for drainage outwards of any effused fluid. Under absorbent pads and elastic pressure, with absolute rest and attention to position, the vast majority of fresh wounds heal rapidly, solidly, and painlessly. When the dressing is changed, which it should only be infrequently, no water should be employed; but if there be any discharge and necessity for cleaning, this can best be done with a pledget of dry lint or of absorbent gauze and cotton; all manipulations to be of the lightest. Such dry dressing simulates the natural scabbing process, but is really more perfect. Wounds of many inches in length heal so directly and perfectly under dry dressing and elastic pressure, that in the course of a few days it is often difficult to detect the fine linear scar on the dry and shrivelled skin. If a fresh wound be attended with loss of substance, some boroglycerine should be poured on the part before application; it prevents too close adhesiveness, and possible bleeding, when the dressing is removed, and has the further advantage of preventing decomposition.

The necessary employment of sutures and adhesive plasters, according to requirements, need not be dwelt upon, and I shall only briefly remark that instead of, or in addition to, such bonds of union, I frequently employ styptic colloid, compound tincture of benzoin, or collodion.

In wounds with large loss of substance, if healing be slow, action may profitably be stimulated by a variety of the well-known astringent applications in ointment or lotion, than which I do not know a better than the old red lotion,<sup>1</sup> with a liberal addition of glycerine. Position, rest, and pressure remain cardinal indications, poultices and water prohibited. By this I mean stagnant water in the shape of water dressing, which is nearly as potent as a poultice in promoting suppuration and decomposition. It is otherwise with cold-water irrigation, which is consistent with, nay may be made conducive to, perfect drainage, and by its astringent and sedative action produces effects very similar to those of rest and pressure. Cold irrigation is not easy to apply continuously comfortably, and one of its great advantages, the low temperature, may be secured by ice bags.

I hope I have made it clear that while the absence of water is a prominent feature of the dry dressing method, an essential is the maintenance of immovable apposition under elastic pressure, whereby the dynamics of the circulation are so controlled that the part is only allowed blood enough to nourish it. Irritation, the great cause of stasis and effusion, is reduced to a minimum, and the part is maintained in a state the nearest approaching to inaction and dryness. In direct proportion the material and the possibilities of decomposition are averted.

Contused and inflamed wounds likewise afford conclusive evidence of the soundness and general applicability of the principles and method just related. The dressing which I hold in my hand was removed from one of the *employés* in an iron warehouse. He was moving some pigs of iron, when one, weighing a little over a hundredweight, fell on his right foot. I saw the case very shortly afterwards, and found the foot very much swollen, its bony outline obliterated, the skin bluish and shining, with a star-shaped wound on the centre of the instep. Having satisfied myself that no foreign body was present, I dried the wound and placed over the dorsum of the foot this fold of lint, well soaked with compound tincture of benzoin, over it this large pad of absorbent gauze and cotton, and then a compressive bandage from the roots of the toes to the middle of the leg. I enjoined my patient to keep perfectly quiet, lying during the day with his head at the foot of a sofa and the injured foot over its head. I did not remove the dressing until the eighth day, when the wound was healed, the outline of the limb perfect, and though the skin was mottled, as from a bruise, up to the middle of the leg, it was cool and painless.

You see how the blood had penetrated, though in small quantity, through the dressings, and dried on the outside. The tincture of benzoin had acted as a coagulant and anti-putrescent, and drying into the lint served the purposes of a

<sup>1</sup> A solution of one to two grains of sulphate of zinc in water, with the addition of some compound tincture of lavender.

mould. Its styptic property was assisted by pressure and position, under which the effusion was absorbed; the part shrank, and the wound healed without any further interference. This result, a typical one of the method, was not a simple consequence of a dry application, but due to a variety of causes which combined in controlling the circulation and promoting reparative action in accordance with demonstrably true principles of animal physics.

A punctured and inflamed wound of a much more serious kind, but with equally happy issue, calls for a few words. I was asked to see a licensed victualler who a week previously, while carving a joint, had thrust the point of a long knife into the centre of the palm of the left hand. He proceeded at once to a neighbouring hospital, where the hæmorrhage was arrested and a carbolic dressing applied. Hæmorrhage recurred the third day, and the padded wooden splint, which I have here, was firmly applied with a calico roller to the hand, and the patient sent home with the request to attend in a few days. The arm swelled, pain was intense, and my attendance was requested. The splint you notice is barely long enough to reach from the tips of the fingers to the wrist—a useless contrivance for purposes of rest, a fulcrum for intolerable pressure under the strong calico roller firmly applied to check the bleeding. I found the palm of the swollen hand full of filth, which I lightly cleaned out with dry lint; blood issued rather freely from the wound, into which I lightly brushed iodised colloid with a camel-hair pencil. I put the man to bed, and raising the limb in the vertical position padded it and bandaged it, interlacing the spiral turns every now and then with a piece of moistened millboard. I left the man in bed, with the hand well raised, in perfect comfort. He had had no sleep for nights, but was never disturbed afterwards; with four changes of pads in a fortnight swelling rapidly subsided, and healing was perfect without an untoward symptom. Pressure over a short strong splint like this is just the oppressive constriction which cannot be borne, and is a source of incalculable mischief. On the other hand, the equable elastic pressure subsequently employed, with absolute rest and position on sound principles of vital dynamics, conduced to a surgical result in which the dry dressing was merely one factor.

Only the other day I was asked to see this case in consultation. A gentleman had bruised the front of his leg against the step of his carriage. The part injured was not the shin, as is usual, but the muscles outside it. Cooling lotions had been applied for two or three days; but, swelling and heat increasing, poultices were substituted, and an incision for the evacuation of matter was contemplated when I was called in. I found the part much swollen, red, and tender, and have no doubt that an opening would have given exit to pus. But the patient being very averse to the knife, I consented to endeavour to avert it, while stating clearly that the surgeon was justified in recommending it. With his assistance I raised the limb vertically, padded it and bandaged it over interlacing strips of wet dextrined millboard from the toes to the knee. The patient was ordered to remain in bed with his leg in a swing. In a few hours the bandages and millboard lattice-work were comparatively loose. Every twelve hours an outside bandage was applied with equable pressure, and at the end of forty-eight hours the limb was exposed; we found it pale, cool, shrunken, and painless.

If this may seem to point to a too mechanical doctrine of inflammatory development and treatment, I beg you to recall your experience of the everyday surgery of the upper and lower limbs. How rare are congestions and ulcerations of the former, how common of the latter. Here is a big, boggy, red leg, with a saphena vein nearly as big as an index finger, and an irregular, dirty red, filthy sore, nearly as large as the palm of the hand, the surface of the limb tense and shining, and often so tender as scarcely to bear being touched with a feather. Put the man on his back, raise the leg vertically by the heel, in one minute by accurate test I have found the circumference at mid-calf diminish exactly one inch. While an assistant supports the heel, strap the leg from the ankle to the knee with perfectly equable pressure, leaving two or three narrow interspaces for drainage opposite the ulcer. Over the plasters covering it, and surrounding the leg, place a good large pad of absorbent gauze and cotton; then bandage spirally and evenly from the toes to the knee with a good compress over the vein. If the patient can rest a day or two with his leg in a swing all the better; but even if he walks about at once, the compressive apparatus soon becomes loose. When it is opened in two or three days

the pad is full of discharge, the limb much shrunken and paler; cleanse it with dry lint or absorbent cotton, reapply the same apparatus, change it every fourth or fifth day, and healing progresses in comfort and without a check. Should the sore seem languid at any one of the dressings, it may be beneficially lightly touched with sulphate of copper, or have a zinc and glycerine lotion brushed over it, with a camel-hair pencil. In the main, the state of such a leg is owing originally to disturbed nutrition from interference with the circulation by mechanical causes. So, too, its healing is brought about by restoring that balance of physical conditions, which is essential to the equilibrium of blood-supply, innervation, and healthy nutrition.

On the same principles, and practically by the same method, most cases of so-called erysipelas after injury may be successfully treated. Under wet applications they spread; whereas they rapidly subside under the elastic pressure of dry absorbent gauze and cotton pads and perfect bandaging. Even when the subjacent tissues have become sloughy, and matter has formed, subsidence on the plan indicated is most rapid, all the more so if due attention be paid to position, and digital compression be applied to the main artery. These principles of treatment follow physiological lines. Injuries are serious in direct proportion as they interfere with the exercise of healthy living functions; to preserve and restore them must be the surgeon's great aim in treatment; and he will be successful in direct proportion as he imitates and assists the natural processes.

To those who have noticed the omission of reference to so-called antiseptic surgery, I beg permission to address a few remarks. Life is the great antiseptic. Preserve it, restore healthy function, control by rest, position, and pressure, nervous, vascular, and muscular action, so as to minimise the material for, and the causes of, discharge, carry it off as it is produced by drainage-tubes and absorbent dressings, and the repair of injuries proceeds like healthy nutrition, uninterruptedly and painlessly. That infection is always floating in the atmosphere, ready to settle in the shape of impalpable and implacable germs into any breach which may be made in the surface of a living body, is an idea which has never troubled me.

When, in 1867, Sir James Simpson was working out his acupuncture, he applied to me for some information, suggested to him on reading my papers on "The Present State of Surgery in Paris," just previously published in THE LANCET. To illustrate one point, I requested my then house-surgeon to tabulate all the operations of any moment which I had performed during his tenure of office, a period of about two years and nine months, during which I had discarded poultices, water dressings as little better, and dressed wounds mainly by rest, position, and pressure with pads of dry lint. Excluding a large number of minor operations, all of which were successful, the total reached 107 operations, amongst which were three of lithotomy, ovariotomy two, fistula in ano twelve, trephining skull one, removal of bony sequestra six, ligature and division of varicose veins two, removals of female breasts twelve, removals of tumours sixteen, excision of elbow four, amputations of arm, wrist, thigh, leg, and ankle twelve, partial amputations of hand and foot twenty-five, with the result of three deaths in 107 operations, an average of my general surgical experience. The prescription to rub strong carbolic acid into the innermost recesses of a compound fracture, to pursue and kill the germs; the warning that an antiseptic dressing may lose all its potency through a hole no bigger than a pin's point in the investing mackintosh, admitting countless germs; that a dressing must be changed so soon as a little discharge permeates it, lest a septic channel be established for the ubiquitous and maleficent vibrios; that these will settle down as a swarm from the air on a granulating sore if the spray be not kept in action while it is dressed,—are a few of the fallacies which have never had any dread for me. That as accessories to wound treatment antiseptics possess real value is an old truth, for insisting on which the world will ever be indebted to those from whom I have felt compelled to express qualified, but material, dissent. Their error has consisted in exaggerating incidents and underrating essentials; in predicated from experiments on dead organic matter the action of living tissues; in pretending to found a new surgery; in under-estimating truths which may not have the allurements of novelty or of speculative generalisation, but which are none the less the demonstrably sound foundations of surgery as a science, one and indivisible.

If, dealing with facts and principles, I have not mentioned authors by name, it has been for two reasons. I have been anxious to steer clear of personal controversy, which is one of the most formidable obstacles in the way of calm discussion; and it would have been impossible to refer to some authorities without seeming, but unintended, disregard of others.

Far from underrating the importance of the literature and history of the subject, I feel very deeply that if it had been better known, there would be less necessity for combating errors long since exposed, and insisting on truths inadequately appreciated or undeservedly forgotten.

Addressing myself, as by your permission I have had the privilege of doing this evening, to the Medical Society of London, I have felt that this was no occasion for a display of surgical erudition; I have rather fixed upon it as a good opportunity to elicit, by plain statement, an expression of opinion to test the possibility of agreement, after elimination of unsubstantial differences, on the essential unity of surgical principles in the treatment of wounds and fractures.<sup>2</sup>

## CASES FROM COUNTRY PRACTICE<sup>1</sup>

By H. MALLINS, M.B., M.Ch. T.C.D.

### CASE OF TUMOUR OF THE CEREBELLUM.

ANNE L—, aged sixty-one years, a labourer's wife, the mother of a numerous family, first came under observation on March 15th, 1881. Her family history is very good; her mother is still alive. With the exception of some gouty attacks, she has enjoyed good health until about a year ago, when she commenced to complain of headache. She was considered to be suffering from migraine, and improved somewhat under treatment directed against that affection. The pain in the head, however, did not entirely leave her, and towards the end of July it again became very severe, radiating from the occipital region forwards all over the head, attended with frequent vomiting and extreme tenderness of the scalp. Double vision was now noticed for the first time. No paralysis could be made out, but a condition of general muscular debility was well marked. From this time to the date of her death she was confined to her bed. When able to walk no tottering gait had been noticed. The diagnosis of a tumour of the cerebellum was now made, grounded chiefly on the two symptoms of persistent pain in the head and constant vomiting.

Nov. 1st: The pain is now referred more to the right frontal region than elsewhere. Since last report the sight of the left eye has been completely lost; both pupils are normal. There has been no vomiting for the last two weeks. —7th: The sickness has returned. There is slight left strabismus. The sight of the right eye is becoming affected. The conjunctivæ of both eyes are injected, and are the seat of much "pricking and watering." —14th: The pain, which is as severe as ever, is now described as being of a pulsatile character, and is felt all over the head. The sight of the right eye is a little improved. A feeling of numbness is felt over the whole body when she assumes the standing position, which she cannot do without assistance. The vomiting continues, though occasionally ceasing for a few days. The tongue is coated with a thick whitish fur, and has been so for several months past. She complains very bitterly of the unpleasant taste in her mouth. The bowels are obstinately constipated, and only respond to a sharp purgative. —19th: The sight of the right eye is nearly gone. Her hearing seems affected now. When spoken to she turns her head away from the speaker as if the voice seemed to come from a point opposite the real one. The intellect seems to be getting clouded. The general muscular paresis is more pronounced. —22nd: Both pupils dilated, and insensible to light. Convergent strabismus of eyes, more decided on left side; the oscillation of both eyeballs prevented a satisfactory

examination with the ophthalmoscope. She can still see, but very imperfectly, with the right eye; still complains of a nasty stinking taste in her mouth. Pulse 72, intermittent. Respiration very slow, 12 in the minute. A numb feeling of "pins and needles" in both hands and feet, accompanied by a sensation of cold in the parts, is now complained of.

Jan. 31st, 1882: Pain of head continues. It now extends down the back of the neck, accompanied by stiffness of the latter. The sight of both eyes is now gone.

Feb. 16th: The vomiting has ceased since last report. Beyond a tendency to delirium at night, there is no change to record.

March 5th: Intellect more clouded; keeps talking to herself, though sensible enough when roused. The pain in the head now comes on in paroxysms, attended with slight muscular contractions of the limbs. —31st: Slowly getting worse; passes everything under her; vomiting very rarely occurs now; she has great difficulty in moving either upper or lower extremity as she lies in bed. Bedsores are beginning to form over the sacrum.

April 12th: Complete paralysis of both upper and lower extremities; has great difficulty in swallowing; is almost unconscious, answering yes to every question. —20th: Sank quietly at 1 P.M.

Autopsy, twenty-eight hours after death.—Head alone examined. Dura mater slightly adherent to calvaria in the left fronto-parietal region. Upper surface of brain healthy in every respect. On viewing the base of the brain, however, the eye is at once struck by a tumour of a dark reddish-blue colour (very like a piece of placenta), lodged between the pons Varolii, whose substance it has deeply indented internally, the left lobe of the cerebellum posteriorly, and the cerebral mass anteriorly and externally. Irregularly roundish in shape, about two inches in diameter, of soft, friable consistence, it seems to spring from the upper surface of the left lobe of the cerebellum, with the pia mater of which it has a very intimate connexion. The tumour was examined by a special committee of the Norwich Medical and Chirurgical Society, and pronounced to be a glioma.

Watton, Norfolk.

## NOTES ON MEASLES.

By WALLACE B. CROSKERY, L.K.Q.C.P.I., &c.

I HAVE before me notes of many cases of measles which came under my own observation, and having taken those notes with the special object to, at one time, define clearly for myself, and possibly for others, special points in the disease, I think that I might now draw attention to the points I arranged my notes to make clear. The first points in the disease to which I wish to call attention are the slight amount of exposure to contagion necessary to contract it, and the early period at which infection may be given off.

W. C—, the son of a medical man, was sitting at home when his father entered the room, having come straight from a case of measles. The latter, forgetting that he had omitted to take the usual precaution to disinfect his hands, bent over the son and stroked his face several times. Suddenly he remembered the case he had just left and his sin of omission, and at once passed over the boy's face a towel sprinkled with a solution of carbolic acid. W. C— sickened in ten days with measles. This case will illustrate the slight amount of exposure necessary, and the communication of the disease through a third person. C. D— drove in the same cab with W. C— to school; on the same day W. C— came home early, shivering, and with a temperature of 101°. On the morning of the fifth day, or ninety-six hours after invasion, the rash of measles developed on W. C—. In the course of ten days C. D— sickened. This will illustrate exposure on the very first day of invasion, followed by the communication of the disease. I have had many cases which came under my observation before the eruption where, suspecting measles coming on, I had complete isolation with the usual disinfecting precautions observed, and yet the disease developed in due course among other members of the family.

Period of Incubation.—I have seen various statements as to this, some writers on the subject giving a much longer time than I have yet observed. In the great majority of cases nine to ten days after the exposure the premonitory symptoms set in. I have some where eleven days, and a

<sup>2</sup> For a report of the discussion on this paper at the Medical Society of London, see THE LANCET, Nov. 18th, p. 851. All the dressings and materials referred to are prepared by Messrs. Southall Brothers and Barclay. A handy and elegant case, containing absorbent and antiseptic pads and bandages, plaster splints, styptic colloid, boroglycerine, ether, and instruments for the treatment of surgical injuries on physiological principles, has been arranged by Messrs. Salt and Son, Surgical Instrument Makers, Bull-street, Birmingham.

<sup>1</sup> Read before the Norwich Medical and Chirurgical Society.

few where twelve days, elapsed before the disease showed itself. I am disposed to think that the long period is where the patients have more resisting powers, as my cases of twelve days, whether accidental or otherwise, were the parents who took it from their children. I think the one exposed to contagion, after a quarantine of fourteen days, may, in the vast majority of cases, be declared to escape the disease, if he or she has a normal temperature and none of the symptoms after the lapse of that interval.

*Period from Invasion to Eruption.*—This period I consider full of interest, the special points being the temperature and the day of eruption. The disease occasionally sets in with a temperature of  $101^{\circ}$  or higher. Frequently on the second day, especially in the morning, the temperature has gone down to normal; so that at this stage, when sometimes the other symptoms are badly marked, the ailment may be declared—unless one has considerable experience in the course of measles—to be simply a feverish attack now passing off. On the third day, however, the temperature again rises, and the symptoms become more obvious. The highest temperature is usually reached about twelve hours before the eruption, at the eruption, or twelve hours after the eruption begins to come out. A temperature of  $103.5^{\circ}$  I should set down as the average at this period, though I have frequently seen  $104^{\circ}$ , and occasionally  $105^{\circ}$ . I have watched several cases from day to day, and have notes of two cases where no eruption whatever appeared till the morning of the fifth day, or ninety-six hours after the first rise of temperature was observed. Occasionally, however, I have seen it make its appearance at the close of the third day, but much more frequently on the morning or evening of the fourth day—that is, from seventy-two to eighty-four hours after invasion. I have dwelt on these two points more especially as one does not often see cases of measles till the eruption has already appeared, and my object has been to show that, notwithstanding the temperature occasionally falling to normal twenty-four hours after invasion, or notwithstanding four entire days elapsing without rash, still measles is in no way contra-indicated.

*Eruption to decline.*—The temperature generally falls rapidly once the eruption has well appeared. In from twelve to twenty-four hours after the highest temperature has been reached I have seen a fall of from three to four degrees frequently, with possibly a subsequent rise of a degree or two twelve hours after. Normal temperature in an uncomplicated case is reached on the seventh or eighth day after invasion. The respiration should always be counted as the time for eruption approaches, and for a day or two after it has already approached, and the chest occasionally examined. The respiration about this period may number thirty, thirty-five, or even forty, without any bronchitis or pneumonia being present; but any greater number, unless the temperature is very high, will usually indicate some chest complication. I say unless the temperature is very high, because I have seen from fifty to sixty respirations per minute due to a temperature of  $105^{\circ}$ , where no abnormal condition of the lungs or bronchial tubes existed.

*Isolation.*—This, with the usual disinfecting precautions, ought to be commenced as early as possible, and carried on for some time after the eruption has disappeared. I generally advise at least a week to elapse after the fall of the temperature to normal, or the entire disappearance of the rash, before I allow my patient to see anyone other than those engaged in nursing. During this interval the patient has a couple or three baths, using carbolic soap freely. I think, then, after the room and clothes have been disinfected, all contagion is gone.

There is one misleading symptom occasionally present in the early stages to which I wish to direct attention. I refer to the character of the cough. I have seen it of such an exceedingly croupy nature that croup and not measles might be looked for. I had one case, indeed, followed by croupous or plastic bronchitis, where—the measles having subsided—casts of the bronchial tubes were expectorated; but, as a rule, the cough, in the cases where it is croupy, loses this distinctive character after the eruption has come well out.

Downpatrick.

Two "physicians," alleged quacks, have (says the *Medical News*) been fined in New York City for illegally practising medicine. In Great Britain quacks are prosecuted, not for practising, but for using any title or description implying that they are legally qualified to practise.

## REMOVAL OF MALIGNANT TUMOUR OF THE NECK,

INVOLVING THE STERNO-MASTOID MUSCLE AND INTERNAL JUGULAR VEIN.

By G. H. HUME, M.D.,

SURGEON TO THE NEWCASTLE-ON-TYNE INFIRMARY.

SOME years ago attention was drawn to the subject of removal of tumours of the neck by the late Professor Spence, who published two successful cases in which the mass removed was of great size. Mr. Spence pointed out the necessity of carefully determining the nature of the tumour before undertaking such operations, and laid stress upon the signs which distinguish growths of a non-malignant from those of a malignant character. At the time Mr. Spence published his cases he had been able to discover the record of only four similar operations by British surgeons. His cases served to demonstrate the practicability of the removal of even very large tumours underneath the sterno-mastoid when these are of a non-malignant nature, and therefore more or less completely encapsuled, and such operations have frequently been successfully undertaken since. In the case of malignant growths in this situation, on the other hand, it is usually laid down that they ought not to be interfered with. But to this rule there are exceptions, and an attempt at removal seems to be justified whenever recent origin, fairly defined limits, and comparative mobility, render it probable that the growth can be entirely extirpated.

The following case is recorded as an instance of such a tumour which though involving important parts admitted of complete and, so far as can be judged, successful removal.

Mr. B—, steamboat owner, aged sixty-six, was sent to consult me in March last by Dr. Peart of North Shields, on account of a tumour of the left side of the neck. It had been noticed four months, and was increasing rather rapidly. It had been occasionally the seat of pain, and beyond a slight interference with swallowing did not cause other inconvenience. There was no engorgement of the veins of the face. The growth, which was hard and nodular, extended from the level of the upper border of the thyroid cartilage to the clavicle, being situated underneath and evidently involving the sterno-mastoid muscle. The limits of the tumour were defined as regards its upper, lower, anterior, and posterior margins, and the overlying skin was free, but an incomplete mobility suggested doubt as to its deep connexions. The tumour was evidently malignant, and its removal without delay was advised. The operation was performed on March 23rd with the assistance of Drs. Peart and E. Brumwell. An incision was made through the skin from below the mastoid process to the clavicle, and a second incision was made backwards from the first so as to obtain space. The clavicular part of the sterno-mastoid was next cut through above and below the tumour, and as the sternal portion was not involved it was separated and displaced to the front. The mass was then freed behind and inferiorly. The omo-hyoid was found to enter the tumour and was divided. In clearing the inferior border the dissection was pursued carefully till the deep vessels were reached. It was then found that the growth was closely connected to the internal jugular vein, and a double catgut ligature was passed round the vessel and held in readiness. Continuing the dissection upwards, the tumour was seen to be closely attached to the anterior wall of the vein for the extent of about three inches. The ligature which had been passed was therefore tied, and the vein divided. A second double ligature was in the same way applied, and the vein divided above its connexion with the tumour. There was then no difficulty in separating the mass with the adherent portion of vein from the carotid artery and pneumogastric nerve, and completing its removal. The descendens noni was not seen. The patient went on well after the operation. For a few days he had difficulty and pain in swallowing, which seemed mainly due to the disturbance of parts which the act involved. The lines of incision healed almost by first intention, but discharge continued from the cavity for some time, and the drainage-tube was not finally removed till the end of three weeks.

Microscopic examination of the growth showed it to be



carcinomatous. It consisted of cells of irregular form, with multiple nuclei, the cell-masses being traversed by connective-tissue stroma. There has been so far no return of the disease. Newcastle-on-Tyne.

## DEATH AFTER ABDOMINAL OPERATIONS FROM HEART-CLOT, DUE TO DISEASE OF THE KIDNEYS.

By LAWSON TAIT, F.R.C.S. ENG.

DEATHS after any kind of abdominal operation are now becoming so rare, from the elimination of preventable causes, that we seem likely to gain an insight into causes which are not preventable. Amongst these, in my recent experience, the most prominent has been heart-clot. In deaths after ovariectomy it seems to be clearly associated with the impoverishment of the blood resulting from repeated tapings. But it has occurred to me twice lately in other cases, where tapping was not an element. One was a case of removal of the uterine appendages for chronically inflamed and adherent ovaries, and the other was a case of removal of a pediculated myoma. The patients were respectively forty-one and fifty-one years of age, and in neither of them did examination of the urine give any evidence of disease of the kidneys. They both died in the same way thirty-six hours after the operation, the only feature being an extremely rapid rise of the pulse beginning in about twenty hours. The conditions found after death were precisely the same: adherent clot in the heart chambers and (to quote the words of Dr. Saundby, who made the post-mortem examinations) "both kidneys small, the capsules adherent, the cortices narrow, not more than one-eighth of an inch in breadth." The details of the operations were found to be quite satisfactory.

The facts of these two cases are too closely identical to form a mere coincidence, and from my past experience I feel strongly that, but for the condition of the kidneys, they would both have recovered.

I write this note to ask help from those who are familiar with kidney troubles upon two points: Could I have discovered, in any way at present unknown to me, the state of the kidneys, and could I have done anything in the way of preparatory treatment to prevent the formation of the heart-clot? I have removed tumours, in many instances, knowing of the existence of serious visceral disease, including Bright's disease, and the patients have recovered. But in this (to me) unrecognisable kidney atrophy there seems to be a serious bar to operative success.

Birmingham.

## A Mirror OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### ST. THOMAS'S HOSPITAL.

#### MALIGNANT DISEASE OF THE PYLORUS; REMOVAL; DEATH.

(Under the care of Dr. BRISTOWE and Mr. SYDNEY JONES.)

THE following are the details of the case of excision of the pylorus mentioned in our columns on the 28th ult., p. 720.

J. B—, aged fifty-seven, a stationer's assistant, was admitted into the hospital under the care of Dr. Bristowe on Sept. 22nd, 1882, with the following history:—He had always been healthy, never having had any serious illness, until the beginning of last May, when he complained of tightness over the upper part of the abdomen, with loss of appetite and inability to take fatty food without a feeling of nausea and regurgitation. From that time the feeling of tightness, with increasing soreness of the region mentioned,

had continued, and he had had occasional vomiting. He had also lost sixteen pounds in weight during the time. When admitted under Dr. Bristowe's care his condition was as follows:—Patient much emaciated, and complaining of pain in the abdomen on movement, followed by a feeling of sickness and of loss of appetite. On examination of the abdomen a hard, rounded, but somewhat irregular lump, from one and a half to two inches in diameter, is to be felt a little below the ribs on the right side, it is readily movable within narrow limits, and chiefly in the vertical direction; its centre is about an inch above and two inches to the right of the umbilicus. Its dullness is apparently continuous above with that of the liver, its lower edge extends from half an inch to an inch below the umbilicus. Its left border is about a finger's breadth, and its right border about four fingers' breadth, from the same part. It pulsates, but the pulsation is evidently communicated from the aorta. Liver dullness begins at the sixth rib, and is continuous with that of the growth; edge cannot be felt. Spleen normal. Tongue is a little coated. Appetite variable; no vomiting. Bowels open. Nothing abnormal in chest. Urine 1020; no albumen, lithates.—Sept. 6th: Was sick this morning for the first time since admission. Bowels regular. Sleeps fairly well at night.—27th: No further vomiting; felt a good deal of pain in the night, which he describes as a burning heat in the stomach.—29th: Patient feels easier this morning, has had no return of the sickness. Abdomen is not nearly so tender as it was.

Oct. 3rd.—Tongue coated, white, and dry; appetite good, bowels open. Complaints of shooting pains across the umbilical region, and distension after eating.—6th: The patient is expectorating a good deal, but there are no abnormal signs to be detected in the lungs. Resonance extends round the tumour, excepting perhaps for a short distance where it adjoins the liver. From this date until the 15th there was no marked change beyond the gradual emaciation of the patient and perhaps slight increase in size of tumour; he only vomited very occasionally, complaining chiefly of distension after food and slight pain in the tumour, which was apparently lower down and more fixed, not moving with respiration. There had been no elevation of temperature whilst he was under observation.

The question as to the nature of the tumour was carefully considered and discussed from the time of the patient's admission up to the time of the operation. The possibility of its being an enlarged and diseased gall-bladder, a movable kidney, an aneurism, or a growth originating apart from the stomach in the peritoneum, had due weight given to it, and was fully argued out. The only one of the alternatives that seemed to deserve any serious consideration was that of its being a tumour originating in the great omentum or some other part of the peritoneum, and this would scarcely have deserved entertaining were it not for the fact that some of the most common and distinctive signs of pyloric disease were absent in this case. The patient while in the hospital enjoyed a fair appetite, he was very rarely sick, he never vomited blood, and the stomach was not greatly distended. Further, it was thought by some that the situation of the tumour was lower than could be well explained by its being a tumour of the pylorus. Dr. Bristowe, however, whilst admitting the possibility of its being a peritoneal growth, adhered to the opinion he had at first formed, that the case was one of carcinoma of the pylorus. The patient from the first expressed a strong wish to have the growth, whatever it was, removed. And considering that, notwithstanding his fair appetite, he was steadily growing weaker and thinner, at length it was determined to consult Mr. Sydney Jones with respect to the feasibility of an operation, and to put the matter plainly before the patient. The operation was not urged upon the patient, and the risk attending it was put before him clearly. He decided to have it performed. No doubt the patient would have lived some little time longer had his case been left to nature. But it was felt that any hope of benefit would be much greater now than if the operation were put off until the patient was sinking. In a former case, too, which had been under Dr. Bristowe's care, and the question of removal of diseased pylorus had been considered and determined upon, the patient only gave his consent when he was moribund, and too ill to have any operation performed.

Mr. Sydney Jones having agreed to operate, on the 15th of October the stomach was washed out with water, and from that date until the 17th he was only allowed skimmed milk, taking about two pints daily. The stomach was again

washed out about an hour before the operation, which commenced at 2.15 P.M. of the 17th, and was carried out under the spray (1 of carbolic acid to 80 of warm water), and afterwards dressed with antiseptic precautions in the usual manner. Ether having been administered, Mr. Sydney Jones made an oblique incision extending from left to right, commencing an inch to the left of the middle line and four inches below the ensiform cartilage, four and a half inches in length, inclined downwards, carefully dividing the various layers until the peritoneum was reached, when, having arrested all hæmorrhage, the peritoneum was divided on a director to the extent of the previous incision. In the upper part of the wound, which gaped widely, the border of the liver was seen rising and falling under the costal arch with respiration, which was then jerky and irregular, whilst the growth was exposed about the centre of the wound. The gall-bladder was not seen. Slightly to the right of the middle line was a vertical band passing upwards to the liver and covered with a reflexion of the peritoneum, this, which was the round ligament, was divided between a pair of clamp forceps and both ends of a small vessel ligatured. Other peritoneal adhesions existed in this neighbourhood. The tumour, which was larger than a duck's egg, was connected by numerous adhesions to the surrounding parts, and below it, close to the head of the pancreas, were a good many infiltrated glands about the size of small nuts. The great omentum was divided in pieces between double ligatures. The tumour being now more free, the stomach was lifted up towards its pyloric end and flannels wrung out of warm water were placed under it to prevent bleeding into the peritoneal cavity. The lesser omentum connected with the pyloric end of the stomach was gradually cleared from the tumour by cutting between pairs of artery clamps and ligaturing both ends of the section. There was a good deal of hæmorrhage close by the head of the pancreas, for the most part venous. When the pyloric region was thus made more free, an opening was carefully made over the finger introduced from below in the lesser omentum to the left of the growth. The pyloric artery was then ligatured and divided. Then a Rydygier's clamp was put round the stomach by introducing one limb through the opening in the lesser omentum, and passing the other across the anterior surface; it was then closed, and the stomach divided to the right of it. The clamp was then removed, and hæmorrhage from the cut surface arrested; this was not considerable, only a few minute points requiring ligature; the stomach was found to be empty, and the mucous membrane appeared to be quite healthy. The cardiac end of the stomach was carefully sponged out. A little brownish fluid was seen at the pyloric orifice; a small sponge was placed in each orifice. The clamp was next placed on the duodenum just beyond the tumour, and the growth with some infiltrated and adherent glands removed. The duodenum was firmly held up when divided to prevent retraction. The growth was seen to extend a little further down the duodenum on its posterior border, so a small piece, including this, was removed by scissors. There was very little hæmorrhage on removal of the clamp, and a few fine ligatures proved sufficient. The upper part of the duodenum was mopped out, and a clean piece of sponge introduced. As the section of the stomach was larger than that of the duodenum, the upper part of the former was stitched together, for about two inches, by means of nine sutures of fine carbolised silk, through its mucous membrane, and a corresponding number of the same material, including muscular and peritoneal coats. The cut ends of the stomach and duodenum were now brought into apposition, and corresponded well in size. The posterior part of each was then sewn together with fine carbolised silk, the mucous membrane being carefully adjusted last, the first sutures applied being passed between the mucous and muscular coats, perforating the latter and the peritoneum, and then passing through the peritoneal and muscular coats of the apposed edge; as the opening became smaller it was not found possible to pursue the same plan towards the front, and here Lambert's stitches only were used. There were about fifty-two silk sutures put into the stomach and duodenum. The parts around were carefully cleansed, the flannels having been removed, and the stomach placed in position again. The external wound was closed by means of seven or eight deep silk, and four superficial catgut, sutures. During the course of the operation, which lasted almost three hours and a half, the patient became much collapsed, and it was found necessary to bandage his limbs and administer a brandy enema.

After he was put to bed, in addition to the above means, hot blankets and hot-water bottles were applied, and another brandy enema given. He became conscious about 8.30 P.M., complained of pain and asked for morphia, but gradually sank, dying at 11.15 P.M.

A post-mortem examination was made on the following day by Dr. Sharkey. The body was much emaciated. Rigor mortis well marked in both extremities. Pleuræ adherent by old adhesions, at left apex and right base. Lungs a little collapsed, otherwise normal. Pericardium and heart natural. Liver small and pale, at the upper border of its right lobe was a nodule of new growth about as large as a walnut. Kidneys normal. On opening the abdominal cavity, by enlarging the incision of operation, the peritoneum looked almost normal. All that was remarkable were some dotted hæmorrhages about the pyloric end of the stomach, and an exceedingly small quantity of red fluid on the surface of the coils in the neighbourhood. One could scarcely see without close examination that any operation had been done, as the stomach, colon, &c., occupied their normal positions, and the stomach had its normal shape.

The carcinomatous growth removed measured one inch and a quarter along its upper border, and three inches and a half along the lower, its base was of a firm fibrous character, completely surrounding the pylorus and adjacent portions of the stomach and duodenum, and the inner aspect presented a fungating ulcerative surface, the lumen of digestive tract at this point only just permitting the passage of a small finger.

#### PUBLIC HOSPITAL AND DISPENSARY, SHEFFIELD.

SEVERE WOUND OF THE ANKLE-JOINT; RECOVERY WITH  
MOVABLE JOINT.

(Under the care of Dr. KEELING.)

FOR the following notes we are indebted to Mr. G. F. Gubbin, house-surgeon:—

W. H—, a boy, eight years of age, was admitted on Aug. 8th, 1882, with an extensive wound of his left ankle-joint posteriorly, caused by the cutting portion of a mowing machine. On examination it was found that the wound extended across the back of the joint, from below the internal to the external malleolus, the lower portion of which was separated from the rest of the bone and broken into fragments; the tendo Achillis was completely divided, as well as the peroneus longus and peroneus brevis muscles on the outer side. The joint was laid open and the cartilaginous surfaces of the bones entering into its formation exposed; some of the cartilage had been chipped off. There had not been much bleeding. Under the carbolic spray the wound was freed from fragments of bone and cartilage, and carefully cleaned; the two ends of the tendo Achillis were brought into as close apposition as possible and fixed with carbolised catgut sutures. The wound was then sewn up with silver wire and catgut sutures and enveloped in the ordinary antiseptic gauze dressing, the limb laid on its outer surface, and the ankle-joint fixed in the extended position. The wound was dressed twice during the first eight days, afterwards once a week until Aug. 30th (or twenty-two days after the receipt of the injury), when it was found to be quite healed. The boy was kept in bed and passive movement practised.

On Sept. 11th he was able to flex and extend the joint freely, and to invert the foot, but the power of eversion was rather weak; he was not able to bear much weight on the limb. He was now allowed to get up. The boy continued to improve, and on September 20th it was noted that he could get about with ease, although not able to bear the whole weight of his body upon the injured limb. When he was lying on the bed it was found that he could move the wounded joint just as freely as the sound one.

#### BRITISH MEDICAL TEMPERANCE ASSOCIATION.—

The next quarterly meeting of the Association will be held in the Medical Society's Rooms, Chandos-street, Cavendish-square, W., at 4 P.M. on Nov. 22nd, 1882. Dr. Richardson, F.R.S., will preside. A paper will be read on "Inebriety caused by Mental Injuries," to be followed by a discussion, in which all medical men will be at liberty to take part.

THE collections made at Chapel-Allerton Church on Sunday, the 12th inst., for the Leeds medical charities, amounted to £78 11s. 6d.

## Medical Societies.

### PATHOLOGICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society was held on Tuesday, November 21st, Dr. George Buchanan in the chair. He presented the new volume of the Transactions to the Society, and also announced that in April next there would be a discussion on the pathological condition of the various organs in diabetes.

Dr. HORROCKS showed a living case of Bromide of Potassium Rash in a girl aged ten years, who had been taking twenty-five grain doses of bromide of potassium twice daily for four months; one month ago red swellings like erythema nodosum appeared over the tibiae, and a week later pustular points were present on the swellings, and coalesced; shortly afterwards it came upon the extensor aspect of the arms and forearms; there was no rash elsewhere. The rash was now undergoing involution and was not so characteristic as it had been. Dr. Horrocks alluded to the absence of the rash in the usual acne situations and thought it was rare to find it on the extensor aspects of the limbs only.—Dr. THIN considered that these cases presented sufficiently characteristic features for them to be diagnosed independently of the history and alluded to a case in which he had done so. His microscopical investigations in a case of iodine rash led him to consider that the condition was not due to inflammation of the sebaceous glands and therefore not a true acne, but that it was due to the drug affecting directly the walls of the vessels, producing stasis and its consequences.—Dr. RADCLIFFE CROCKER said that the presence of the rash upon the extensor surfaces was not so rare as Dr. Horrocks seemed to think; several cases had been shown by Dr. Barlow, himself, and others, with the rash in these positions, and he described a case now under his care at the East London Children's Hospital of a girl aged nine, who after taking ten-grain doses of bromide for a week showed the characteristic pustules upon the anterior surfaces of the legs and on the arms and chest; the drug was not stopped, on account of the fits from which she suffered, but some arsenic was given; the following week superficial abscesses two inches in diameter were present on the site of many of the pustules. The patient had been half starved.

Dr. HOGGAN showed and described microscopical specimens of Multiple Lymphatic Nævi of the Skin. He considered that the condition was a common one, though hitherto unrecognized, and that it was probably the early stage, or predisposing cause of many other diseases connected with the lymphatic system, such as, elephantiasis, lymphangions, &c. It differed from the case of lymphangiectodes presented to the Society by Drs. Tilbury and Calcott Fox, as that had no navoid development of lymphatics, and also from Hebra's case of lymphangioma tuberosum multiplex, which, both from the drawings and description, he thought was not a lymphatic disease at all. His patient was a boy, aged nine years; the nævi were of the size of a split pea, flattened, and of a transparent pale-lilac tint, and were situated upon the right leg and ankle, which had been repeatedly attacked by an erysipelatous inflammation, causing great pain and slight thickening of the ankle; in short, the symptoms of the early stage of elephantiasis Arabum. The epidermis was infiltrated with the branched cells of Langerhaus. The abnormal lymphatics traversed the whole thickness of the dermis below, but above did not extend higher than the normal lymphatics, nor nearer than usual to the hair-follicles or sweat glands. There was nothing abnormal in the structure of the lymphatics individually, and the fact that none of the nitrate of silver injection had been extravasated showed that they were actually walled tubes. He thought the disease was an early and curable stage of elephantiasis cruris.—Dr. PYE SMITH asked if the affection was congenital.—Dr. THIN endorsed Dr. Hoggan's opinions as to the structure of the tumours, but doubted their relationship to elephantiasis Arabum, as there was none of the imperfect fibrous tissue seen in that disease. He thought the case corresponded with one described and figured by a Russian observer in the *Archiv für Dermatologie* a few years ago.—Dr. HOGGAN replied that it was in a stage before the development of fibrous tissue; and with regard to its being congenital, thought that it was, but the history was defective on that point.

Dr. SAMUEL WEST showed and described a specimen of Sarcoma of the Bladder and Prostate. The patient was a man aged twenty-one, and showed no symptoms of disease until a month before death, when he had retention of urine; no trace of a tumour could be felt by the rectum. A few days later hæmaturia, followed by retention occurred, and the catheter had to be used; the hæmorrhage continued to be profuse, and he died of exhaustion. Post mortem in the position of the prostate was a tumour nearly as large as the bladder, and in the bladder were several polypoid tumours, the largest rather larger than a Tangerine orange; one was in the trigone, and another projected into and blocked up the dilated urethra; signs of hæmorrhage were present in it, and doubtless it was the source of the bleeding and cause of the retention. The tumours were split up but not villous; section of the prostate tumour showed it to be a soft, round, and spindle-celled sarcoma. There were no secondary growths, the kidneys were studded with small abscesses, and the ureters and pelves dilated, the bladder being hypertrophied, which was good evidence that though there were no symptoms until a month before his death, the tumours were present for a longer period. The delay in the development of symptoms reminded him of the case of mediastinal tumour that he had showed, in which there were no symptoms until two months before death.—Mr. ROGER WILLIAMS said that growths like this were much more common in elderly people. The practical point was, Were these growths infective? Evidently these were not, and he compared them to those medullary growths of the bladder and rectum which were often non-infective. He then showed his museum specimen, which had no history attached to it, of a small tongue-like growth at the neck of the bladder, which had belonged to a boy; the bladder was hypertrophied.—Mr. BARKER mentioned several cases of tumours of the bladder, in all of which he had noticed this feature in common—namely, that the growths were more or less polypoid, whether they were cancers or sarcomas.

Dr. HENDERSON showed a Heart with Syphilitic Gummata in the Wall of the Left Ventricle, and microscopical specimens in illustration of it. A man, aged thirty, was brought in a moribund condition to St. Mary's Hospital, and died in a few minutes. It was stated that he had seemed well until a fortnight before his death, when he began to complain of faintness and pain in the precordial region. On his way to his work he suddenly staggered and fell, groaned, put his hand to his heart, and was unconscious from that moment to his death. At the post-mortem examination the only organ affected was the spleen, which weighed twelve ounces; it was congested, firm, and adhered to the parietes. The liver weighed sixty-two ounces, and had a depressed fibroid scar in the right lobe, but was otherwise normal. The heart weighed thirteen and a half ounces. The pericardium over the left ventricle was studded with pale yellowish-white, slightly projecting elevations, and one or two were over the right ventricle. The endocardium of the anterior wall of the left ventricle was studded with similar nodules. On cutting into the septum a mass of fibroid tissue, a quarter of an inch thick and one and a half inches long, and two inches broad, was seen extending into the muscular substance, with which it gradually blended. Microscopically the muscular substance was permeated by tissue, with gummatous characters, but there was no sign of caseous spots, or of fatty degeneration in the muscle fibres. The lumen of the smaller vessels was narrowed by thickening of the intima. He thought that the appearances of this case made it a connecting link between the cases of fibroid degeneration of the heart described by Dr. Hilton Fagge in vol. xxv. of the Transactions, and those of Dr. Burney Yeo in vol. xxvi. There was no history of anginal attacks, and the larger coronary vessels were not blocked in any way; the question arose whether the blocking of the lumen of many small vessels would have a similar effect to the occlusion of the larger vessels, and so cause sudden cessation of the heart's action.

Mr. ROGER WILLIAMS then showed a wax model of a case of Testis in Perineo and Congenital Hernia. Before admission into the hospital there were great pain and tenderness over the tumour on the right side of the scrotum; an ounce of straw-coloured fluid was drawn off by the aspirator, and on taxis the hernia was reduced. The testicle was swollen and tender, and could be felt in the perineum. This position of the testicle occurred seventeen times out of twenty-two cases on the right side, and congenital hernia was rarely associated.

Mr. J. B. SUTTON showed the Skeleton of a Baboon affected with Rickets; it was admitted into the Zoological Gardens when two months old, fed on fruits and nuts instead of milk, and died in four months. The viscera were not preserved, but the skeleton showed decided signs of rickets. The epiphyseal cartilages were enlarged; that of the femur was ten millimetres instead of one. There were three layers: 1. Normal cartilage. 2. Longitudinal rows of cells. 3. Imperfect ossification enclosing cartilage cells. The tibiae were bowed and very soft. The periosteum thick and succulent. The skull was six millimetres thick, soft and spongy. In another specimen that he found in the museum the skull was twelve millimetres thick. In answer to Dr. Buchanan, he said that dentition was not affected.

Dr. HADDEN showed Microscopical Sections of the Cord in Canine Chorea, in which disease there are rapid contractions of the muscles, as if under the influence of the interrupted current, the disease resembled spasmodic torticollis more than human chorea; it generally followed distemper, and was fatal. Like the cases described by Drs. Gowers and Sankey, there were masses of leucocytes scattered irregularly through the cord, but while in their cases these cells were in the white matter, in his they were among the grey matter, distended capillaries could usually be seen. The appearances were suggestive of an early stage of disseminated sclerosis, and, as they were not constant, were probably secondary, perhaps due to over-action.

Dr. PYE SMITH showed the fresh organs in a case of Colloid Cancer in a man aged sixty years. His first symptoms were cough and pain in the leg, but there was no tumour felt; but later on a small tumour was detected in the region of the liver, and he had pain in the course of the sciatic nerve, and the diagnosis of retro-peritoneal cancer was made. There was no vomiting or hæmatemesis. Post mortem there was no cancer of the liver, but it was simulated by a part of the retro-peritoneal tumour. A very large cancer affected the posterior wall of the stomach, projecting into it, but united to the cancer behind; another tumour projected into the duodenum. There were a few secondary nodules in the liver, while the lung was studded with pea-sized nodules. The microscopical characters were those of colloid cancer, the paucity of vessels accounting for the absence of hæmorrhage during life.

Dr. FREDERICK TAYLOR showed the Heart in a case of Ulcerative Endocarditis. A man, aged twenty-six, had had rheumatic fever, at the age of fifteen, with some cardiac complication. Five months ago he had shortness of breath and wasted. For the last six weeks he had had oedema of the feet. When admitted he had general anasarca, and looked as if suffering from renal disease. There was marked pyrexia and a double aortic murmur, tenderness over the spleen, and the urine was abundant and highly albuminous. Ulcerative endocarditis was diagnosed. Post mortem both aortic and mitral valves were affected with old and recent disease—viz., induration and ulceration. The left ventricle was dilated and hypertrophied. The spleen had several embolic infarcts. The kidneys showed cloudy swelling, and the capsule was slightly adherent in one part. The question was whether the kidney affection was primary or dependent upon the endocarditis? Dr. Taylor thought it was due to the endocarditis, as similar conditions had been observed in other cases.

The card specimens were Thrombus in the Left Common Iliac, by Dr. Kingston Fowler, and Congenital Malformation of the Heart, by Dr. Turner.

### MEDICAL SOCIETY OF LONDON.

*Osteitis Deformans.—Ammonia, Chloroform, and Ammoniated Chloroform as Antiseptics.—Cases of Nephrectomy.*

A MEETING of this Society was held on the 13th inst., Mr. F. Mason, President, in the chair.

Mr. WALSHAM showed a case of Osteitis Deformans (Paget) in a man, aged fifty-five. The affection of the right leg had been noticed for about five years. The left leg was affected shortly after. The right and left femora, the right radius, and the right clavicle enlarged in the order given about three years later. During the last twelve months the skull had increased in size, and the spine began

to bend. His height had been reduced from 5 ft. 7½ in. to 5 ft. 5½ in. during the last two years. He had previously enjoyed excellent health, and had been free from syphilis, gout, rheumatism, and injury to the bones. One sister had died of phthisis, and another of cancer of the uterus.—The PRESIDENT asked whether there was any defect of intellect. Mr. NOBLE SMITH inquired whether the urine contained sugar. In a case of a lady, sixty-one years old, he had pursued a tonic treatment in view of defective nutrition.—Dr. ROUTH had seen a similar case twelve years ago; the anterior portion of the cervical spine being chiefly affected. The patient was an anæmic and ill-nourished child, and death was caused by choking. Defective nutrition seemed to underlie these cases.—Mr. WALSHAM, in reply, said that the man's intellect was unaffected. The urine had been examined for albumen, but none was present. Iodide of potassium had been given without effect.

Dr. RICHARDSON read a paper on Ammonia, Chloroform, and Ammoniated Chloroform as Antiseptics. The author first recalled attention to his original paper in 1850, on the Antiseptic properties of Gases. He had shown that various gases and vapours, including arseniuretted hydrogen gas and chloroform vapour, acted as antiseptics on fresh animal structures, together with many other aeriform and vaporous agents. He showed two small specimens of lung which were shown in 1850 in illustration of the antiseptic powers of chloroform vapour. The specimens had remained in their bottles untouched for over thirty-two years, and were still well preserved. He next referred to a paper he had read in 1862 on the antiseptic properties of ammonia, in which he had shown that the vapour of ammonia was one of the most perfect of antiseptics. In further demonstration Dr. Richardson exhibited a specimen of blood which had been drawn from a sheep's neck into an ammoniated atmosphere in April, 1862. It had been enclosed in a well-corked bottle for more than twenty years. It was still perfectly fresh and fluid, and although its microscopical characters were changed it could be made to undergo coagulation on displacement of the ammonia, so that it still exhibited what John Hunter would have called "the final act of life." Proceeding to his present research, the author said that since his last paper he had continued to use ammonia vapour as the antiseptic most convenient, and he had improved upon it in two ways. 1. When a structure to be preserved contained a great deal of fat it was apt, after a few weeks, to become saponified, by which its character was changed. To avoid such change he had used what he called ammoniated chloroform, which was simply chloroform and ammonia vapour combined. By this means much less ammonia was required, and the saponifying process was prevented. 2. It was sometimes important to preserve the colour of a substance; to effect this the bottle containing the specimen was charged with common coal gas, as well as with the vapour of chloroform. The coal gas contained sufficient carbonic oxide to maintain the colour. Specimens of the heart, kidney, spleen, and the viscera of birds were shown, preserved in these various ways. The advantages were as follows:—1. In making a post-mortem the operator had simply to take with him a jar or bottle well stoppered and ready charged with antiseptic vapour. Into this gas drop the specimens, close them down, and keep them for days, or even weeks. 2. In some forensic cases specimens might be retained in pure ammonia or chloroform vapour in a perfectly sound state during a long investigation. 3. The antiseptic results obtained indicated certain uses of ammoniated chloroform in diseases attended with rapid putrefactive change.—In reply to questions from the President and Dr. Routh, Dr. RICHARDSON said that chloroform would only take up a certain small proportion of ammonia. The solution should be used concentrated. In the case of sore-throat it was administered by inhalation. He feared it would be impossible to use the preparation on a large scale so as to preserve whole bodies. He had it tried on sheep and failed, owing to the gases destroying the tissues. Chloride of zinc and spirit embalmed a body perfectly, but made it too hard for dissection.

Mr. KNOWSLEY THORNTON read notes of three successful cases of Nephrectomy by Abdominal Section. The first case was that of a child seven years old, in whom the left kidney was removed by median abdominal section for hydro-nephrosis, which was probably congenital, as the ureter was only represented by a small fibrous cord. The child made an excellent recovery, and is now strong and well-developed; before the operation she was delicate and puny. The second

case was that of a woman aged twenty-six, who dated her illness from her second and last pregnancy. The kidney was much enlarged. The patient was almost in a dying state when admitted into the Samaritan Hospital in February, 1882. Mr. Thornton first operated through the loin, but failed to find by this exploration the cause of the trouble. She improved for a time, but soon relapsed, and he removed the kidney by lateral abdominal section (incision of Langenbüch), and then found it to contain a large number of small calculi or concretions. The bladder end of the ureter was tied and brought out of the wound at its lower angle—an important precaution, as this portion of the ureter was generally diseased and putrid in its interior. The patient made an excellent recovery, and in a letter just received she states that her health is good, and the urine clear and natural. The third case was that of a woman fifty-eight years old who had been known to have had suppuration of the kidney for sixteen years. The kidney had been aspirated several times without relief, and Mr. Thornton decided to remove it by Langenbüch's incision. The operation was exceedingly difficult owing to the great obesity of the patient and the extensive adhesions. The sac into which the kidney had been converted weighed after removal  $4\frac{1}{2}$  lb., and it contained twenty pints of pus. The patient made a rapid and perfect recovery without fever, the only complication being some bronchitis, which was present before the operation, and became more acute for two or three days afterwards. Mr. B. Morison, of Canonbury, reports her present condition as satisfactory. The cause of the mischief was found to be a very small umbrella-shaped calculus, of which the handle was fixed in the opening of the ureter. All the operations were performed under strict Listerian principles, and to this Mr. Thornton attributed in great part the even and rapid recovery of the patients. He pointed out the great advantages of the lateral abdominal incision over the median or lumbar section, and expressed his belief that it could be the operation of the future in nephrectomy. He drew special attention to his method of treating the ureter in these cases, as he thought it of great importance. He considered that these cases emphasised the fact already demonstrated by his ovariectomy practice, that under antiseptic conditions the peritoneum can dispose of considerable quantities of effused material without the aid of the drainage-tube, and without constitutional disturbance, even after the removal of so important an organ as the kidney. The kidney could be more safely and thoroughly explored by Langenbüch's incision under antiseptic management than by the lumbar incision.—Dr. RICHARDSON remarked that the use of iodine, which was an oxidising agent, destructive of putrefactive products and not a germicide, could hardly be considered as an instance of Listerism.—Mr. H. MORRIS thought the cases did not bear on the comparison between the merits of nephrectomy and nephrotomy. All these cases were clearly cases for nephrectomy; but in others nephrotomy was the proper course to pursue. In the third case an early exploratory incision might have obviated the necessity for nephrectomy. In the second case, were the small black concretions really calculi or concretions of pus and blood? He had lately made an exploratory incision in the case of a man who had since passed a small calculus. A second exploratory incision failed to reveal a stone; but he believed that one was present; and possibly nephrectomy might be required at a later date. No especial antiseptic treatment was employed in that case, but cotton-wool dressings were used. The wound closed with remarkable rapidity, as it did in a previous similar case of his. He alluded to cases where relief had followed nephrotomy, though no stone had been found, and thought that in these cases the affection was an unduly mobile kidney, which became fixed by adhesions resulting from the operation.—Mr. THORNTON, in reply to the President, said he considered silk ligatures more convenient than, and as easily made antiseptic as, catgut. He did not deny that good results might be obtained without antiseptics, but still he held that better results followed their use. Thus he was able to close his wounds without resorting to drainage. He used iodine when he wished to destroy the products of putrefaction; carbolic acid to prevent putrefaction. He did not intend to deny the utility of nephrotomy, but merely to point out that it was not applicable to these three cases. So far as examination had yet gone the calculi contained crystals of oxalate of lime; their outer coating was probably blood.

## WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on Friday, Nov. 3rd, and was devoted to clinical cases. Dr. Hart Vinen, President, was in the chair, and some forty-five members were present. The principal feature of the evening was the exhibition of three cases of Charcot's joint disease.

The first case was shown by Dr. ATKINSON. Besides the usual phenomena of locomotor ataxy, the left shoulder-joint was seriously affected. Some three months after the first symptoms were manifested this joint became swollen till it measured thirty-nine inches in circumference, without any pain or inflammation. At that time (some ten years after) the joint was not enlarged, but there was marked prominence of the acromion process and flattening of the deltoid, and on examination the head of the humerus was distinctly absent, having been entirely worn away, so that the arm could be thrown about in any direction, as if it were a flail. Dr. Atkinson said that the pathology of the joint affection appeared to be some degeneration or disturbance of the trophic nerves supplying the bone leading to the defective nutrition of the osseous tissue, and this might also cause the spontaneous fractures described by Dr. Weir Mitchell as sometimes happening in patients with this disease.

Mr. EDWARDS, in bringing forward the second case, said that here too the left shoulder was the special joint affected. When the patient first came under his notice some twelve months ago there was a large effusion under the pectoral muscles (not in the joint itself), which was said to have come suddenly a few days before after lifting a weight; he at first thought it must be a hæmatoma, and aspirated it, drawing off some ounces of reddish fluid. Soon after the swelling recurred in the joint itself, in moving which distinct crepitation could be felt, and the head of the humerus could be easily dislocated, showing that the head of the bone was partially absorbed. With regard to other symptoms, the patient had experienced the "lightning pains," his pupils were contracted unequally, and this patellar tendon-reflex was modified, but not absent.

Mr. KEETLEY exhibited the third case, in which the symptoms of ataxia as well as joint affection were well marked. He remembered seeing Mr. Edwards' case before and thought then that there was no ataxia present, but was not aware if further symptoms had been developed since.

A discussion followed in which Dr. THUDICHUM said that locomotor ataxia was accompanied with a change in the nervous centres termed amyloid (first described by Virchow). Granules were deposited, which after treatment with dilute sulphuric acid and iodine became blue and appeared like iodised wheat-starch granules. It had been said that amyloid matter was albuminous, but that was erroneous. Some amyloid is a starch-like body, and no doubt derived from the decomposition of some of the cerebri bodies, of which the brain and nerve tissues contained more than 4 per cent. This decomposition set free a sugar cerebrin, all of which can be reduced by losses of water to the amyloid matter. The deposition of this matter in any part of the nerve tissue, particularly the spinal marrow, produced all the varied symptoms shown in these cases.

Mr. POTTER next showed a patient, aged sixty-six, who, three years ago, whilst engaged as a labourer, was struck on the occiput by a falling wall, and the cervical spine was forcibly flexed. He was rendered unconscious for two days, but indistinctly remembered some one pulling upon the head and twisting it from side to side. Loss of power and sensation of the right arm and leg was noticed by the man when consciousness returned. He kept his bed for four months, an immovable apparatus for the head and neck being applied. One month after the injury the neck was noticed to be swollen, and increased till one year ago. No history of syphilis or rheumatic arthritis. A swelling in the median line at the back of the neck, extending from one inch below the external occipital protuberance to the sixth cervical spinous process, measuring about four inches in diameter. The trapezii appeared to be incorporated with the swelling on each side. It was hard, dense, with no discolouration, not tender on pressure, and with no evidence of deep fluctuation. The manubrium sterni and upper three costal cartilages and larynx were abnormally prominent; the chin almost touched the sternum. The posterior boundary of the pharynx could hardly be reached with the tip of the finger.



The patient complained occasionally of dysphagia and dull aching pain in the swelling. Mr. Potter thought the nature of the tumour obscure, the history, however, tended to show that the swelling was due to callus, which, in this case, was exuberant, owing to the movements of the neck being difficult to restrain. Whether the spinous processes with a portion of the laminae were fractured without much interference with the cord and nerves it was difficult to determine.—Mr. KEETLEY said that after careful examination of the case he could not help thinking that the patient's injury had been rather under-estimated. It appeared to him that there was a general bending backwards of the cervical region, and that the bodies of the vertebrae had been forcibly compressed, leading to fracture; the deformity was owing to a condition similar to that met with in Pott's curvature of the spine.—Mr. POTTER, in reply, said although this was possibly the case, the absence of callus deposited on the anterior parts of the bodies was a fact to be borne in mind.

Mr. LUNN exhibited the Brain of a patient who had died after a third attack of Apoplexy. The case first came under his notice in the second attack, which was one of right hemiplegia, and aphasia, and from these partial recovery, when the third seizure took place. It was observed that the temperature rose from the commencement of the seizure till death from 99° to 106° F., and after death there was a further rise to 108° in the rectum. Mr. Lunn had noticed this rise in temperature in three other cases of apoplexy. On examining the brain, the right ventricle was found distended with a dark soft clot and fluid blood, and the optic thalamus was extensively lacerated. On cutting through the left corpus striatum, a cyst about the size of a walnut, lined by a smooth yellowish-brown membrane, and filled with clear yellowish fluid, was found.

Dr. CLIPPINGDALE brought forward a case of Spontaneous Dislocation of the Sternal end of the Clavicle consequent upon lateral spinal curvature, due to dislocation of the hip, and observed that he could find no similar case on record, and only one case of spontaneous dislocation of the sternal end of the clavicle.

Mr. KEETLEY lastly showed a case of Arterial Embolism. When the patient was admitted into the hospital in the month of August, pulsation could be felt in both external iliacs, and in the right but not in the left femoral artery; strongly in the right tibia, feebly in the left. In the situation of the left common femoral was a slight swelling tender to touch. Temperature in both legs about the same; no signs of cardiac disease; had shortly before admission been so "low-spirited" as to lead his friends to fear an attempt at suicide. He was put on iodide of potassium (ten grains) and aromatic spirit of ammonia (half a drachm) three times a day. He steadily improved; pulsation gradually returned in the left femoral and grew strong in the tibiae, while the tenderness over the common femoral diminished; but the œdema of the left leg, which had at first been scarcely perceptible, increased considerably till the difference in measurement was two inches. His spirits also brightened up, and he felt quite well, strong, and cheerful.—Dr. POPE asked if the patient were in the habit of flexing his leg.—Mr. LLOYD also wished to know whether there had been typhoid symptoms, or whether the rectum were loaded.—Mr. KEETLEY answered the last two questions in the negative, and said that the man's employment was that of a machinist.

ACADEMY OF MEDICINE IN IRELAND. — At a meeting held on the 18th inst. the following office-bearers were elected:—President: John T. Banks. General Secretary: W. Thomson. General Treasurer: R. McDonnell. Medical Section:—President: William Moore. Council: S. Gordon, H. Kennedy, T. W. Grimshaw, J. W. Moore, J. Hawtrey Benson, J. Magee Finny, Christopher Nixon, C. Cameron, R. A. Hayes, and Alex. Nixon Montgomery. Obstetrical Section:—President: J. Denham. Council: G. Johnston, Lombe Atthill, A. V. Macan, T. M. Madden, H. Macnaughton Jones, Fleetwood Churchill, R. D. Purefoy, W. Cox Neville, Wm. J. Smyly, and John R. Kirkpatrick. Surgical Section:—President: John K. Barton. Council: W. Colles, H. Gray Croly, E. Hamilton, A. H. Jacob, E. D. Mapother, E. Stamer O'Grady, George H. Porter, William Stokes, William Ireland Wheeler, W. T. Stoker. Pathological Section:—President: John M. Purser. Council: Robert McDonnell, A. W. Foot, A. H. Corley, T. E. Little, G. F. Duffey, C. Coppinger, John B. Story, P. S. Abraham, Walter Smith, and Edward H. Bennett.

## BANQUET TO THE MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.

ON Tuesday evening last a banquet of welcome was given at Willis's Rooms to the medical officers of the Egyptian Expedition. About two hundred and seventy persons were present, comprising many of the most distinguished members of the profession. The chair was occupied by Sir Wm. Jenner. It was expected that the Duke of Cambridge, Sir Garnet Wolseley, and Mr. Childers would have been present, but the two former were prevented by a command to dine at Windsor on the same evening, and Mr. Childers by the state of his health. His Royal Highness, in a letter to Sir Wm. Jenner, said, "I should gladly have availed myself of the opportunity of showing my interest in the cordial support of the medical department of the army and the medical profession at large, for I am well aware how closely and intimately our mutual professions are connected, and how impossible it is for the army to exist without the steadfast aid of our medical friends. Had I been present, I should certainly have assured the medical officers of the army that I highly appreciate their valuable aid and good work done during the recent short but trying campaign." Sir Garnet Wolseley wrote—"It is a sad disappointment that I am thus prevented from having the pleasure of taking part in an entertainment intended to do honour to those whose services and whose devotion to their military duties are so highly appreciated by the army. There may be diversity of opinion as to the value of our military medical system of administration, but all who are acquainted with the work done by our surgeons in the field will, I think, freely admit that individually none are more devoted to their duty than those who are to be your guests next Tuesday." Mr. Childers, in his letter, said—"I should have especially wished to do honour, as far as in me lay, to the medical officers who have served in Egypt with so much distinction and ability."

After the customary loyal toasts,

Sir JAMES PAGET proposed "The Navy, Army, and Auxiliary Forces." In the course of his remarks, he said that one could not but be reminded of the degree in which of late years science had interwoven itself with war. Chemical and scientific skill was applied to the productions of the materials of warfare, and victory seemed to depend not much more upon the bravery of the men than upon scientific skill, in which the medical profession had their full share. (Applause.) They were still called surgeons, and it was not likely that he should desire that title to be changed, for he was proud to believe that surgery included the whole of the medical and many other sciences. (Applause and laughter.) The members of the Medical Department, whom they were then expressly honouring, brought to their task an amount of scientific knowledge such as very few possessed; they were not surgeons alone—they were physicians and sanitarians. The Department for a long time past could boast of their relations with men of science. Professor Huxley, who had honoured them with his presence, Joseph Hooker, Spencer Wells, and George Gulliver, all showed what men in the Medical Department of the services could do. Long before, they were, indeed, among the leading sanitarians of the time, but now all science was fairly combined in them, and civilians were bound to admit that it would be very difficult to find any body among themselves who could with so great skill and force, and with such advantage to the country, show themselves masters of surgery, medicine and sanitary science. He would not anticipate the next toast by speaking of the works done by those who had served in the late expedition, but at least he might refer to two—Director-Generals Crawford and Reid—as brilliant examples. (Loud applause.) They were all proud to be brought into relation with the bravery, courage, self-denial, and perfect and complete endurance for their country's good, which the members of the Medical Department had shown in time of war. There were men amongst them wearing the Victoria Cross; they could tell tales of men who had been in succession brave soldiers, fighting as soldiers for their own lives and the lives of their comrades, and then men of science and perfect

humanity working for the relief of human suffering. They were glad of an occasion of that kind when those engaged in civil practice might show how entirely, how heartily, they hoped to be always reckoned as of one body with the men who belonged to Her Majesty's services. (Applause.)

The toast was coupled with the names of the Earl of Morley and Mr. Campbell-Bannerman.

EARL MORLEY, in responding to the toast, referred to the committee, of which he is chairman, for inquiring into the general medical arrangements of the army. The object of the committee, he said, was principally directed to the improvement of the organisation of the Army Hospital Corps. The Secretary of State, at the conclusion of the present campaign, thought that a fit opportunity presented itself of utilising the experience gained in that campaign. In no sense whatever was it intended to inquire into the conduct of individuals or of the Department generally. (Cheers.) The desire was to sift all the evidence that could be obtained as to the results of the present organisation. He was sure that evidence would be freely given from all quarters, and that no evidence would be refused that would throw any light upon the subject. The difficulties of transporting a large expedition to such a distance were so enormous that it was absolutely impossible that at certain early periods some things might not be missing. He had heard from many officers of high distinction of the zeal and untiring energy and devotion exhibited by the officers of the Medical Department during the campaign. (Applause.) They all knew that there was no other profession which so thoroughly called into exercise the qualities of self-sacrifice and self-denial, which had been so largely exhibited by those gentlemen.

MR. CAMPBELL-BANNERMAN, M.P., also responded to the toast, and expressed, on the part of himself and his colleagues of the Admiralty, his appreciation of the services of the Medical Department.

THE CHAIRMAN here announced that a telegram had just been received from the members of the Berlin Army Medical Society, then sitting, sending greetings to their brethren at the banquet. He also intimated that a reply would be immediately forwarded by telegram. The Chairman then proposed, "The Medical Officers of the Egyptian Expedition." He said, "Gentlemen, I owe some apology for occupying this chair. (No, no.) When the subject of this banquet first came under my consideration I was most anxious that a surgeon should occupy the chair. I felt that the army and navy surgeons had, in some measure, a right to have a surgeon in the chair, and I spoke to him who may be styled the Chrysostom of medical orators, the man with the golden mouth, and he with his golden eloquence beguiled me and told me that it was rather the duty of a physician, inasmuch as the duties of our medical officers were more medical than surgical. (Oh, oh, and laughter.) He told me, and it was quite true, that 7039 men had passed through the hospitals in Egypt up to the 8th of November, and that of that number only 463 were surgical cases. He also urged upon me, and this had weight with me, that as I was president of the first medical college or corporation in the kingdom, it was my duty to do what I could to do honour to the medical officers returning from this expedition. (Cheers.) I therefore felt that, although I could not lay claim to his eloquence, my halting words, from the position I held, would have some weight with you. Sir James Paget has told us that medical surgery involves everything. It may be so, but I should be very sorry to allow some of my medical friends in the College of Physicians to cut off my leg, and I think he would look twice at some of his surgical friends before he allowed them to treat him for a bad pneumonia. In England, the two branches are to a great extent distinct, and Sir James Paget's argument therefore had weight with me. But there is another department of medicine which is hardly surgical, I mean preventive medicine, sanitary science, and I felt this belonged especially to the physician. It is physicians who teach it, and not surgeons; it is physicians who founded it, and not surgeons. Now preventive medicine, sanitary science, does seem to me, in regard to the army, more even than medical skill or medical treatment. I remember stating, after the Crimean war, to some of my medical friends that if, being ill with fever, I had my choice of being placed in a tent with a jug of water beside me, and a little food such as I could take, I would rather be in the tent with the free air blowing around me—in the best sanitary condition—than in some of the hospitals I had read of, even if I had a

whole college of physicians to treat me. (Laughter.) Our army is still decimated with disease—in Egypt I mean—and was so from the beginning; and this disease, if it is to be met at all, must be prevented by sanitary arrangements. The army will be weakened in a short time if disease continues to make the progress that it has made there. You may ask me if I attribute to the medical officers any want of sanitary knowledge, or of zeal in putting sanitary laws in force. Not at all. In this great metropolis, and in this country, where the powers of civil engineering are at our disposal, where sanitary arrangements can be conducted with precision, where the analyst tests the water and publishes his tests week after week, where the analyst tests the milk and inspects dairies, we find, nevertheless, epidemics of typhoid, we find the subtle germs eluding the most carefully-planned schemes for their obliteration. What, then, must it have been in the East? where dead bodies infected the water, where thirsty men were fain to drink although the drink was death. I say that no sanitary arrangements could have prevented these terrible disasters. Something has been said of the organisation of the hospitals. I am old enough to have witnessed an epidemic of cholera in this country in which patients were thrust into large hospitals, supplied with nurses, with medical staffs and medical students, and I witnessed (because it came suddenly upon them) the confusion and upset of all previous arrangements, and I can, therefore, fully understand that in the East, where they had comparatively few officers, where those officers had, I am sorry to say, other functions than their medical functions to perform—I say I can understand (though I do not know that it was the case) that a certain amount of confusion might have entered into the arrangements of the hospital for a time. Then, again, I am old enough to remember that if the medical officers deviated one letter from the law—if they purchased this or that which they thought was for the good of the patients, it was disallowed unless it was properly ordered. It might be some trifling thing that would only cost 2*d.*; but then, it was said, that 2*d.* had to be multiplied, perhaps, by 150, and the medical officer's pay was not sufficient to enable him to order it, because it would come to a considerable amount. Then the surgeon was called upon to operate when shot and shell were dropping around him, and one distinguished officer, Surgeon-Major George Shaw, whose name should ever be mentioned with honour, fell dead at his post, pierced through the head with a bullet. Now, to preserve a cool head and steady hand under such circumstances indicated a very considerable devotion, and mental power, and training, and I say that all honour should be rendered to those who conducted themselves as medical officers in that expedition under such trying circumstances. None but the medical profession can appreciate all the difficulties and trials that you had to undergo, and none but your profession can judge of the skill and judgment that you displayed. This is a representative assembly; for here we have Oxford sending us its Regius Professor of Medicine, Cambridge its most distinguished surgeon, and we have also amongst us the most accomplished graduates of the University of London. The President of the College of Surgeons and the ex-President of the College of Physicians are with us, with all the most celebrated Fellows of the two Colleges. The most renowned practitioners, in the large sense of medicine, surgery, and midwifery, are here to-night. And why? To express their thorough conviction that you did your duty. (Loud cheers.) It may seem faint praise to say that you did your duty; but remember what it is to do one's duty. It is to bring to bear on the work in hand the whole of your physical power, all your mental and all your moral power; and when the medical profession, in such a representative assembly as this, say that they believe you did your duty, that is a sufficient reason why you should receive a hearty welcome. We desire more; we desire to say that you exercised, under trying circumstances, skill and judgment; and we desire to draw closer the ties that unite us, your civil brethren, to you, the members of the same noble profession. I think myself that the medical officers of the army have no greater honour than to belong to our profession. Highly as I respect combatant officers, highly as I respect other professions, I will yield to none in claims for dignity as regards calling in life (cheers); and if we make everyone here feel the same zeal and the same claim to honour in their profession, I am sure we shall reap the reward. We wish our brethren to feel that we, the civil members of the profession

thoroughly sympathise with them in all their trials and difficulties; that we are one with them—one in their hopes and in their aspirations. I trust, then, that you will drink, with all honour, the health of the medical officers of the army and the navy who have served in Egypt. (Loud cheers.)

Staff Surgeon BELL (in the absence of Staff Surgeon Mahon) briefly acknowledged the toast, and bore testimony to the devotion and self-denial of his brother medical officers in the naval service, and thanked the officers of the Army Medical Department for their hearty co-operation during the late campaign.

Deputy Surgeon-General EKIN responded on behalf of the officers of the Army Medical Department in Egypt. He denied emphatically that there had been any breakdown in the department. On the 27th of July he saw the establishment of the hospital in Alexandria, and he left it capable of accommodating 270 patients. He went on to Ismailia, and there, in consequence of the sudden advance of the troops, everything was not so complete, but there were "stretchers" for many of the patients that were as comfortable as beds; some had no beds, but there was a comfortable dry floor with good ventilation, which was better than sleeping in two or three inches of dust under a tent. During the whole time that he had accompanied the force he had never seen men better looked after, whether on the field or in the hospital. They received every possible care and attention from the medical officers, and he did not think there was a single real case of neglect. The greatest harmony at all times prevailed between the officers of the different services.

Surgeon-General MARSTON also responded to the toast. He said that the arrangements of the Medical Department would have to be tried in a very simple way. The questions would have to be narrowed down to these:—What material had you? What steps did you take to make it accessible? What use did you make of it when you got it? It should be remembered that when they landed the men were instantly moved up to fight, and no sooner were other men landed than they were moved up to the assistance of the first. Then there was a hospital which was called a "base hospital." A base hospital was generally understood to be a general hospital; but it could not be so, because they had no means of making contracts there. They had to depend upon the food which was brought down; but as to medical comforts, beef-tea, milk, soda-water, champagne, claret, &c., there was an abundance of them. It should not be forgotten that there was a strain upon the transport service. Had the transport been there it would have carried the field hospitals, and interposed a break between the fighting army and the so-called base, the base being merely a place for the temporary succour of the wounded who were intended to go on board floating ships. It was his duty to look after the sanitary condition of the force. He had no doubt that there were some cases of privation, many cases of inconvenience, some of discomfort, and a few, perhaps, of apparent hardship, but that there was any actual real hardship suffered he denied. Such hardship would tell upon the health of the wounded, but from August 23rd to September 29th, 2800 wounded men, some of them badly wounded, passed through the hospital, and the percentage of mortality was 6 per month, or, in other words, about one man in 200. (Cheers.) Had the same rate continued for a year it would have amounted to only 6 per cent. of deaths in the hospitals per annum. A charge had been made with respect to the absence of chloroform, but it had been proved that the man in question had had seven drachms of chloroform, and was treated with the greatest care. Six pounds of chloroform were ready at hand at the time the operation was performed. Another statement was that some of the medical officers performed their duties in a perfunctory manner; that one of them asked the patient, "Are you better?" and if the answer was "Better," the medical officer said, "Then why did not you write it on your bedhead ticket?" The fact was that there were no bedhead tickets in the hospital. Another statement was to the effect that pills were taken all round from the same box to the wounded men and dysentery cases. There would have been no harm in that if the pills had been opium, but as a rule, pills being more difficult to prepare than other things, they were only given on the prescript for each individual case. He should like to state a few things that he had himself seen. On the morning of the 13th of September the Surgeon-General and he rode to the battlefield before the battle had taken place. A field hospital had been trans-

ported by the canal, and the flag of the hospital was pitched in the earthworks that had been left by the enemy. The stores were disembarked from the floats on the barges, and twenty-five tents were pitched. The boats were littered with hay to a considerable depth, and planks were put out to form an easy access for the wounded. The wounded began to come in about 7 or 8 o'clock. They were all treated very much in the same way, receiving, according to the gravity of the wound, a small or large dose of opium. The preparations for them were thoroughly prepared at the bottom of the tent, where they were nourished and dressed as well, and as promptly as possible, and, where it was practicable, antiseptically. The opium took effect, and many of the men, even those badly wounded, in less than an hour were asleep. Two hundred wounded Europeans, including seven officers, five of whom were dangerously wounded, were transported in two boats down the canal with an ease that probably had never before been known. About 200 wounded Egyptians were sent by rail. Nearly 400 passed through the hospital at Kassassin. About six cwt. of ice had been brought up by train; most of the men had lumps of ice, and many of them champagne. On the whole, therefore, he thought that it was not a bad day's work. Taking all the circumstances into consideration, he asserted that never had there been a more comprehensive, varied, responsible, or successful medical service rendered in the field. (Loud cheers.)

Deputy Surgeon-General COLVIN SMITH also acknowledged the toast on behalf of the medical officers of the Indian division of the army in Egypt. Happily, he said, everything was prepared in India on a magnificent scale before they left, and there were no shortcomings whatever. The sick-rate was only 15 per cent. for the whole campaign, and the death-rate was nil. Only one man was lost, and in that case death was caused by an injury received on board ship. They had an admirable ambulance corps, which they were able to lend to the Army Medical Department; they also lent men to carry off the wounded at the battle of Tel-el-Kebir, and provided an ambulance corps of ninety-six bearers, who, however, in consequence of being detained upon the railway, did not arrive in time. At Cairo they were able to give 200 dhoolies to carry the sick. He was delighted with his department, consisting as it did of army medical men and Indian medical men, who vied with each other in rendering all possible assistance. (Cheers.)

Mr. ERNEST HART proposed, "The non-Medical Guests."

Mr. H. T. MACPHERSON and Colonel Sir W. O. LANYON briefly responded to the toast.

Director-General Dr. CRAWFORD proposed "The Health of the Executive Committee." Reference, he said, had been made to military medical administration, possibly some would call it medical unification; but there was another form of unification typified by that assembly. It was no small gratification to him to know that the medical officers of the Army, Navy, and the Indian medical service were taken into the ranks of the great medical profession, and received with a brotherhood which was honourable both to the givers and the receivers. It was a proud moment to find themselves standing shoulder to shoulder with the great chiefs of the profession, and it was still prouder for them after the fatigues and anxiety of war, to come home and rest in the bosom of the profession which was proud to do them justice. (Cheers.)

Mr. EASTES briefly acknowledged the toast.

"The Health of the Chairman" was proposed by Mr. SPENCER WELLS, and the toast having been acknowledged by Sir WILLIAM JENNER, the company separated.

## Reviews and Notices of Books.

*A Practical Treatise on Electro-Diagnosis in Diseases of the Nervous System.* By A. HUGHES BENNETT, M.D., Physician to the Hospital for Epilepsy and Paralysis, Regent's-park. London: H. K. Lewis. 1882.

THE remarks recently made by Mr. Lister on the application of certain branches of physics to practical medicine, together with the fact that within the last two years a knowledge of heat, light, and electricity is required from candidates for the licence of the Royal College of Physicians, serve as indications of the recognised importance

to medical men of a knowledge of the physical agents at their disposal. Every efficient physician can bring to his aid such branches of physics as acoustics, optics, and mechanics, but from want of proper knowledge electricity is not utilised as frequently as its importance deserves. Any work therefore which brings before us the uses of electricity as a physical aid to diagnosis must be of interest. Dr. Bennett's treatise on Electro-Diagnosis has supplied a great want. The reader is not only impressed with the importance of this somewhat neglected agent, but he is taught how to use it with almost as little trouble and expense as the use of the ophthalmoscope entails. The author's professed object is to convey to his readers "the means of utilising at the bedside a physical agent of great value in the investigation of an obscure class of diseases." How thoroughly and ably he has performed his task can only be realised by a perusal of the work. Dr. Bennett is careful to point out that electricity alone cannot enable us to form an exact diagnosis of any disease of the nervous system. As the stethoscope enables us to determine certain physical changes in the lungs or heart, so electricity furnishes us with information concerning the anatomical conditions of nerve and muscle, which enables us to complete our diagnosis when combined with a knowledge of the history, symptoms, and other circumstances of the case. Well-marked phenomena are produced by the application of the galvanic and faradaic currents to healthy nerve and muscle, and in disease these results are modified. "It is the careful consideration of the relations which exist between these two states, and the practical advantages which result therefrom, which constitute the art of electro-diagnosis."

A concise and excellent description is given of the apparatus required for electro-diagnosis. The author's element board can be conveniently attached to any battery which does not possess the ordinary accessories. Dr. Bennett's ingenious combined electrode will do much to bring electro-diagnosis into more common use, for the manipulative dexterity necessary in using the ordinary apparatus has deterred many from employing electricity. All the essential accessories are contained in the handle of the electrode, so that the currents can be graduated, alternated, and interrupted by using one hand only. The anatomical knowledge required is shortly stated, and the excellent plates aid in its acquisition.

The chapters on the electrical reactions in health and disease supply knowledge which is absolutely essential for the intelligent use of electricity, and should be read by all who desire to employ it scientifically. The observations on the relative electric excitability of the nerve-trunks, the motor points, and the muscles are worthy of attention. The spinal accessory nerve appears to be the most sensitive to electric irritation. The anterior crural and external popliteal nerves are as nearly as possible equal to the median and facial as regards their electric irritability. Such facts are of use when, for example, both legs are paralysed, and we can derive no information as regards the electric irritability by comparing one leg with the other. The information we desire can, however, be obtained by comparing the nerves of the legs with those of nearly equal irritability in the arms.

A series of cases is given in Chapter VIII. which illustrates the electrical reactions in the different forms of paralysis. The study of this subject is facilitated by the excellent grouping of the various paralysees into those resulting from disease of the brain, of the spinal cord, of the peripheral nerves, and those of doubtful origin. The cases are well chosen, and show that electro-diagnosis is a powerful auxiliary when taken in conjunction with other facts and observations. Dr. Bennett insists most strongly that, "we

must not expect electricity by itself to act as a mysterious power which will give us every information without an inquiry into all the circumstances of the case." In the last chapter examples are given which prove that electricity can often give us information which cannot be arrived at by any other methods of investigation, and that its application is sometimes essential before we can form a complete diagnosis.

The work is calculated to supply the medical profession with scientific information regarding a most important diagnostic agent which has too long been looked upon with mistrust.

#### OUR LIBRARY TABLE.

*Elements of Dental Materia Medica and Therapeutics, with Pharmacopœia.* By JAMES STOCKEN, L.D.S. Eng.; assisted by THOMAS GADDES, L.D.S. Eng. and Edin. Third Edition, 1882. London: J. and A. Churchill, New Burlington-street.—Both dental students and practitioners must be grateful to Mr. Stocken for the very useful manual of which he has produced a third edition. It contains, in most accessible form, information on preparations used in dental surgery, and recipes of all the known remedies for the various forms of toothache, with practical hints as to their application, and on this account it is to be commended especially to the notice of army and navy surgeons, who, under the existing regulations, are compelled often to act the part of dentists when out of the reach of qualified dental-surgeons. The section treating of nitrous oxide gas is most useful, though the part dealing with coma, syncope, and apnoea, is rather involved, and the course to pursue in the event of a foreign body getting into the larynx is not even hinted at. A notable feature of this book is its clear and large type, for which Messrs. Churchill deserve all praise. An index of diseases, with the various remedies numbered according to the page, is an acceptable addition to the volume, which numbering might be carried out with advantage in Section VII., and in the classification of medicines. The literary style of the work is somewhat marred by the frequent occurrence of such solecisms as "strichnia," "rarefication," &c. We also regret to have again to protest against the recommendation of internal remedies by dental surgeons, which this book obviously encourages, and it is to be wished that in future editions the authors may be satisfied with the good work they have done in the large field of dental materia medica without encroaching on the debateable ground of general medicine.

*The Medical Man's Handy Book.* Edited by WILLIAM SHEPPERSON. London: J. and A. Churchill.—This is an unpretentious but very handy little book, giving at a glance, in fifty pages, a list of incompatibles, of poisons and their antidotes, a table of doses, a table showing the strength of the principal pharmacopœial preparations of the chief drugs; a saturation table, a table of solutions for hypodermic use, and a table of spray solutions from Barber. It can be carried easily in the coat-pocket. It claims no merit beyond that of being an accurate and concise compilation, and this claim may be recognised.

*Della Paralisi Regressiva.* GUGLIELMO H. BARLOW, M.D. Versione Italiana pel Dottor VIRGINIO BOMPIANO. Milan: Vallardi. 1882.—Dr. Barlow's clinical study of infantile paralysis has been translated into Italian. By the translator, as well as by Dr. Barlow, the name "regressive paralysis" is preferred to current terms. The task of translation has been very well and faithfully executed, and a few original notes have been added. We are glad to see such careful and thorough English clinical work rendered acceptable to the Italian medical public.

*Magnetism.* By THOMAS P. TREGLOHAN, Head Master of St. James's Science and Art Schools, Keyham, Devonport.

London: Longmans and Co.—A useful little text-book, containing in a small compass a large amount of information on a subject about which, in these days, a great many people are anxious to know something.

*Common British Insects, selected from the typical Beetles, Moths, and Butterflies of Great Britain.* By the Rev. J. G. Wood, M.A. London: Longmans and Co.—This is an abridged account of the above-named insects, more fully treated of in the accomplished author's fascinating volume, "Insects at Home." Beautifully printed and profusely illustrated, this smaller work is just the kind of present to offer to a boy or girl at this season of the year, whilst it is not destitute of attractions to persons of maturer years.

*Letts's Diary for 1883, including the Medical Diary, the Pocket Diary and Almanack, the Office Diary and Almanack, the Rough Diary or Scribbling Journal (two sizes), the Clerical Tablet Diary, and the Housekeeper and Engagement Book.*—All who have used any one or more of this group of useful diaries will welcome their reappearance. By means of them, professional work as well as business operations generally, are greatly facilitated. Indeed, to those who have become accustomed to their aid these diaries, or some of them, are simply indispensable.

*Our Happy Family, being the Little Folks' Annual for 1883, and Cassell's Illustrated Almanac, 1883* (Cassell, Petter, Galpin and Co., London), are beautiful specimens of the arts brought into requisition for the production of Christmas books. They certainly do no discredit to the high reputation of the publishing firm from which they are issued.

### THE ALKALINE PICRATE OF POTASH TEST FOR GRAPE SUGAR.

To the Editor of THE LANCET.

SIR,—For the practical application of the test for grape sugar, referred to, and briefly described, in my letter in THE LANCET of November 18th, and for the indication of the precautions to be observed in its use, both as a quantitative and a qualitative test, several details will have to be carefully worked out. One of the most interesting results of the use of this test is the clear indication which it gives of the frequent, if not constant, presence of a trace of sugar in normal urine, a condition asserted as a fact by some high chemical authorities and denied by others. On this point see Dr. Parkes on the Urine (p. 11).

I am indebted to my son, G. Stillingfleet Johnson, the junior demonstrator of chemistry at King's College, for the following contribution to the chemistry of this interesting subject.

I am, Sir, yours obediently,

Savile-row, Nov. 23rd. GEORGE JOHNSON, M.D., F.R.S.

#### *The Picrate of Potash and Caustic Potash Test for Grape Sugar.*

Several precautions are necessary in the use of this test. First, care must be taken not to employ too strong a solution of caustic potash, for picric acid is decomposed by concentrated potash on boiling, ammonia being evolved in abundance, and a dark-brown colour being produced. The liquor potassæ of the British Pharmacopœia does not decompose picric acid when boiled with the crystals. A solution of potassic hydrate, containing 20 grammes KHO to 1 litre of water (nearly 2 per cent.) produces no decomposition when boiled for many minutes with crystals of picric acid; whilst the full effect of Moore's test for grape sugar may be obtained with a solution of this strength. In testing the limit of delicacy of the potash and picrate test, a 2 per cent. solution of caustic potash was therefore uniformly employed. Secondly, it is necessary to avoid the presence of an excess of picrate, on account of the strong colouring effects exhibited by this substance when boiled with excess even of dilute (2 per cent.) potash solution. It was found impossible to detect less than 50 parts of grape sugar in 100,000 parts

of water, when a saturated cold solution of picrate of potash in 2 per cent. caustic potash was boiled with the grape sugar, and the colour produced compared with that obtained by boiling an equal volume of water devoid of grape sugar, mixed with the same volume of the alkaline picrate. The deep colour of the alkaline picrate itself interfered with the delicacy of the test.

By adopting the following method it is possible to detect three parts of grape sugar in 100,000 parts. 0.8 c.c. grape sugar solution (containing 0.0006776 gramme grape sugar) was mixed with 20 c.c. of 2 per cent. potash solution and 0.5 c.c. of a cold saturated solution of picrate of potash. This liquid was boiled for about thirty seconds in a flask. 20 c.c. of 2 per cent. potash solution + 0.5 c.c. of the same picrate of potash solution was boiled for an equal length of time in another glass flask. The two liquids were then transferred to two colourless test-tubes, held vertically over a white porcelain plate in a good light, when that containing the grape sugar was seen to be very slightly, but distinctly, darker than the other. This experiment, by which the limit of delicacy of the test was fixed, will give a sufficient illustration of the general method to be employed, and the precautions necessary in applying this delicate test.

As regards the application of this test to the detection of grape sugar in urine; since it was observed that normal urine gives a slight indication with the alkaline picrate, the interesting question suggested itself whether any other substance present in urine is capable of producing a colouration on boiling with a solution of potash and potassic picrate.

In order to solve this question, if possible, Brücke's method for separating sugar from urine was employed. About half a pint of normal urine, which produced, however, a blood-red colouration with the picrate test, was mixed with four times its volume of absolute alcohol in a glass beaker and filtered. To the clear filtrate was added an alcoholic solution of ten grammes of caustic potash, and the mixture having been well stirred was allowed to stand for four days.

The addition of the alcohol throws down a copious precipitate, consisting of the bulk of the inorganic salts of the urine, which are removed by filtration. The alcoholic potash produces a gradual separation after a day or two of a compound of grape sugar with potassic hydrate, which is insoluble in the alcohol liquor.

A few drops of a reddish oily liquid separated out and a few crystals formed on the sides of the beaker. The clear yellowish liquor was now decanted from the sediment, neutralised with dilute sulphuric acid, filtered and distilled to remove the alcohol. The aqueous residue in the retort, which contains the extractives and other substances, gave no indication of grape sugar with the picrate test; indeed, it became somewhat paler in colour after boiling with the alkaline solution.

The solution in water of the sediment in the beaker, on the other hand, gave the sugar reaction with alkaline picrate very strongly. This solution was now treated with an excess of solution of basic acetate of lead and filtered, to remove the extractive matters; the filtrate was freed from excess of lead by sulphuretted hydrogen and filtration, and the resulting clear solution was concentrated by evaporation. On testing with the alkaline picrate, it still gave distinct indications of the presence of grape sugar, and, on further concentration, also with Fehling's solution. So far, then, the chemical application of this very delicate test seems to confirm Brücke's statement that traces of grape sugar may be detected even in normal urine. Further confirmation of this statement can be obtained only from clinical observation.

G. STILLINGFLEET JOHNSON, F.C.S.

**PRESENTATION.**—The members of the Loyal Albion Lodge of Odd Fellows, Manchester Unity, have presented their surgeon, Dr. Alderson of Hammersmith, with a silver-mounted library inkstand and a collarette, accompanied with an illuminated framed address, in recognition of his valuable services to the Lodge for the past fourteen years.

A CORONER'S jury at Birmingham has returned a verdict of "Wilful murder" against a midwife at Balsall Heath, for the improper use of an instrument for the purpose of procuring abortion, death having resulted from the operation.



# THE LANCET.

LONDON: SATURDAY, NOVEMBER 25, 1892.

WE were unable in our last issue to do more than make brief reference to the Report of the Inspectors of the Local Government Board on their inquiry into the deaths following vaccination at Norwich. It will be recollected that the circumstances attending these deaths, which were alleged to be due to erysipelas, had, in the first instance, been investigated by Dr. AIRY. It had, however, been felt desirable for the purpose of better ascertaining the cause of the disease which had appeared at the vaccination station, that a public inquiry should be held, and with this object Mr. J. J. HENLEY, one of the general inspectors of the Board, was associated with him. At this inquiry the complainants, the guardians, and the public vaccinator, were represented by counsel, and a number of witnesses were examined.

A perusal of the evidence at once shows that from the beginning of the inquiry to its end the main question of the manner in which some of the children attending the station came to be infected by erysipelas was to a great extent lost sight of; and the efforts of those engaged to represent the different "interests" were devoted either to defending the public vaccinator, Dr. GUY, or to proving that vaccination, as such, was responsible for the series of events which had followed the operation. Fortunately the main facts were undisputed, and the history of this sad occurrence can be readily told.

Of thirty-three children who were vaccinated at the Norwich Vaccination Station on June 13th, six were subsequently attacked with erysipelas; while of twenty-eight who had been vaccinated in the previous week, but who had attended at the station on June 13th for the purpose of being inspected, one subsequently developed erysipelas. One other child, who attended at the station for the first time on June 27th, also, at a later period, suffered from the same disease. Thus altogether eight children were affected, of whom four died. These children may be readily divided into two groups—the first consisting of GIRLING, TYLER, THREADKILL, and LAMBERT, who were all attacked with erysipelas in the vaccinated arms—three within twenty-four hours of the operation, and the other, LAMBERT, who had been vaccinated the week previously, within two days of her vesicles being opened on June 13th at the station by Dr. GUY. The second group, consisting of COLISON, WILLSEA, and WORRELL, developed erysipelas a short time after attending at the station for re-inspection, the attendance of COLISON and WILLSEA being on June 20th, that of WORRELL on July 4th. In each child the erysipelas appeared first on some part of the body other than the vaccinated arm. The eighth case, BROWN, is also described as suffering from erythema, appearing a week after re-inspection on June 20th, but as there is some doubt of the nature of this child's illness, it will be well to omit it from further consideration.

It will be seen that interest is chiefly centred in those children who were attacked with erysipelas within a short while of their visit to the station on June 13th. Up to this date no erysipelas had been present there. By June 20th, the date of the subsequent attendance, erysipelas had already attacked four children, one of whom, GIRLING, with the disease upon her, was present at the station on that day, thus affording opportunity for the further extension of the disease.

The four children referred to received lymph from three separate vaccinifers. LAMBERT had, with five other children, been vaccinated on June 6th from lymph taken from SEWELL. None of these had a bad symptom until after the day of inspection, when LAMBERT was the only sufferer. THREADKILL and TYLER were vaccinated from ARMES, who had himself received lymph from SEWELL, the same source as LAMBERT; the lymph from ARMES was also used for the vaccination of two other children, with the result of the failure of vaccination in each case, but with no production of erysipelas. GIRLING was vaccinated from a child named WICKS, and, omitting BROWN already referred to, five other children were successfully vaccinated without injury from the same source. It is obvious that these children must have received their infection on June 13th, and that the erysipelas from which they suffered was not related to any special lymph. Dealing with this part of the subject, the inspectors lay stress upon the fact that on June 13th thirteen children had been successfully vaccinated without harm before the introduction of the unknown cause of the subsequent mischief. "Then come the four children who were vaccinated from PERCY ARMES: two were attacked with erysipelas the same evening and died within a fortnight; in the other two the vaccination was wholly unsuccessful." "It cannot be doubted," continues the report, "that at that moment some poisonous agency came newly into play at the station. We cannot divest our minds of the strong impression that the lymph used in vaccinating those children must have carried with it the elements of disease which they subsequently developed." The possibility of the introduction of erysipelas by some person, perhaps the mother of one of the children concerned, is considered and disallowed; and the possibility that the introduction of pure lymph into a healthy child's arm may produce erysipelas, is naturally rejected. The relation of the appearance of erysipelas in the children vaccinated from ARMES, and to the appearance of the disease in the persons of LAMBERT and GIRLING, is so far recognised that we are told, "In these later cases the illness was probably due in some way which we cannot trace to the same cause which had operated in the earlier cases on this day." But one other possibility is considered and equally rejected by the inspectors—namely, that the use by Dr. GUY of certain ivory points for the transference of lymph from the vacciner to the vaccinee, could have been the means by which septic poison was introduced into the station—points which, it must be remembered, had been previously used for the same purpose, although subsequently cleansed. It is rejected because the inspectors find difficulty in understanding how, on this hypothesis, it could happen that ARMES should escape being infected by the points applied so many times to his vesicles, while two out of our children vaccinated with those points caught erysip-

las, or how the child LAMBERT should be infected in the act of taking its lymph, while the child vaccinated from her should escape; or how GIRLING should be infected while the child WICKS, from whom she was vaccinated, escaped.

Here we are practically left by the inspectors; and but for the memorandum by Dr. BUCHANAN, which he has addressed to the President of the Local Government Board, the mystery would have remained without solution. But the difficulties, experienced by those who conducted the inquiry, soon disappear when the subject comes to be considered by the light which is there brought to bear upon it. Dr. BUCHANAN shows that the assumption of the introduction of a few dirty ivory points in the middle of the sitting on June 13th is sufficient to account for all that afterwards happened. The difficulties of the inspectors in accepting this theory only hold good if the physical characters of the lymph in each child, and the readiness of each point to give up or retain the matter upon it, were in every case alike. As Dr. BUCHANAN shows, it is more than probable that the lymph obtained from the vesicles of the child ARMES was a weak lymph, from the fact that two out of the four children vaccinated from this source developed no vesicles, and, like most weak lymph, would flow readily. Under these circumstances the lymph could easily be removed on dirty points from ARMES' vesicles without infecting him, while when rubbed into the arms of THREADKILL and TYLER the septic matter on the points would be communicated to these children. So again, lymph might have been removed from WICKS without infecting her, while the septic matter on the point would be easily rubbed into GIRLING, vaccinated from her. With regard to LAMBERT the case is different, for she was undoubtedly infected while acting as vaccinator to JOHNSON, who escaped; but here, as the memorandum shows, there is some doubt whether two other children were not also vaccinated from LAMBERT, and no inquiry seems to have been made to learn further what were the effects on these children of their vaccination; or LAMBERT may have been infected by some point one surface only of which was charged with septic matter, while the other was applied to JOHNSON. The suggestion made by Dr. BUCHANAN is itself a probable one, that LAMBERT might be infected by some point which was used for the storage of lymph, and not again employed at the station. This is a greater probability, for lymph for the vaccination of children at the station would almost certainly be taken from LAMBERT before that for storage, and hence the infected point might not be introduced until after the children had been vaccinated, and until much of the lymph had been removed, when a closer contact of the point with the surface of the vesicle would be inevitable. The whole of these considerations appear to have been neglected, and we can only regret that, in view of the important nature of the investigation, more thought was not bestowed upon the relation which seems to have existed between the bad practice of using ivory points for direct vaccination and the introduction of erysipelas into the station.

Dr. AIRY's past work is so well and so favourably known to us that we cannot but sympathise with him in the difficulties of his position in this inquiry. We have previously pointed out that his first investigation, unhindered by the laws of evidence and other technicalities, had already

elicited many points of interest, and there is no doubt that, had the public inquiry been conducted on the same lines, Dr. AIRY would have been better able to have followed up the clue which was then discovered. It was only in the latter investigation that the fact became known that Dr. GUY had not abandoned the habit against which he had been cautioned of using ivory points for arm to arm vaccination, and if the attention of the inspectors had been directed to ascertaining the cause of the erysipelas rather than to listening to complaints against vaccination and to evidence on behalf of Dr. GUY, there is every reason to believe that, with this piece of knowledge in their possession, the result would have been different.

Nevertheless, the main object has been attained; for, read in conjunction with Dr. BUCHANAN's memorandum, an important lesson may be learnt, and the instruction which he proposes to add to those already enjoined upon public vaccinators—viz., never to use an ivory point a second time—will doubtless go far to prevent in the future a repetition of such an accident as that which has occurred at Norwich.

THE reception by the Government of the Deputation which waited on the President and the Vice-President of the Council on Wednesday, requesting the Government as soon as possible to initiate reform of the Medical Licensing System and of the Medical Council on the lines of the Report of the Commission, was very satisfactory. Lord CARLINGFORD—who may be assumed to come somewhat fresh to the subject, considering how recently he has undertaken the duties of Lord President of the Council—showed his interest in the matter by listening most patiently and attentively to the statements of the deputation. Besides, he asked various questions much to the point. Mr. MUNDELLA, too, listened and spoke in earnest. Dr. WATERS of Chester went over the history of the various attempts to amend the composition of the Council and to effect a consolidation of the licensing authorities, and showed how the profession and the British Medical Association had, over and over again, by large votes and largely signed memorials supported such attempts. On essential points of reform there was wonderful unanimity, the only dissentients being, as in all similar cases, the bodies most needing reform. This opposition is most natural, and supplies an argument in favour of change rather than otherwise. Dr. GLOVER spoke with special point on the question of the Scotch opposition. As the holder of a Scotch diploma in Surgery he felt particularly aggrieved by the disparaging remarks made in England as to the inferiority of the examinations of the Scotch Corporations. He thought the holders of such licences had a right to expect from the Government the creation of a central authority above all suspicion, that could and would guarantee the substantial equality of licensing examinations, whether in London, Edinburgh, or Dublin. It is clear that by reducing the licensing authorities from nineteen to three, and by creating a strong council, in which the Corporations shall no longer be predominantly represented, the work of regulating education and of supervising examinations may be much more effectively done than is at present possible. The Scotch Corporations will little consult their dignity or the interest of their licentiates if they continue their opposition

to the only reform that can stop the mouths of detractors and place their diplomas on a level with those of sister Corporations in the other divisions of the kingdom. Dr. GLOVER was equally explicit in speaking as a Graduate of the Edinburgh University. He pointed out that the interests of the Scotch universities had been carefully safeguarded by the Royal Commissioners, who had indeed adopted the terms offered before the Select Committee of the House of Commons by Professor TURNER, Dr. GAIRDNER, and others, and which involve no practical hardship either to Scotch graduates or the universities themselves. It is inconceivable that the Scotch universities should suffer materially if their examinations are accepted in all but the final stage, and the fee charged to their graduates for the licence of the conjoint board be a matter of a five pound note. Under all the circumstances, the Government, which has greatly advanced this question by a Royal Commission inquiry, has only to act with decision on the basis of the Report, and to take the opportunity of dropping a superfluous corporation in each division of the kingdom, to secure the support of the public and the great bulk of the profession.

THE course of the physical development of the human body has often been the subject of investigation, and most of the facts relating to it have been so carefully ascertained that it might seem that there is scarcely room for fresh researches on the subject. The facts of growth have been, however, once more verified, and, we must add, our knowledge of them has been extended by Dr. THOMA, who has described, in a volume of nearly three hundred pages, the observations he has made, which relate to the development not only of the body as a whole, but also of some of its constituent organs and tissue-elements, and thus constitute a very complete account of the subject. The comparison of his own measurements, and those of others, shows that to the usual excess of the body-length and body-weight of males over females, there is an exception between the twelfth and fifteenth year of life. At this period the development of the female equals, or even exceeds, that of the male, an indication of the earlier attainment of puberty in the female sex. Normal growth is not uniform, but presents an increased or lessened activity at different periods of development. The most rapid growth is observed in the last months of foetal life; after birth it gradually becomes slower, until some time between the sixth and ninth year. An acceleration then commences, which becomes most rapid between the thirteenth and sixteenth year, and after this epoch a progressive retardation is observed. The full height is attained at latest by the thirtieth year, but the average weight continues to increase. In later life both lessen. The variations from the average are greatest at the period of most rapid growth, and least when this is slowest. All the phenomena occur earlier in females than in males.

Of the internal organs, chief attention was paid to the heart and the kidneys. The average weight of the heart undergoes the most rapid increase immediately after birth; its rate of growth gradually diminishes, but at puberty it presents a transient acceleration. After forty-five a slight increase in weight occurs, and no doubt, as commonly believed, this increase is the result of degenerative changes in the arterial system. Apart from these special influences the

curve presented by the rate of growth has nearly the same shape as that which indicates the body growth. Like this, also, the chief deviations from the average are met with at the period of most rapid growth, immediately after birth. THOMA has given certain rules for comparing the weight of the heart and body, by which he believes that the existence of hypertrophy can be recognised with certainty even when it is too slight to be detected by ordinary methods of estimation. The rate of growth of the kidneys is nearly the same as that of the heart and the whole body; and the relation borne by the weight of the heart and of the kidneys to that of the whole body is nearly the same throughout life. At all periods of life the weight of the left kidney is greater than that of the right.

Measurements of the larger bloodvessels showed, amongst other facts, that the post-foetal growth is least in the common carotid artery, and greatest in the renal and femoral arteries, while the rate of growth of the subclavian is between these, and nearly corresponds with the aorta and pulmonary artery. These differences correspond with those which exist in the growth of the parts of the body to which the vessels belong. Up to the thirtieth year of life the pulmonary artery is, on the average, a little wider than the commencement of the ascending aorta. From facts which he has ascertained THOMA has formulated many very interesting mathematical conclusions.

Dr. FARQUHARSON, as will be seen from our "Medical Notes in Parliament," did not obtain a satisfactory answer to the question he pressed on the attention of the President of the Local Government Board on the 13th inst. Dr. FARQUHARSON asked whether Mr. DODSON had noticed "the case of *GRUBB v. the Chesterton Board of Guardians*," and the decision and comments of the Cambridge County Court judge thereon; whether the Local Government Board would modify their Consolidated Orders so as to prevent in future the contingency of a district medical officer summoning his board of guardians to pay him his extra fees; and whether he would lay upon the table of the House a copy of the correspondence between Dr. MARTIN O'CONNOR of Charteris, Cambridgeshire, the Local Government Board, and the North Witchford Board of Guardians, Cambridgeshire, relative to the refusal of the latter body to pay a fee claimed by Dr. MARTIN O'CONNOR." To this Mr. DODSON replied that "he had seen the newspaper report of this case, in which a Poor-law medical officer obtained judgment for extra medical fees for attending a poor woman who had met with an accident. In regard to the proposed modification of the general order, it did not appear to him that the Local Government Board could so alter it as to prevent a medical officer taking legal proceedings against a board of guardians for extra medical fees if they declined to pay, or, on the other hand, require the guardians to pay such fees when not legally due. In regard to the correspondence, that would be produced if the hon. member liked to move for it."

This, we take it, constitutes a typical example of the administrative conduct, and aptly illustrates and exemplifies the policy, of "the Board." The question and answer should be carefully studied by medical officers in the service of the Local Government Board, that they may see how attempts to help them are ingeniously frustrated. The Board — which we fondly hoped might, under the rule of Mr. DODSON,

develop into a Ministry of Health—will have nothing to do with any practical difficulty. Medical officers must fight for their extra fees in a court of law if they are to get them. "Extras" are defined in the Consolidated Order, and guardians are empowered to pay them, but the Board will not take upon itself to determine the merits of any claims. If medical officers want to be paid their just charges, small as these are, they must find time and spend money to obtain justice.

It would be interesting to observe how this final rebuff will affect those of our brethren who serve the Mammon of unrighteousness at Whitehall; but it is a foregone conclusion that appointments under the Board will be as keenly contested as ever, let the Board do what it please or may. We honestly believe that if an edict went forth reducing the stipends of medical officers to a modicum of the present paltry rate, and insulting them by fresh impositions, the competition would be as eager as ever for the service, and the work would be done fully as well—in fact the same men would do it. Under these circumstances what possible good is likely to result from protesting and remonstrating? Dr. FARQUHARSON did his best, and it was kindly meant, but he "kicked against the pricks," and the manner in which his just appeal was met is simply a fair specimen of the sort of response all such appeals are likely to elicit.

AMONG the subjects which have been brought prominently to public notice within the last few years, there is perhaps none more deserving attention than the influence of houses in an insanitary condition upon the health of the inmates; and this injurious influence is not to be observed only in the crowded, ill-constructed dwellings inhabited by the poorer classes, or even by those who have the means of living comfortably and under conditions which might be presumed to ensure health, but it is found in active operation in the mansions of the highest and most wealthy. Of this the fatal illness of the Prince Consort, and the long and severe attack of typhoid fever from which the Prince of WALES suffered, are notable public instances. But the leading members of the profession know too well how often serious disease from defective sanitary arrangements occurs in the families of persons occupying splendid mansions in the West-end. The defects are sometimes the result of gross and culpable neglect on the part of the builders or their clerks of works, in such cases, for example, as the omission to open the house-drains into the sewer or to trap the drains, or allowing the soil-pipes to be made with slip-joints instead of being soldered; in other instances they are the result of ignorance on the part of the persons employed, who are not aware of the necessity for careful levelling of the drains, and cutting off all communication between them and the cisterns and sinks. But householders are exposed to these serious risks, not only from defective original construction, but also from the consequences of wear and tear, of accidental damage, and of the destruction caused by rats. It becomes, therefore, a very serious question for pater-familias, when he is changing his residence, how to weigh the probabilities of it proving a healthy one, and after he has occupied it how he may assure himself of the continuance of this satisfactory condition. To send for a builder or a surveyor to inspect the proposed residence by no means

affords a guarantee that the desired object will be attained, for unfortunately there is still a large proportion of these classes who are ignorant of the principles of sanitary science, and who, while they can judge satisfactorily of the condition of the building as regards brick and mortar and timber, the soundness of the walls, floor, or roof, are yet unable to give a correct opinion upon its health requirements. To meet this difficulty, within the last two years several associations and limited companies have been formed with the object of providing for the inspection and supervision of the dwelling-houses of the members and subscribers by a competent staff of well-qualified sanitary officers, surveyors, and engineers. Three such associations have been organised in London and several in the provinces. Subscribers may have their houses carefully and skilfully inspected, the defects in their sanitary condition pointed out, and the necessary alterations and improvements suggested. These, if adopted, may be carried out under the superintendence of the Company's officer, in accordance with an estimate given along with the report. Members are also entitled, so long as they continue their subscription, to have their premises inspected annually, with a view to ascertain that they continue in a satisfactory condition. The advantages arising from such an arrangement are too obvious to require comment. The expense incurred will probably be far more than compensated by the exemption from preventable disease and the satisfactory feeling that every precaution has been taken to preserve the health of the inmates. We believe there are very few houses in London of which the sanitary condition could not be improved and does not require careful supervision, and we therefore strongly recommend the subject to the serious consideration of all heads of families. The injurious effects upon health arising from the very general neglect of even the most obvious sanitary precautions are too common, and far too serious to be overlooked; and we trust the day is not far distant when the preservation of the members of a family from preventable causes of disease will receive as much attention and care as the provision of the more obvious necessities of life.

## Annotations.

"Ne quid nimis."

### THE EXECUTIVE COMMITTEE OF THE MEDICAL COUNCIL.

THIS committee, which largely does the work of the Medical Council, met on November the 10th. Over sixty names which had been erased from the Register under Section 14 of the Medical Act were ordered to be restored on payment of the prescribed five shillings. We cannot too often remind our readers of the necessity to communicate changes of address, and to answer letters of inquiry, if they would escape erasure under this clause. In numerous instances leave was given to antedate studies on the strength of pupilage, or unqualified assistantship. In some instances leave was given to be registered as medical students without passing a preliminary examination. A new preliminary examination was recognised by a decision of the Executive Committee. This is an examination to be established by the Oxford and Cambridge Schools Examination Board to serve in lieu of the ordinary entrance examination to the various professions. A report was read from the College of Pre-

ceptors with important information on the state of preliminary education as tested by the college examination for medical students. Of 223 examined at London, Bristol, Birmingham, or Leeds, 74, or about one-third, passed, and 146 failed to obtain certificates qualifying them for registration as medical students. The secretary says "half the rejected candidates, or a third of the total number examined, were very ignorant, and several had been rejected at previous examinations." We may here observe that the volume of the Minutes of the Council for the present year is now to be had of the printers, and contains much matter of professional and public interest.

#### BANQUET TO THE MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.

ON Tuesday last the medical officers who served in the late campaign in Egypt were entertained by the leading members of the profession at a banquet in Willis's Rooms, to welcome them home. Sir W. Jenner, Bart., K.C.B., President of the Royal College of Physicians, was in the chair, supported by Lord Morley, Under-Secretary of State for War, and H. Campbell-Bannerman, M.P., First Secretary to the Admiralty, representing respectively the Army and Navy. Letters were read from H.R.H. the Duke of Cambridge and Sir Garnet Wolseley, expressing their regret at being unable to attend in consequence of having received Her Majesty's commands to dine at Windsor after the ceremony of the distribution of medals to the troops, and from the Secretary of State for War, who was prevented taking part in the entertainment by the state of his health. The meeting was a thoroughly representative one of the profession, there being about two hundred and seventy present, including most of the leading men in civil practice, and about sixty medical officers of the army and navy. During the meeting a telegram was received from the members of the Berlin Army Medical Society conveying their good wishes to the medical officers returned from Egypt, which was at once duly replied to by the chairman. In acknowledging the toast of "The Navy, Army, and Auxiliary Forces," proposed by Sir James Paget, the Earl of Morley and Mr. Campbell-Bannerman both bore testimony to the zeal and untiring energy exhibited by the medical officers throughout the campaign, to the appreciation on the part of both the War Office and the Admiralty of the services they had rendered, and to the desire of the authorities to promote by every means in their power the perfect efficiency of the medical branch of the services. The toast of the evening, "The Medical Officers of the Egyptian Expedition," was proposed in an eloquent speech by the Chairman, who adverted to the difficulties they had successfully encountered, their troubles on sanitary matters, their hospital difficulties, and their surgical trials. The toast was acknowledged on behalf of the Navy by Staff Surgeon Bell, of the Army Medical Department by Deputy Surgeons-General Ekin and Marston, and of the Indian Contingent by Deputy Surgeon-General Colvin Smith. These officers, in their respective addresses, gave some interesting information regarding the difficulties with which they had to contend, the amount of work done, and the satisfactory results, as shown in a very low rate of mortality. It is the first opportunity they have had of answering in public any of the charges brought against them, in some instances in a most unscrupulous and unjustifiable manner. They have drawn attention to the great difficulties under which they laboured, chiefly from the inadequate transport available—a want which they admit was unavoidable under the peculiar circumstances of the campaign, and for which they do not desire to throw blame on any of the other departments, but for the results of which they decline to be held responsible themselves. With regard to the

charge brought against them in connexion with the treatment of the patients in the hospital at Ismailia, which was not really a base hospital, but a depot for the reception of sick and wounded while awaiting embarkation in one of the hospital ships, Colonel Sir Owen Lanyon gave some most important information. Sir Owen stated that, as base commandant, it was his duty to visit the hospital daily, and he had on these occasions always specially inquired whether the men wanted anything. During the whole time he had only two complaints from men lying in contiguous beds badly wounded, one in the jaw, the other in the chest. They stated that they had had nothing to eat for thirty-six hours, which was perfectly true; but he found they had abundance of fluid food—not a bad diet, one would suppose, for such cases. Coming from an officer of Sir Owen Lanyon's standing and experience, this cannot but be regarded as valuable testimony to the satisfactory manner in which that hospital must have been conducted. We have no doubt that many of the other charges will be ascertained by the Committee now inquiring into the working of the Department to be based on equally insufficient grounds. The meeting must have been most gratifying to the medical officers of the Army and Navy, as evincing the warm interest taken in their success and welfare by their brethren in civil life, and will doubtless tend to strengthen the bond already existing between them.

#### "OVER-WORK" AS A HEALTH PRESERVATIVE.

THAT great debating club, the House of Commons, on a recent occasion devoted a little of its evidently superfluous time and energy to the discussion of a very interesting question in physiological psychology—namely, how far the mental and physical toil of tedious sittings carried far into the nights may tend to clearness of judgment, strength of intellect, health, and longevity! The senior member for Northampton, with that originality for which he is remarkable, enunciated as "a statistical fact that those who wished to live long ought to sit up late." Something of the sort has, indeed, been said before in a once popular song, wherein, if we remember aright, it was laid down that "to lengthen your days" the best plan is to "take a few hours from the night;" but Mr. Labouchere is probably the first to commend this method of prolonging life, in all seriousness, to the consideration of the Legislature. In support of his "statistical fact" the hon member instanced the late Lord Palmerston, and the late Lord Russell, and the present Prime Minister. This style of argument reminds one of the ingenious inference once deduced from another "statistical fact"—namely, that the old night-men of London enjoyed an exceedingly low death-rate. It was forgotten that few men engaged in this service until they had survived most other occupations, and given practical proof of their being able to bear very nearly anything. Moreover, the men who spent the night in emptying cesspools, could, if they chose, sleep by day, whereas, as Mr. W. H. Smith pointed out, this privilege is practically denied to the great majority of our legislators, and without exception to the working members of a Government. The senior member for Westminster was amply justified by facts, general as well as statistical, in expressing an opinion that "it would be conducive to the public interests that they should be able to bring a coolness of intellect and a freshness of power to the consideration of the questions that were brought before them." This is, obviously, impossible while the House of Commons sits far into the night; and not only members of this august assembly, but the public interests, suffer in consequence. We will not be so ungracious as to profess our entire sympathy with the view propounded by Mr. O'Donnell, who did not think it of much consequence even if their numbers were thinned by protracted debates! The community at large probably looks at the



matter pretty much in that light. It is, however, for us to say that we are sorry to see the Commons of England sacrificing their health and shortening their lives by a mode of serving their country for which, be it honestly confessed, their country has no preference, and is not grateful. Mr. Cowen was strictly just in his physiological argument; the excessive strain thrown on the strength of even a member with "an iron constitution" not only endangers his health but impairs, if it does not destroy, his "temper"—using the term in its true sense—so that the exercise of a perfect judgment is impossible. No man expects a sleepy and jaded steed to show its paces to advantage; and no reasonable man can believe the brain cerebrates most efficiently after it has been wearied and worried by a long sitting. As a matter of fact, observation, and experience, the great bulk of the more important questions which come for consideration before the Legislature are debated and decided under conditions which render it impossible that the minds at work upon them should be, at their best, in full force and at once acutely active and resilient. This is a very serious reflection for the public. It is not conducive to the interests of the community that its laws should be made and its affairs managed by intellects which are, to use a familiar expression, "pumped out." The brilliancy which sometimes seems to distinguish the House of Commons late in the evening, after its members have returned from dinners and assemblies, is allied to the courage which may be stirred in the mind of a poltroon by a strong glass of brandy-and-water. There is no depth of sagacity in the legislative counsels of the small hours. The speeches delivered at that period of a sitting are like the red fire at the close of a pantomime—they quickly go out in farce. The last hour or two of even a sensational debate is little better than a display of oratorical fireworks, and the division which follows is either a foregone conclusion or a *fiasco*. It is time this question were discussed by the country. It is unreasonable to hope that it will ever be fairly debated in the House of Commons itself. If the mere fact of being able to sit up late at night is to be the principal qualification for Parliamentary honours this ought to be understood. We fancy most citizens would prefer to be governed by legislators and administrators of the greatest intellectual capacity, working under conditions conducive to health and favourable to the exercise of mind-power in its state of highest efficiency.

#### THE REWARDS FOR THE CAMPAIGN IN EGYPT.

It is with much gratification that we observe that the medical officers have come in for a fair share of the promotions and rewards which have been bestowed with a liberal hand in acknowledgment of the services performed in Egypt. And it is still further satisfactory to find that these rewards have not been confined entirely to the senior grades, but that all ranks of the department have been included. The more substantial rewards in the shape of promotion have been as follows: Brigade Surgeons J. A. Marston, M.D., and W. G. N. Manley, V.C., to be Deputy Surgeons General. Surgeons-Major J. S. Comyn, M.B., and B. T. Giraud, M.B., to be Brigade Surgeons. Surgeons-Major, with relative rank of Major, T. F. O'Dwyer, M.D., and Lawrence Corban, M.D., to be Surgeons-Major with the relative rank of Lieutenant-Colonel. Surgeons J. G. Rogers, M.B., and B. R. Connolly to be Surgeons-Major; and Captains of Orderlies D. Pringle and R. T. Osborne to be Honorary Captains. Of the less substantial but not less coveted honorary distinctions the following have been gazetted:—Deputy Surgeon-General J. A. Hanbury, M.B., C.B., has been promoted to be a K.C.B., and has been permitted to accept the second-class order of the Medjidie; Deputy Surgeons-General Colvin Smith, M.D., and J. Ekin, M.B., have been created Companions of the Order of the Bath, and have received the third

class of the Order of the Osmanieh, and Brigade Surgeons W. G. N. Manley, V.C., and J. A. Marston have also had the third class of the Osmanieh conferred on them. Surgeon-Major J. H. Beath and Fleet Surgeon Ingham Murray, R.N., have been made Companions of the Bath, and the former has also received the third class of the Order of the Medjidie. The third class of the order has also been conferred on Brigade Surgeons O. Barnett, C.I.E., E. G. M'Dowell, E. M'Grath, R. W. Jackson, C.B., and Surgeon-Major G. S. Davis; and the fourth class of the Order of the Osmanieh on Surgeons-Major J. D. Edge, G. W. M'Nalty, and W. N. Keefer. We heartily congratulate the medical services upon the distinctions thus conferred on their members, and trust they may long continue to display, alike in war and peace, that zeal and energy which have been marked characteristics of the medical officers in this trying campaign.

#### THE USE OF THE SPECULUM.

THE progress which has been made during the last fifty years in every branch of medical science has been made along a very crooked way; divergencies from the straight path have been long and frequent; errors of various kinds have, one after another, ruled in the schools for more or less protracted periods. At one time most of the diseases of women were referred to the ovaries, at another to inflammation of the uterus, at another to inflammatory ulceration of the neck of the uterus, and at another to so-called displacements of the organ. For many years after the revival of the use of the speculum by Récamier, the great majority of cases of disease of the pelvic organs were claimed as ulcerations of the cervix. This was not unnatural, for the cervix was the only part which could be examined ocularly, or indeed be examined at all. The means for exploring the whole of the pelvis, the ovaries, the body and canal of the uterus had not been discovered, and the consequence naturally was that every case of supposed uterine disease was examined by the speculum. The value of the speculum as a means of diagnosis was, however, greatly over-estimated. Belief in the importance and frequency of inflammatory ulceration of the cervix was rife more than thirty years ago, and for long afterwards, and during this period the necessity of the speculum both for diagnosis and treatment was pretty generally held. There were, however, some who attached no importance to the so-called ulceration, and who brought forward reasons in favour of their views which have convinced gynaecologists generally of the error of the pathology which refers the mass of cases of uterine disease to inflammation of the cervix. With the downfall of this system of uterine pathology the speculum naturally fell into disuse, and when the so-called mechanical school came into existence the use of the instrument as an aid to diagnosis became infinitesimally small. Whether the pathology which has done so much (its best result, perhaps) to discourage the use of the speculum is already on the wane, or is destined to further development, certain it is that the speculum will never be had recourse to for diagnosis with the same frequency as at the period above referred to. For many years, now, the greatest strides in gynaecology have been made in the surgery of the pelvic organs, and the operations devised for the renovation of these organs when injured, or for the supposed improvement of their shape and position, or for the enlargement of constricted or supposed constricted orifices, are numerous; for all these operations the speculum is necessary, and without its aid they cannot be safely carried out. For applications to the mucous membrane of the vagina, also, and for intra-uterine medication, a plan of treatment which is probably destined to greater development than it has hitherto attained, the instrument is indispensable. The means now at our command for

exploring the condition of the pelvic organs are so far superior to the speculum that it forms by no means an important aid in diagnosis, while it is, and always must remain, an indispensable instrument in the local treatment of diseases of the uterus and vagina. —

#### A PAINFUL CASE AT MELBOURNE.

A VERY painful case in its medical bearings has occurred at Melbourne, and been the subject of a coroner's inquest. A Mrs. Stentt, not living with her husband, but with another man, found herself in the fourth or fifth month of pregnancy. On the 4th of August last she went to consult Dr. Barker. Previous to going, according to the testimony of some of the witnesses, she told them she was going to Dr. Barker's to have abortion induced. While in Dr. Barker's surgery she died. He communicated in the first instance with an undertaker and arranged with him for the removal of the body to the undertaker's establishment. He became responsible to the undertaker for the expenses of the funeral and the grave. He saw the city coroner, Dr. Youl, and so far satisfied him as to the case that a permission to bury was accorded without an inquest. He gave a certificate that the deceased died from epilepsy and varicose veins. He also communicated with her friends, but dissuaded them from seeing her, as she was turning black. Under these circumstances, and after a private interview with her husband, the funeral took its course. But there was a slumbering dissatisfaction about the circumstances of the death of Mrs. Stentt, and the coroner at the end of five or six weeks ordered an exhumation and a post-mortem examination. This was made by Dr. H. B. Allen, Mr. Girdlestone, and Dr. Williams. Decomposition of the body had gone far. There were no marks of violence on the external surface. There was, however, a small opening in the skin on the inner side of the right thigh, in close relation with a varicose vein. This might have been a small ulcer during life. There were varicose veins of the legs. The different organs were healthy. The deceased was pregnant to about the fourth or fifth month. "There was an apparent internal wound, through which a probe could be passed upwards about an eighth of an inch under the mucous membrane." The different organs were almost entirely bloodless. There were no stains on the dress. The witnesses all agreed as to the appearance, and in saying that they could not say at that interval what was the cause of death. Dr. Barker was not called to give evidence; but his son was called, who testified that his father called him to see the deceased in the surgery—whom he recognised as having, nine or ten weeks before, been operated on by his father for varicose veins, whom he found fainting, and whom no means could restore to animation. There was no smell, he said, of chloroform. The coroner summed up, and made light of the idea that the internal wound could have caused death. He also thought it natural that a medical man would be anxious to get rid of a dead body, and so have recourse, as Dr. Barker did, to an undertaker. The following verdict was returned: "The jury, having carefully considered the evidence, are of opinion that Mrs. Stentt may have gone to Dr. Barker's with the intention of having abortion procured, but that there is no evidence to show how she came by her death." This verdict did not satisfy public opinion. The Chief Secretary called on Dr. Barker to resign his office as member of the Medical Board and member and chairman of the Board of Visitors to the Metropolitan Lunatic Asylums. To this demand Dr. Barker wrote a long reply defending his conduct. He stated that the deceased came to him asking him to produce abortion. To which he replied, "Certainly not." Whereupon she did not pursue the subject, but in a second or so exclaimed, "I feel very ill—I feel such a fullness in my stomach;" then, almost in the same moment, slid forward

in what he thought a fainting fit, from which she could not be recovered. Dr. Barker alleged that the room in which all this occurred opened into another room by folding doors, which were open, and that in this other room there was at the same time a male patient named Cherry. Cherry said he had heard no noise from the adjacent room, but could not see what was going on. This is, indeed, a most painful case. It is difficult to account for the internal wound, and the reports do not enable us to judge of its locality or its importance. The most unsatisfactory part of this case is, to say the least, the indiscretion of the medical man, and the coroner, in not having the case investigated at the period of death by an inquest. A medical man is always liable to have a patient die in his house, but his attitude should be that of one who courts inquiry. Above all, he should avoid obligations to the undertaker, and seek the co-operation and presence of friends. By taking an opposite course, even with the unaccountable consent of the coroner, he lays the basis of endless suspicion. The result is the more distressing as Dr. Barker is a man of forty years' good standing in Melbourne, and filling several public offices.

#### SCOTTISH LORD RECTORS.

IN view of the proposed Executive Commission to inquire into the changes most desirable in connexion with the working of the Scottish universities, the recent disgraceful conduct of the matriculated students at Edinburgh and Aberdeen, will, by those who wish to see the power of election of the lord rector retained by the students, be deplored. Over and over again scenes sufficiently rowdy have been witnessed when the elect of the students have attempted to discharge the duty of delivering the address which the constituency seems to consider the chief duty of its representative. The lord rector is President of the University Court, which, consisting of the rector, principal, and four assessors, is the court of appeal for the Senatus, and, in a very large measure, is the governing body of the university. He is, with the exception of the chancellor, the head of the university, and during his tenure of office should exercise a large influence in its affairs. It appears strange and unsatisfactory to many, both outside and inside the northern universities, that a body of youths totally unacquainted with the very constitution, apart from the aim and policy of their colleges, should have the opportunity of so frequently making mistakes in the choice of an official of such importance to the best interests of education; while the council, composed chiefly of the graduates, have the right of nominating but one of the assessors to the court. For many years the contest for the rectorship has been entirely political, and usually men known only, or chiefly, in politics have been nominated. Dr. Bain, of Aberdeen, is perhaps, the only lord rector ever elected at that or any other university whose claims were purely academical; and usually the eminent Englishman upon whom the unsought honour is conferred is totally unconnected with, and profoundly ignorant of, if not indifferent to, the views, if such exist, of his constituents. As a rule the part taken by the rector in the work of the university court is extremely small, and it is only towards the close of his term of office that the force of precedent constrains him to satisfy his youthful adorers by the delivery of respectable and perhaps eloquent platitudes, and to offer himself and his friends as targets at which peas meal, hideous sounds, and perhaps blasphemous interruptions can be hurled. A man so singularly of themselves as Dr. Bain, instead of commanding respect and deference from boys who ought to feel proud that such a man is connected with their *alma mater*, is insulted and interrupted so outrageously that he has to take the unprecedented course of handing his address to the reporters.

Remembering the treatment meted out to Lord Rosebery, who might more fitly have lectured his audience on "Decency" than on "Patriotism," we shall be curious to note the reception offered to Mr. Bright at Glasgow in the spring; but recent events, as well as the whole history of rectorial elections, addresses, and neglect of duty, seem to indicate that the time has arrived when such an important official as the lord rector should have a different constituency. At best the election is but a serious interruption to the work of the session; the addresses, with one or two exceptions, such as that of Carlyle at Edinburgh, have been far from memorable; the men chosen have usually had other important duties preventing the due performance of those of this office. The rectors themselves have been distinguished for almost every virtue, except an interest in Scotch universities, while the few who can claim this knowledge and interest have been insulted in a manner even worse than the strangers.

#### THE ROYAL REVIEW AND THE VOLUNTEER AMBULANCE DEPARTMENT.

WITH the approval of the General Officer commanding the Home District and the Director-General of the Army Medical Department, a circular was issued on Thursday, the 16th inst., by Lieutenant Maclure, Hon. Secretary of the Volunteer Ambulance Department, to the medical officers of various Volunteer corps, requesting them, together with trained bearers of their regiments, to muster at Whitehall Yard on Saturday morning, at eleven o'clock, equipped with stretchers, field-companions, and haversacks. Owing to the shortness of the notice given, it was impossible to secure a large muster. Nevertheless, at the hour appointed, Surgeon-Major Harvey Hill, 18th Middlesex R.V., and Surgeon Platt, T.H.R.B., together with forty bearers, were present at the rendezvous; stretchers, water-bottles, field-companions, and splints being served out by Lieutenant Maclure to each of the ten detachments. They were then marched off, and a detachment placed at each of the following stations along the route to be taken by the troops—viz.: 1, Centre of Piccadilly; 2, top of St. James's-street; 3, opposite St. James's Palace; 4, Waterloo-place; 5, Trafalgar-square; 6, Horse Guards; 7, corner of Parliament-street; 8, 9, Birdcage-walk; 10, corner of Buckingham-Palace-road. Where available, the shelters in the middle of the roads were utilised as ambulance stations, and their position was notified by means of a white flag with a red cross. The object of these arrangements was the rendering assistance to any sick or injured members of the troops, Volunteers, or general public. Happily no serious accident occurred, but in eight or nine cases the detachments were enabled to render immediate aid to civilians who were suffering from epilepsy and faintness: in some instances temporary help was sufficient; in others the patients were conveyed home by the bearers. A cleverly prepared map, giving the line of route, position of the different ambulance stations, and nearest hospitals, was provided by Lieutenant Maclure, and supplied to each detachment. The experiment, hastily yet efficiently carried out, was eminently satisfactory, and on this occasion proved a greater boon to the public than to the troops and Volunteers. Such an organisation is at all times necessary when immense bodies of people are collected in the streets, and the presence and ready assistance of these trained bearers on Saturday last proved a great comfort to the few who did suffer, whilst in the event of alarming accidents, only too likely to happen on any similar occasion, their aid would be invaluable. The medical arrangements and command of the entire ambulance force engaged throughout the day were divided between Surgeon-Major Harvey Hill and Surgeon Platt; whilst the bearers were composed of men from the Tower Hamlets Rifle Brigade, 18th Middlesex R.V.,

London Scottish, and other metropolitan corps. The whole of the executive details were ably carried out by Lieutenant Maclure, the Hon. Secretary.

#### PROFESSOR BELL ON THE DETECTION OF METALLIC MASSES IN THE HUMAN BODY.

AT a recent meeting of the American Association for the Advancement of Science, Professor Graham Bell delivered an address on the electrical experiments to determine the location of the bullet in the body of the late President Garfield, and described a completely successful form of induction balance for the detection of metallic masses in the human body. The lecturer recalled the experiments of last year on the wounded President. The results obtained were that the telephone gave a peculiar spluttering sound, which, on the induction balance being passed over the person of the patient, suddenly increased in loudness when it rested on a particular spot. The apparatus was sensitive to the presence of a leaden bullet five inches from it. An area of sound was thus marked out, and the experimenters concluded that the bullet was within it, but subsequent examination proved this to be incorrect. In fact, the area of sound was produced by a steel spring mattress under the President's bed, which had been overlooked by the attendant physicians. The apparatus has been subsequently improved by embedding the two movable coils in paraffin, and adjusting them to silence by a micrometer screw. With this instrument a successful experiment has been performed on the person of Colonel Clayton, who for several years has suffered from the presence of an Enfield bullet, the position of which could not previously be determined; and now, according to Professor Bell, the exact position of a bullet in any part of the human body can be accurately told. A fresh step in the progress of the surgery of gunshot wounds would seem, by the use of this instrument, to be indicated.

#### ENTERIC FEVER AND LEMONADE.

DURING the ten weeks ending September 23rd last a sudden and considerable epidemic of enteric fever affected the urban, and portions of the rural, districts of Evesham. The total number of attacks in the former district were forty-eight, and in the latter district twenty-one; and as many as fifty-one households were invaded in all. The epidemic has been reported on by Mr. G. H. Fosbrooke, medical officer of health for the combined area in which Evesham is situated, and the report, like many of those which have preceded it, affords proof of the care and ability which Mr. Fosbrooke devotes to his duties as health officer. By far the largest incidence of the disease was upon the fortnight ending August 8th, during which period forty-six patients were attacked in the two districts; or, in other words, 62.5 per cent. of the urban cases, and 76.1 per cent. of the rural cases, fell ill during that period. At first sight the patients appeared to have nothing in common which could account for the disease. The houses in which they lived were in many instances several miles apart, the sanitary circumstances of the dwellings varied widely, sewers and water-supply were entirely different, and the milk-supply was derived from several independent sources. It was, however, elicited that one and all of the patients attacked before August 8th, whether residing in the town or in the country, had attended Evesham regatta, and that they had all been present in one special meadow. The circumstances of this meadow had to be very carefully considered, because it was the locality in which two sewer ventilators were placed, and near which were sewage settling tanks. But for reasons given, these conditions could not be identified with the epidemic, and a fresh cause had to be sought. It was then ascertained that of the forty-six persons upon whom the "regatta influence"

had operated thirty-two had certainly, and eleven had at probably, taken water in the form of lemonade, or to a extent in the form of ices, or again, as an admixture with irts, at a certain refreshment stall; and even as regards three remaining patients it could not be said positively t they had not partaken of one or other of the articles in estion. The water, which had certainly been used for ne, and which had probably been resorted to in the case of of the refreshments, was procured from a well which was ated near the meadow, and which was found to be so ously contaminated that it was at once closed under a gisterial order. As confirmatory of the view that the reshments and the disease were related to each other as se and effect, Mr. Fosbrooke cites some interesting details. us, a party of three persons repaired to the meadow nction on the regatta day; two of them partook of lemonade d subsequently developed unmistakable symptoms of teric fever; the third took no such refreshment and together escaped. The only point in Mr. Fosbrooke's reason- g which appears to be at all inconclusive is the circum- ance that in order to associate some of the attacks with the lluted water used in the preparation of the refreshments a the regatta day, it becomes necessary to admit a longer eriod of incubation than is usually met with in the case of teric fever. Still, twenty-seven cases were recognised ithin nineteen days of the date of the regatta, and though me appeared to be developed after an even longer interval, et it is quite possible that this may have been due rather to difficulty in determining the exact nature of the early ymptoms, than to the existence of a prolonged incubation- eriod. In enteric fever that period does somewhat vary, ut we think the cases in which it exceeds fourteen days orm quite the exception. Such instances, however, as Mr. osbrooke cites must be taken into consideration in deter- mining the question.

#### COMMUNICATION IN RAILWAY TRAINS.

MUCH has already been written regarding the causes of he recent sad fatality on the Midland Railway, but, looking to the future, importance is now attached chiefly to the best means which can be devised for the rapid stoppage of a train ravelling at a high rate of speed. While the evidence would indicate that Mr. Arthur, on account of previous nervous shock, was in the habit of taking some narcotic, and was at the time of the accident under the influence of such, it is clear that whether sufficient calmness and deter- mination to save the suspected victim was or was not shown at the first stoppage of the train, had the train been rapidly brought to a stand the chances of escape or of rescue would have been immensely increased. Besides the particular accident of fire there are many occurrences which may take place within a railway carriage demanding the immediate application of the brake, and even though the present absurd rule that a driver or guard must make himself sure of the necessity of stoppage before applying the power should be rescinded, any method which would place the command of the train in the hands of the passengers affected would be welcomed as a certain means of saving life, and of establish- ing confidence in the railway system where the method was adopted. By a peculiar coincidence such a method appears to have been successfully tried on the Caledonian Railway a few days after the Midland catastrophe. An escape-valve is placed on the Westinghouse brake, connexion attached to each carriage, a cord communicating with this valve is carried to each separate compartment, and placed within easy reach of the passenger. By pulling this handle the air escapes from the valve, and, even in spite of the driver, the train is brought to a stand very quickly, a loud whistling is maintained, and a disc appears to indicate the compart- ment where the action originated. Ample precaution is

taken that no malicious interference with the apparatus can take place without detection, and if such is attempted smart punishment may be inflicted. The recent trials under the direction of Mr. Drummond, the inventor of the method, were highly successful, a train travelling at thirty miles an hour being brought to a standstill in twenty seconds, even with the steam full on. If such results can be obtained we may hope soon to see the last of the cord system, and if rail- way directors do not willingly adopt some such method they may be coerced into doing so.

#### SIR STAFFORD NORTHCOTE AND MR. CHILDERS.

WE regret to learn that Sir Stafford Northcote and Mr. Childers have both broken down in health, and have been ordered abroad for change and complete rest, and we are not surprised at it. The work which devolved upon the former as leader of his party during the last session of Parlia- ment, the late hours which were the rule of the House, the very short interval of relaxation, and the renewed work and worry of an autumn session would be sufficient to use up the physical strength of even a younger man. Mr. Childers has had even a more trying ordeal to go through, having his office work in addition to his Parliamentary duties, and that office work, intensified by the serious responsibilities involved in the preparation for and carrying out of the Egyptian campaign, with the concomitant worry of questions in the House. It is only a matter of surprise to us that these two distinguished statesmen have been able to hold out so long, and we most sincerely hope that the rest now enforced upon them may prove successful in restoring them to us in renewed health and strength.

#### THE BOARDING-OUT SYSTEM v. PAUPER SCHOOLS.

WE are glad to find that a memorial, signed by a large number of members of Parliament, has been sent to the President of the Local Government Board, praying for an inquiry into the relative value of the two systems of pauper education—viz., that in schools and that in families. It is contended that vast schools are like barracks, where "pauper children" must, perforce of circumstances, be treated as a noun of multitude, with entire disregard to their individual needs and capabilities; and, as a necessary consequence, the best result is not obtained. This is a very important matter. There are doubtless great difficulties in the way of the board- ing-out system. It is hard to find suitable families, par- ticularly near cities and towns, and exceedingly perplexing to devise and work a sufficiently protective supervision. Nevertheless, the advantages of the family system are so superior to those of the school system that we earnestly hope it may before long be extensively adopted. The memorial now presented should greatly aid the progress of this most desirable reform.

#### MEDICAL DEPARTMENT, GENERAL POST OFFICE.

WE hear on trustworthy authority that the Postmaster-General contemplates a very grave departure as regards the Medical Department under his care. We are informed that one of the appointments rendered vacant in consequence of the death of Dr. Waller Lewis will not be filled by a medical man. The Postmaster-General has decided to give it to a lady. There are two medical appointments attached to the General Post Office, the one held by the late Dr. Waller Lewis, and the other at present held by Mr. George Steet in the Telegraph Branch. In this latter department the fair sex is especially represented amongst the employees; and it is for this reason, as we are informed, that, on Mr. Steet's elevation to the chief

medical officership, one of our fair rivals in the healing art is to take medical charge of the telegraph staff. We forbear to comment on the practical absurdity of directing a female medical inspector to inquire into and report upon the minutiae of every ailment which may temporarily incapacitate the rougher sex from a performance of their duties in the Telegraphic Department of Her Majesty's General Post-office. The Premier has, we understand, reserved to himself a power of supervision over the high appointments in the several departments of his government, and we hope it may not be too late for the exercise of his practical sagacity in this important matter.

#### DEATH OF PROFESSOR PIRRIE.

IT is our painful duty to record the death of Emeritus Professor Pirrie of Aberdeen, which took place at his residence in Union-street there, on Tuesday last. As is known to our readers, he had but recently resigned a connexion with the University of Aberdeen lasting over half a century. Professor Pirrie had a sharp attack of peri-hepatitis in April, from which he slowly recovered. By midsummer he was able to visit his patients. In the beginning of October an attack of acute inflammation of the prostate came on, ending in abscess. At first matters looked fairly well; but after two or three weeks the symptoms changed, the pus becoming fetid and symptoms of septicæmia developing. He then gradually sank. We hope in our next issue to give a sketch of the life and work of the deceased professor.

#### TENT HOSPITALS AT NEW YORK.

THE experiment which the New York State Board of Health is trying with tent hospitals is one which might be imitated upon this side of the Atlantic. These tents are divided into four compartments, and separated by a space of twenty feet. Upon one side is the sick-room, and upon the other the convalescent-room; a third compartment serves as a kitchen, still-room, and refectory, and the fourth as a disinfecting-room and a mortuary. Nothing which is calculated to increase the comfort of the patients has been lost sight of, and not an inch of ground has been wasted. Thus the sick-room is arranged to receive from six to nine persons; it is fourteen feet, and has 9420 cubic feet of air, but it can be increased in width without the least difficulty, so that each additional ten feet of room gives 2080 square feet, thus allowing of the admission of two or three additional patients. The beds are parted off by screens of thick muslin drawn tight upon a wooden frame.

#### SIR THOMAS WATSON, BART.

GRADUALLY increasing weakness is the only change to report in Sir Thomas Watson's condition during the past week. He still retains consciousness, and was much pleased to receive a kind message from a distant medical friend.

#### ROYAL COLLEGE OF PHYSICIANS.

THE Gulstonian Lectures for 1883 will be delivered by Dr. J. M. Duncan, the Croonian by Dr. J. E. Pollock, and the Lumleian by Dr. A. B. Garrod. These lectures will appear in THE LANCET, from the MSS. of the authors.

#### NAPPER TESTIMONIAL FUND.

A MEETING of the subscribers to this fund was held on Wednesday afternoon, J. Eric Erichsen, Esq., F.R.S., in the chair. It was resolved to close the fund; and a sub-committee was appointed, with full power to decide the form the testimonial should take, and to make arrangements for the presentation at an early date.

THE Health Ordinance recently passed by the City Council of Baltimore, Maryland, U.S.A., appears to excite great dissatisfaction amongst the medical profession in that city. The clause against which the loudest complaints are made is that which imposes upon the medical attendant the compulsory and gratuitous notification of a case of infectious disease he may be called to treat. The *Maryland Medical Journal* criticises the measure with considerable force, using pretty much the same arguments as those employed in England in opposition to the proposal.

AT the last meeting of the Metropolitan Asylums District Board, a report was presented by the General Purposes Committee upon the transfer of patients by ambulances from their homes to the infectious hospitals, and Sir E. H. Currie moved that the committees of the Deptford and Fulham hospitals be requested to submit plans and estimates for establishing ambulance stations at those hospitals. After some discussion the report was altered so as to include the whole of the hospitals where an ambulance station had not been provided, and was agreed to in its amended form.

HAYNES GIBBES ALLEYNE, M.D., L.R.C.S. Edin., one of the oldest medical practitioners in New South Wales, passed away on September 10th. He was President of the Medical Board, Sydney, member of the Board of Examiners of the University, and had in the course of his long and active life occupied various posts of medical distinction.

THE hospital at Cairo, which was formerly the dwelling-house of Arabi, and is now in full work under the auspices of Lady Strangford, has been favourably reported on to the Medical Board of Cairo by Dr. Grant Bey. The staff of nurses and other attendants, working under the direction of Dr. H. Sieveking, number over twenty.

THE Lord Lieutenant of Ireland has made the following appointments to his household:—Physicians in Ordinary: G. W. Hatchell and Thomas Nedley. Surgeons in Ordinary: Philip Crampton Smyly and Edward Dillon Mapother. Dentist: D. Corbett.

HER MAJESTY has signified her intention of conferring the honour of Knighthood on Mr. Oscar Clayton, F.R.C.S., Extra Surgeon in Ordinary to the Prince of Wales, and Surgeon in Ordinary to the Duke of Edinburgh.

## Pharmacology and Therapeutics.

#### PILOCARPINE AND CATARACT.

THE value of pilocarpine and jaborandi in the treatment of affections of the eye has been investigated by Dr. Landeberg. He states that in certain diseases they are useful, but he has met with some facts which suggest that their use may cause cataract. In four cases of detachment of the retina and one of serous choroiditis, in which the crystalline lens was perfectly transparent up to the commencement of the treatment, it afterwards rapidly became opaque. He also treated a horse for irido-choroiditis and large opacities of the vitreous, giving infusions of jaborandi leaves, and injecting pilocarpine beneath the skin. The morbid process was rapidly arrested, and the vitreous body became entirely transparent; but during the fourth week of treatment the crystalline lens was observed to become opaque. It is, of course, possible that the development of the cataract and the preceding treatment were simply coincident by chance, but the facts are at least suspicious.



## PILOCARPINE IN ATAXY.

The attacks of severe pain in ataxy frequently resist all ordinary sedatives. Dr. Oscar Jennings, of Paris, has recorded a case in which great relief followed the hypodermic injection of pilocarpine. Morphia had been used without effect, and an energetic employment of the thermo-cautery was also useless. An emetic produced temporary relief, but the pain returned next day, with constipation, vomiting, and retention of urine. Ether spray, bags of warm water, and sinapisms to the spine and abdominal walls gave only transient relief; but an injection of pilocarpine cut short the attack at once as soon as the diaphoresis was established, and no further attack occurred.

## CAFFEINE IN HEART DISEASE.

Caffeine has been largely employed as a diuretic, but it has been little used for its action on the heart. Lépine asserts that it is capable of producing the same effects as digitalis, over which, in some cases, it has decided advantages. It is, however, necessary to employ it in large doses, from sixty centigrammes to two grammes per day. The effect is more rapid than that of digitalis; in less than twenty-four hours the pulse will fall from 160 to 100 or 80 per minute; and the force of the heart's contractions is increased in just the same way as with digitalis. Caffeine is, however, better borne, and seems to be eliminated more rapidly than digitalis. Among its inconveniences, however, are the occasional production of insomnia, and a nervous condition which renders it necessary to suspend it. M. Lépine has never given it for more than ten days. Another objection is its very high price. A Paris physician, M. Huchard, has also praised it highly in the same cases, and in similar doses, especially for its diuretic effect. Coffee is, it may be noted, an old remedy. Zwinger recommended it in 1725 for dropsy, and Honoré in 1846 for albuminuria.

## ADONIS VERNALIS.

The Adonis vernalis has been used in some forms of heart disease, and its constituents have been recently studied by Dr. Cervello, who has obtained from it only one active substance, a glucoside, which he has named "adonidin." Only a small quantity was obtained from two kilogrammes of the plant. The substance is extremely energetic, and seems to be contained in small proportion. It is non-nitrogenous, colourless, odourless, amorphous, and extremely bitter, soluble in alcohol, but only slightly soluble in ether and water. It is precipitated by tannic acid, the precipitate redissolving in much water. It is insoluble in cold dilute hydrochloric acid, but on being heated it splits up into sugar and a substance insoluble in ether. Adonis vernalis is said to have an action similar to digitalis, but not to be cumulative in its action, so that it can be safely given for a considerable time without danger. The action of adonidin seems to be identical with that of digitalin. Cervello's researches have been published in the *Archiv f. Exp. Path. u. Pharmacologic*.

## NAPHTHALIN IN SCABIES.

Naphthalin was first employed in scabies by Kaposi, its value being suggested by the use which furriers make of it as an insecticide. It has been further used in the treatment of sixty cases of this disease by Fürbringer, who reports that it is most successful. It is employed in a 10 or 20 per cent. solution in oil. In one case it caused a slight and very transient albuminuria. Although the parasitic affection was quickly cured, naphthalin seems to have no influence on the secondary eruptions, which, in some cases of irritable skin seem to be augmented by it. In other skin diseases, especially those in which large surfaces are exposed, naphthalin is to be avoided. Fürbringer treated a case of psoriasis with a daily application of five to ten grammes of the above solution without benefit to the skin eruption, and with the result of causing a nephritic albuminuria. Neither in chronic eczema, nor in tinea tonsurans, did it do good.

## WARM WATER IN JAUNDICE.

Möller has employed with success the injection of a large quantity of warm water into the large intestine in catarrhal jaundice. The experiments of Röhrig have shown that such injections have the effect of increasing, for a considerable time, the secretion of bile; and Peiper showed that the bile was thus rendered more diffuent. While the amount of water in the bile was increased, that of solid matter was lessened. About six hours after the injection, the solids rise above the normal, and the water falls below it.

## PLANTAIN AS A STYPTIC.

An old styptic, mentioned by Shakespeare and recommended by various writers, from Pliny to Culpepper, plantain has been almost entirely overlooked by modern writers on therapeutics. Professor Quinlan, of Dublin, found it in use as a popular remedy in a remote district in Ireland, and has tried it extensively with the best results in cases of external hæmorrhage suited to the use of styptics. In cases of internal bleeding from the lungs, the kidneys, the bowels, and in menorrhagia he has got fair results from large and repeated doses of the juice, either fresh or fortified with alcohol or glycerine. At the recent meeting of the British Pharmaceutical Conference, at which these results were mentioned, he exhibited a number of specimens—(1) dried leaves, (2) a mixture of powdered leaves and glycerine, (3) the juice with sufficient alcohol to prevent it from spoiling, (4) the juice mixed with glycerine, and (5) a green extract. With the last he has not yet obtained satisfactory results. The powdered leaves alone, or mixed with glycerine, may be employed, the latter being intended to imitate the popular preparation, which is made by chewing the leaves. Chemically it does not contain tannin, and is compatible with salts of iron, alkaloids, other metallic salts, and preparations of ergot. Observations on the vessels in the tail of gold fish show that the application does not influence the circulation in the larger vessels, but great retardation occurs in the capillaries.

## SALTS OF MANGANESE.

The action of certain little-studied salts of manganese, that compound with molybdenic and tungstic acids, has been investigated by Merti and Luchsinger (*Centralblatt für die Med. Wissenschaften*, No. 38). The same symptoms were produced in various animals experimented on. In all a depression of all the functions of the nervous system was produced. Somnolence was succeeded by diminution in reflex action, lessened respiratory movements, and lowered blood pressure. As the paralysis increases the heart beats with increasing frequency and force. With these phenomena there is a gradual fall in temperature and in the production of heat. In warm-blooded animals there is also considerable irritation of the intestinal tract, apparently connected with the elimination of the salts. Diarrhoea even follows their hypodermic injection, and vomiting occurs early in those animals which are disposed to it; and when the poisons are injected under the skin, even the first vomit shows traces of their presence.

## Public Health and Poor Law.

## LOCAL GOVERNMENT DEPARTMENT.

## \* REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Port of London.*—According to the annual report of Dr. Collingridge, medical officer of health for the Port of London, the inspection of shipping is maintained with considerable stringency. It is, however, urged that in order to effectually protect the metropolis from the importation of infectious disease by the Thames route, there should be means of detaining vessels at the entrance of the port until any patients affected have been removed to hospital. Special arrangements do already exist as to this, with respect to cholera, plague, and yellow fever; but they are also needed as regards other infectious diseases, and the port authority is in communication with the Board of Trade with a view of securing an alteration of the law in this respect. At present when ordinary infectious diseases are found to prevail on a ship, no power of detention exists, the vessel is allowed to pass up the river, and the cases are only removed after arrival in dock. Quarantine, as such, no longer exists in this country; it is replaced by a system of medical inspection and of isolation, and, according to Dr. Collingridge, the quarantine laws need no longer be retained in the statute book were it not for the public disadvantage at which this country would be placed in its dealings with other nations in case we had nothing which we could call quarantine. The action taken by the port authority in connexion with the polluted state of the Thames is fully entered into, and it is pointed out that whilst minor sources of sewage pollution

are every year being dealt with, the liquid filth being diverted from the river, the principal source of pollution derived from the great metropolitan outfalls continues steadily to increase. The port authority has for a long time been taking active steps to free the river from this sewage pollution, and to its activity we have, doubtless, in the main to attribute the appointment of the Royal Commission now sitting on the subject. Scurvy, it is curious to learn, is steadily on the increase amongst seamen, and this is attributed to the fact that owners have come to place so much reliance upon the antiscorbutic effects of lime-juice as to have sanctioned the exclusion of several important and essential articles of food from the diet of their sailors. Dealing with the question of emigration, Dr. Collingridge refers to the enormous flow of people who early in the year passed through London on their way to America, and to the absolute necessity for some proper arrangements for their medical inspection on arrival in the port. This subject is, amongst others relating to the health aspect of emigration, now under investigation by Dr. Blaxall, R.N., one of the medical inspectors of the Local Government Board.

*York (Urban).*—The medical officer of health for the City of York (Mr. S. W. North), has issued a report upon the health and sanitary condition of this urban sanitary district during the third or summer quarter of this year, which deserves the serious attention of its sanitary authority. The estimated population of this city in the middle of this year was 50,127. The birth-rate last quarter was somewhat below the average, while the death-rate was high, and equal to 22.6 per 1000, exceeding by 3.7, or nearly a fifth, the mean rate in the "fifty other large town districts" dealt with in the Registrar General's quarterly return. The zymotic death-rate in York was equal to 6.9 per 1000, against 3.6 in the fifty towns before mentioned; this high rate of zymotic fatality was mainly due to the very high mortality from diarrhoea, which caused 61 deaths during the three months, against 130 and 32 in the corresponding periods of 1880 and 1881. Summer diarrhoea appears to be exceptionally fatal in York, and is the cause of terribly high rates of infant mortality. The report before us shows that in the quarter under notice the proportion of infant mortality, measured by the proportion of deaths under one year to births, was equal to 266 per 1000, whereas the mean rate in the Registrar General's fifty town districts did not exceed 167. Mr. North distinctly points out the various forms of filth accumulation and consequent contamination which are the constant source of ill-health and low sanitary condition, and pertinently remarks that "children are peculiarly susceptible to the evil influence of foul and polluted air." He calls particular attention to foul privies and ashpits, in close proximity to dwelling-houses, through which the contents of such ashpits have to be taken when emptied, to ill-constructed house-drains and unventilated sewers as among the most fertile sources of filth contamination, and adds, "I regret that most, if not all, these causes exist over the greater part of the city." Mention is made of an outbreak of typhoid fever resulting in fifteen or sixteen cases, which is a serious warning in a city, the sanitary condition of which is not more satisfactory than that of York appears to be. The growth of the city and the sanitary welfare both of the city and its suburbs seem to demand the extension of the boundaries of the city in order to place the whole under one sanitary authority. The medical officer of health fully endorses the desirability of the proposal, and says, "I know no argument, sanitary, social, or economic, to the contrary." In the meantime, however, the York Town Council has its hands full in order to redeem their present responsibilities as regards the health of the city.

*Madeley.*—Dr. Thursfield reports an outbreak of diphtheria at Trounbridge, in the Madeley urban district. So far as he could learn only seven houses had been affected, but the attacks were attended by an exceptional fatality, five cases having been fatal. The cause of the disease remains unexplained, but Dr. Thursfield considers the history of the outbreak as supporting the view that dampness of site has a distinct influence, if not on the causation, at least on the spread and severity of diphtheria. The houses affected were principally dwellings so built into the sides of sloping hills that they were necessarily wet, and the existence of other houses higher up made it unsafe to remove the earth with a view of securing a dry area in each case. Similar conditions have before been observed in connexion with diphtheria in Wales and other hilly and mountainous districts.

*Lincoln.*—Dr. Harrison has issued his report on the recent outbreak of small-pox in the city of Lincoln. The first case occurred in April, and the patient was removed to the workhouse. The hospital belonging to the city was opened on May 6th, but it had almost at once to be enlarged so as to accommodate sixteen patients, and it continued, together with the workhouse hospital, to receive patients up to August 30th. In all, fifty patients were thus isolated, and twenty-one cases were treated elsewhere than in hospital. The result in some respects is highly satisfactory; thus, out of twenty-eight vaccinated persons treated in the city hospital not one died; whereas the death-rate among the unvaccinated reached 50 per cent. In other respects the history of the case cannot be regarded with the same satisfaction. Thus, in the first place, the disease lasted some four months before it could be eradicated; and, secondly, Lincoln has had to make hospital provision in an emergency; and when hospital buildings are erected under such circumstances, they rarely, as has been so convincingly proved in the official report on the "Use and Influence of Hospitals for Infectious Disease," answer the permanent requirements of the district. People suffering from small-pox can, it is true, be got into such buildings; but small-pox is not the infectious disease mostly needing isolation in this country; and where buildings are erected under the influence of panic, they, with but few exceptions, suffice for the proper isolation of scarlet or enteric fever. This, perhaps, is already recognised at Lincoln, for we read in the report, not that the building is to be maintained in readiness for the immediate reception of any cases of infectious disease which may arise in the city, but that when the small-pox had subsided "the hospital was closed."

*Belfast.*—During the four weeks ending the 21st ult., the births registered amounted to 536, and the deaths to 401, or at the rate of 25 per 1000. Of these latter 108 were due to lung disease, and two cases of small-pox proved fatal. The mortality from measles, scarlet fever, and diarrhoea was above the average, but the deaths from fever were very few. A fresh outbreak of small-pox took place, but those attacked were removed to the hospital for contagious diseases, and the usual precautions taken to prevent the disease spreading.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5607 births and 3668 deaths were registered during the week ending the 18th inst. The annual death-rate in these towns, which had been equal to 21.3 and 21.7 per 1000 in the two preceding weeks, further rose last week to 22.6. The lowest death-rates in these towns last week were 13.9 in Birkenhead, 16.6 in Bristol, and 17.8 in Leicester. The rates in the other towns ranged upwards to 28.0 in Liverpool, 28.6 in Halifax, 29.9 in Manchester and Preston, and 30.7 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 510, showing an increase of 42 upon the number in the previous week; 140 resulted from scarlet fever, 115 from measles, 82 from "fever" (principally enteric), 69 from diarrhoea, 65 from whooping-cough, 30 from diphtheria, and 9 from small-pox. The lowest death-rates from these zymotic diseases occurred in Derby, Bradford, and Huddersfield, and the highest in Newcastle-upon-Tyne and Sunderland. Scarlet fever caused the highest death-rates in Birmingham, Sheffield, Newcastle-upon-Tyne, and Liverpool; measles in Hull, Cardiff, and Sunderland; whooping-cough in Plymouth and Preston; and "fever" in Hull, Brighton, and Sunderland. No fewer than 21 of the 31 deaths from diphtheria in the twenty-eight towns occurred in London. Small-pox caused 4 deaths in London, and 5 in Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which had been 70 on each of the two preceding Saturdays, was 73 at the end of last week; 16 new cases of small-pox were admitted to these hospitals during the week, against 7 and 12 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 347 and 330 in the two preceding weeks, rose again to 345 last week, but were 111 below the corrected weekly average. The causes of 98, or 2.7 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Norwich,

Leicester, and Bolton. The proportions of uncertified deaths were largest in Salford, Blackburn, Halifax, and Hull.

#### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 24.3 and 22.0 per 1000 in the two preceding weeks, rose to 25.8 in the week ending the 18th inst.; this rate exceeded by 3.2 that which prevailed last week in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 85 and 89 in the two previous weeks, further rose to 98 last week, and were equal to an annual rate of 4.2 per 1000, and 1.1 above the rate from the same diseases in the English towns. The fatal cases of whooping-cough were 26, and showed a marked increase upon recent weekly numbers, no fewer than 19 being recorded in Glasgow. The 24 deaths referred to diphtheria corresponded with the number in the previous week, and included 9 in Glasgow, 5 in Leith, and 3 each in Edinburgh, Dundee, and Greenock. The deaths from scarlet fever, which had been 13 and 5 in the two previous weeks, rose to 16 last week, of which 7 occurred in Glasgow, 4 in Edinburgh, 3 in Paisley, and 2 in Leith. Diarrhoea fatality showed a further decline from that recorded in recent weeks. The 8 deaths referred to "fever," included 2 in Glasgow, 2 in Dundee, and 2 in Perth. Three of the 7 fatal cases of measles occurred in Glasgow and 2 in Dundee. The deaths referred to acute diseases of the lungs in the eight towns, which had been 135 and 130 in the two preceding weeks, rose to 172 last week, and exceeded by 50 the number in the corresponding week of last year. The causes of 117, or 19 per cent., of the deaths registered in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 20.4 and 27.7 per 1000 in the two preceding weeks, was equal to 26.1 in the week ending the 18th inst. During the first seven weeks of the current quarter the death-rate in the city averaged 23.4 per 1000, against 20.0 in London and 18.7 in Edinburgh. The 174 deaths in Dublin last week showed a decline of 11 from the number returned in the previous week. The deaths from the principal zymotic diseases, which had been 14 in each of the two previous weeks, declined to 11 last week, including 3 from "fever," 3 from whooping-cough, 3 from diarrhoea, and 2 from diphtheria. The death-rate from these zymotic diseases was equal to 1.6 per 1000, while the rate from the same diseases last week was 3.3 in London and 2.7 in Edinburgh. The deaths referred to "fever," which had been 5, 7, and 8 in the three preceding weeks, declined to 3 last week. The 3 fatal cases of whooping-cough, however, showed an increase, and the 2 deaths from diphtheria exceeded the number in any week since the end of September. The deaths of infants showed a decline, whereas those of elderly persons were more numerous than in any week since the end of March last.

### Correspondence.

"Audi alteram partem."

#### "THE DISCOVERY OF TRICHINA SPIRALIS."

To the Editor of THE LANCET.

SIR,—Professor Owen is decidedly in error; but doubtless he is just as unconsciously so as he is guiltless of any wish to deprive his eminent friend, Sir James Paget, of the credit which legitimately associates itself with the fact of the discovery of *Trichina spiralis*. Professor Owen was not the discoverer of this parasite. In the pages of THE LANCET and in the columns of *The Times* for 1866 this question of priority was exhaustively discussed—Sir James Paget himself, Dr. Wilks, and several other members of the staff of Guy's and St. Bartholomew's respectively taking part in the discussion. If Professor Owen will peruse Sir James Paget's most instructive letter (THE LANCET, March 10th, 1866,

p. 269), he will see that the "find" was made on February 2nd, 1835, and that the Bartholomew's student then "ascertained that nearly every cyst contained a small worm coiled up." What follows in that letter is even more to the point. "I was invited," says Sir James Paget, "as the discoverer of the entozoon, to communicate the facts respecting it to the Abernethian Society, and I did so on February 6th, the chair being occupied by Dr. Arthur Farre." If this statement be not a sufficient justification of my record in Dr. Quain's Dictionary, I invite Professor Owen further to read the "extract" quoted in the letter (published in THE LANCET of the same date) by "two former Presidents of the Abernethian Society." That important document closes with the significant remark that "the discovery and description of the trichina were communicated to the Abernethian Society eighteen days before Professor Owen's paper was read at the Zoological Society."

Here the matter might well rest but that the claims of others as to priority demand a passing word. I refer more especially to those of Hilton; for as to the merits of Klencke (1829), of Peacock (1828), and of Tiedemann (1821), it would be a waste of time to reconsider them. Speaking generally, the Germans have not treated this question with their usual acumen. By far the best accounts of the history of the discovery of trichina are those of Leuckart and Pagenstecher; that of the latter *savant* being the more complete of the two. Professor Pagenstecher declares for Hilton. He admits that "Hilton first saw the capsules, but not the trichinae," and yet with some inconsistency, I think, previously and emphatically exclaims: "Es darf also wohl unbedingt Hilton als der Entdecker der Trichinen gelten" ("Die Trichinen," 1865, s. 7)! But Pagenstecher is right, if the standpoint of the trichina-capsule "find" (as determining the question of priority) is to be held of primary import. I dissent from that view, and I am glad to see that my efforts, made through the medium of various publications during the past eighteen years, have not been altogether fruitless. Thus, Assistant-Surgeon Glazier in his admirable Report published by order of the United States Congress, says: "Sir James Paget was the first to see the parasite coiled up in its capsule." In making that statement, however, Mr. Glazier very properly acknowledges the prior claims of Hilton and of Peacock in reference to the discovery of the "specks" which are now universally admitted to have been calcified trichina-capsules.

I regret that Professor Owen should have thought it necessary to re-open this question, which I have elsewhere treated of and at much greater length than it was possible for me to do in Dr. Quain's Dictionary. Permit me to add that I shall esteem myself fortunate, indeed, if the fifty other brief articles contributed by me to that comprehensive work shall be found to stand the test of criticism equally well with that one upon which Professor Owen has been pleased to bestow some comment.

I am, Sir, yours truly,

London, Nov. 19th, 1882. T. SPENCER COBBOLD, M.D.

#### "THE CONTAGIOUS DISEASES ACTS."

To the Editor of THE LANCET.

SIR,—My experience with regard to the moral effect of the above Act during the six years that I assisted in its administration at Woolwich, is quite at variance with that of Dr. Truman of Nottingham, as published in your issue of last week. During the earlier months of its operation it was the custom for most of the women to present themselves for examination in a filthy, disorderly, and most shameless condition of mind and body; but after repeated and gentle appeals to their better natures all this was soon greatly ameliorated and the duties of my office were, in consequence, performed with much less violence to my own feelings and to theirs. I know, also, of many instances in which the young wives of soldiers, who had married without the consent of their colonels and were consequently often left behind in a destitute state whenever their husbands were ordered away to a distance inaccessible to them, have been rescued from an immoral life solely through the interposition of the Act in question. In the face of such facts, I trust that the profession will accept the observations of Dr.

Truman with reserve, and not allow the practical aspect of the question to be obscured by the moral one.

I am, Sir, yours faithfully,

J. BERESFORD RYLEY, M.D.

Finsbury-square, November 21st, 1882.

To the Editor of THE LANCET.

SIR,—In your valuable journal of Nov. 11th, I was much pleased with the report of the "First Five Years' Work at the Liverpool Seamen's Dispensary for Venereal Disease," and venture to suggest a few remarks for the benefit of our mercantile sailors, many of whom go to sea suffering from either gonorrhœa, chancre, or syphilis.

It seems a pity that sailors of the mercantile marine cannot be placed under a Contagious Disease Act, and prevented from signing articles when suffering from any one of the three diseases mentioned above; and it is surprising that the Board of Trade, or the directors of large companies, or the owners or captains of vessels have not taken the matter up, and compelled every man before signing articles to be examined.

As an old ship-surgeon, I can confidently say that I do not believe there is one of our ships leaves England for a foreign port without there are five or six of the crew suffering from the disease; and when surgeon on board one of the steamers of one of the largest companies leaving England, I had three saloon stewards suffering from bubo and chancre under my care; but they were not allowed to be on the sick list, as they "could not be spared."

I feel certain that there are many ship-surgeons who will support my statements; and I can only suggest that the Board of Trade ought to make it a standing rule for the crew of every ship before signing articles to be examined by a medical man.

I am, Sir, yours faithfully,

London, Nov. 1882.

EDWARD A. BURGESS.

## ON HOLIDAY-MAKING.

To the Editor of THE LANCET.

SIR,—All occupations, however varied they may be, require to be alternated fairly with rest and recreation. It is a great mistake to suppose that most and best work can be done when these aids are omitted. No occupation that calls forth special mental and physical work should fill more than one-third of the daily life. In our profession, with its constant cares, this is impossible, unless we can get quite away from our field of action, and even then many of us are so accustomed to constant application that we could not enjoy a holiday of idleness. It may be said without fear of contradiction that no work is more exhausting than that of medical men, and none more imperatively needs to be interrupted. I am pleased to say that my patients were unanimous in hoping I should be able to get away as well as themselves. In return for this consideration I resolved to endeavour so to employ my holiday that it might prove beneficial to all parties. I first visited Aix-la-Chapelle, or Aachen, with its neighbourhood Burtscheid, almost identical in their waters except in their heat. This is the chief sulphur bath of Germany. I stayed at the Grand Monarch Hotel. The proprietor, Mr. Dremel, is also the proprietor of the Emperor Bath Establishment. On learning that I was travelling in order to gain a practical knowledge of the waters and baths, he generously put his private carriage at my disposal while I remained, and with his servant as guide (after seeing all there was to be seen from a medical point of view) I "did" Aix and its neighbourhood most satisfactorily and cheaply. It is not my intention to give now a description of the baths I visited, or of the character of the mineral waters, but simply to state what I did comfortably in a three weeks' holiday. At each place I followed the old Bath rules—

"Arise betimes; to pump repair—  
First take the water, then the air;  
Most moderate be in meat and drink,  
And rarely, very rarely, think!"

From Aix I went to Homburg, justly called the queen of continental spas. Here, in addition to the usual routine, I had a mud bath, a poultice all over. From Homburg to Wiesbaden, with its numerous baths—most of the large hotels have a regular suite of baths, so that it is unnecessary to leave your hotel. I stayed at the Rose Hotel, well

situated, close to the drinking springs. Here I enjoyed an electric bath. From Wiesbaden to Kreuznach, where I saw a new house, lately erected, called the Inhalatorium. The salt water is constantly trickling down all round the house, the sides of which are constructed of open woodwork of thorn branches. The air is certainly saturated with the salines, but it gives one the impression of being as likely to cause as to cure disease. At Kreuznach, on the way to the salt works, I visited the Victoria Convalescent Hospital for children. The building is well constructed on sanitary principles. At Mucster Am Stein I witnessed the process of making common salt from spring water. From Kreuznach I again crossed the Rhine to Ems, the pearl of baths. It was a treat to get into clear water once more, the unstained marble and pale green water recalling to mind some pleasant bathing not so far from home. After visiting my friend, Professor Trendelenberg, at Bonn, and seeing his hospitals (feeling refreshed, but not invigorated, by the amount of washing both outside and inside which I had undergone of late), I passed from Brussels, Antwerp, Rotterdam, Amsterdam, the Hague, to Scheveningen, the gay and fashionable Dutch watering-place, the clear and bracing air of which gave the finishing touch to a most pleasant and profitable outing.

My object in writing this sketch is to make the following facts more generally known: that at these German health resorts, while there is a tax on all visitors who remain over five days, medical men, and in most places their families, are exempt, and free to the gardens, the baths, the concerts, the use of the reading-rooms, and all those luxuries which tend to make life at these resorts so extremely enjoyable. The resident physicians are most anxious to assist in every way, by giving all the information in their power, explaining the various kinds of baths, the inhalation apparatus, condensed air chambers, &c. When visiting these English colonies it is advisable to take a plentiful supply of visiting-cards—let them only tell your profession,—otherwise you may be harassed with questions, or to pass your opinion on the various dishes, the action and qualities of the wines, the diet and treatment prescribed by the physicians, and so on.

I conclude this hasty sketch with many thanks for the kindness and attention received from my professional brethren, the proprietors of the baths, and the officials generally; and with the hope that the few hints thrown out may assist some of my fellow workers in deciding how to plan their own holidays, while not losing sight of the interests of their patients. In the words of one often quoted by balneologists: "The knowledge of such baths is especially worthy of the physician, for in it are comprehended not only the whole of medicine, but also the principles of all the natural sciences with which a physician should be acquainted."

I am, Sir, yours obediently,

W. SINCLAIR THOMSON M.D.

Ladbroke-grove, W., Oct. 1882.

## "SCURVY."

To the Editor of THE LANCET.

SIR,—The veteran Professor of Hygiene in Paris, Bouchardat, has the following at page 329 of his *Annuaire* for 1881: (I give an exact translation.) "Salted meats differ from fresh not only because they are saturated with sodium chlorides, but also because this last has substituted itself in the place of the chloride &c. of potassium, more soluble than it (the sodium), which is eliminated and is found in the brine, as also the creatine and the creatinine, and certain other saline principles of meat." The presence or absence of lactic acid salts (which, like citrates, tartrates, &c., all form carbonates in the body, so that the acidity is only temporary) he does not seem to consider of much importance, but thinks Dr. Garrod's doctrine is well-nigh proved. At page 330 of the *Annuaire* is the graphic sentence: "Le potassium est le métal des végétaux," so that it is no wonder that persons living on salted or even preserved (?) meats should benefit by anything containing largely a potassium salt—viz., fresh meat or fresh vegetables, fruit, wine, &c. But there was plenty of potassium in our mutton rations in the Crimea, and in bread and biscuit. I would at this stage draw attention to a fallacy, which seems to vitiate much of our Indian experience of scurvy. We set down as fresh vegetable eaters all the dried grain eating tribes, who

on active service often can get no fresh vegetables at all, and who actually, as I found on the Afghan frontier, often refuse a ration of dates, the antiscorbutic *par excellence* of the Arabian, Afghan, and all other desert tribes. The Abyssinians use honey in the same way. In India, amongst the grain eaters, as long as a certain amount of green vegetables (bajee) or fruit is procurable, and thus supplies potassium, &c., scurvy is unknown amongst many millions of vegetarians. It is only in the arid parts lying about Sind and the Punjab, &c., where green vegetables are so scarce, that it is ever seen. Certainly fresh vegetables contain enormous quantities of vegetable acids and potassium; but when we come to compare meat and grain, wheat, &c., we find that they have both about the same amount of mineral ash—viz., 1·6 per cent. One would conclude, therefore, that it is the very presence of lactic acid, as Parkes suggested, that makes meat a better diet than biscuits for scurvy. Does walrus meat develop excess of lactic, and retain it after cooking? If not, we must then suppose that it was the ration of preserved vegetables which helped the crew of the *Eira* (for, whether the muscle of meat, as Dr. Ralfe points out, be alkaline at first and acid afterwards through lactic acid, Parkes teaches that this acid simply goes to form alkaline carbonates in the body.) Besides, it has never been proved that the blood is acid in scurvy; in fact it never is. But it has been proved that a timely administration of almost any vegetable acid, almost citric, malic (lactic?), in combination with potash, is a perfect prophylactic against scurvy. Let not the Admiralty forget this, nor the labours of Lind, Van Swieten, &c.

I am, Sir, yours truly,

CAMERON MACDOWALL,  
Brigade Surgeon, Bombay Army.

Deesa, Sept. 4th, 1882.

To the Editor of THE LANCET.

SIR,—In a foot-note to page 496 of his "Manual of Practical Hygiene," fifth edition, (London, Churchill, 1878), Parkes says:—"For a good deal of evidence up to 1848, I beg to refer to a review I contributed on scurvy in the *British and Foreign Medico-Chirurgical Review* in that year. The evidence since this period has added, I believe, little to our knowledge, except to show that the preservation and curative powers of fresh meat in large quantities, and especially raw meat (Kane's Arctic Expedition), will not only prevent, but will cure scurvy. Kane found the raw meat of the walrus a certain cure. For the most recent evidence and much valuable information, see the Report of the Admiralty Committee on the Scurvy which occurred in the Arctic Expedition of 1875-76 (Blue Book, 1877)." I think that the last sentence in the above is not Parkes' own, but that it must have been added by the editor in order to bring it up to the date of the issue of the current edition. The experience since then of the Arctic Expedition in the *Eira* coincides with these. I refer to that portion of the report where the author tells us that "our food consisted chiefly of bear and walrus meat, mixing some of the bear's blood with the soup when possible." And again: "I do not think that spirits or lime-juice is much use as an antiscorbutic, for if you live on the flesh of the country, even, I believe, without vegetables, you will run very little risk of scurvy. There was not a sign of scurvy amongst us, not even an anæmic face," (LANCET, Aug. 26th.) So that, as far as this question of fresh meat and raw meat and their prophylactic and curative properties are concerned, ample evidence will be found in other published literature to corroborate that of the *Eira*. But when you take up the question of the particular change which takes place in meat from its fresh to its stale condition, you will find a great deal of diversity and little harmony of opinion. Without taking up other authors on the subject, we stick to Parkes and compare his with Dr. Ralfe's views on this point. Parkes thought "fresh, and especially raw meat, is also useful, and this is conjectured to be from its amount of lactic acid; but this is uncertain," while on the other hand Dr. Ralfe repeats, as a probable explanation, too, of the reason of fresh meat being an antiscorbutic, that it is due to the absence of lactic acid. For, scorbutic, that it is due to the absence of lactic acid. For, from well-known chemical facts he deduces the following:—"In hot climates meat has to be eaten so freshly killed that no time is allowed for the development of the lactic acid; in arctic regions the freezing arrests its formation. The

muscle plasma, therefore, remains alkaline. In Europe the meat is invariably hung, lactic acid is developed freely, and the muscle plasma is consequently acid. If, therefore, scurvy is, as I have endeavoured to show ("Inquiry into the General Pathology of Scurvy"), due to diminished alkalinity of the blood, it can be easily understood that meat may be antiscorbutic when fresh killed, or frozen immediately after killing, but scorbutic when these alkaline salts have been converted into acid ones by lactic acid decomposition."<sup>2</sup> The view of the alkalinity of the blood coincides with Dr. Garrod's theory, which latter, however, appears to have as a *sine quâ non* the absence of a particular salt—namely, potash. I am inclined to think that, taking into account the nervous symptoms which are not infrequently associated with a certain proportion of scorbutic cases, resulting probably from the changes taking place in the blood, not unlike those which occur in gout and rheumatism, there must be some material change produced in the sympathetic system. In many of the individuals tainted with scurvy there were slight and severe attacks of passing jaundice in the cases which occurred in Afghanistan. Can we possibly trace this icteric condition to this cause? This is but a conjecture so far. But there certainly is in Garrod's observations an important point which, if applicable to all countries, climates, and conditions of life, is sufficiently weighty to indicate the necessity for farther research in that direction, and that point is this: the scorbutic condition disappeared on the patient being given a few grains of potash, though kept strictly on precisely the same diet which produced scurvy.—I am, Sir, yours truly,

Ahmedabad, India, 30th Sept., 1882.

JOHN C. LUCAS.

## DIAGNOSIS CASE.

To the Editor of THE LANCET.

SIR,—Having for some time wished to have various mechanical aids to diagnosis in a portable form and small compass, I instructed Messrs. Salt and Son of Birmingham, the surgical instrument manufacturers of this town, to make a diagnosis case. I am glad to say they have completed their task most ably and satisfactorily, and have produced a useful, light case containing nearly everything required for diagnostic purposes. The following is a list of the instruments, &c., included:—Sims' uterine speculum, Ferguson's nested specula, bivalve rectum speculum, nested ear specula, nasal speculum, Laycock's spatula ear syringe, urinometer and trial glass, three vulcanite cases, containing caustic



potash, nitric acid, and cupric test, hermetically sealed cyrtometer, spring measuring tape, stethoscope, ophthalmoscope, exploring trocar, Simpson's sound, male and female catheter combined, exploring sound, Thompson's sound and searcher, and clinical thermometer.

The case consists of two halves, and when close forms kind of reticule case; it is hinged, so that a receptacle left for the stowage of any addition the fancy of the individual practitioner may think desirable. The various instruments are securely fixed each in position; and the engraving gives a fair illustration of the case when closed.

<sup>1</sup> Op. cit., p. 498.

<sup>2</sup> THE LANCET, Sept. 2nd, p. 371.



I consider the case worthy of the reputation of the firm by whom it is manufactured.

Believing that many of my brethren would be glad to know of such a useful adjunct, I have thought proper to ask for a little of your valuable space for this notice.

I am, Sir, yours truly,

Birmingham, Nov. 1882.

WM. THOMAS.

### SCOTTISH NOTES.

(From our own Correspondent.)

PROFESSOR BAIN, of Aberdeen, delivered his address, as Lord Rector of that University, last week, and met such a reception from the students as is rare even under similar circumstances. The Professor and the other members of the University, who accompanied him to the platform, were received in such a disorderly manner, and the interruptions were so long continued, that the Lord Rector, the choice of the students themselves, was unable to continue his address, and ultimately handed it to the reporters. From such an eminent educationalist, and at a time when many changes are looked for in the near future of the Scottish universities, a more than ordinary treat was expected; but it will be generally allowed that the historical account of the rise and progress of these institutions was of less interest than would have been a full exposition of the views held by Dr. Bain regarding necessary changes. Certainly it is known that the Rector would give increased choice of avenue to the arts degree, and would favour a considerable introduction of science subjects; but this, which is perhaps the most pressing reform, received slight, though favourable, notice at his hands. With his concluding words, calling for a taste of the logic of freedom in the various curricula, most people will agree.

Opposition is springing up with regard to the proposed City Improvements Bill for Aberdeen, which it is not unlikely a large proportion of the profession will endorse. It appears that the effects of the Bill would be largely to increase the amenity of the city, and to give new means of communication with its various parts, while it is not so clearly shown that the number of rookeries, now the haunts of disease and death, to be demolished will be at all in proportion to the money spent. The large expenditure under the Bill would indefinitely postpone the demolition of such places as were recently condemned by the Medical Officer of Health.

In May last it was determined by the friends of the late Sir Wyville Thomson, Professor of Natural History at Edinburgh, that his distinguished services should be fully commemorated in his native town of Linlithgow. Proceedings were at once taken, and it now appears that a sufficient sum has been subscribed by friends from all parts of the world to allow of a bust for Edinburgh University, and a stained glass window in the old church of St. Michael at Linlithgow.

An unfortunate event has just occurred at the Institute for Imbeciles at Larbert. A nurse having the charge of two boys, having undressed them for the purpose of bathing, left them alone in the room for a short time. When she returned, she was horrified to find that, one of the children having gone into the empty bath, the other had unwittingly turned the hot water upon his companion, causing such extensive scalds that the child has since died. The whole matter is being investigated by the legal authorities. Whatever may be said as to the propriety of the change recently made in this establishment, in the substitution of a lay for a medical superintendent, it will be admitted that cases of this kind can only be adequately met by a resident attendant.

An epidemic of typhoid fever, showing much intensity and persistence, still exists in Brechin. Judging from the Sanitary Inspector's report as to the condition of the town, such an outbreak might well have been expected; and it is scarcely creditable that after the present lengthened experience of the fever such nuisances as are detailed should be allowed by the authorities.

The important and rapidly increasing town of Dumbarton finds it necessary to very largely extend its water supply. Complaints of scarcity have long been made in this town, but the matter seems now to be energetically taken in hand. Trarant is asking similar powers; and Wick has obtained an entirely new supply.

A special meeting of the Perth Water Commissioners has been held for the purpose of considering the reply of Mr. Trotter, L.R.C.P.Ed., to a recent communication of the town clerk, calling upon him to retract and apologise for statements made by him in a recent lecture. Mr. Trotter, in his reply, re-affirms that certain animals have been found in the water supply of the town both before and since his lecture; states that his sole desire is to impress upon the authorities the importance of removing the present wide-spread suspicion as to the purity of the water; points to the impossibility of detecting typhoid or other fever-germs by any known chemical test; and repeats his statement that until the sewage of the town ceases to be discharged in the immediate neighbourhood of the filter-bed each recurring epidemic will renew the suspicion regarding the purity of the water. He apologises for asserting that the authorities had carefully filtered the water before sending it for analysis, though he was informed that such was the case, and repeated the statement in good faith. After considerable discussion the Commissioners agreed to proceed no further in their threatened action for libel. It is believed that the recent withdrawal by the Brighton authorities of their proposed prosecution of THE LANCET had some effect in inducing the Commission to adopt this course.

It may be well to remind Scottish graduates who have changed their address since November last, or whose present address is not properly described in the Register, that Thursday the 30th inst. is the last day on which the Registrar can receive notice of such change for the present year. Gentlemen whose names are not found in the Register on November 30th properly described, will lose the right of voting for a member of Parliament should an election take place within a year from that date.

[In last week's Notes (second line), "magnificent" should have read *inaugural*.]

### IRELAND.

(From our own Correspondent.)

A CLUB for medical students in Dublin is in process of formation, and it is probable that in a short time the necessary arrangements will be completed for so desirable an undertaking. Mr. Barton, of the Adelaide Hospital, has, I understand, consented to act as president of the club.

The insanitary conditions under which the Crown witnesses exist while residing in Dublin were last week brought under the notice of the Drumcondra Town Commissioners by a report of their sanitary officers. In one of these houses, which contains five small rooms and a kitchen, twenty people were lodged; and in one room, eighteen feet by nine, there were found seven people, for whose accommodation there were but two beds. In another room six brothers and sisters slept together on two mattresses. The sanitary accommodation was of the scantiest, and it is surprising that the authorities allow such a state of things to exist. The commissioners have resolved to communicate with the Chief Secretary on the matter.

Last week the opening meeting of the University Biological Association for the session was held at Trinity College. The President of the Association, Mr. Bennett, delivered an address on the Physiology of Plastic Surgery. He referred more especially to the subject of restoration of noses, and exhibited a patient whom he had operated on four years previously. Dr. Macalister moved that the thanks of the Association be accorded to Mr. Bennett for his address, and, alluding to the subject of the discourse, said that the successful transplantation of tissue was an illustration of the independent life of tissue so removed. Every particle of organism which contained independent protoplasm was thereby independently alive, and, to adopt the grandiloquent language of modern science, man was a condition of aggregates of symbiosis.

The Board of Management of the Belfast Royal Hospital, on the recommendation of the medical staff, at the annual meeting held last week, have resolved to establish two new departments in that institution—viz., one for the treatment of diseases of women, and one for diseases of the eye and ear. There will be a dozen beds allotted for this purpose, but that class of disease will be mainly treated at the extern portion of the hospital. From the annual report it appears that the subscriptions last year amounted to

£1487, donations to £1346, and contributions from work-people and young men to £430. The Board notice with satisfaction that there was an increase in the annual subscriptions, and especially in the subscriptions of the working classes.

Dublin Hospital Sunday was held in the majority of churches in the Dublin district on the 12th inst., and as the day was an unusually fine one, the various places of worship were well attended; and it is to be hoped that the collections this year will exceed those of the preceding. St. Matthias' Church has had the high honour of being foremost in the ranks of contributing churches; and the incumbent, in the morning sermon, touched on the topic, and trusted it would not lose the high and honourable position it had obtained. The collectors, at the close of his address, included the Presidents of the Colleges of Physicians and Surgeons, Dr. J. Magee Finny, Dr. Robinson, and Mr. Croly; and a sum of £275 was obtained between the two services, or an advance of some £90 over that of last year.

Dr. Banks has been elected President of the Academy of Medicine in Ireland, and will hold office for three years.

## PARIS.

(From our own Correspondent.)

THE most contradictory reports have been in circulation concerning President Grévy's state of health, some of the newspapers going so far as to say that the malady he was suffering from was softening of the brain; and speculators have already been discussing as to who is to be his successor to the Presidency. But the following, which I obtained from M. Sée, himself the President's medical attendant, is the true statement of the case:—On this day week the President had a rather severe attack of indigestion after a copious and late dinner the night previous, when he had also freely partaken of some partridge, which was rather tainted. When M. Sée was sent for at noon, the President was in the second stage of indigestion, which M. Sée termed "dyspepsie intestinale;" this was accompanied by diarrhoea, nausea, and giddiness, and a sensation which the patient compared to that produced by seasickness. The next day M. Grévy was all right again, and he has since attended to his duties, and gone about without any further interruption, and has even since been out shooting.

It is in contemplation at the Institute to award to Monsieur J. B. Dumas a medal bearing his own effigy to commemorate the completion of his fiftieth year as member of the Institute, and for the eminent services rendered by the illustrious chemist to science and humanity.

A rather curious trial lately took place at Nîmes, in which the defendant, who was a doctor of medicine, was charged with having illegally practised his profession. This would seem rather paradoxical, and requires some explanation. The defendant, notwithstanding his professional position, consented to become assistant to a well-known charlatan at Vaucluse. The latter professed to have a secret remedy for the cure of cancer, and for other maladies pronounced incurable by the medical faculty. The doctor was kept in the dark as to the composition of the remedy, but he, nevertheless, prescribed, or rather signed the quack's prescriptions, for which he was sued before the Court and fined 200 francs. This, however, did not deter him from continuing his association with the quack, and he was again brought before the Court for having, at different times, extorted large sums of money from a lady who was, conjointly with his partner, under his treatment for cancer of the breast, which they promised to cure without operation within a short time. The lady, finding herself getting worse, abandoned the quack and applied for admission to the hospital, where the surgeon declared that operation was impossible owing to the destruction of the skin by the application of some strong caustic. The judge, in summing up, explained that although the defendant was a doctor of medicine, he nevertheless practised his art in an illegal manner, as he prescribed remedies the composition of which he was entirely ignorant or which was kept secret, whereas the possession of his diploma gives him the right to practise the art of cure, but only with such remedies that he can answer for. The Court therefore concluded that the defen-

dant was guilty of the illegal practice of medicine, but, as according to French law, this constitutes a simple misdemeanour and amenable to the police-court, he was fined only 15 francs, which, though small, the judge hoped would serve as a salutary lesson to him and future offenders.

Whatever may be said against the republican form of government, it cannot be denied that the French Republic has done, and is still doing, a great deal for the improvement of the condition of the working-classes, and particularly that of children and youths. For instance, a circular from the Minister of Public Instruction is being sent round to the different schools enjoining the masters not to overburden their young pupils with a multiplicity of subjects at the same time, as, far from such a practice being profitable to them, it would be rather prejudicial to their young minds, and would tend to disgust them with their studies. The circular also treats of the necessity of allowing the children more time for their meals than is now obtained, and more leisure for corporal exercises. The minister dwells upon the necessity of masters and teachers studying the constitution and natural aptitudes of their pupils, and of dividing the hours for study according to the average amount of intelligence of the boys of the same class, leaving them sufficient time for play and rest. And while the culture of the mind should be properly attended to, the physical development should not be neglected. Orders have been issued that gymnastics and athletic exercises should be introduced into every school and college.

The *Official Gazette* of last week contains decrees regulating the work of children and youths in the various manufactories. It is forbidden to employ children in the manufacture of salicylic acid, of celluloid, the various products of the nitrates and those of the chlorides of sulphur. Children under sixteen years and girls under eighteen are not to be employed as producers of motive force, connected with machinery of any kind. Boys and girls over twelve years may be allowed to draw any burden in the interior of manufactories and establishments on condition that the draught be performed on level ground, and that the load will not exceed 110 kilogrammes, including the vehicle. Boys only, from fourteen to sixteen, may be allowed to draw burdens on the public roads, on condition that they do not exceed 100 kilogrammes, vehicle included. It is forbidden to employ children in any manufactory where dust or other pulverulent substances are produced in the manufacture of articles from dry horn, bones, and from mother-of-pearl. A former decree regulated the hours for work for children and youths.

Paris, Nov. 21st, 1882.

## THE SERVICES.

BOMBAY MEDICAL ESTABLISHMENT.—Brigade Surgeon Lewis Stanhope Bruce, to be Deputy Surgeon-General. Surgeon-Major Cameron Joseph Francis McDowall, to be Brigade Surgeon.

BENGAL MEDICAL ESTABLISHMENT.—Surgeon-Major James Browne, M.D., to be Brigade Surgeon.

ADMIRALTY.—The following appointments have been made:—Deputy Inspector-General Francis W. Davis has been appointed to the Haslar Hospital, vice Wells; Staff Surgeon John N. Stone, to the *Duncan*, vice Thomson; Surgeon Malcolm V. Stace, to the *Duncan*, vice Hay.

## MEDICAL TRIALS.

### HIGH COURT OF JUSTICE, QUEEN'S BENCH DIVISION.—NOVEMBER 20TH.

BOOKER v. TAYLOR.

THIS was a case under the Public Health Act, sec. 124, with reference to the removal of a child having an infectious disorder to a hospital. The Act provides that if it shall appear on the certificate of a medical man that a child is labouring under such a disorder, and that the parents are in want of proper accommodation, a magistrate may make an order for the removal of the child to a hospital. In the present case, which arose at Coventry, there was such a certificate and such an order; but the mother of the child obstructed the removal, and was summoned for the offence.

At the hearing the magistrates entered into the validity of the order and declined to convict, and the question now arose whether they were justified in taking that course or ought to have convicted.

The court were clearly of opinion that the magistrates had no right to go behind the order, and enter into its validity, and were bound upon the evidence to convict if there had been an obstruction, and they sent the case back to the magistrates with that direction.

### MEDICAL NOTES IN PARLIAMENT.

In the House of Commons on Thursday, the 16th inst., on the motion of Mr. Gibson, a return was ordered of copy of the correspondence between Surgeon Wheeler and the Irish Government relating to Mr. Wheeler's attendance upon Mr. Shaen Carter.

On Friday, Mr. Trevelyan stated to Mr. Moore that the Irish Local Government Board had received no report, nor had they had any correspondence, with regard to the state of emigrants' lodging-houses in Londonderry.

#### *Inspection of Boarded-out Children.*

Mr. Dodson informed Lord George Hamilton and Mr. Bryce that it was no part of the duty of the Whitechapel Board of Guardians to provide means of periodical inspection of the homes of boarded-out pauper children, other than the usual inspection every six weeks by a member of the Boarding-out Committee. Beyond this, the homes were visited from time to time by an inspector of the Local Government Board. The Board adhered to its refusal to allow the Whitechapel Guardians to incur the expense involved in an additional system of inspection.

On Tuesday, Mr. Bryce moved for copy of the correspondence, which was presented; and Lord G. Hamilton gave notice that he will call attention to the subject early next session.

#### *An Irish Lunacy Question.*

On Monday, Mr. Trevelyan explained to Mr. Biggar the circumstances under which a lunatic named Robert Nelson was transferred from Belfast Asylum to the workhouse in 1879. It appeared that, his mania having assumed a harmless character, he was discharged from the asylum and admitted into the workhouse, and thereupon, by virtue of an existing practice, a dangerous lunatic was received from the workhouse into the asylum in exchange. Subsequently it transpired that there was a sum of money standing to Nelson's credit in the bank, and on the 14th of last month he was removed by his friends from the workhouse.

#### *Supervision of Nomads.*

On Tuesday, Mr. Dodson promised Mr. Burt to consider whether the law required amendment with the view of bringing temporary abodes, such as shows, tents, and vans, under the supervision of the sanitary authorities; and Mr. Mundella said he would consult with his right hon. friend as to the best means of securing the education of gipsy and other travelling children.

#### *The Norwich Vaccination Inquiry.*

On Wednesday, Mr. Hopwood gave notice of the following questions:—To ask the President of the Local Government Board, whether his attention has been drawn to the statement by the inspectors, in the inquiry into the case of eight children attacked with erysipematous disease after vaccination at Norwich, as to four of the cases which terminated fatally: "We cannot divest our minds of the strong impression that the lymph used in vaccinating those children must have carried with it the elements of the disease which they subsequently developed"; whether the public vaccinator had been recommended for award from the Parliamentary grant; whether Dr. Buchanan, the medical officer of the Local Government Board, in his memorandum charges the same vaccinator with using dirty or improperly cleansed instruments in the processes of vaccination during the years 1876 to 1880, and later; and whether it is any excuse by law, in answer to fresh summonses to vaccinate, for the parents of any of the children so attacked to urge their fear of similar risk to the survivors, if not, whether he proposes by legislation to relieve such parents from the compulsion at present existing.

#### *Sanitation in Dublin.*

Mr. Sexton asked whether, at a meeting of the Drumcondra Town Commissioners, a report was read from the sanitary officer of the board, stating that he had recently visited a house in Dublin which was occupied by Crown witnesses; that, in this house of five small rooms and a kitchen, he had found twenty people lodged; that one room, 18 ft. by 9 ft., was used as a sleeping apartment for seven persons—a father, three sons, and three daughters; the eldest daughter nineteen years of age, the eldest son fourteen—and only two beds for the whole family; that, in another room, six brothers and sisters, the eldest boy thirteen, the eldest girl eleven, slept together on two mattresses on the floor; that the earthen floor of the house was damp and dirty, and the bedding filthy; whether the sub-sanitary officer of the board was refused admission to another house in Dublin, also used for accommodation of Crown witnesses, and whether this house had been inspected by a medical gentleman, who reported that he found thirty persons lodged there; that he saw in front of the house "a mound composed of used-up palliasses, over which are thrown the products of an adjoining pigsty, and a garnishing of potato peelings and decomposing cabbage stalks;" and that there was a total want of sewerage and drainage, and a gross defect in sanitary accommodation; and what steps would be taken to punish those who were responsible for such a state of things.—Mr. Trevelyan said he was aware that a report was received from the sanitary officer to the effect stated in the question. Dr. Nedley also reported that in his opinion the sanitary state of the houses was not so bad as was alleged. Dr. Riggs was the medical officer for the district, and was medical attendant at the houses in question, and he said no reasonable complaint could be made against the houses. Dr. Nedley visited them, and found the inhabitants comfortably clothed, and looking contented. Admission was refused to the inspector because the constable in charge was directed not to admit anyone without an order.

On Thursday, in reply to Dr. Cameron, the Lord Advocate admitted that the diversity in the sanitary and police regulations of Scotch local Acts of Parliament was very unsatisfactory, and expressed his intention to bring in a general Police Bill next session. Mr. McLaren put a similar question in regard to English local Acts, to which Sir W. Harcourt replied that he thought the matter was covered by the standing order which was passed last August.

### Obituary.

#### PROFESSOR GEORGE GULLIVER, F.R.S., F.R.C.S.

THE profession will regret to hear that this distinguished anatomist and physiologist expired on Friday, the 17th inst., at his residence, the Old Dover-road, Canterbury, in the seventy-eighth year of his age. Born on the 4th of June, 1804, at Banbury, Oxon, he received his preliminary education under the Rev. William Woolston, B.A., of Addesbury, near Banbury, on the completion of which he was apprenticed to Messrs. Jones and Wise, surgeons in Banbury. Before the completion of his term he published his Catalogue of Plants in the neighbourhood. At the termination of his apprenticeship he came to London, and entered at St. Bartholomew's Hospital, where he soon became an especial favourite with teachers and pupils. Abernethy made him his Prosector of Anatomy and Curator of the Museum, and he was dresser to Mr. (afterwards Sir) William Lawrence. He was admitted a member of the Royal College of Surgeons on June 2nd, 1826, and in the following May was gazetted Hospital Assistant to the Forces. In 1843 he was present at the fatal duel between Lieutenant-Colonel Fawcett and Lieutenant Monro, and, with the others concerned, was tried at the Old Bailey for the murder, but acquitted.

When the new charter was granted to the College of Surgeons, Mr. Gulliver was one of the first elected, an event which gave rise to severe but reasonable remonstrances from senior medical officers in the Army to the Director-General of the Army Medical Department, Sir James McGrigor, who, sympathising with the memorialists, addressed the Secretary of State on the subject. An explanation was asked of the Council of the College, who very properly replied that such members of the College as Mantell, Owen, Newport, and

Gulliver had been chosen for the Fellowship in recognition purely of scientific merits, and that the Council would be apt to add others for the same reason as soon as their claims should become known to and recognised by the Council as valid; to this reply there was no rejoinder, and he matter dropped. Gulliver had previously been elected a Fellow of the Royal Society. In 1852 he was elected a member of the Council of the College of Surgeons, in the affairs of which institution he ever took the greatest interest, especially in the museum and library, serving on both committees. In 1861 he was elected Hunterian Professor of Comparative Anatomy and Physiology. During the tenure of this office he gave courses of lectures on his favourite subjects, Blood, Lymph, and Chyle of Vertebrates, in which were related the results of his extensive researches on these subjects. In his lectures an interesting proof was given that a moderate quantity of beer might promote the formation of a chief product of digestion, the chyle, and that this fact would have to be met by those zealous and benevolent persons who insist on the uniformly pernicious effects of fermented liquors. The character of the main morphological element of the chyle, which he had discovered and figured many years before, and named the molecular base, as now universally accepted by physiologists, afforded the means of detecting and estimating the quantity of chyle that escaped through an accidental opening of the human skin. In 1863 he delivered the Hunterian Oration, expounded points of Hunter's merits which had previously been ignored concerning the vital endowments of the coagulable lymph, the aggregation of the red corpuscles as the proximate cause of buffy blood, and the fact that the modern protoplasm was but a synonym of the coagulable lymph. This oration gave dire offence to the friends of a living celebrity, to whom he indirectly alluded for his anonymous attacks on his devoted friend Professor Quekett.

The opinion so often expressed in THE LANCET as to the election of examiners at the College of Surgeons was shared by Gulliver, who when told by a warm friend on the Council there was no chance of his being elected a member of the Court of Examiners, not being a hospital surgeon, contemplated resigning his seat, but ultimately decided on giving the Fellows an opportunity of expressing their feelings on the subject. This they did by, as Gulliver expressed it, "Confirming the offensive monopoly." On ceasing to be a member of the Council he busied himself in his literary pursuits, with occasionally short angling excursions; but frequent attacks of gout, increasing in severity, confined him to his house, and, latterly, for some time to his bed. Notwithstanding the constant and unremitting attention of his friend and medical attendant, Dr. Gogarty, Physician to the Kent and Canterbury Hospital, whose attentions at the last were shared by Dr. George Gulliver, Physician to St. Thomas's Hospital, son of the deceased, shortly before his death, in a letter to the writer of this notice, he observed: "For years I could only write in bed (as I am now writing), and have been unable to consult libraries, otherwise I would have attempted a history of Anatomy in England from the time of Hewson to that of Quekett. I have the main facts in my head, but could not be sure of giving them due accuracy and chronological sequence in the absence of books." Professor Gulliver leaves a widow and an only son, Dr. George Gulliver, M.A. Oxon., who, inheriting his father's love of natural history, went out as naturalist with the Venus expedition.

## Medical News.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen, having passed the required examination for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 16th inst.:

Barnes, Walter Stanley, L.S.A., Cavendish-road.  
Cowen, Edward Ingepen, L.R.C.P. Lond., Dartford.  
Donald, James, L.S.A., Kingston-on-Thames.  
Dyson, Herbert Jekyl, College-street, Islington.  
Harris, Howard, L.R.C.P. Edin., Gullisborough.  
Hull, Walter, L.R.C.P. Lond., Swallow-place.  
Larder, Herbert, L.S.A., Wimbledon.  
Llewellyn, James Davies, L.S.A., Glyn Neath.  
Maynard, Edward Charles, Richmond.  
MacDonagh, William Frederick, Clapham-park-road.  
Morse, Herbert Ryding, L.S.A., Sutton.  
Peckett, A. W. Chalmers, L.S.A., Swansea.  
Potter, John Hope, L.R.C.P. Edin., Sheffield.

Rodley, John, L.R.C.P. Edin., Todmorden.  
Sharpin, Edward Colby, Bedford.  
Underwood, John Charles, L.S.A., Hemel Hempstead.  
Wigan, Charles Arthur, Portishead.  
Wothington, Sidney, L.S.A., Enfield.

Of the 96 candidates examined during last week, 51 passed to the satisfaction of the Court and obtained their diplomas; 14 passed in Surgery, and when qualified in the other subjects will be admitted Members; the remaining 31 failed to reach the required standard, and were referred. Twenty-three candidates who passed in Surgery at previous examinations, having subsequently obtained a qualification in Medicine and Midwifery recognised by the College, were also admitted Members.

The following gentlemen passed the first part of the Professional Examination for the Fellowship of the College at meetings of the Board of Examiners on Monday and Tuesday last:—

Charles Ernest Richmond and William Thorburn, Owens College;  
Thomas Horrocks Openshaw and David Thomas, London Hospital;  
Frederick Newland Pedley, A. E. Taylor, H. G. Dixon, Thos. Hugh Miller, Francis Heatherley, Jas. T. J. Morrison, John J. D. Vernon, and R. A. Baillie, Guy's Hospital; Charles E. H. Cotes and E. M. Little, St. George's Hospital; Walter Scott Thomson and Jas. Reid Roberts, Middlesex Hospital; Frank Tratman and William Connor Lysaght, Bristol; George Albert Hamerton, St. Thomas's Hospital and King's College; Herbert Watson Pilgrim, Edinburgh and King's College; John Elliott, Manchester and St. Bartholomew's Hospital; Edgar A. Hughes, Bristol and King's College; Archibald Keightley, St. Bartholomew's Hospital; Jean Samuel Kaeser, Strasbourg, Bale, and St. Thomas's Hospital; Arthur Wm. Dawson, King's College.

Of the 36 candidates examined on the above-mentioned days, 11 failed to satisfy the Board, and were referred for six months' further anatomical and physiological study.

**UNIVERSITY OF LONDON.**—The following candidates have passed the recent M.B. Examination:—

### FIRST DIVISION.

Adeney, Edwin Leonard, Guy's Hospital.  
Back, Herbert Hatfield, St. Bartholomew's Hospital.  
Batterham, John Williams, Westminster Hospital.  
Buxton, Dudley Wilmot, University College.  
Collingwood, David, University College.  
Currie, Oswald James, Guy's Hospital.  
Dakin, William Radford, Guy's Hospital.  
Dingley, Edward Alfred, University College.  
Fielden, William Eckett, Guy's Hospital.  
Harris, Thomas, Owens College.  
Honeyburne, Richard, Liverpool Roy. Infirm. and Univ. Coll.  
King, David Alexander, St. Bartholomew's Hospital.  
Maddison, William Thomas, King's College.  
Parry, Robert, Guy's Hospital.  
Pasteur, William, University College.  
Pratt, Reginald, University College.  
Scharlieb, Mary Ann Dacomb, Madras Med. College and Royal Free Hospital.  
Shaw, Lauriston Elgie, Guy's Hospital.  
Vinrace, John Hinks, Queen's Coll. Birm. and Univ. Coll.  
Webb, Malcolm, Owens College.  
Wells, Alfred Ernest, St. Thomas's Hospital.  
Wilkinson, William Camac, B.A. Sydney, University College.  
Woodbridge, Leonard Charles, D.Sc., Guy's Hospital.

### SECOND DIVISION.

Adams, William Coode, University College.  
Bertram, Benjamin, St. Bartholomew's Hospital.  
Bull, George Coulson Robins, St. Mary's Hospital.  
Campbell, Harry, St. Bartholomew's Hospital.  
Carter, Thomas Edward, St. Bartholomew's Hospital.  
Ellison, John Clement, St. Bartholomew's Hospital.  
Jewell, Charles Coleman, University College.  
Kinsopp, Thomas, St. Bartholomew's Hospital.  
Larmuth, Leopold, Owens College.  
Murray, Hubert Montague, University College.  
Norvill, Frederic Harvey, King's College.  
Pike, Charles James, University College.  
Robinson, Frederick, Leeds Infirmary and Medical School.  
Roedel, Waldemar Joseph, St. Bartholomew's Hospital.  
Scarth, Isaac, Owens College and London Hospital.  
Shove, Edith, London School of Medicine for Women.  
Watkins, Christopher James, University College.  
Woolby, James Ballie, King's College.

**COLLEGE OF PHYSICIANS IN IRELAND.**—At the November examinations the following obtained the Licences in Medicine and Midwifery of the College:—

**MEDICINE.**—James Tandy Bolger, John Clancy, Julia Cock, Robert Edmund Cooper, John Peter Garland, James Aloysius Morris, John Goodwin Shea.  
**MIDWIFERY.**—Jas. T. Bolger, John Clancy, Julia Cock, Robt. Edmund Cooper, Vicars Henry Fisher, John Peter Garland, Jas. A. Morris, John Goodwin Shea.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Nov. 16th:—

Bean, William Henry, Mersea, Colchester.  
Champ, John Howard, Chelmsford, Essex.  
Harrison, Charles, Braintree, Essex.  
Heathcote, Ralph George, Chatham-street, Manchester.  
White, Ernest Alfred, Grenville-street, Russell-square.

The following gentlemen also on the same day passed the Primary Professional Examination:—

John William Harris, Guy's Hospital; Richd. Park Griffin, St. Mary's Hospital; Walter Mitchell Hardy, Charing-cross Hospital; James Jesse William Stevens, St. Bartholomew's Hospital.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—In the list published last week of gentlemen who passed the First L.R.C.P. Lond., for George Jervis Rugg, read George Lewis Rugg.

THE late Jerome G. Kidder, Esq., of Boston, U.S.A., bequeathed \$50,000 to the Boston Lying-in Hospital, and \$25,000 to the Massachusetts General Hospital.

MR. THOMASSON, M.P. for Bolton, has promised £2500 towards the maintenance of the new infirmary of the town when the building is ready for the reception of patients.

DR. CHARLES EDWARD BARNARD, of Gulgong, has been appointed a magistrate of the colony of New South Wales.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for efficient vaccination in their respective districts:—Dr. Newham of Winslow (seventh time); Dr. Alfred Hollis, Freshwater, Isle of Wight.

It has been decided by the Paddington vestry to advertise for tenders for the new infirmary for the parish. The building is to be erected on the workhouse grounds, and is to accommodate 250 patients.

At a meeting of the Sunderland Board of Guardians on the 16th inst. a recommendation of the Finance Committee was adopted that the salary of Dr. Ridley Dale, medical officer for Sunderland parish, be increased from £100 to £130.

DR. EDWARD EVANS, a young physician of Nicholasville, Kentucky, was shot dead by a lawyer in a dispute over a fee. The *New York Medical Record*, in which the event is reported, does not say whether the fee was the slayer's or that of the slain.

FLEET SURGEON ADAM, attached to the Royal Marine Artillery, Portsmouth, while on his way home on Monday night last, was attacked by two men. With the assistance of a gentleman who was passing at the time, Mr. Adam succeeded, however, in beating off his assailants. The outrage is supposed to have connexion with the fact of Mr. Adam having been a witness at a recent court martial.

## Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

BENNET, JAMES, M.B., C.M. Edin., has been appointed Assistant Medical Officer to the Leith Hospital.  
CARMICHAEL, JAS., M.D., F.R.C.P., has been appointed Physician to the Edinburgh Royal Hospital for Sick Children.  
CLATWORTHY, HERBERT, M.R.C.S., L.S.A. Lond., has been appointed Assistant Medical Officer to the Clapham and Wandsworth Infirmary.  
CORNELIUS, W. F., L.D.S.R.C.S. Eng., has been appointed House-Surgeon to the Dental Hospital of London, vice Hern.  
COWEN, PHILIP, M.R.C.S., L.S.A. Lond., has been appointed Medical Officer to the Shadwell-road Workhouse, St. Mary Islington Parish.  
FOUNTAIN, DAVID OWEN, L.R.C.P. Ed., M.R.C.S., has been appointed Medical Officer to the Rupert-road Branch of the Holloway and North Islington Dispensary, vice Haines, resigned.  
GRANT, DR. FRANCIS WILLIAM, has been appointed Assistant to the Professor of the Institutes of Medicine in the University of Edinburgh.  
HERN, WM., L.D.S.R.C.S. Eng., has been appointed Demonstrator of Cohesive and Contour Filling to the Dental Hospital of London.  
HOPWOOD, EDGAR OSWALD, M.B. Oxon., has been appointed Resident Medical Officer to the London Fever Hospital, vice Smith, resigned.  
HUTTON, ROBERT JAMES, L.R.C.P. Ed., M.R.C.S., has been appointed Medical Officer to the Rupert-road Branch of the Holloway and North Islington Dispensary, vice Qualtough, resigned.  
OPENSHAW, THOMAS H., M.R.C.S., L.S.A. Lond., has been appointed House-Physician at the London Hospital.  
MAHER, W. ODILLO, M.D., M.R.C.S., has been appointed House-Surgeon to the Royal London Ophthalmic Hospital, Moorfields.  
MILLS, JOSEPH, M.R.C.S., has been appointed Administrator of Anæsthetics to the Dental Hospital of London, vice Clover, deceased.  
MORGENROOD, EDWARD HENRY, M.B., C.M., has been appointed Resident Medical Officer to the York Dispensary, vice Kirsopp, resigned.  
PEACOCK, ALBERT LOUIS, M.R.C.S., L.S.A. Lond., has been appointed Medical Officer to the No. 1 District and the Workhouse of the Lincoln Union; also Medical Officer and Public Vaccinator for No. 3 District of the same Union, vice Goodall, resigned.  
PEARCE, WILLIAM HENRY, M.R.C.S., L.S.A. Lond., has been appointed Assistant Medical Officer to the Poplar and Stepney Sick Asylum District, Bromley, vice Thornton, resigned.

REYNOLDS, HOWARD DAVID, L.R.C.P. Ed., M.R.C.S., has been reappointed Medical Officer of Health for the Pembroke Urban Sanitary District.  
RUSSELL, A. W., M.B., C.M. Abert., has been appointed Senior House-Surgeon to the General Infirmary, Macclesfield, vice Elliott, resigned.  
SMITH, P. ARTHUR, M.D. Q.U.I., L.R.C.S. Ed., has been appointed Medical Officer for the Bulmer District of the Malton Union.  
SUTHERLAND, ROBERT T., M.B., C.M. Ed., has been appointed House-Surgeon to the Leith Hospital, vice C. W. Stewart, M.B., C.M. Glas., resigned.  
WHITCOMBE, P. PERCYVAL, L.S.A. Lond., has been appointed Senior Resident Medical Officer to the London Lock Hospital, Westbourne-green, W., vice G. Houlton Bishop, M.R.C.S., resigned.

## Births, Marriages, and Deaths.

### BIRTHS.

ADCOCK.—On the 15th inst., at Great Yarmouth, the wife of Brigade-Surgeon J. Adcock, Army Medical Department, of a son.  
CABLE.—On the 19th inst., at Royal Naval Greenwich, the wife of G. H. Cable, M.R.C.S., of a son.  
HILL.—On the 17th inst., at Wimpole-street, Cavendish-square, the wife of Berkeley Hill, F.R.C.S., of a son.  
KIDN.—On the 15th inst., at Montpellier-row, Blackheath, the wife of Walter Kidd, M.D., of a daughter.  
LUCY.—On the 15th inst., at Bush-hill-park, Enfield, the wife of Wm. Cubitt Lucy, M.D., C.M., of a son.  
MAY.—On the 15th inst., at Morwellham-lead, South Devon, the wife of Albert E. May, L.R.C.P. Lond., of a daughter.  
SPEED.—On the 18th ult., at Appleham-road, New Cross, the wife of Henry Andrews Speed, M.R.C.S. Eng., L.R.C.P. Ed., of a son.  
TREWMAN.—On the 16th inst., at 17, Woolston, Mans, the residence of her mother, the wife of George Turner Trewman, M.B., Army Medical Department, of a son.

### MARRIAGES.

ADAMS—WILLIAMS.—On the 16th inst., at St. Mark's Church, Lyncombe, Bath, Henry Adams, M.R.C.P. Ed., of Greenwich, to Fanny Garrigues, granddaughter of the late Venerable Archdeacon Williams, D.D., of Jamaica.  
BALLARD—PITT.—On the 7th inst., at Wellesbourne, Warwickshire, by the Rev. T. Hughes, assisted by the Rev. R. W. Pitt, Philip Ballard, M.R.C.S., L.R.C.P. of Smar, Bath, to Emily Elizabeth, youngest daughter of Richard Pitt, M.R.C.S., L.S.A., of Wellesbourne.  
DALY—BRENTON VON DONOP.—On the 15th inst., at St. Andrew's Church, Bath, Edward Owen Daly, M.A., of Exeter College, Oxon., eldest son of Dr. Owen Daly, F.R.C.P. J.P., of 11, Gilling, Yorks, of Hall, to Alice Brenton, youngest daughter of Vice-Admiral E. P. Brenton von Donop, of Bath.  
HARRISON—BUTTY.—On the 21st inst., at St. Mary's Cathedral, Edinburgh, by the Very Rev. the Dean, assisted by the Rev. James Harrison, Rector of Barbon, Westmoreland, James Harrison, M.R.C.S. E., L.R.C.P. Edin., of Devonport, to Mary Louisa, youngest daughter of Gilbert Butty, Esq., of Warrender-park, Edinburgh.  
NASMYTH—DENNY.—On the 7th inst., at Woodlea, Dumbarton, Thomas Goodall Nasmyth, M.B., C.M. Ed., of Cowdenbeath, F.eshire, to Violet Nicol, elder daughter of the late Archibald Denny, Ship-builder, Dumbarton.  
PICKUP—ALCOCK.—On the 7th inst., at St. Margaret's, Wolstanton, by the Rev. O. W. Steele, assisted by the Rev. W. E. V. Young, William J. Pickup, M.B. Lond., M.R.C.S., of Coventry, to Emily, youngest daughter of Joseph Alcock, Esq., J.P., of Port Hill, Stoke-on-Trent.  
SCOTT—MONTGOMERY.—On the 7th inst., at the Wesleyan Chapel, Deal, by the Rev. G. Bate, Mr. John Scott, M.D., L.F.P.S., of Sandwich, Kent, to Elizabeth Montgomery, of Irvinestown, Co. Fermanagh, Ireland.

### DEATHS.

ALLCOCK.—On the 14th inst., at Stinchwick, near Birmingham, Annerley Allcock, M.R.C.S., aged 60.  
ARMITAGE.—On the 20th inst., at Mountpleasant-square, after a short illness, Marianne Sarratt, the beloved wife of Robert C. Armitage.  
CHALLINOR.—On the 9th September, at Brisbane, Henry Challinor, F.R.C.S. Eng., aged 63.  
CRISP.—On the 15th inst., suddenly, Edwards Crisp, M.D., of 16, Beaufort-street, Chelsea, aged 76, deeply lamented.  
DICKENSON.—On the 19th inst., at Mitchellden, near Gloucester, the Rev. Edward Newton Dickenson, formerly Chaplain to her Majesty's Forces in India.  
EDWARDS.—On the 10th inst., at his residence, Clonhaston, Enniscorthy, Thomas Edwards, Esq., 67.  
EVANS.—On the 14th inst., at Bodeinlow, Llanfair, Montgomeryshire, of rapid consumption, William Watkin Evans, M.R.C.P., L.R.C.S., second son of Maurice Evans, Brongarth, in his 34th year.—Friends will kindly accept this intimation.  
EWEN.—On the 18th inst., at Park-place, Torquay, Arthur Benjamin Ewen, M.R.C.S., L.M., L.S.A. Lond., of Exmouth, Devon, and formerly of Long Sutton, Lincolnshire, aged 45.  
GULLIVER.—On the 17th inst., at Canterbury, George Gulliver, F.R.S., formerly Hunterian Professor at the Royal College of Surgeons, and for many years Surgeon to the Royal Horse Guards.  
PIERRE.—On the 21st inst., at Union-street, Aberdeen, William Pirrie, M.D., LL.D., Emeritus Professor of Surgery in the University of Aberdeen and Surgeon in Scotland to His Royal Highness the Prince of Wales.  
WAINWRIGHT.—On the 19th inst., at Howden-le-Wear, Charles Henry Wainwright, M.R.C.S.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.



## CONTRIBUTORS FOR 1883.

## FIRST LIST.

THE following Physicians and Surgeons holding Honorary Hospital Appointments, Principal Medical Officers in the establishments of the Army and Navy, Medical Officers of Health, and leading General Practitioners throughout the country, have intimated their intention of contributing to the columns of THE LANCET during the year 1883.

- ABBOTT, C. E., L.R.C.P. Irel., M.R.C.S. Eng., Medical Officer of Health of Braintree Rural District.
- ABBOTT, G., L.R.C.P. Lond., M.R.C.S. Eng., Surgeon to the Central London Ophthalmic Hospital, and to the Tunbridge Wells Eye, Ear, and Throat Dispensary.
- ADAMS, J., M.D. Aberd., M.R.C.S. Eng., Medical Officer for the Islington District of the Newton Abbot Union, Surgeon to the Ashburton and Buckfastleigh Cottage Hospital.
- ADAMS, T. R., M.D. Brussels, L.R.C.P. Lond., M.R.C.S. Eng., Surgeon to the Croydon General Hospital, Public Vaccinator for Croydon.
- ALLARD, J. H., L.R.C.P. Edin., M.R.C.S. Eng., Surgeon to the Tewkesbury Dispensary.
- ALLBUTT, H. A., M.R.C.P. Edin., Physician to the Leeds Dispensary for Diseases of the Skin.
- ALLCHIN, W. H., M.B. Lond., M.R.C.S. Eng., Physician to the Westminster Hospital, Lecturer on Physiology to the Westminster Hospital Medical School.
- ALLDEN, J. H., M.R.C.S. Eng., Medical Officer of Health for Shirley.
- ALTHAUS, JULIUS, M.D. Berlin, M.R.C.P. Lond., Senior Physician to the Hospital for Epilepsy and Paralysis, Regent's-park.
- ANDERSON, A. R., M.R.C.S. Eng., Resident Surgeon at the General Hospital, Nottingham.
- ANDERSON, McCALL, M.D. Glasg., Professor of Clinical Medicine at the University, and Physician to the Western Infirmary and Cattan Wards, Glasgow.
- ANDERSON, TEMPEST, M.D., M.R.C.S. Eng., Medical Officer to the York Eye Institution, Surgeon to the North-Eastern and Great Northern Railway Companies.
- ANDERSON, WILLIAM, L.R.C.P. Lond., F.R.C.S. Eng. (Exam.), Assistant-Surgeon and Lecturer on Anatomy at St. Thomas's Hospital.
- APPLEBE, E. A., L.R.C.P. Edin., Medical Officer of Health for the Hay Union District, Medical Officer for the Radnorshire District of the Hay Union.
- APPLEYARD, J., M.B. Lond., F.R.C.S. Eng. (Exam.), Assistant-Surgeon to the Bradford Eye and Ear Infirmary.
- ARCHER, R. S., A.B. Dub., L.M.K.Q.C.P. Irel., Physician to the Netherfield-road Fever Hospital, and to the Newsham Dispensary, Liverpool.
- ARMSTRONG, J. C., M.R.C.S. Eng., Surgeon to the Gravesend and Milton Infirmary and Dispensary.
- ASH, T. L., M.R.C.S. Eng., Medical Officer of Health to the Holsworthly and Okehampton Unions.
- ASHMEAD, G., L.R.C.P. Ed., L.R.C.S. Ed., Lecturer on Natural Science under the Science and Art Department of the Committee of Council on Education, Surgeon to the Brierly-hill Police.
- ATTHILL, LOMBE, M.D. Dub., F.K.Q.C.P. Irel., Master of the Rotunda Hospital, and Consulting Obstetric Physician to the Adelaide Hospital, Dublin.
- BABER, E. CRESSWELL, M.B. Lond., Honorary Surgeon to the Brighton, Hove, and Sussex Throat and Ear Dispensary.
- BADER, C., M.R.C.S. Eng., Ophthalmic Surgeon and Lecturer on Diseases of the Eye at Guy's Hospital.
- BAKER, F. G., L.R.C.P. Edin., M.R.C.S. Eng., House-Surgeon to the Poplar Hospital for Accidents, East-India-road.
- BAKER, W. MORRANT, F.R.C.S. Eng., Assistant-Surgeon and Lecturer on Physiology at St. Bartholomew's Hospital, Senior Surgeon to the Evelina Hospital for Sick Children.
- BANTOCK, G. GRANVILLE, M.D., F.R.C.S. Edin., Surgeon to the Samaritan Free Hospital.
- BAMPTON, A. H., M.D. Q.U.I., Scholar in Anatomy, Physiology, and Histology at Westminster Hospital.
- BARR, J., M.B. Glasg., L.R.C.S. Edin., Visiting Surgeon to H.M. Prison at Kirkdale, Physician to the Stanley Hospital.
- BARROW, ALBERT B., M.B. Lond., F.R.C.S. Eng., Surgeon to the Westminster General Dispensary.
- BARRS, A. G., M.B. Edin., M.R.C.S. Eng., House-Physician to the General Infirmary, Leeds.
- BARTLEET, T. HIRON, M.B. Lond., F.R.C.S. Eng., Joint Professor of Physiology at Queen's College, and Honorary Surgeon to the General Hospital, Birmingham.
- BARTON, J. KELLOCK, M.D. Dub., F.R.C.S.I., President of the Royal College of Surgeons of Ireland, Senior Surgeon to the Adelaide Hospital, Dublin.
- BARTON, TRAVERS B., M.D. Dub., L.R.C.S. Irel., Surgeon to the County Donegal Infirmary.
- BARWELL, R., F.R.C.S. Eng. (Exam.), Surgeon on Descriptive and Surgical Anatomy at Charing-cross Hospital.
- BASTIAN, H. CHARLTON, M.D., F.R.C.P. Lond., M.R.C.S. Eng., Professor of Pathological Anatomy and Clinical Medicine at University College, Physician to University College Hospital.
- BATES, TOM, L.R.C.P. Edin., M.R.C.S. Eng., Surgeon to the Worcester General Infirmary, Assistant-Surgeon to the Worcester Ophthalmic Hospital.
- BAUMGARTNER, J. R., M.R.C.S. Eng., Surgeon to the Newcastle-on-Tyne Children's Hospital.
- BECK, MARCUS, M.B. Lond., M.S., F.R.C.S. Eng. (Exam.), Assistant Surgeon to University College Hospital.
- BELCHER, P., L.R.C.P. Lond., M.R.C.S. Eng., Surgeon to the Burton-on-Trent Infirmary.
- BELLAMY, E., F.R.C.S. Eng. (Exam.), Surgeon and Lecturer on Anatomy at Charing-cross Hospital.
- BENNETT, J. MOORE, M.D. St. And., M.R.C.S. Eng., Consulting Surgeon to the Liverpool Dispensary, Surgeon to the Liverpool Surgical Home for Diseases of Women.
- BENNETT, R., M.D. Edin., M.R.C.S. Eng., Senior Acting Physician to the Devonshire Hospital and Buxton Bath Charity, Coroner for High and Low Peak.
- BENNETT, W. H., F.R.C.S. Eng., Assistant-Surgeon with charge of the Orthopedic Department and Lecturer on Histology and Practical Surgery at St. George's Hospital.
- BENTHALL, A., M.R.C.P. Edin., M.R.C.S. Eng., Medical Superintendent of St. John's Hospital, Twickenham.
- BENTON, S., L.R.C.P. Lond., M.R.C.S. Eng., Surgeon to the North-West London Hospital.
- BERKHART, J. B., M.R.C.P. Lond., Assistant-Physician to the City of London Hospital for Diseases of the Chest.

- BERNARD, ALFRED G. F., M.R.C.S. Eng. & L.S.A. Lond., Seaforth.
- BERNARD, ARMAND, M.B., L.R.C.S. Edin., Surgeon to the Liverpool Seamen's Dispensary, Surgeon to the Royal Naval Artillery Volunteers, District Medical Officer of Health, Liverpool.
- BERNAYS, ALBERT J., Demonstrator of Physiology and General Anatomy at St. Thomas's Hospital.
- BERRY, W., L.R.C.P. Edin., M.R.C.S. Eng., Honorary Surgeon to the Royal Albert Edward Infirmary and Dispensary, Medical Attendant to the Convent Notre Dame at Wigan.
- BISHOP, G. HOULTON, M.R.C.S. Eng., Senior Resident Medical Officer at the Female Lock Hospital, Surgeon to the Royal Naval Artillery Volunteers.
- BLACK, D. C., M.D. Glas., L.R.C.S. Edin., Physician to the Glasgow Public Dispensary.
- BLACK, G., M.B. Edin., Medical Officer of Health for the Keswick Union District.
- BLACKBURN, J., M.R.C.S. Eng., Medical Officer of the First District of the Barnsley Union, Public Vaccinator for the Barnsley Borough.
- BLANEY, J., M.R.C.S. Eng., Medical Officer of Health for the Fal-mouth Rural and Penryn Urban Districts.
- BLOMFELD, A. G., M.B. Aberd., M.R.C.S. Eng., House-Surgeon to the Devon and Exeter Hospital.
- BOOTH, J. M., M.A. Aberd., M.B., Physician to the Aberdeen General Dispensary.
- BOWLES, R. L., M.D. Brus., M.R.C.P. Lond., M.R.C.S. Eng., Physician to the St. Andrew's Convalescent Hospital, Folkestone.
- BOX, W. H., M.R.C.S. Eng., Lecklade, Gloucestershire.
- BRAMWELL, BYROM, M.D., F.R.C.P. Edin., Lecturer on the Principles and Practice of Medicine at the Extra Academy School of Medicine, Edinburgh.
- BRETT, A. T., M.D. St. And., M.R.C.S. Eng., Medical Officer of the Watford Union House and District, Medical Officer of Health of the Watford Union District.
- BRISTOWE, J. S., M.D. Lond., Senior Physician and Joint Lecturer on Medicine at St. Thomas's Hospital, Medical Officer of Health for Camberwell, Physician to the Asylum for Female Orphans.
- BROADHURST, B. E., F.R.C.S. Eng. (Exam.), Surgeon to the Royal Orthopedic Hospital, Consulting Surgeon to the Belgrave Hospital for Children.
- BROOK, C., M.R.C.S. Eng., Surgeon to the County Hospital, and Consulting Surgeon to the Lunatic Hospital, Lincoln.
- BROOKS, J. E., L.R.C.P. Edin., M.R.C.S. Eng., Surgeon to the Ludlow Dispensary.
- BROWN, J., L.K.Q.C.P. Irel., Honorary Medical Officer of Boling-broke.
- BROWN, J. W., M.D., M.R.C.S. Eng., Surgeon to the Ophthalmic and Royal Hospitals, Belfast.
- BROWNE, H. W. LANGLEY, L.R.C.P. Edin., M.R.C.S. Eng., Surgeon to the West Bromwich Hospital.
- BUCHANAN, G., M.D. St. And., L.R.C.S. Edin., Professor of Clinical Surgery at the University of Glasgow, Surgeon to the Western Infirmary, Consulting Surgeon to the Glasgow Eye Infirmary.
- BULL, W. H., L.R.C.P. Lond., M.R.C.S. Eng., Surgeon to the Stony Stratford Cottage Hospital.
- BUNTING, J., M.R.C.S. Eng., Surgeon to the Tottenham and Edmon-ton Dispensary.
- BURCHELL, P. L., M.B. Lond., F.R.C.S. Eng. (Exam.), Surgeon-Accoucheur and Consulting Surgeon to the Out-Door Department of the City of London Hospital.
- BURD, E., M.D. Cantab., M.R.C.S. Eng., Senior Physician to the Salop Infirmary, Consulting Physician to the Salop and Montgomery Lunatic Asylum and Salop County Gaol.
- BURMAN, W. MAXWELL, L.R.C.P. Lond., M.R.C.S. Eng., Medical Officer of Health to the Wath Union District.
- BUSH, R. H., M.D. Edin., Physician to the St. Pancras and Northern Dispensary.
- BUTTERFIELD, HARRIS, M.R.C.S. Eng., Medical Officer of Health for Bradford.
- BYERS, J. W., M.D., M.R.C.S. Eng., Physician to the Belfast Hospital for Children, and to the Ulster Institution for the Deaf, Dumb, and Blind.
- CAMERON, C. A., M.K.Q.C.P. Irel., F.R.C.S. Irel., Professor of Chemistry and Hygiene, R.C.S. Irel., Medical Officer of Health for Dublin, Analyst for Dublin, Limerick, Galway, Kilkenny, and several Counties.
- CANE, HOWARD, M.D. Brussels, L.R.C.P. Lond., M.R.C.S. Eng., Physician to the Dispensary, Balvedere, Kent.
- CANN, F. M., M.R.C.S. Eng., Surgeon to Guy's Hospital, Medical Director of the Dawlish Cottage Hospital.
- CANT, W. J., L.R.C.P. Lond., M.R.C.S. Eng., House-Surgeon to the County Hospital, Lincoln.
- CARRINGTON, R. E., M.D. Lond., Examiner in Anatomy at the Royal College of Physicians, Senior Demonstrator of Anatomy at Guy's Hospital, Visiting Physician to the Seamen's Hospital, Greenwich.
- CARTER, C. H., M.D., M.R.C.P. Lond., Physician to the Hospital for Women, Soho-square.
- CARTER, R., M.D. Aberd., M.B., M.R.C.S. Eng., Surgeon to the Bath Mineral Water Hospital.
- CARTER, W., M.D. Lond., M.R.C.S. Eng., Lecturer on Materia Medica at University College, Liverpool, Honorary Physician to the Liver-pool Royal Southern Hospital.
- CASELLS, J. PATTERSON, M.D. St. And., M.R.C.S. Eng., Aural Surgeon and Lecturer on Aural Surgery at Glasgow Hospital and Dispensary for Diseases of the Ear.
- CHAPMAN, F. R., M.B. Glas., Surgeon to the Hull and Sculcoates Dispensary.
- CHAPMAN, P. M., M.D., M.R.C.S. Eng., Physician to the St. Mary-lebone General Dispensary.
- CHARNLEY, W., M.D., M.R.C.S. Eng., Assistant-Surgeon to the Central London Ophthalmic Hospital, Surgeon to the West London Ophthalmic Hospital.
- CHAVASSE, T. F., M.D., F.R.C.S. Edin., Assistant-Surgeon to the Birmingham General Hospital.
- CHESSHIRE, EDWIN, F.R.C.S. Eng., Senior Surgeon to the Bir-mingham and Midland Eye Hospital.
- CLAREMONT, CLAUDE C., M.B., Medical Officer for Out-patients at the Royal Portsmouth, Portsea, and Gosport Hospital.
- CLARK, ANDREW, F.R.C.S. Eng., Assistant-Surgeon at the Middlesex Hospital, and Lecturer on Practical Surgery at Middlesex Hospital Medical School.
- CLARKE, J. ST. THOMAS, M.B. Lond., F.R.C.S. Eng. (Exam.), Hono-rary Surgeon to the Leicester General Infirmary, and Honorary Consulting Surgeon to the Leicester and Rutland Lunatic Asylum.
- CLARKE, T., L.R.C.P. Edin., Medical Officer of Health to the Pewsey (Wilts) Rural District.
- CLIBBORN, W., M.B. Dub., Honorary Surgeon to the Birmingham Lying-in Charity, and Surgeon to the Birmingham, &c., Provident Dispensaries.
- COCKLE, J., M.D. Aberd., F.R.C.S. Eng. (Exam.), Senior Physician to the Royal Free Hospital, Physician to the Warehousemen and Clerks' School, Examining Physician to the Royal National Hospital for Consumption.
- COGHILL, J. G. SINCLAIR, M.D., F.R.C.P. Edin., Visiting Physician at the Royal National Hospital for Consumption, Ventnor, Lecturer on General Pathology and Pathological Anatomy to the Edinburgh Medical School.
- COLLINS, E. WOLFENDEN, M.D., F.R.C.S.I. (Exam.), L.K.Q. C.P. Irel., Surgeon to the Infirmary for Children and the Diseases of Women, Sydenham-park.
- COLLENETTE, B., L.R.C.P. Edin., M.R.C.S. Eng., Physician to the Guernsey Hospital.
- COLLIE, A., M.D. Aberd., Medical Superintendent of the Atlas Hospital Ship at Deptford, and the Homerton Fever Hospital.
- COLLYNS, R. T. POOLE, M.R.C.S. Eng., Resident Medical Officer and Master of Atkinson Morley's Hospital, Wimbledon, Surrey.
- CONSTABLE, J. J. C., M.D. St. And., L.R.C.S. Irel., Physician to the St. John and St. Elizabeth Hospital, Great Ormond-street, W.C.
- COOK, JONATHAN N., M.R.C.S. Eng., Senior House-Surgeon at the Great Northern Hospital.
- COOK, R. F., M.B. Durh., M.R.C.S. Eng., Medical Officer of the Western District and Workhouse, Gateshead Union.
- COOKE, T., M.D., F.R.C.S. Eng. (Exam.), Senior Assistant-Surgeon to the Westminster Hospital, Surgeon to the Early Closing Association, Lecturer at the School of Anatomy, Physiology, and Surgery.
- COOPER, ALFRED, F.R.C.S. Eng. (Exam.), F.R.C.S. Edin., Surgeon to the West London Lock, St. Mark's, and West End Hospitals.
- GOPPINGER, C., L.K.Q.C.P. Irel., F.R.C.S. Irel., Lecturer on Oph-thalmology at the Catholic University School of Medicine, and Surgeon to the Mater Misericordiae Hospital, Dublin.
- CORY, R., M.D., M.R.C.S. Eng., Assistant Obstetric Physician to St. Thomas's Hospital, Joint Lecturer on Forensic Medicine at St. Thomas's Hospital Medical School, Director of the Animal Vaccine Establishment and Examiner and Teacher of Vaccine to the Local Government Board.
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- STRANGE, W., M.D. Edin., Senior Physician to the Worcester Infirmary.
- STRANGE, W. HEATH, M.D. Aberd., Surgeon to the Hampstead Dispensary.
- SUTHERLAND, H., M.D. Oxon., M.R.C.P. Lond., Lecturer on Insanity at the Westminster Hospital, Physician to the St. George's Dispensary, Hanover-square.
- SUTTON, J. M., M.D. St. And., M.R.C.S. Eng., Medical Officer of Health to the Oldham Urban District, and Physician to the West Hulme Fever Hospital.
- SWAIN, W. P., F.R.C.S. Eng., Surgeon to the South Devon and East Cornwall Hospital, Plymouth.
- SWANN, A., M.D. Brussels, Surgeon to the Batley District Cottage Hospital.
- SWEETING, B. D. R., M.R.C.S. Eng., Medical Superintendent of the Metropolitan District Asylum Fever Hospital, Fulham, S.W.
- SYMMONS, R. F., M.R.C.S. Eng., Senior Surgeon to the Kemer and Colchester Hospital, Colchester.
- SYMMONS, HORATIO P., F.R.C.S. Edin., Surgeon to the Radcliffe Infirmary, and Surgeon to Her Majesty's Prison, Oxford.
- SYMPSON, T., L.R.C.P. Edin., F.R.C.S. Eng., Surgeon to the Lincoln County Hospital, General Dispensary, and Lunatic Hospital.
- TAIT, LAWSON, F.R.C.S. Eng., Surgeon to the Birmingham and Midland Hospital for Women, Consulting Surgeon to the West Bromwich Hospital.
- TAYLOR, C. BELL, M.D., F.R.C.S. Edin., Honorary Surgeon to the Nottingham and Midland Eye Infirmary.
- TAYLOR, HAROLD G., M.B. Lond., M.R.C.S. Eng., Assistant Medical Officer to the Royal Albert Asylum, Lancaster.
- TAYLOR, J. W., M.D. St. And., M.R.C.S. Eng., Medical Officer of Health of the Scarborough Union District, Surgeon to the Scarborough Dispensary.
- TAYLOR, SEYMOUR, M.D. Aberd., M.R.C.S. Eng., Demonstrator of Anatomy at St. Thomas's Hospital.
- TEGERT, E., M.R.C.S. Eng., Surgeon to the St. John's and St. Elizabeth's Hospital.
- THOMAS, JABEZ, L.R.C.P., F.R.C.S. Edin., Surgeon to the Hospital and the Eye Dispensary, Swansea.
- THOMAS, LLEWELYN, M.D. Brus., Surgeon to the Central London Throat and Ear Hospital.
- THOMAS, M., M.D. St. And., Superintendent of the Glasgow Royal Infirmary.
- THOMPSON, R. E., M.D. Cantab., Physician to the Royal Hospital for Consumption at Brompton, Examiner in Medicine at the University of Cambridge.
- THOMPSON, Sir HENRY, F.R.C.S. Eng. (Exam.), M.D. Lond., Consulting Surgeon at University College Hospital, Emeritus Professor of Clinical Surgery at University College.
- THOMSON, D., M.D. Glas., Surgeon to the Luton Cottage Hospital, Medical Officer of Health of the Leagrave District of the Luton Union.
- THOMSON, H., M.D. St. And., L.R.C.S. Edin., Lansdowne-crescent, Glasgow.
- THOMSON, W., M.D. Irel., F.R.C.S.I. (Exam.), Surgeon to the Richmond Surgical Hospital, Dublin.
- THORNE, F., M.R.C.S. Eng., Honorary Medical Officer to the Female Temperance Home, Honorary Surgeon to the Midland Counties Home for Incurables at Leamington.
- THORNTON, J. KNOWSLEY, M.B. Edin. and C.M., Surgeon to the Samaritan Free Hospital for Women and Children.

RNTON, W. PUGIN, M.R.C.S. Eng., Surgeon to the St. Maryleone General Dispensary.

RSFIELD, T. W., M.D. Aberd., M.R.C.S. Eng., Physician to the Varneford, Leamington, and South Warwickshire General Hospital, Consulting Physician to the Leamington Provident Dispensary.

RSTON, EDGAR, L.R.C.P. Lond., Medical Officer to the Hospital for Epilepsy and Paralysis.

RITS, HERBERT, M.D. St. And., F.R.C.P. Edin., M.R.C.S. Eng., Senior Physician to the West-end Hospital for Diseases of the Nervous System.

SWELL, H. H., L.R.C.P. Lond., M.R.C.S. Eng., House-Surgeon to the Northampton General Infirmary.

Y, C. MEYMOTT, M.B. Aberd., M.R.C.S. Eng., Professor of Chemistry, Medical Jurisprudence, and Public Health at the London Hospital Medical College.

ARD, NESTOR J. C., M.D. Lond., M.R.C.S. Eng., Senior Physician for Out-patients to the Evelina Hospital for Children, Sub-Dean and Medical Tutor at King's College, Lecturer on the Practice of Medicine at St. Augustine's College, Canterbury.

MKINS, H., M.D. Qu. Univ. Irel., M.R.C.S. Eng., Resident Medical Officer at the Fever Hospital, Monsall, Manchester.

ULMIN, W. CALVERT, L.R.C.P. Lond., M.R.C.S. Eng., Surgeon to the Invalid Asylum, Stoke Newington.

CK, B. J., M.R.C.S. Eng., Medical Officer to the Seaford District of the Eastbourne Union, and Surgeon to the Seaford Convalescent Hospital.

KE, J. BATTY, M.D., L.R.C.S. Edin., Medical Superintendent of the Fife and Kinross District Asylum, and Assistant Physician to the Royal Asylum, Edinburgh.

ERNER, G. R., F.R.C.S. Eng., Visiting Surgeon to the Seamen's Hospital at Greenwich, and Surgeon Registrar at St. George's Hospital.

VEEDY, JOHN, F.R.C.S. Eng., Professor of Ophthalmic Medicine and Surgery in University College, London.

ERSON, W. J., M.D. Durh., F.R.C.S. Eng., Medical Officer of the Folkestone Infirmary.

ESDELL, H., M.R.C.S. Eng., Surgeon to the Ashburton and Buckfastleigh Cottage Hospital.

AN BUREN, E. C. H., L.R.C.P. Edin., M.R.C.S. Eng., House-Surgeon to the Buckinghamshire General Infirmary, Aylesbury.

ERNEDE, F. E., M.D. Edin., M.R.C.S. Eng., Medical Officer of Health to the Borough and Port of Poole, Dorsetshire.

ALFORD, E., M.R.C.S. Lond., Medical Officer of Health of the Ramsgate Urban District, and Surgeon to the Ramsgate and St. Lawrence Royal Dispensary.

ALKER, A. DUNBAR, M.D. Edin., Medical Officer of the North Kensington and Kensal Town Provident Dispensaries.

WALKER, J. SWIFT, M.D. St. And., F.R.C.S. Edin., M.R.C.S. Eng., Medical Officer of Health of Hanley, Smallthorne, and Stoke-on-Trent Rural Districts.

WALKER, W., M.R.C.S. Eng., House-Surgeon to the General Infirmary, Doncaster.

WALKER, W., M.R.C.S. Eng., Medical Officer of Health, Kirkleatham, and Medical Officer of the Convalescent Home and Surgeon to the Children's Hospital, Coatham.

WALSH, T. W., F.R.C.S. Eng., Senior Surgeon to the Worcester General Infirmary.

WALSHAM, W. J., M.B. Aberd., F.R.C.S. Eng., Assistant Surgeon and Demonstrator of Practical Surgery at St. Bartholomew's Hospital, Surgeon to and Surgeon-in-Charge of the Throat Department at the Metropolitan Free Hospital, and Surgeon to the Royal Hospital for Diseases of the Chest, London.

WALTER, W., M.D. Dub., Obstetric Surgeon and House-Surgeon at St. Mary's Hospital and the Manchester and Salford Lying-in Hospital.

WARD, E., M.R.C.S. Eng., House-Surgeon at the General Infirmary, Leeds.

WARDEN, C., M.D. Aberd., F.R.C.S. Edin., Senior Honorary Surgeon to the Birmingham Ear and Throat Infirmary, and Honorary Surgeon to the Birmingham and Midland Counties Orthopaedic and Spinal Hospital.

WARNER, F., M.D. Lond., M.R.C.P. Eng., Assistant Physician to the London Hospital and to the East London Hospital for Children.

WATNEY, H., M.D. Cantab., M.R.C.P. Lond., Assistant Physician and Joint Lecturer on Physiology at St. George's Hospital, London.

WATSON, W. SPENCER, M.B. Lond., F.R.C.S. Eng., Surgeon at the Great Northern Hospital and Royal South London Ophthalmic Hospital.

WEBB, W., M.D. St. And., F.R.C.S. Eng., Senior Medical Officer of the Wirksworth Cottage Hospital.

WEBER, HERMANN, M.D. Bonn, F.R.C.P. Lond., Physician to the German Hospital, Dalston, E.

WEBSTER, J. A., M.R.C.S., House-Surgeon at the Royal Albert Edward Infirmary and Dispensary, Wigan.

WELLINGS, R., M.R.C.S. Eng., Medical Officer of Health and Medical Officer to the Cathrington Union, Coatham, Hants.

WEST, J. G. U., L.R.C.P. Lond., M.R.C.S. Eng., Honorary Medical Officer to the North Staffordshire Infirmary, and Medical Officer to the Workhouse, Stoke-on-Trent Union, Medical Attendant to the Staffordshire Nursing Institution, Stoke-on-Trent.

WEST, J. FITZJAMES, F.R.C.S. Eng. (Exam.), Senior Surgeon to the Queen's Hospital, and Consulting Surgeon to the Dental Hospital, Birmingham.

WHERRY, G. E., M.B., F.R.C.S. Eng. (Exam.), Surgeon to Addenbrooke's Hospital, Cambridge.

WHIPHAM, T. T., M.B. Oxon., F.R.C.P. Lond., Physician and Lecturer on Pathology, and Physician in Charge of Department for Diseases of the Throat, at St. George's Hospital.

WHITEHEAD, W., F.R.C.S. Edin., Surgeon of the Manchester Royal Infirmary, and Surgeon to the Railway Passengers' Insurance Society.

WHITSON, J., M.D. Glasg., Extra Dispensing Surgeon to the Royal Infirmary, Glasgow.

WICKHAM, R. H. B., F.R.C.S. Edin., Medical Superintendent of the City Asylum, Gosforth, Newcastle-on-Tyne.

WILKINSON, J., M.D. St. And., L.R.C.S.I., Senior Surgeon to the County Infirmary, Limerick.

WILLETT, A., F.R.C.S. Eng., Surgeon and Instructor of Probationary Nurses at St. Bartholomew's Hospital, Surgeon to the Metropolitan Convalescent Institution, Walton-on-Thames, and St. Luke's Hospital for Lunatics, London.

WILLIAMS, A. F., L.F.P.S. Glasg., Medical Officer of Health of the Brixworth Rural District, Northamptonshire.

WILLIAMS, A. WYNN, M.D., Physician to the Samaritan Free Hospital for Diseases of Women and Children.

WILLIAMS, EDWIN W., F.R.C.S. Edin., Medical Officer of Health to the Bedwellty Rural District, and Abertillery Urban District, Newport, Mons.

WILLIAMSON, J. M., M.D. Edin., Surgeon to the Royal National Hospital for Consumption, Ventnor, and Medical Officer to the Bonchurch Convalescent Home of the Royal Hants County Hospital.

WILLOUGHBY, E. F., M.B. Lond., M.R.C.S. Eng., Medical Lecturer at the Church Mission College, Islington, and Honorary Medical Officer to the Holloway and North Islington Dispensary.

WILLS, C., M.R.C.S. Eng., Medical Officer of Health for the Southwell and Worksop Rural Districts, and Mansfield Urban District, Nottinghamshire.

WILSON, A., M.D., Demonstrator of Zoology and Comparative Anatomy at the Edinburgh School of Medicine.

WINTER, W. H. TRIMNELL, L.K.Q.C.P. Irel., M.R.C.S. Eng., House-Surgeon of the General Hospital, Wolverhampton.

WOAKES, E., M.D. Lond., M.R.C.S. Eng., Consulting Physician to the Luton Cottage Hospital, Senior Surgeon to, and Surgeon of the Ear Department at, the Hospital for Diseases of the Throat Golden-square, London.

WOLFE, J. REISSBERG, M.D. Glasg., F.R.C.S. Edin., Ophthalmic Surgeon and Lecturer on Oculistic Surgery at the Aberdeen Royal Infirmary, Surgeon to the Glasgow Ophthalmic Institution.

WOLFENDEN, R. NORRIS, M.B., Lecturer on Practical Physiology at Charing-cross Hospital.

WOOD, W., M.D. St. And., F.R.C.P. Lond., Physician to the St. Luke's Hospital, E.C.

WRIGHT, A., M.R.C.S. Eng., Medical Officer to the Second District of the Romford Union, and Medical Officer of Health to the Romford Rural and Urban Districts.

WRIGHT, C. J., M.R.C.S. Eng., Senior Surgeon to the Leeds Public Dispensary.

WRIGHT, G. A., M.B. Oxon., F.R.C.S. Eng. (Exam.), Surgeon to the Children's Hospital, Pendlebury, Manchester.

WYBRANTS, J., M.D. Aberd., F.R.C.S. Eng., Coroner for the South-East Division of Somerset, and Honorary Consulting Physician to the Shepton-Mallet Hospital.

YOUNG, W., M.D. Durh., M.B., Medical Officer of Health of the Malton Rural and Union Districts.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Nov. 23rd, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Nov. 17	29.87	W.	39	36	..	42	32	.13	Bright
" 18	30.05	S.E.	31	30	..	47	25	..	Foggy
" 19	29.56	W.	44	42	..	49	28	..	Cloudy
" 20	29.37	W.	39	37	..	47	33	.05	Overcast
" 21	29.77	W.	37	36	..	50	33	.02	Foggy
" 22	29.57	W.	50	49	..	56	34	.14	Overcast
" 23	29.35	W.	55	52	..	60	47	.01	Cloudy

## Medical Diary for the ensuing Week.

## Monday, Nov. 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.  
 ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.  
 MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Drysdale, "On the Treatment of Syphilis."—Dr. Routh, "On the Difficulty of Diagnosing true Syphilitic Disease in the Female, and the Nature of its Contagion."

## Tuesday, Nov. 28.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.  
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON HOSPITAL.—Operations, 3 P.M.  
 ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—3 P.M. Dr. G. W. Parker, "On the Language and People of Madagascar."  
 ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. F. Warner, "On Spontaneous Postures of the Hand considered as Indications of the Condition of the Brain."—Dr. C. H. Ralfe, "On Seventeen Cases of Epilepsy treated with Sodium Nitrite."—The President will show a series (belonging to Dr. H. von Ziemssen) of full-sized Photographs of the Face, showing the action of particular muscles under electrical excitation, throwing light on the various distortions of the features.—Preparations and Drawings illustrative of Epilepsy will also be shown from the Museums of the College of Surgeons, St. Bartholomew's, St. George's, University College, and other museums.

## Wednesday, Nov. 29.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.  
 MIDDLESEX HOSPITAL.—Operations, 1 P.M.  
 ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
 ST. MARY'S HOSPITAL.—Operations, 1½ P.M.  
 LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.  
 GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.  
 SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

## Thursday, Nov. 30.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.  
 ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.  
 CHARING-CROSS HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.  
 NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.  
 HARVEIAN SOCIETY.—Harveian Lectures: Mr. Henry Power, "On Ophthalmic Medicine and Surgery in relation to General Practice."

## Friday, Dec. 1.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.  
 ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
 KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

## Saturday, Dec. 2.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M.

## Notes, Short Comments, and Answers to Correspondents.

All communications relating to the editorial business of the journal must be addressed "To the Editor."  
 Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

W. H.—1. As regards the public vaccination, no official regulations can be made to meet such a case and, hence, we know of no remedy.—2. As regards the pauper returns, under the General Order of the Local Government Board, February 12th, 1870, it is incumbent upon all district and workhouse medical officers of health, appointed since February 23th, 1870, to furnish the medical officer of health with returns of pauper sickness and deaths, as well as to notify the outbreak of dangerous infectious disease. A similar obligation has been imposed by the Board's order, June 14th, 1870, upon medical officers of district schools appointed after June 24th, 1870. If a district medical officer was appointed before February 28th, 1870, then the procuring of the pauper returns of sickness is a matter of arrangement. The clerk to the guardians usually supplies it, and, according to a memorandum issued by the Local Government Board in June, 1882, "It is competent to the sanitary authority, whether rural or urban, to pay a reasonable sum to the clerk to the guardians for the supply of this information."

M.E.C.S. and L.S.A.—Guardians have the power, though preference is generally given to persons with the double qualification. Has the M.D. not also the degree of C.M.?

## INCANDESCENT CARBON LAMP.

To the Editor of THE LANCET.

SIR,—For the last few weeks I have used almost daily a small incandescent carbon lamp, to illuminate the cavity of the mouth during my dental operations. I have fitted it into a vulcanite cup and covered it for safety with a glass shade. Placed in the mouth the vulcanite cup acts as a prop to keep it open, and the lamp gives a bright light exactly where it is wanted, without producing undue heat. I have mounted another at the end of a vulcanite catheter, and am sure that in this form it will be most valuable for general surgical use, as it may be easily applied to many various purposes, both for the examination of interior cavities and in deep-seated operations, &c. The lamp has been made expressly for me by the Swan Electric Light Company, and I shall be pleased to show it in use here between the hours of four and five in the afternoon.

I am, Sir, faithfully yours,

Wimpole-street, Cavendish-square, W., NATHANIEL STEVENSON.  
 Nov. 18th, 1882.

## "AN IRREGULAR PROCEEDING."

A CORRESPONDENT directs our attention to the following extract from the *Western Morning News* of Nov. 13th:—

"Through some unaccountable delay somewhere no inquest has been held yet on the body of Edward James, who died suddenly when returning from Tavistock on Tuesday night. The body is lying in a small cottage, where he had lodged, and which is inhabited by a large family and other lodgers. For the sake of the health of the family and lodgers, in common decency the inquest should be held and the burial take place at once." With respect to this case, our correspondent gives the subjoined particulars:—"On Tuesday evening I was sent for to see the deceased, who, I was told, had fallen down dead on his way from Tavistock, and in company with another man. The deceased was buried yesterday, and no inquest has ever been held touching his death. I have not even received a communication from anyone on the subject of the death. I may further state that Edward James had only been in this neighbourhood for about six weeks, having come here from Somerset to work on the Princetown railway. I have every reason to believe that he had seen no doctor since his arrival here. Surely this is a most irregular proceeding!"

A *Doubly Qualified Assistant's* letter is too long for insertion. Moreover, its tone is somewhat discourteous.

Dr. Pavy's communication arrived too late for publication this week.

## EMIGRATION.

To the Editor of THE LANCET.

SIR,—Would you kindly give me space in your columns to ask the profession what chance has a medical man of "getting on" in Winnipeg, Australia, or New Zealand, and would it be advisable to go out to any of those places, and if so, which? I shall be thankful for any information any gentleman can give me on the above question.

I am, Sir, yours truly,

November 18th, 1882.

PHYSICIAN AND SURGEON.



## GERMAN MEDICAL STATISTICS.

REFERRING to a statistical work recently published there were at the end of 1882 in Germany 17,923 doctors. Of this number about one fourth were resident in Prussia, this preponderance arising in part from the fact that in Berlin there were 1048, being at the rate of 9.53 per 10,000 inhabitants, while the proportion for all Germany was found to be 3.87. There were 239 societies, numbering in all 10,024 members, which were specially engaged in the defence of professional interests. The number of associations dealing with the science of medicine was 68, comprising 7696 members. There existed 17 bodies, with 7306 members, for the promotion of sanitary measures. Military doctors had 8 societies of their own.

## A TEST FOR BUTTER.

A new apparatus devised by Ostén for discovering the extent of adulteration which may exist in butter would seem, according to the description in the *Corpo Gras Industriels*, to be effective and reliable in its action. The sample which is tested is melted and the butyric substance it contains is conducted into a graduated tube, composed of glass and so arranged as to show at a glance the percentage of genuine butter. This proportion would not, it is remarked, represent less than 85 per cent. of the total milk, and water should only be found in a ratio of from 1 to 5 per cent.

**District Medical Officer.**—It is true that medical officers are often, and sometimes systematically, annoyed by the frivolous complaints brought against them for alleged neglect of duty. There is, however, no remedy. The solicitor's advice is doubtless sound, though hard to take placidly. Better bow to the inevitable. The consciousness of having shown all due diligence and humanity in the performance of his important functions is, it would seem, the Poor-law medical officer's only reward.

**B. H.**—There have been many portraits of the late Sir James Simpson. The particular information desired by our correspondent would doubtless be given by Professor Simpson, of Edinburgh.

The length of *Mr. Le Page's* letter precludes its insertion in our present number.

## PAINFUL MICTURITION.

To the Editor of THE LANCET.

SIR,—I would feel much obliged if any of your readers would offer some suggestions as to the treatment of the following case. Mrs. W., aged thirty-eight years, confined of last child about twelve years ago, and who has had good labours, began to suffer from frequent desire to micturate about nine months ago. She has been forced to keep her bed for the last six months in consequence of frequent micturition with a peculiar dragging pain, which sets in immediately after passing water and is of a most acute character. This pain generally lasts about ten minutes, but at times is almost continuous. The pain, which is most severe at night, or when being in the erect posture for some time, is referred solely to the neck of the bladder. On introducing a sound, acute pain was complained of as soon as the instrument touched the urethra and also on its touching any part of the surface of the bladder. She has passed blood on four occasions, each lasting over a few days. The urine, normal in reaction, is highly lumbinous, cloudy, containing pus and flaky or shreds and gritty matter. After standing for twenty-four hours a membranous, almost transparent, substance stretches from the top to the bottom of the fluid. There is no pain in the back nor thigh and no stoppage in passing water. I failed to detect any stone in my examination. I have tried alkalies, hyoscyanus, bromides, pareira, morphia, camphor internally, and also injecting the bladder with carbolic lotion (which gave rise to much pain) without effect.

I am, Sir, yours very truly,

PUZZLED.

November 13th, 1882.  
**Mr. J. Atkinson Hooker.**—We fear that our correspondent cannot claim more than the ordinary fee.

**L. S. A.** may consult the article in our Student's Number, published Sept. 9th.

**Aliquis.**—We do not prescribe. Any surgeon would advise in the matter.

## "INUNCTION IN SCARLATINA."

To the Editor of THE LANCET.

SIR,—Under the above heading a discussion has been carried on in medical journals for the last few weeks, to which I am desirous of adding my testimony.

During the outbreaks of scarlet fever in Fulham Small-pox Hospital, where there has been no provision for the isolation of such cases, I have successfully treated them year after year in the wards occupied by small-pox patients without the chance of spreading the disease to the others. The plan I adopted was to bathe the patients every morning and anoint their bodies with carbolic oil of the strength of one to twenty for weeks. Their nursing, bed-linen, &c., were kept separate as far as the circumstances allowed. I never had reason to think of any evil results arising from the inunction of the oil. Moreover, the limitation of the disease to a few cases, with such precautions as were taken at Fulham Small-pox Hospital, gives an argument against the hypothesis of aerial infection. Since then it has been my practice to use the same in private cases with the advantage of controlling the spread of the disease. I have now one case under my treatment progressing towards recovery.

I am, Sir, yours obediently,

MONTAGUE D. MAKUNA, M.B.C.S., L.R.C.P. Lond.  
Dock-street, E., November 20th, 1882.

## EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE last examination for the present year for the diploma of Membership of this institution was commenced on the 10th instant, when the following questions on Surgical Anatomy and the Principles and Practice of Surgery were submitted. The candidates were required to answer at least four, including one of the first two out of the six questions between 1.30 and 4.30 P.M.:

1. Mention the parts in contact with the gluteus maximus muscle.
2. Name in order the structures that must be divided in amputation of the fore-finger at the metacarpo-phalangeal articulation.
3. Mention the principal circumstances in which an abscess is likely to be followed by a sinus or fistula.
4. Mention the causes of epididymitis. Give the course, diagnosis, and treatment of the disease.
5. Describe paronychia and its treatment.
6. Describe the clinical characters, especially in reference to diagnosis, of epithelial ulcer of the tongue.

The following were the questions on Midwifery and the Diseases of Women. Candidates were required to answer three out of the four questions from 12.30 to 2 o'clock:—

1. What is the effect of ergot upon the process of labour? In what circumstances would you administer this drug, and what conditions would you regard as contra-indications to its use?
2. In what circumstances is decapitation of the foetus required? How would you perform this operation?
3. What are the causes of chronic ovaritis? By what symptoms and signs would you recognise this condition? How would you treat it?
4. State the common causes, and describe the preventive treatment, of mammary abscess.

The following were the questions on the Principles and Practice of Medicine. The candidates were required to answer three out of the four questions, including No. 4, between 2.30 and 4.30 o'clock:—

1. Describe the symptoms and course of typhoid fever, touching upon its distinctions from diseases which resemble it, its treatment, and post-mortem appearances.
2. Indicate the symptoms, course, complications, and treatment of rheumatic fever.
3. What are the pathological conditions and clinical results of extravasation of blood within the cranium?
4. State the composition, doses, and use of the following preparations:—Pulv. Ipecacuanhe co., pulv. jalapæ co., pulv. kino co., pulv. claterii co. Name the preparations, with their doses, of the following drugs, and give the general effects and uses of each drug:—digitalis, antimony, arsenic, colchicum, and aconite.

**Mr. S. P. Smith.**—The destruction of cultivated organisms by carbolic acid has been repeatedly proved, but we are not aware that it has been verified in the case of the tubercle bacilli, to which we presume our correspondent refers. There is no reason, however, to suppose that it is not true of these also.

**Mr. J. L. Shadwell.**—We are unable to refer our correspondent to any authenticated report of the death of an adult from the bite of the common viper.

**Carmen.**—We are not aware of the Haslam process having been applied to a hospital, and doubt much whether it could be done.

**M. E. C. S.**—The percentage mentioned is too high for those permanently disabled.

**Mr. Thomas McGrath** had better consult a surgical instrument maker.

**Mr. Wm. Hardman.**—Messrs. Illce and Horne, 31, Aldermanbury.

**C. E.**—Cassell's books on the subject.

## UNQUALIFIED ASSISTANTS.

To the Editor of THE LANCET.

SIR,—To prevent misapprehension will you give me a corner in your columns to say that the judge, in the case you published last week, gave a verdict against the plaintiff, not because his assistant was unregistered, but because he was unqualified. This is not new law. I know of a case where, before the passing of the Medical Act in 1858, a plaintiff lost a large account because his assistant, who had partly attended the defendant, was not a L.S.A., as he had described himself to be. Moreover, if a qualified man employs an unqualified assistant and palms him off upon his patients as a qualified man he is liable to indictment, and if the assistant help to maintain this fraud he, also, is liable to indictment. How, then, can it be possible to recover for attendance given under such circumstances as these if the defence be conducted by what is difficult to find in these medical cases—a competent lawyer?

Partnership will not protect unqualified practice. In one of the early prosecutions by the Medical Alliance a verdict was obtained in the County Court against a defendant. This defendant subsequently endeavoured to protect himself by entering into partnership with a M.R.C.S. and L.S.A. The Alliance again prosecuted, but this time in a superior court, when a second verdict was obtained against him, and the action cost him altogether not less than £150. He then sold his business to a trebly qualified man. Of course, a registered practitioner may, under a deed of partnership, agree to share his professional income with, say, a cobbler, but, unless he dare a prosecution, the cobbler must stick to his cobbling and take no part in his partner's doctoring.—I am, Sir, your obedient servant,  
Stockwell-road, S.W., Nov. 20th, 1882.

R. H. S. CARPENTER.

## REPORTING CASES OF SUICIDE.

G. P. asks our opinion on the following case:—"Called to a case of suicide (gun-shot wound of chest), known only to friends. Is there any necessity, from a legal point of view, to inform the police? I am not sure whether any penalty attaches for not reporting such an occurrence." The case is somewhat novel, but we believe that our correspondent will be doing his duty to himself, his patient, and the public by keeping a discreet silence. Suicide is a felony, but it is scarcely possible that a medical man, by trying to rectify the effects of the felony, of which he was entirely ignorant till after the fact, could be regarded as *particeps criminis*.

CAN MIDWIFERY FEES BE CLAIMED WHEN ATTENDANCE IS NOT ASKED? *Indignant* writes to us that in a case where he was clearly engaged, but not sent for, the judge disallowed his fee. This is the glorious uncertainty of the law. Our correspondent must, referring to the other question raised in his letter, make patients clearly understand whether they are being treated on dispensary terms or not.

*Mr. Banks*.—It is impossible for a man to kill himself by simply holding his breath, for the automatic efforts to inspire prove too strong for the will to resist; but the head might be held under water till unconsciousness supervened, and the automatic efforts to inspire would then be ineffectual, and death would result.

## "SINGLETON'S OINTMENT."

To the Editor of THE LANCET.

SIR,—One of your correspondents, signing himself "Rusticus," asks for the composition of Singleton's golden ointment. As it is so valuable and generally recognised a remedy, I have much pleasure in enclosing the original receipt, from which I have always prepared it. It requires care in making and to be well stirred until cold, when it will come out of a brilliant golden colour. To make the ointment full strength the butter and oil must be reduced one half. It would be well to publish the receipt in your journal.

Singleton's original receipt was obtained about forty years since from the occupier of the house in Fleet-street, nearly opposite St. Dunstan's Church, where Singleton lived.

I am, Sir, yours very truly,  
ALBERT NAPPER.

R Hydrargyri, ʒss.; acid. nitric., ʒvss.; butyri [without salt], ʒvj.; oleum olivæ, ʒiv. Hydrargyrum in acido primum liquus; dum liquorum adhuc calentum, butyro et oleo simul liquefactis; misce.—N.B. This is half diluted.

H. D. F.—The discussion of medical questions in the lay press is no doubt highly objectionable, as we have frequently pointed out.

*Enquirens*.—To make sure of the facts, and to take a good opportunity of protesting.

## IODINE STAINS ON BODY-LINEN PRODUCED BY INUNCTION OF IODIDE OF POTASSIUM OINTMENT.

To the Editor of THE LANCET.

SIR,—I was somewhat astonished a few days since, on visiting a patient, by the nurse showing me the under-linen, which was covered with large spots having the characteristic colour and odour of iodine. The patient had been recently confined of a seventh month child, which died a few hours after birth, and had been rubbing iodide of potassium ointment, with camphor, over the mammae to arrest the abundant secretion of milk. The linen, I was assured, contained no starch, and the patient exhibited no symptoms of iodism. Will you or some of your readers inform me if such appearances as the above are common?

I am, Sir, yours faithfully,  
Whitstable, Nov. 13th, 1882. J. W. HAYWARD.

## CONSTRUCTIVE MURDER.

A BIRMINGHAM CONTEMPORARY, in an article commenting on the case of a chemist condemned to death at the Stafford Assizes for causing the death of a woman by using an instrument to procure abortion, incidentally says: "It is well known to the initiated that there are qualified surgeons in every large town who, for a consideration and on reasonable assurance of secrecy, will render the aid that is required." We beg to tell our contemporary that we neither know nor believe such a statement to be true.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Savory, London; Dr. Tompkins; Mr. Biggs, London; Mr. Meadows, Hastings; Dr. O'Connell, Sioux City; Mr. E. Carr, Wakefield; Dr. Ryley, London; Dr. Sinclair Thompson, London; Dr. Nicholls, Chelmsford; Mr. Albert Napper, Guildford; Mr. Turner, Norwich; Mr. N. M. Reid, Tunbridge Wells; Mr. Jennings, London; Mr. Tuckey, Tynemouth; Mr. Makana, London; Mr. Hamerton, London; Dr. Davison, Liverpool; Dr. Eben. Watson, Glasgow; Mr. Mallins, Watton; Dr. Macdougall, Carlisle; Mr. F. W. Lowndes, Liverpool; Dr. Cobbold, London; Mr. Richmond Leigh; Mr. Collyer, London; Dr. Fox, Greenock; Dr. Carter Wigg, Derby; Dr. Winton Dickson; Mr. Tallack, London; Dr. Buchanan, Glasgow; Dr. Ashby, Manchester; Mr. Denton, London; Dr. Fletcher, Highgate; M. Masson, Paris; Dr. Warren, New York; Mr. Bate, Kilburn; Mr. Theobald, Leicester; Mr. Perry, Stourbridge; Mr. Constantine; Mr. Lawson Tait, Birmingham; Mr. Burgess, London; Surgeon-Major Guinness; Dr. Bristowe, London; Mr. Talbot, Gloucester; Dr. Morton, Glasgow; Dr. O'Neill, Lincoln; Mr. S. F. Smith; Mr. Hare, London; Mr. Dunstan, London; Dr. Patterson, Glasgow; Mr. Walker, Spondon; Mr. Green, Bath; Messrs. Smith and Son, Manchester; Dr. McMurray, Warren Point; Mr. Mercier, London; Dr. Matthews Duncan, London; Dr. Bristowe, London; Dr. J. E. Pollock, London; Mr. W. H. Platt, London; An Inhabitant of Chatham; Surgeon; Fides; Physician and Surgeon; Salus Populi; M.D., Hackney; R. Lincoln's Inn; M.B.C.S.; N. E. R.; A Resident for some years (Clarens); *Indignant*; &c. &c.

LETTERS, each with enclosure, are also acknowledged from—Rev. P. Leaky, Leicester; Mr. Dean, Slaitwaite; Messrs. Wood and Co., New York; Mrs. Alexander; Miss Aubrey, Swansea; Miss Armitage; Mr. Mallock, Bornhill; Mr. Scott, Sandwich; Mr. Foshbrooke, Birmingham; Mr. Pope, Bandon; Messrs. Farwig and Co.; Messrs. Lee and Nightingale, Liverpool; Mr. Davison, Glasgow; Mr. Whittle, Brighton; Mr. Sutherland, Fence Houses; Mr. Rolandson, Durham; Mr. Tooke, Berkhamstead; Mr. Richardson, Pickering; Messrs. Bell and Co., Lancaster; Mr. May, Morton Hampstead; Mr. Emmitt, Nottingham; Mr. Stapcoole, New Zealand; Mr. Leaver, Stratford-on-Avon; Messrs. Southall and Co., Birmingham; Mr. Jeffries, Chesterfield; Messrs. Roberts and Co., Festiniog; Mr. Saunders, Manchester; Messrs. Byles and Co., Bradford; Mr. Swiss, Devonport; Messrs. Black, Edinburgh; Mr. Dean, Lewisham; Mr. Young, London; Mr. Alecock, Stoke-on-Trent; Messrs. Drake and Co., Stratford; Mr. Berry, Upwell; Dr. Iles, Watford; Messrs. Budd and Spice, Shepton Mallet; Mr. Lamb, Burford; Mr. Taylor, Woodstock; Mr. Ballard, Smardon; Mr. Smith, Ongar; Mr. Sampson, Portsmouth; Mr. Champion, Exeter; Messrs. Bransby, Peterborough; Mr. Cooper; Mr. Speed, New-cross; K. P., Yeovil; M. A., Kegworth; X. M.; G. B.; Peritus; Medicus, Normanton; Alpha, Belfast; M. E.; E. P.; W. P. London; C. B., Halston; G. W., Manchester; Assistant, Ripponden; F. J., Derby; New North-road; W. T., West India-road; C. S. S. N.; Principal, Seaford; York-road, Acton; Physician, Liverpool; Scotia; Radius; Delta; &c. &c.

Sydney Morning Herald, West Sussex Gazette, Chard and Ilminster News, Hairdressers' Chronicle, Building and Engineering Times, New Era, Western Mail, West London Observer, Daily Review, St. Pancras Guardian, Supplement to Chamber of Commerce Journal, Southend Standard, &c., have been received.

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## Considerations

BEARING ON

### 3 PRESENT KNOWLEDGE OF FEVER.

A First Lecture.

BY WALTER MOXON, M.D., F.R.C.P.,

PHYSICIAN TO, AND LECTURER ON THE PRINCIPLES AND PRACTICE OF MEDICINE AT, GUY'S HOSPITAL.

GENTLEMEN,—In pursuance of the usual course, I have, by what is rather an abrupt change, to turn your attention to the subject of Fevers. I conceive that a teacher professing to teach the principles and practice of medicine must, when his subject is fever, proceed to explain the class what fever is from the point of view first of principles, then of practice. Speaking now very generally, I suppose that principles must here mean a consideration of what fever is in itself, and practice must mean what you do with fever when you meet it.

Taking the principles first, our question becomes, What is fever? Well, then, what is a fever? As I do not know sufficiently well to say offhand, I thought it best to look in a book, and I chose what I regard as the best recent work on medicine. In it I find the esteemed and accomplished author saying, "By the term fever is meant that abstract condition which is common to all so-called febrile disorders, and the presence of which gives them claim to that designation." Now I am always a little timid when dealing with anything that deliberately calls itself abstract, and I am ready to confess to you that I feel myself very insecure in abstract questions. There is an un-English lucidity—I might almost say an alien pellucidity—about them which stranges them from one's practical middle-class mind; so that, indeed, it is necessary for me to form a habit of militarising abstractions to that mind by clothing them in some concrete form, or at least by paralleling any puzzling ones with others better known to me. Let us do so in this case, and instead of fever suppose we put *heat*. We shall then perhaps get an idea as to how far our inquiry "What is fever?" is advanced by the definition I have quoted to you. Let us ask, What is heat? and answer in parallel terms: "By the term heat is meant that abstract condition which is common to all hot things, and the presence of which gives them claim to that designation." But really when I look at this definition I am afraid your physical philosophy will not be much enriched by such a piece of information.

Well, but what in its own nature is a fever? Be patient with me. Half the answer is often obtained, and the other half commanded, by asking the question rightly. Again, then, let us try the compass of the question as we just now tried the value of an answer by paralleling it in a better-known field of inquiry. Suppose we ask, What in its own nature is a horse? Now, you would not say, "By the term horse is meant the abstract condition common to all equine animals, and the presence of which gives them claim to that designation," for you will see that that really involves a fallacy. As other animals than the horse are equine, just as we shall presently see that other diseases than fever are febrile. Well, from the point of view of such unlimitedly general principles as would touch the nature of the things dealt with, What is the nature of a horse or of a fever? I must answer you that, in truth, we do not know the nature of anything in itself; we do not know the nature of our own bodies, nor even the nature of our own minds. In fact, we do not know what nature is. It is a growing, and we no more know how it comes about than our bones grow than the old ecclesiast did. Our language cannot fit itself to the processes and results of nature or growing. All we do is not nature, but fabric. And our readings of nature are in language of fabric; even when they are not unconscious fabrications. The laws, or, as Bacon termed them, "forms" of unliving things, are perfectly expressed by the language of science, which follows their *a posteriori* progression with measure and rule. But the laws or forms of living things are not *a posteriori* causes, but *a priori* reasons for existence. So that, if I may so speak, dead nature exists *a posteriori*, No. 3092.

but living nature *a priori*. And human language must in some sort be read backwards if we are to catch the meaning of the life of living things. The genius of Darwin has left us a formula which works somewhat like the integral calculus works, so that by its means reasoning belonging to straight line *a posteriori* nature is turned at an infinitude of little tangents, and so fitted to the immeasurable, unknowable curved lines of the forms of *a priori* living nature. But we must beware, lest with the aid of this powerful theory of natural selection we find ourselves contentedly reasoning in circles. This is not one of my easy ideas, and lest it should be too pellucid I will proceed to clothe it in a concrete form, and ask you to observe how, even in your simplest readings of nature, even in the description of the simplest anatomical facts the discrepancy between the nature process and the mental process at once appears in its primitive simplicity. Thus you say the biceps muscle arises from the scapula and is inserted into the radius; but, in fact, the biceps muscle grows in its place, and grows in continuity with the scapula and radius, and it never arose from the one or stood in a past participle relation of the verb to insert as regards the other. You cannot conceive how it really comes about that the continuity of bone and tendon and muscle grows into being, and when you proceed to state a history of it you can only do so in such terms as your mind and its language are capable of, and so you speak as if the growing of it were much the same thing as your making of it would be, and talk as if you, or somebody like you, had made first a scapula and then sprung a biceps from it, and afterwards fastened it on to the radius.

Thus, it is true that in dealing with living nature our language tends to put us mentally athwart the facts of the case, even as concerns things that you can realise and handle, like the biceps muscle. But inasmuch as what we have to know of and to do with the biceps is comparatively simple, we are not led into any practical inconveniences, for the biceps, capable of that measurement which constitutes science, is there before your eyes, to keep you steady and prevent your imagination from playing its tricks. But our question is of the nature of a fever. And we find our last new book on medicine defining fever as an abstract condition which gives claim to a designation; and you will at once see that a thing of that kind is not so easily got hold of as the biceps. And I am saying all this so that we may understand each other as to the proper character and the limits of our inquiry; and not carry it too far, lest we should feel dissatisfied because we cannot know of fever what we do not know of the biceps, and that we may not lose ourselves in wandering after questions as to the nature of fever, such as could not be answered regarding the most tangible and ponderable living objects.

We begin, then, if you please, with the clear knowledge that we cannot know the nature of fever, and so we will not ask it. We must, then, resign so much of what we, in the most general view, may seem to profess in the term principles of medicine.

But it is now time that we take up a more positive position and endeavour to learn what the principles of medicine in relation to fever really are. Yet it may be well to quite clear up this word "principle," lest it should contain anything vague and pretentious. The word "principle" is very ambiguous in its signification; you find it in the sphere of morals with the most noble absoluteness of meaning in the whole range of language—as when you say "a man of principle." And there are sciences in which the principles are abstract and absolute, as in the case of mathematics. And thus the term "principle" assumes to us, since we all have been taught morals and have learnt mathematics, an absoluteness coming from our prior experience of its use; so that the word "principle" claims to express an absolute masterfulness of obligation. And in expounding the principles of medicine with regard to fever, we naturally look for some general principles about fever whose obligation is absolute, and masterful, and commanding. But, in truth, it must be confessed that when we come to deal with the facts of living nature, we are obliged to let go the commanding style in any application of the word "principle." In short, we have to seek for our principles patiently and laboriously amongst the facts of the cases. And, indeed, we have to find our principles amongst the facts, and we have to be content with the most commonly and generally recognisable facts and consider them our principles. Thus in physical science, and especially in the physical science of living things, the greater and more absolute

significance of the word "principle" fades away, and principles are selected from the dust of facts, and when the science is of living nature, sometimes of somewhat fuliginous facts. Perhaps it is as well that we should note this change in the connotation of the word "principle" in an age which, listening to its great eloquent biologists, and eloquent physiologists would teach its boarding-school girls their principles from the physiology books. As if to try, in our remote civilisation, the social force of that principle whose invention and advocacy proved so dangerous to Socrates, "virtue is a knowing." Some watch must indeed be kept lest the dusty signification of principle in physical science should quite take the place of that originally pure idea of principle which made man human. Of course if the only object of teaching is knowing, and the only object of education the expansion of the knowing machinery, then it may not much matter what you teach, and, perhaps, the more that is known the better. And as leading biologists are enthusiastically anxious to have what they themselves know used as a pattern on the minds of the young, and as unclued middle-class fathers have a dimly lighted reverence for knowledge they do not possess, and a worthy ambition for their offspring to be better scholars than themselves, these fathers send their children to take pattern of the biologist without themselves quite knowing what it all amounts to, and the modern biologist in his full accomplishment makes such a good picture. But, then, it is not a good picture, but a good pattern, that you want, if you are going to take copies, and a good picture is not always a good pattern; and to estimate the goodness of a teaching you have to go not by the graceful refinement which embellishes what is taught, but by the rough and, perhaps, rude imprint which will be received by the minds of some vulgar young creatures incapable of refinement but very capable of physiology.

Ay, and what a world it will be "in the coming by-and-by" when there is a little more too much of this comely creation of physiology. Indeed, I was tempted not many mornings ago to ask a question which in truth it would need a great shock to force upon my mind. The question whether the spread of biological science can have so increased even to our highest clergy the comparative importance of this sublunary bodily life that the minutest corporeal details of them should be found in the columns of the daily press, so that, for instance, you could not touch your penny paper without finding close to the leaders a full medical description of the profoundest and most cloakworthy secrets of the organisation of your revered archbishop set out in rather large type. Nay, if I may so speak, without having his renal secretions running upon the columns of your *Standard* until you were obliged to drop it from your fingers to finish your breakfast.

But to return from this digression to the principles of medicine with regard to fever. Principles, I say, in physical science are merely the most generally realisable facts, the most certainly and constantly realisable facts, and general principles are facts from which other less general facts are found to depend. And now I shall digress again, for if principles depend upon facts it is very important that these facts should be what are commonly called real facts, an expression which, as it infers the practical recognition of unreal facts, may serve a significant purpose. For since principles are merely general facts, where shall we go if our very principles should prove to be unreal facts, as they have in the history of our wandering art so often been, though, of course, not now? I do not mean that there is any doubt of our principles now; but we must really beware in physiology of unreal facts.

The beauty of modern physiology is that it does try hard to beware of unreal facts; and the conduct of physiological inquiry is in such able hands, and guided by such clear heads, that the danger of unreal facts is at its minimum. Surely, this is the case when men like Burdon-Sanderson and Lander Brunton represent the prevailing spirit of physiological inquiry. No better questioners of nature ever lived. But this goodness of their questioning is unhappily irrelative to any value in their answering, and we may see why of necessity this must be so. Their clear heads keep them to the asking of such questions as can be answered, and they are unsparing of effort whilst labouring for the answers, in spite of undeserved public odium. And, indeed, the future of physiology lies in the pursuit of answerable questions; but, alas! for the practical usefulness of the science that is compelled to choose its questions without

regard to the value of its answers. True it is that pure science is noble, and feels its nobility with a just pride. Have I not heard of a mathematical club whose toast is, "Pure mathematics, and may they never be of any use to anyone"? Perhaps, too, we may have a physiological club, with a like warmth-of-ardour toast, and if so the hope may seem in progress of achievement; for, led by their questions, the ablest inquirers are but increasing the pile of unwanted answers. The tree of physiology is full of fruit nowadays; but, of course, it bears only such fruit as it can bear, and tries to ripen in the very tepid sunshine that surrounds it.

I trust your clinical digestion will not be spoilt with the sound, but unripe, fruits of physiology. I beg you will not think that I am speaking against physiology. Having, however, just escaped from the chair of *materia medica*, and so become a disinterested person, I may be allowed a *tu quoque* against the great aggressive modern science, whose arch-teachers would give you no time to learn your drugs so that you should share their noble knowledge of snails. But intensifying the knowledge of a thing does not increase the real value of the thing known, which, if petty, is still petty, however scrutinised. I think some one should protest from a chair of Medicine against those who darken counsel with the dust of their knowledge; who invade your limited time with accounts of artificial diseases which, like those artificial serpents of Pharaoh's magicians, have all but the spontaneity which characterises life. But what do the physiologists care for life? when life is to them nothing but the de-clension and conjugation of protoplasm—truly, in a vast confusion of tenses. So that the life indeed becomes to the physiologist even less than meat; a mere epiphenomenon of meat. I speak thus boldly because I am here to tell you that the principles of medicine are general clinical facts, and its practice requires you to be strictly utilitarian in your medical philosophy. In short, to employ again an analogy I used before, I have to find the calculus which will follow the curve round from mere fact truth to usefulness; and these may be at a tangent one to the other. But we in our pursuit of the principles of medicine in regard to fever—that is, in the pursuit of the most general facts of the human fevers, we are at a great disadvantage as compared with the experimental physiologists; for, whilst Dr. Burdon-Sanderson can always compose the bases of his experiments, and so be sure of real, if of useless, facts, we of the principles of fever have to watch for our facts when they chance to appear, and very often we have to watch long; so that our progress is apt to be like the progress of astronomical science with regard to such heavenly bodies as only appear occasionally, like comets and meteors; and we may observe that astronomers have somewhat speculative views about those bodies.

The course of a long life will give you but insufficient opportunities of observing the general facts of many diseases. And you must begin early. We may now thank the College of Physicians for having given you six months' medical ward work instead of the miserable allowance of three, which scarcely enabled you to learn the medical use of your senses. You cannot begin too early. You have heard of Hippocrates; he wrote a book in which he put down his clinical observations, and I hope you will learn to place a high value on that book. But if you do not get beyond his first observation, he will do you good if you take that observation well to heart. The first observation he thinks a clinical observer should make is this, "life is short." This truth thus sounds to us from the most distant past, and will reach into a future we shall not reach. It is the first truth the clinical observer hears spoken to him by his most ancient predecessor, and the Royal College of Physicians suggestively wears it on its escutcheon. Do not forget it. The reason why it is so important is that you have to take advantage of chance repetition in order to compare one disease with another. So go and see as many good cases as you can in the wards.

All the great clinical observers began early to observe. This is true of Sydenham, and the first Jenner, of Bright, of Addison, and of Hilton, and amongst those living now. It is true of the Jenner who still adds lustre to a great name, and of Owen Rees, Gull, Hutchinson, Wilks, and of all earnest clinical observers. For you study an art wherein you cannot go when you wish to look at the objects of your study, but as to which you must keep your eyes about you, that you may see things when they chance to appear, and each man amongst you must obtain the greatest possible amount of direct experience of these principles or general

facts. For in dealing with real things, and especially in interfering with the health, even if it be the grossly bad health of other persons, we must have a direct grasp of our principles, and this I have shown you to be the same thing as to have a direct knowledge of the general facts, so that what we say may be as little as possible second-hand, for to get in the habit of speaking or acting at second-hand is to lose the power of meaning, and the value of a doctor varies according to what he can himself mean to do, and do. And when you say a thing at second-hand you do not quite mean it. Of course, when you say a thing is, you mean that it is. But if you have not seen that it is, your meaning that "it is" is necessarily less directly grounded. And, in fact, if you say a thing is, and mean it all you can from hearsay knowledge, your "is" comes—as the hearsay is more distant—to be really worth no more than its value as a copula in an abstract proposition, such as the "is" in the statement that "a griffin is a dragon with wings." The value of the copula varies as the directness of the utterer's knowledge. You can only mean when you know and believe, and from this digression I wish to lead you back with a firmer grasp of the greatest truth a young medical mind can inform itself upon. The great truth, that inasmuch as your future is of value to others in proportion as you can mean to do and mean to say, and inasmuch as you can have no proper meaning from indirect knowledge, you must know the principles or general facts of your art at first hand and for yourself.

Our question has now transformed into, What are the general facts common to the several kinds of fevers? Now, I am really afraid that you will accuse me of deliberately drawing you aside into obscure questions whenever we approach a clear one; but though I am speaking to very various minds, various in capacity and tendency, some of which will think I am talking nonsense, and others will think that there is much more of profundity and importance than there really is in it all, yet I must follow my own judgment of what is needful, and ask you now to consider, in an abstract way, What do you mean by a kind of fever? This word kind is so constantly employed by every one of us with variations in its import, that it is worth our while to clearly understand in what sense we may rightly use the word "kind" when speaking of a kind of fever, as compared, say, with the sense in which we use it when speaking of a kind of inflammation. It is well not to use this important word vaguely. Shall I tell you a little anecdote to impress one of its possibly clear significations on your memory? The anecdote involves, I regret to say, a confession; but it was in the days when I was young, and not under proper self-control. I chanced to be placed, for the purpose of tuition, with a gentleman of an entomological turn of taste. The delight of this gentleman in discovering a new fly inspired my always sympathetic nature with the wish to afford him such a gratification. But new kinds of flies could not always be found, especially flies new to him, so one very hot afternoon it struck me to give him his favourite pleasure by a somewhat indirect and factitious proceeding. Inspired with this purpose, I caught a large housefly and rolled it carefully in the carmine powder and set it free, taking care that it was well within sight of my instructor. The fly was seen, and I do not think I ever witnessed such eagerness of pursuit. The day, as I said, was hot, and the fly was lively, so that my instructor, and I at second-hand, had good sport. When the insect was at length captured, I may tell you at once that, after handling the insect for a moment, my master concluded that it was not a distinct kind of fly; yet in the mere matter of colour it had as much ostensible claim to be considered a new kind as *digitalis purpurea* to be considered a distinct kind from *digitalis alba*. But the reason why he never thought of allowing the red fly to be a distinct kind was that he at once understood when he touched it how the fly came to be red, and, I am sorry to say, shrewdly guessed who made it so. Now if, instead of finding red powder on the fly, he had caught such a fly red in a manner he could not explain, he would have pinned it out on cork, and have called it "*musca rubra*," or something equivalent. What I want you to perceive is, that a usual and a true ground of distinction of kind is the existence of differences which you are unable to explain; and perhaps, indeed, that would be the only general philosophical ground for distinction of kind, were it not that with reference to living things another system of facts affords narrower and more special and proper grounds of distinction of kind. I mean in the power which living things have of reproducing their kind which power of

reproduction is the basis of zoological and botanical distinctions of kind. But even amongst cattle breeders, who are most concerned in this question, the idea of kind belongs rather to resemblance than descent, as you may note from their speaking of a casually varying individual of a flock or herd as being out of kind.

(To be concluded.)

## THE PATHOLOGY OF THE BLOOD IN INFLAMMATION.

By JAMES T. R. DAVISON, M.D. EDIN.,

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(Concluded from page 885.)

THE morphological origin of fibrin formation has been established by Dr. Norris. Of this he has afforded both positive and negative evidence; for he has photographed the invisible corpuscles in the act of becoming fibrin,<sup>1</sup> and he has also found that a pure filtrate of blood, containing no morphological elements, does not undergo coagulation.<sup>2</sup> According to Dr. Norris, the cells which become fibrin are the primary lymph cells, the invisible corpuscles (nuclei of the former), and the faintly visible undeveloped red corpuscles (a further development of the second). Partial confirmation of this origin of fibrin formation is adduced by Bizzozero, who ascribes the formation of fibrin to his blood-plates (primary lymph-corpuscle of Norris), and by M. Hayem, who ascribes the same formation to his so-called hæmatoblasts. But both these observers look upon their respective elements rather as determining centres of fibrin formation. That fibrin is present in the inflammatory exudation has been shown by Dr. Burdon-Sanderson, who states that in inflammation of the mesentery the fibrin can be seen on the surface of the membrane.<sup>3</sup> It being established, then, that fibrin is present in inflammatory exudation, and that fibrin is a rearrangement of cells and nuclei of the blood, it follows that in inflammation these fibrin-forming cells and nuclei migrate from the capillaries as well as the leucocytes, and this migration of fibrin-forming elements must be accompanied by an increase of their number in the blood, on the same principle that a migration of leucocytes determines an increase of leucocytes in the blood. The question arises, How are we to know that the fibrin-forming elements are in excess in the blood? Now, there can be little doubt that the hæmatoblasts described by M. Hayem are the granules caused by the disintegration of the undeveloped red corpuscles.<sup>4</sup> No one has seen these granules in the circulating blood, but they have always been observed in shed blood. Dr. Norris has shown that human blood examined on the cold stage of the microscope is free from these granules, while it contains them when examined under the ordinary temperature. This is pretty clear evidence that the granules can be formed after the blood is shed. But Dr. Norris has given positive evidence of their formation, for he has photographed the undeveloped red cells in the act of becoming disintegrated. The evidence afforded by micro-photography cannot be gainsaid. What cannot be discerned by the unaided microscope can be brought out by photography; therefore this kind of evidence is superior not only in that it reveals objects just as they really exist, but in that it discloses more of them. The fact that these granules are formed after the blood has been shed does not exclude the possibility that they may also be formed in the circulation under pathological conditions; indeed it seems very probable that this does actually take place sometimes, as evidenced by the enormous quantities of granules present in certain states. Whether, however, these granules be found in or out of the circulation, or, as is more probable, under both conditions, it is evident that they are formed from the undeveloped red corpuscles; hence we may fairly take the number of granules as an index of the number of undeveloped red cells, and, as these latter cells constitute one of the fibrin-forming group of cells, we may roughly

<sup>1</sup> The Physiology and Pathology of the Blood (Norris), plate xi.

<sup>2</sup> On the Invisible Corpuscles of Mammalian and Oviparous Blood, &c. THE LANCET, Sept 16th, 1882.

<sup>3</sup> Lumlilan Lectures on Inflammation, 1882. Lecture I.

<sup>4</sup> The Physiology and Pathology of the Blood (Norris), section iv.



estimate the number of fibrin-forming elements in the blood by the number of granules present on the microscopical slide.

In acute large abscesses I have sometimes found the granules present in great abundance; at other times, though in excess of the normal, this excess has not been marked. I found in some cases of acute abscesses, where the excess of granules was marked, that after the abscess was opened the granules diminished in quantity, and after a time again increased. This fact is very interesting, as showing that the increase of the granules in inflammation is determined by two principles. In the first instance the determining cause is the same as that which obtained in the case of leucocytes—namely, a migration of fibrin-forming elements from the capillaries, and a consequent demand by the blood for more of these elements. It may be objected that as no fibrin is seen in pus, therefore there can be no migration of the above elements. Certainly if we examine pus from an abscess we do not find any fibrin in it, but then what about the pyogenic membrane? What is the pyogenic membrane? In the first place it may be remembered that Dr. Burdon-Sanderson has shown that inflammation is not "altered nutrition," as was once supposed, but that it is an "arrest of nutrition"; that it is not a constructive, but a destructive process.<sup>5</sup> This fact would seem to disprove the idea that the pyogenic membrane is a connective tissue formed during, and as a result of, the inflammatory action; and even supposing that it were a connective tissue, its expansion as the abscess increased in size could not be accounted for, as ordinary connective tissue is incapable of the expansion that would take place in a large increasing abscess. Moreover, if the pyogenic membrane were connective tissue, an abscess could not enlarge, for this tissue would prove an effectual barrier to the migration of leucocytes. The explanation must therefore be that the pyogenic membrane is formed by the fibrin-forming elements which have migrated from the bloodvessels, and become conglomerated together on the surface of the abscess; that it is, in fact, the analogue of the layer of fibrin seen on the inflamed mesenteric surface. In the same manner must be explained the formation of membrane on the inflamed pleura and pericardium. The fact that these membranes often become organised does not destroy the assumption that they are formed from altered elements which have migrated from the blood, for the organisation may be effected in the same way as Professor Hamilton describes the organisation of a sponge inserted in a wound—viz., by the bloodvessels of the serous membrane being pushed into the substance of the fibrin. Thus we can account for the increase of granules seen in the blood during the active period of abscess formation. When the abscess is opened tension is relieved, and migration is at least partially arrested, hence the decrease of granules in the blood at this stage. But the granules increase again, and this second increase I believe accords with the hæmatoblastic crisis of M. Hayem. M. Hayem has found (and his observations have been confirmed by M. Reyne) that about the time of the crisis of acute diseases these granules are increased in the blood, and their excess is ascribed to an effort of nature to repair the blood after the decrease is over.<sup>6</sup> The state of the system after the healing of an acute abscess is somewhat similar to its condition at the crisis of an acute disease. In either case there has been tissue destruction owing to the high temperature, and therefore in either case a reparation of the blood would be profitable. The reparation of the blood would naturally be effected by an increased discharge of blood elements into the circulation, and as these blood elements would consist of undeveloped red cells, and as moreover one of the stages of the undeveloped red cell disintegrates into granules after the blood is shed, therefore we can easily account for the increase of granules seen in the blood at this period. But the first increase of granules I hold to be determined by a different cause altogether—viz., by the migration of fibrin-forming elements, for this increase takes place during the active period of the inflammatory process, and therefore before the repairing influence comes into force. At the beginning of pneumonia, pleurisy, peritonitis, cystitis, laryngitis, and bronchitis I have found an increase of the granule, generally a slight one, and a larger increase I have noticed about the time of the subsidence of the disease. These two increases, running into one another

and apparently one, I believe to be as distinct from each other as they are in the cases of acute large abscesses. The reason why the two increases appear to be only one is that the first is generally slight, and a decrease of it would not be easily noticed, and this holds good also for some cases of acute large abscess. But in those cases of acute large abscesses where the first increase is very marked after the knife has been inserted and tension relieved, the decrease of the granules becomes obvious, as does also the secondary increase which takes place later on. There appears to be thus two waves of increase of granules in the blood in acute inflammation—the first being the manifestation of the supply of fibrin-forming elements of the spleen and probably lymphatic glands consequent upon the demand made by the migration of these elements; the second a manifestation of the supply of blood-cells by the same organs consequent upon the demand made by the system to repair the blood after the disease is over.

In conclusion, I do not mean to infer that the leucocytes of the blood are only increased during the active period of inflammation. It is well known that they are increased in leucocythæmia and after severe hæmorrhage, and I have found them increased in yet other conditions. What these other conditions are have yet to be ascertained. I have not a sufficient number of cases to justify me in making any generalisation with regard to them, but I claim for the principle enunciated above an important place as an element in the diagnosis of inflammatory lesions, nor do I wish to state that the granules are only increased during the inflammatory process and at the crises of acute diseases. I have elsewhere endeavoured to show that causes which interfere with the development of the red cells give rise to an increase of the granules in the blood, the increase in these instances being due, not to an extra supply of cells by the blood-forming organs, but to an arrest of development, whereby a good many cells do not become fully hemoglobinised red cells, and as a good many of these disintegrate into granules, therefore under these conditions we find the granules in the blood increased in quantity.

### STONE IN THE BLADDER; RETENTION; SUPRA-PUBIC ASPIRATION; EXTRA- VASATION; DEATH.

By C. A. INNES, M.D.,  
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W. L—, aged seventy-five years, came in as a prisoner on June 26th. He seemed a healthy, strong, well-nourished man, but stated that he had been troubled with gravel for the last ten years, and had to micturate every few minutes, night and day. Passed a No. 6 gum catheter, and found no stricture, but great enlargement of the prostate gland and irritability of the urethra. He applied every day at the surgery, and got a draught of solution of potash, hyoscyamus, and sweet spirits of nitre, which gave him considerable relief. About three ounces of slightly clouded urine were drawn off on July 8th, and tested with heat and nitric acid, but no albumen could be detected. On the 16th the symptoms were more urgent, and he was ordered, in addition to the usual draught, a hot hip-bath. On the 17th he was reported as having had diarrhœa the whole night. I found him very prostrate, and complaining of great pain over the pubes, and of being able to pass his urine only by drops. He had a hot bath, and was at once admitted into the infirmary, and the following is the entry in the case-book.

July 17th: Attacked with diarrhœa during the night; urethra very irritable, and bleeds freely when an instrument is introduced; No. 6 silver catheter was passed with difficulty, but there was no urine in the bladder; complains of pain in the lower part of the abdomen when manipulated, especially over the left iliac fossa; his penis is very painful when touched. Prescribed an astringent mixture, one ounce, to be repeated every hour if necessary, with hot fomentations to the abdomen and the perineum. Ordered four ounces of brandy with low diet, and one pint of beef-tea.—18th: Very restless during the night: passes water very frequently, an ounce at a time; diarrhœa checked; to repeat fomentations,

<sup>5</sup> Lumleian Lectures, 1882. Lecture I.

<sup>6</sup> Archives Générales de Médecine, Janvier, 1880, p. 123, Janvier, 1882, p. 104.

d have rice-water to drink, as he complains of thirst; tongue dry and furred.—19th: Slept better; bowels again subsides during the night; he has less irritation of the bladder, but is feverish; his face is flushed, and he seems very restless and uneasy. Ordered astringent to be repeated, and poultices to be applied over the abdomen.—20th: Patient remains much the same; he passes his water in dribbles; he rests better at night, and his bowels are quiet; to continue treatment.—21st: Has passed no water since yesterday evening; on examination there was a large accumulation of urine in his bladder, extending as far as the umbilicus; attempted to pass a No. 6 silver catheter, but was stopped by prostate, which was found on examination to occupy nearly the whole space of the outlet of the pelvis. P.M.: Dr. Robinson kindly saw the case with me; after considerable difficulty we passed a prostatic catheter, but failed to draw off the urine; tried by injecting warm water to clear the catheter of clots, and also by fixing the nozzle of the aspirator to the catheter, but beyond the smell of decomposed urine nothing was sucked up; the catheter appeared as if wedged tightly in the bladder. 3.30 P.M.: All attempts to relieve the bladder per urethram having failed, we aspirated above the pubes, and only about one drachm of highly decomposed urine was drawn off.—22nd: Patient is in a very critical state; no urine has passed naturally for thirty-six hours; he has been partially delirious and very restless; towards morning his stomach became irritable; no change in the size of the abdominal tumour; has now got congestion of the base of both lungs. Dr. Robinson again saw the case with me.—23rd: The patient died at 5 P.M.

Mr. Henry Thompson, by order of the coroner, conducted the post-mortem examination, and has kindly placed his notes at my disposal.

*Autopsy, twenty-three hours after death.*—Body well nourished. Rigor mortis complete; blueness on depending portions. Head and chest not examined. Abdomen: One inch and a half above the pubes was noticed a punctured wound, the edges of which had made no attempts at union. Abdomen much enlarged, hypogastric and both inguinal regions appeared to be occupied by a doughy irregular mass, more prominent on the left than on the right side. Abdominal walls and omentum contained a considerable amount of fat. General peritonitis of intestines, especially on the left side, both gluing the intestines to each other and also to the bladder and pelvic walls. Liver natural. Kidneys large and pale, and studded with cysts. Between the bladder and the pelvis, behind the peritoneum, extending into the substance of the abdominal walls, and dipping down into the pelvis, was a mass of gangrenous cellular tissue infiltrated with urine, distended with gas, and containing some small calculi. On dissecting out the bladder a mass of calculi (105 in number, and weighing 3 oz. 69 grains) was found sacculated in a distinct cavity to the left of the bladder, but communicating, through an opening large enough to admit two fingers, with the bladder itself. The summit of this sacculus had ulcerated or sloughed through, and the urine and some of the calculi had escaped out of it into the gangrenous mass previously described, and of which they were the cause. No calculi were found in the bladder itself. The walls of the bladder were hypertrophied, and the mucous membrane rugous, and in a sloughy state. The urethra was natural, but the prostate gland was much enlarged.

The case is interesting from the number of calculi sacculated and undetected, and from the puzzling and grave symptoms which developed themselves on the 21st July—viz., the suppression of urine, the size of the tumour simulating a distended bladder, and the unsuccessful attempts to evacuate the bladder. It is pretty clear that peritoneal inflammation had commenced on the 17th, probably occasioned or intensified by the diarrhoea which he had on the night of the 16th, and that perforation and extravasation took place on the night of the 20th. The tumour felt must have been the thickened wall of the bladder, with the inflamed visceral matters, and glued to it.

At Leicester last week the sale by auction of goods seized for non-payment of fines for neglect of vaccination was made the occasion by anti-vaccinationists for a demonstration almost amounting to a riot. The presence of some forty police constables was hardly sufficient to maintain order.

## ON THE INTERNAL ADMINISTRATION OF CHRYSOPHANIC ACID IN PSORIASIS.

By H. E. CAUTY, M.R.C.S. &C.,

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IN May last there appeared a rather long article in THE LANCET, in which the internal administration of chrysophanic acid in psoriasis was sufficiently favourably mentioned as probably to induce many gentlemen to give this medicine a trial. The list of remedies having any special cutaneous action is so limited, that any new one would, I think, be gladly welcomed by the profession generally, and it was the attributed possession of this specific power by the acid that merited attention in the paper above named, for it was stated that the idea of the internal use of chrysophanic acid was first suggested by observing that in a case where both legs were affected with psoriasis, both got equally well, though the acid as an ointment was only rubbed into one of them, the inference drawn being that the absorption of the acid and its subsequent constitutional action cured one leg as well as the other; the other deduction, that the acid had nothing to do with the disappearance of the disease, was not considered. There were a good many cases mentioned in THE LANCET, but on examination all were either fragmentary, incomplete, or unsatisfactory, but one, which was that of a boy seven years old, with psoriasis of two years' duration, who, after six weeks in hospital, was cured of the disease by gradually increasing doses of chrysophanic acid, taken not without sundry inconveniences, until at last two grains three times a day were supported. In this case, as in all the others, no mention is made of the state of the pulse, which in psoriasis is so important, for no case of this disease occurs in which the pulse is not either slower, smaller, or weaker than it ought to be, and any medicine which either ameliorates or cures this disease improves the pulse in either rapidity, volume, or strength. The favourable case was also young. In youth psoriasis is very common and comparatively less persistent than in after life, disappearing and returning eccentrically, from causes often slight and untraceable. However, it having been stated that chrysophanic acid had some good qualities, it was tried in many cases, of which the three following are examples:—

CASE 1.—M. T.—, aged seventeen, engaged in the boot trade. Tongue rather white and irritable, countenance flushed and thick; pulse 72; psoriasis guttata on arms, with some patches of twelve months' duration; very thin; regular.—July 19th: Half a grain of chrysophanic acid in sugar of milk three times a day after food.—23rd: Patches fainter; complexion clearer; tongue cleaner; was gripped after taking the first powder.—20th: Took two powders; more gripping and sickness four hours after the second powder. Bowels opened three times.—21st: Took two powders, was very sick, and had pyrosis. Treatment changed to solution of bismuth, aloes as a purge, and then arsenic. This case was not encouraging, but as there were symptoms of irritable stomach at starting it might have been exceptional.

CASE 2.—R. B.—, aged nineteen, machine worker, made her first appearance at the hospital on May 12th. This was a well-marked case of psoriasis nummulata; the tongue was rather white and bowels confined; conjunctivæ slightly yellow. She had in addition to the eruption four hard subcutaneous lumps in the calves of the legs, feeling like knotted veins, around which there had been some exudation, and which knots were extremely painful (thrombosis); pulse 72, weak. She was ordered potash and ammonia with podophyllin, which she took until June 2nd, when the swellings in the legs had nearly gone and the tongue was clean, the eyes being still somewhat tinged; bowels open.—June 2nd: On that date she began to take a quarter of a grain of chrysophanic acid three times a day.—5th: Conjunctivæ clearer.—9th: Dose increased to one-third of a grain.—11th: Scales falling off, swellings gone, tongue clean; pulse 84, full and soft; not at all the pulse of psoriasis. I now began to have hopes that there was some real benefit to be obtained from the acid, as there were no fresh spots, and the symptoms (though this stage has often been reached by many medicines)

were generally better. The dose was increased to five-twelfths of a grain.—16th: These hopes were arrested, as though the bowels were open twice a day and the tongue clean, there were some fresh spots, slight papules, with some flatulence. Dose increased to half a grain.—19th: Dose three-quarters of a grain; tongue clean, bowels open, rash somewhat paler; pulse 84, weak; flatulent colic. — 23rd: Dose one grain.—26th: No fresh spots, rash paler; hepatic pain under right shoulder.—30th: The legs have no more spots, but there is increased formation of scale; there are also fresh patches formed on the elbows, arms, and hands; pulse 72, fair; tongue clean; bowels open twice a day; these are now so sensitive that directly she takes her tea in the morning she has to hurry to relieve them. Notwithstanding that it appeared as if the chrysophanic acid had reached the utmost stage of toleration, I was desirous of seeing if a larger dose would have some effect on the eruption, and consequently having told her to discontinue the powders if the symptoms required it, the dose was increased to one grain and a half three times a day.—July 3rd: The powders excited great vomiting, and the scaly formation very much increased; pulse 72, full and soft; discontinued powders on July 1st. She was then ordered a carminative mixture, and afterwards arsenic, and is now nearly well. Notwithstanding that these cases showed no special cutaneous action of chrysophanic acid, yet thinking that there was some evidence of increased biliary secretion apart from simple purgative action on July 29th, I tried it in the next case.

CASE 3.—C. M.—, a widow, aged fifty-seven, a large flabby fat woman with two large bright-red patches of psoriasis, exfoliating large scales, covering one elbow and one knee, each patch being three inches square. Tongue foul and coated; pulse 72, weak; bowels confined. She began with half a grain doses of acid on July 28th, increased to three-quarters on July 31st.—August 1st: There is no improvement in either the rash or the tongue; the bowels are purged twice a day, and the powders have each time produced vomiting; the conjunctivæ are still mahogany colour.

*Observations.*—The results obtained in these cases were not such as to encourage further trials, nor to confirm the supposition that there was any specific cutaneous action; on the contrary, it leads to the deduction that in the successful case published in THE LANCET the good result must have been due to continuous purging, and if this deduction is correct, then there are other medicines whose action is equally efficacious, and at the same time free from those irritating properties which characterise chrysophanic acid. In three other cases in which this was tried it acted so immediately as an emetic that it would be absurd to consider them in connexion with a constitutional action. In the second case where the drug was tolerated better than in the others at the time when, if any, a specific benefit ought to have been manifested, the disease increased in virulence. It is possible that in future therapeutical works the acid will be quoted as a remedy for psoriasis, and in consequence it may be tried by many gentlemen whom the persistence of the disease has sorely puzzled; it is with a view of pointing out what results may possibly be expected that the foregoing cases have been recorded and sent for publication.

*Note.*—The name chrysophanic acid is retained in the above observations, but I am informed that the proper name is chrysarobin. This is the active principle or one of the active principles of rhubarb; and I notice in the *Pharmaceutical Journal* the active principle of senna, supposed to be cathartine, has been resolved into three substances, one of which is chrysarobin. The action of the so-called chrysophanic acid resembles very much that produced by senna and all its preparations on some individuals.

THE SURGICAL AID SOCIETY.—The Lord Mayor presided at the annual meeting of the subscribers to this Society, held at the City Terminus Hotel on Monday. The report stated that 1442 men, 2024 women, and 703 children had benefited by the charity during the past year. The amount expended in surgical appliances and surgeons' fees had been £4006. But for the receipt of a legacy of £1307, there would have been a considerable balance on the wrong side. His lordship regarded this state of things as unsatisfactory, as he thought legacies should go to the reserve fund.

## TREATMENT OF CHRONIC DYSENTERY BY LARGE INJECTIONS OF NITRATE OF SILVER SOLUTION.

By GEORGE E. POST, M.D.,

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TO THE JOHANNITER HOSPITAL, BEYROUT.

THE patient is a European lady who has lived for about eight years in Syria, aged about thirty years, of healthy constitution, the mother of three healthy children. Partly as the result of nervous prostration, and partly from lactation, she was attacked in the latter part of last autumn with pains in the back of the head and some confusion of the mental faculties. These symptoms, with persistent sleeplessness, continued until the beginning of the spring of the present year, when she was attacked with diarrhoea, which gradually assumed a dysenteric character. At the time when I first saw her, July 28th, her state was as follows:—Great general debility and nervous prostration, nausea, which was in part due to a mixture of catechu and other astringents which had been administered with a view of checking the diarrhoea; characteristic dysenteric evacuations, accompanied with severe colicky pains and abdominal rumbling and uneasiness. She was not at that time taking any precautions in diet, nor confining herself to bed. There was no elevation of temperature, but the expression of countenance was haggard and worn. She was also much discouraged about her state, and harassed by sleeplessness, and in despair of recovery. The tongue was somewhat roughened by the astringents which she had taken.

I commenced the treatment by fifteen-drop doses of castor-oil, a strict milk diet, rest in bed, and ten-drop injections of laudanum in starch to quiet the tenesmus. This treatment was continued for forty-eight hours, with the effect of bringing away a few scybala, and relieving to a certain extent the tenesmus and nausea and slightly improving the character of the discharges. On the afternoon of August 1st an injection of three pints of water containing forty-five grains of nitrate of silver was prepared. The syringe was not, however, in good order, and not more than a pint entered the bowel. This was retained four or five minutes. It brought away with it mucus, greenish faecal matter, a few scybala, and a little blood. A good deal of pain followed, and lasted for about an hour before it quite passed away. Shortly after the first motion she had another free from scybala. An hour and a half later another more copious, with considerable pain; half an hour later a small one with little but mucus; a little later some bloody mucus. As pain continued a laudanum and starch injection was administered. Twenty minutes later she had a small brownish stool, with a little mucus. After this she slept for three-quarters of an hour, and woke to have a small mucus passage, after which she vomited. An hour later a small motion. Still an hour later a brownish stool with some greenish admixture and little mucus. Five other motions occurred during the next seven hours, the last looking like ordinary liquid faeces. In the morning she was sick and vomited, but soon after, despite a few small motions, felt stronger. She took her milk and limewater better, and occasionally a teaspoonful of brandy. The headache had nearly passed away, and she slept fairly between the motions. No fever or quickening of the pulse. Abdominal pain much lessened. The history of the second day is briefly as follows:—Motions: 9 A.M.; 10, small but natural; 12.30 P.M., small but natural, with a little greenish slime; 1 to 3, four small motions, the last with specks of mucus; 3.30 to 6, two motions, the last small but natural; 7.30, small quantity of mucus. As there was some tenesmus without any passage an injection of starch and laudanum was administered, and half an hour later she fell asleep, and slept five hours, and awoke hungry. During the day the sickness of the stomach was much lessened, and she took and retained sufficient nourishment. In general she felt much better all through the day and night. During the remainder of the night of the second day she slept with little interruption. On the morning of the third day, at 6.30, she had a natural motion, but with it a little mucus and blood, and slight abdominal pain before passing. At 7 A.M. a copious natural motion; 1.45 P.M., small but natural, with a little mucus; 2.15 to 6, two motions like the former of this day; 6.15, a few

scybalæ; 8.15, an injection of laudanum and starch (ten drops) was administered, after which she slept till 2 A.M., and again from 3 to 6 A.M., when she had a motion, not fluid and natural in colour, with the addition of a small patch of bloody mucus. The fourth day, at 7.15 A.M., a small natural motion; 9, a little mucus; 3 P.M., a small natural motion, after which two pints of the above-mentioned solution of nitrate of silver were injected. She would not allow the whole three pints to be thrown in on account of the pain which they caused. The injection was retained less than a minute. It brought away with it less than the first, but some scybalæ, less than before. She continued to have evacuations for three-quarters of an hour, the last being mucus without blood. The pain did not wholly cease for an hour and three-quarters, and then only after a laudanum injection. She continued weak and nauseated until 7 P.M., when she began to feel quite easy, and continued so until 9.15 P.M., when she fell asleep. After an hour of restless sleep she fell into a natural slumber, in which she continued uninterruptedly until morning. No motions since 4.15 P.M. The fifth day was a good one. She was able to knit a good part of the day. She had one motion between noon and 1 P.M., with a little mucus, and another at 2 P.M. quite natural, semi-solid. She slept soundly during the night. She seemed to have caught a little cold towards morning, from insufficient covering, and complained of soreness in the bones, &c. It passed off, however, early in the morning of the sixth day. At 2 P.M. of the sixth day she had a small motion, quite solid. Began to long for food and experienced a hungry feeling, which the milk only took away for a short time. She took large quantities of the milk, but was not satisfied. She had neither pain nor ache, and the tongue was much cleaner. On the eighth day she began to take a little breast of chicken and soft-boiled eggs, and day by day her diet was improved. On the fifteenth day she had had no return of diarrhoea, had been up for three afternoons, walking a little about the room, and feeling stronger each day. Ten days having since elapsed without any further tidings, it may be inferred that she is now quite well.

As the treatment had to be conducted, after the first visit, by correspondence, at a distance of fifteen hours by messenger, some delay unavoidably occurred in advising the successive steps of the management of the case. Had the patient been within reach, I should have given the first injection a day sooner, and the second two days sooner. The return to a more nourishing diet might also have been slightly accelerated. On the whole, however, the case leaves little to regret, and nothing to desire. The very small quantity of laudanum required after the inauguration of the nitrate of silver treatment is most instructive. The easy and continuous sleep after such prolonged insomnia is also a feature worth noting. Any treatment which can cure so aggravated a form of dysentery as this one in so short a time, and with no drawback but the temporary pain of the injection, is an invaluable resource to the practitioner.

Beyrouth.

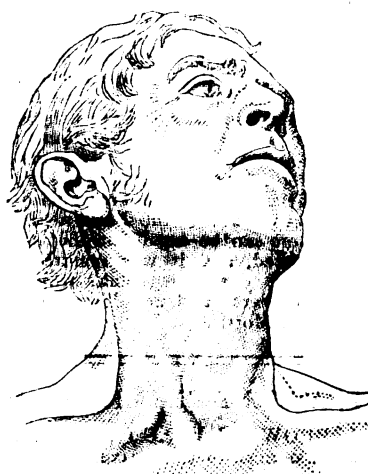
## ON A CASE OF SIMPLE FRACTURE OF THE STERNAL END OF THE CLAVICLE INTERNAL TO THE RHOMBOID LIGAMENT.

BY G. OWEN WILLIS, L.R.C.P., L.R.C.S. ED.,  
SENIOR SURGEON TO THE MONMOUTH HOSPITAL.

J. E., aged fifty-four, a labouring man, was admitted into the Monmouth Hospital on July 18th, 1881. He stated that two hours previously he slipped off a hayrick, fell heavily on his outstretched right hand, and also struck his right shoulder. On examination a simple fracture of the sternal end of the right clavicle was discovered within a quarter of an inch of the sternal head of the bone. The direction of the fracture was obliquely downwards and outwards. The outer fragment rode high in the neck from the action of the clavicular fibres of the sterno-clavicular mastoid muscle and the weight of the arm. The fractured end of the outer portion was very sharp, and threatened to lacerate the skin. The inner fragment presented no marked sign of dis-

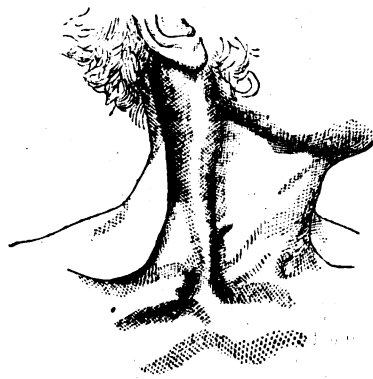
placement, was freely movable, easily depressed, and on pressure the sensation was conveyed to the finger of its being loose and rolling. He had fractured the sixth and seventh ribs in front of and close to their angles. My efforts to adapt the broken ends of the clavicle were but partially successful. Apposition of the ends was gained when the right arm was raised and the fingers of the right hand

FIG. 1.



touched the left ear, the point of the elbow being slightly tilted forwards by a pillow. Any attempt to fix the limb in this position was not tolerated for long. I had to content myself with slinging the arm and placing a pad of cotton-wool on the shaft of the clavicle; this last kept in position by strips of plaster crossing the chest from back to front. He had a sharp attack of pleurisy, and was

FIG. 2.



very restless, often getting in and out of bed, but recovered and was discharged convalescent on August 29th, 1881. saw him again on August 30th, 1882, when a photograph and cast were taken. The broken end of the outer fragment was rounded off and lessened by absorption, and he had fibrous union permitting of some movement. That morning had done a bit of stiff digging, and considered his recovery good one.

I have been influenced to publish this case at such length because fracture of the sternal end of the clavicle is rare, whilst fracture internal to the rhomboid ligament is very rare. Holmes, in his "Principles and Practice of Surgery," 1875, says, "it has not as yet been proved." Bryant makes no mention of the injury, and I am indebted to the kindness and courtesy of my old teacher, Mr. Henry Morris of the Middlesex, for the following references:—Hamilton refers to three cases (in a record of 105 fractures of the clavicle) in which the fracture was within one inch of sternum, and he says that in such fractures, which of course, within the fibres of the rhomboid ligament, there is but little displacement. Lonsdale mentions

case in a child three years old, which came under his care in the Middlesex Hospital, and which he regarded as a separation of the epiphysis. Malgaigne mentions two cases, in one of which the fracture was so near the sternum that it was difficult to say whether it was not a partial dislocation; the displacement was only trivial. There are two preparations in the Musée Dupuytren in Paris of fractures very close to the sterno-clavicular joint, and in both the displacement is considerable, and in both the outer fragment is thrown down and forwards. Hamilton, in a recent edition of his work, says he has had a case of fracture close to the sternal end, the specimen of which he showed to the New York Pathological Society. The man from whom the specimen was taken was forty-five years old, and the fracture, occasioned by a fall upon the shoulder, extended from the sterno-clavicular articulation upwards and outwards an inch and a half. The fragments were overlapped three-quarters of an inch, and were firmly united. The character of the accident was not recognised until after death. The specimen is now in the Bellevue Hospital. In the case I report there can be no doubt that the rhomboid ligament was ruptured, and it was remarkable that the displacement of the outer fragment, which was very considerable, was upwards and not downwards, as in the cases collated by Mr. Morris.

Monmouth.

### TONIC TREATMENT IN MITRAL DISEASE.

By J. BROWN, L.K.Q.C.P., L.R.C.S.I.,

HONORARY MEDICAL OFFICER TO THE BOLINGBROKE PAY HOSPITAL.

THE following case is interesting as demonstrating the benefit derived from a tonic treatment in a case of dropsy, with regurgitant mitral disease, enormously enlarged liver, and albuminous urine.

Mrs. B——, aged forty-nine years, a widow, came first under my care as a private patient in August, 1881. She was then suffering from rheumatic arthritis and bronchitis. She had a distinct mitral murmur of old standing; her liver was very much enlarged, coming down half way to the umbilicus; there was no ascites, but considerable oedema of the ankles. She was a free liver, her usual stimulant being Irish whisky. She improved under treatment, which was continued for about three weeks. I did not see her again until she came under my care at Bolingbroke Pay Hospital on April 4th last. She then presented the following symptoms:—The valvular murmur was very distinct; she could not lie down on account of difficulty of breathing; her liver was very hard, and extended half way between the umbilicus and the pubis; there was considerable ascites, and her legs were oedematous to half way up the thighs; her urine was scanty and very albuminous; her skin was slightly jaundiced; temperature normal. All stimulants were stopped, and she was treated from April 5th to the 15th with a mixture containing digitalis, squills, carbonate of ammonia, and gentian; as the bowels were confined, compound jalap powder, forty grains, was given when required. No improvement being apparent, and as she seemed weaker, on the 15th a mixture of tincture of perchloride of iron and tincture of digitalis, of each ten minims, with glycerine, was given three times a day after meals, and was continued for nearly three months, most of which time she was kept in bed. In August all dropsical symptoms had disappeared; the liver was much reduced in size about two inches below the ribs, and no trace of albumen in the urine. All treatment was then stopped, but she remained in hospital until Oct. 8th. For the last six weeks she was able to walk several miles a day, which she had not been able to do for some years, and when she left the liver was still smaller, no trace of albumen, and she was gaining flesh, and slept well in natural position. I think this case bears out some of the ideas put forward by Dr. Leech in his introductory lecture to a discussion in Medicine at the last meeting of the British Medical Association.

New Wandsworth.

KING'S COLLEGE, LONDON.—The Right Hon. Sir John Mowbray, Bart., M.P., D.C.L., has consented to pre-ide at the Annual Dinner of Associates and Students, to be held in the College Dining Hall, on January 17th, 1883. Mr. H. Courtenay Luck, A.K.C., F.R.G.S., of the College, is acting as secretary.

### A VACCINATING INSTRUMENT.

By CHAS. EDWARDS, A.B., M.D., F.R.C.S.

THE instrument resembles a miniature subcutaneous syringe with needle, but differs altogether in application and partly in construction. It is supplied by Messrs. Weiss and Son, who have constructed it beautifully and most satisfactorily.

The following instructions must be understood and carefully attended to:—

1st. Prior to operating apply the stoma or apical aperture of the needle to the lymph well exuded from the vesicle of the vaccinifer, then draw back a little the patent vulcanite piston. The instrument is thus charged somewhat beyond the basal aperture of the needle. The terms "basal" and "apical" I borrow from the extremities of the fang of the *neidr*. The instrument is now ready, by barely remoistening its point for as many instantaneous operations as are required.

2nd. How to operate: Do not gradually and slowly introduce the needle-point, as with the lancet, but quickly and with the *neidr* stroke just beneath the cuticle. By this method you infallibly introduce the lymph, no blood, as from the lancet puncture possibly intermingling, and the small quantity of air between the basal aperture of the needle and the perfect piston when compressed by the "stroke," causing a reflex wave or rebound of the lymph into the puncture, thus sufficiently resembling, at least, in effect, the action of the anguine compressing muscles. A start of the patient, or any possible unsteadiness of the operator, is provided against by a beautiful little guard on the needle, by which too deep a stroke is rendered impossible. There is to be no injecting or even meddling with the piston during the operation, simply remoistening the needle-point.

The following are the advantages of this instrument: Rapidity, perfect introduction of the lymph, the absence of unsightly scars or scarifications so revolting to parents, however much they may be thought meritorious by others.

One word as to vaccination from arm to arm. If we must use the now conventional term ferment, and if the vaccine lymph be or contain this ferment, though it is not my wish to christen it or make a raid on the Greek prepositions to denote its successive results, still as all ferments act within a certain range of temperature there can be no temperature so sure for vaccine lymph as that secured by its coming from one living arm to another.

Cheltenham.

### DISLOCATION OF THE UPPER AND LOWER ENDS OF THE LEFT HUMERUS BY THE SAME ACCIDENT.

By WILLIAM W. MOXHAY, M.R.C.S.,

SURGEON TO THE ROYAL BERKS HOSPITAL.

C. S——, aged fifty-six, was admitted into the Royal Berkshire Hospital seven weeks previous to Sept. 4th, 1882, with a dislocation of the left elbow, the condyles of the humerus being thrown forwards over the radius and ulna. He had been struck at the back of the upper arm by the handle of a winch which was rapidly revolving. I was then house-surgeon to the hospital, but a medical friend acting for me reduced the dislocation, and all went on so well that the man was made an out-patient in a few days. On the above date he appeared and complained of some stiffness of the shoulder-joint on the same side; this, he remembered, being seven weeks after the injury. I found the head of the humerus under the coracoid process, and I gave him one-grain and half-grain doses of tartarised antimony every ten minutes while extension of the limb was made downwards and outwards by means of pulleys. This went on for about half an hour, when he became deadly faint and could scarcely be kept in the chair. Extension was then suddenly left off and his elbow brought down over my knee as a fulcrum, when a sort of pop was heard and felt, and the bone returned to its natural position, only, however, to recede again to its acquired place. This was repeated once or twice on again replacing it, and at last we succeeded in



ing it in its proper position by a pad and bandages. He slowly recovered, and on Sept. 25th was regaining some of the upward movements of the limb, and at his own request was discharged.

As far as my knowledge goes this is a unique case, and I think it may prove of interest, especially to some of the younger members of the profession, who perhaps have never seen such use made of the powerful nauseant tartar emetic. Although it certainly enabled us to reduce the dislocation of the shoulder of seven weeks' standing, would not now advise a return to such a barbarous practice, though it had the sanction then of the revered name of Sir Astley Cooper. With chloroform (at the time we have mentioned only just peeping out as a future friend in such cases), *nous avons changé tout cela*.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—Mosesævi De Sed. et Caus. Morb., lib. iv. Proœmium.

### MIDDLESEX HOSPITAL.

SPONTANEOUS RUPTURE OF HEART; SURVIVAL FOR FORTY HOURS; AUTOPSY; REMARKS.

(Under the care of Dr. S. COUPLAND.)

FOR the following notes we are indebted to Mr. Alan E. Fate, resident physician's assistant.

W. T—, a gilder, aged sixty-five, was admitted into the hospital, Oct. 13th, 1882, with the following history. He had that morning gone to his work apparently in his usual health. About 11 A.M., while he was walking along the street, a heavy lamp fell close to and almost upon him. Although he was not struck he was startled very much. Three-quarters of an hour later, and after he had walked fully a mile further, he was seized with "a sudden pain all over the chest," and immediately after fell down in a fainting fit. He was found in this condition by a policeman, who at once took him to the hospital.

On admission into the Founder ward, at noon, he presented all the symptoms of the most extreme collapse. The whole body was cold and bathed in a profuse cold sweat. There was extreme pallor of face and lips; the radial pulse was only just perceptible, and the heart-sounds were quite inaudible. No increase in the cardiac dulness could be detected, but both lungs were evidently emphysematous. His mind was quite clear, as he answered questions readily, and gave a coherent statement of the morning's events. There was no paralysis. Within the next half hour he vomited several times, and there was constant tenesmus; once his bowels were opened well.

The patient was seen soon after admission by Dr. Coupland, and some internal hæmorrhage seemed probable. Cardiac rupture was surmised, though in the absence of any positive proof, such as an increase in cardiac dulness, and looking to his desperate state, a stimulant treatment seemed the only course indicated. A mustard poultice was accordingly applied to the præcordia, hot bottles were put to the feet, two ounces of warm brandy-and-water were at once administered, and the following mixture was ordered to be taken every hour: Spirits of ether and aromatic spirits of ammonia, of each half a drachm, and one drachm of syrup of tolu in water. Half an ounce of brandy was also given every three hours. Under this treatment the patient slowly, but steadily, rallied. At 5 P.M. the pulse was distinctly perceptible at wrist, and the heart-sounds were faintly heard at apex, free from bruit; surface of body comparatively warm. Temperature 96° 6'; pulse 76; respiration 25. About this time he complained of pain in the right ankle, and a fracture of the lower third of the fibula was detected and at once set. The fracture was believed to have occurred in the syncopeal attack. At 11 P.M. the same night the pulse was full and strong, 96; heart sounds moderately loud; lips and

face a fair colour; body and extremities warm. The stimulants were diminished in quantity and frequency, but still continued.

The next morning (Oct. 14th) the following note was made:—"Temperature 98° 6'; pulse 84. Slept at intervals during the night; has completely rallied from collapse. Skin warm; pulse of good volume and steady, but hard; heart sounds fairly well pronounced. There is some bulging of the left front of the chest in the præcordial region." Strict rest and stimulant treatment were continued, and all went well till 6 A.M. the following morning (15th), when, after a good night's rest, the patient became suddenly collapsed and died.

At the autopsy, which was made by Dr. Fowler, the following conditions were found: The cartilages of the third, fourth, and fifth ribs on the left side were prominent and arched. Those on the right side were flattened. All were calcified. On opening the pericardium about one ounce and a half of fluid blood escaped, and the heart was seen to be invested with blackish-red blood-clot, having a smooth outer surface. The clot was not adherent to the parietal pericardium. This clot was separable into two distinct layers, the outer of a rather paler tint and firmer. Each layer was removed separately, and found to weigh about seven ounces, some soft black clot at the back of the sac being weighed with the inner and probably most recently extravasated portion. The anterior surface of the heart showed a considerable excess of sub-pericardial fat. On turning the heart over, a rent half an inch long was seen in the posterior wall of the left ventricle, two inches and three-quarters above the apex and one inch to the right of the posterior coronary artery, having an oblique direction. A probe passed through the rent emerged into the left ventricle, just behind the apex of the posterior papillary muscle. The posterior coronary artery could be felt as a rigid cord, and the pericardium having been dissected off, it was seen to be extremely atheromatous and calcified. A branch of the vessel (not found) had apparently ruptured, as there was some blood extravasated beneath the pericardium and deeper in the fat and muscular tissue around the vessel for a distance of three and a half inches. The anterior coronary artery was also atheromatous. The right cavities contained some post-mortem clots, and the left ventricle also contained a small post-mortem clot. The mitral and tricuspid valves were somewhat thickened and fibrous; the aortic valve was atheromatous. All were probably competent. The muscular tissue of the heart was soft, brown, and greasy; that of the right ventricle encroached upon by the subpericardial fat. The aorta was atheromatous. Both lungs were emphysematous, and very œdematous.

*Remarks by Dr. COUPLAND.*—Perhaps the fullest information concerning Rupture of the Heart in literature is that given by Dr. Quain in his Lumsdian lectures (THE LANCET, 1872, i. p. 460), where he states that in 77 out of 100 cases there was fatty degeneration of the heart wall, and that 63 of the patients were above sixty years of age. He also points out what all writers, from Morgagni downwards, have noticed, that the exciting cause of the rupture is some sudden mental excitement or physical effort. In each of these particulars the case above recorded conforms to the general rule, but it may be added that until the day of the attack (which was distinctly referable to a violent mental shock) he had suffered no symptoms pointing to the existence of cardiac disease. Yet the coronary arteries were advanced in calcareous degeneration and there was considerable adiposity of the heart wall as well as true fatty degeneration. The case also resembles the majority in the lesion being in the left ventricle, but it is somewhat exceptional in the position of the rent, which in most cases has been found in the anterior wall, either in the region of the apex or close to the septum. In this case the rupture, which formed an oblique slit, occurred in the posterior wall at some distance from the septum, and about midway between the apex and base. This localisation of the lesion was, no doubt, determined by the disease of the coronary artery and its branches impairing the nutrition of that part of the wall. The case is further of interest in the prolongation of life after the occurrence of rupture. According to Dr. Quain, "in 71 out of 100 cases . . . death was sudden, occurring within one or two minutes. One patient, however, lived eight days, 1 six days, 1 three days, 5 lived over forty-eight hours, 3 lived under twenty-four hours, and 19 under twelve hours." In the present case, so complete was the rally under stimulant treatment that the idea of cardiac rupture, at first enter-

tained, was thought to be beyond the mark, and that the case was, after all, one of temporary cardiac inhibition, from the influence of mental agitation. The sudden death, forty hours later, proved the correctness of the original surmise; whilst the discovery at the post-mortem examination of two distinctly separable layers of clot around the heart demonstrated the fact, that the rent had been temporarily closed after the first occurrence of hæmorrhage. A very important question is here raised; admitting the impossibility of recovery after cardiac rupture, would life have been more prolonged had sedative treatment (as insisted on by writers on the subject) been pursued? This may well be doubted, for although, on *a priori* grounds, it may seem wrong to stimulate to further action the heart so injured, it may equally well be contended that the ventricular contractions would aid in the temporary closure of the rent; whilst on the other hand continuance of the hæmorrhage might be favoured by measures tending to prolong the state of diastolic relaxation. In following the indications for prompt stimulation, as the only measure likely to rescue the patient from imminent death, this line of treatment was deliberately adopted in face of the possibility of such a lesion as actually existed. Had stimulants been withheld the man must have died in the first seizure, and in such a case a respite of a few hours may often be of great moment. The inference is that in similar cases—where diagnosis may be even more certain—the natural indication to administer stimulants may not be so harmful as is generally assumed.

#### RADCLIFFE INFIRMARY, OXFORD.

CASE OF UNUNITED FRACTURE OF THE HUMERUS IN AN OLD MAN SUCCESSFULLY TREATED BY RESECTING THE ENDS OF THE BONES AND FASTENING THEM TOGETHER WITH A PROBE.

(Under the care of Mr. HORATIO P. SYMONDS.)

WILLIAM S—, aged sixty-one, admitted on July 5th, 1882, with an ununited fracture of the left humerus. On March 15th he had been run over by a cart, the wheel of which, passing over his arm, caused a simple fracture of the humerus. It was at once put up by a surgeon in the country with a rectangular and slide splints, and left without being touched for seven weeks. At the end of this time no union having taken place, the splints were readjusted at intervals till his admission.

When admitted there was an oblique fracture about the middle of the shaft of the humerus below the insertion of the deltoid. The fragments were perfectly movable, no callus having been thrown out. The man was in feeble health, appearing prematurely old. The circulation in the extremities was very weak, the hands being always cold and blue. There was no marked rigidity of the arteries, and the urine was free from albumen. The arm was fixed in a plaster-of-Paris apparatus for six weeks. When this was removed the condition was precisely the same as before. The patient complained greatly of the discomfort of the arm, and was willing even to have it removed. Under these circumstances, and notwithstanding the debilitated condition of the patient's health, it was thought advisable to try some operative procedure.

On Aug. 22nd, the following operation was done, with all antiseptic precautions. An incision three inches long was made on the outer side of the arm over the seat of the injury. The ends of the bones were cleared from the surrounding tissues and made to project through the wound. The periosteum was stripped from the ends for about an inch. A small slice of bone was then sawn obliquely off the ends of each, and a hole was drilled through from one to the other. Through this hole a silver-plated steel probe was passed (acting like a hare lip pin), and the ends being drawn together, were fixed by a stout silver wire twisted round the probe in figures of 8. The ends of the wires and the probe were left projecting from one end of the wound, the edges of which were closed by a few silk sutures, and dressed in the usual way. The arm was then fixed by a leather splint, having a steel bar from the elbow to the shoulder in the outer side and an angular splint on the inner side.

The patient went on very well, the temperature only once, four days after the operation, rising above 100°. The arm was dressed at first on alternate days, afterwards at longer intervals. The antiseptics were left off on Sept. 20 and on

Oct. 14 (two months after the operation) the probe was withdrawn without difficulty. It was found that considerable, though not perfect, union had taken place. On admission the arm was quite useless. Now he was able to raise it to a level with the shoulder; he is quite free from pain and has improved in his general health. A small fragment of necrosed bone came away with the probe.

## Medical Societies.

### ROYAL MEDICAL & CHIRURGICAL SOCIETY.

*Spontaneous Postures of the Hand considered as Indications of the Condition of the Brain.—Seventeen Cases of Epilepsy treated with Sodium Nitrite.*

THE ordinary meeting of this Society was held on the 28th ult., J. Marshall, Esq., F.R.S., President, in the chair. In addition to the two papers read and discussed, several specimens illustrative of diseased conditions of the skull, the brain, and its membranes, collected from various hospital museums, were exhibited, as well as an excellent series of photographs from Professor Ziemssen's collection, showing the effect of isolated stimulation of the various facial muscles.

The first paper, entitled "Spontaneous Postures of the Hand considered as Indications of the Condition of the Brain" was communicated by Dr. FRANCIS WARNER. A posture is the relative position of the several members of the body with regard to one another, and the relative position of the individual parts of a member. Every posture is due to a balance of the muscles produced by some portion of the central nerve-mechanism. A weak child spontaneously holds out his hands in the "nervous posture." The limb is now free or disengaged; its posture is the spontaneous outcome of the action of the nerve centres. The wrist is slightly flexed, the metacarpo-phalangeal joints are extended backwards, the internodes being either flexed or straight. This posture is often seen in nervous children; it is usually bilateral. Explanation may be sought after Darwin's method—i.e., observe what advantage attends the posture. The following method appears preferable:—Analysis and analogy show a wrist drooped as in weakness, and the knuckle-joints extended as in conditions of excitability. This posture is sometimes found in spastic contraction. The "energetic hand" may also be a permanent posture resulting from brain disease. The wrist is extended; the small joints are all flexed. This posture is the antithesis of the "nervous hand." The following axiom is assumed:—"If we see some spontaneous nerve-muscular action often repeated in the same and in different subjects, it may be assumed that there is some nerve mechanism corresponding which can act independently." In any particular case the existence of a special centre is strengthened if we can see its action when excited, and again when it is weak. In analysing postures the following "principles" appear useful:—1. The contrast of small parts with large parts. 2. Inter-differentiation—i.e., the relative condition of the large and small joints. 3. Collateral differentiation—i.e., the relative condition of collateral joints. 4. Symmetry or asymmetry in a posture. 5. Excitation of weak centres. 6. General excitement or general weakness; in this case the stronger muscles produce the posture. 7. Antithesis—i.e., the principle that opposite postures may indicate antithetical states of the corresponding nerve-mechanism. 8. Anatomical analysis and description. 9. Analogy between postures. The following suggestions are offered as to determining whether a posture is the outcome of the spontaneous action of the nerve centres: The part must be free or disengaged. Look for analogous postures in brain disease. Look for analogous postures in infants, also in ancient art. Apply the "principles" above given to the case in question. Errors may be made by attributing all postures to the central nerve mechanism. Postures may be due to joint disease, local changes, and organic conditions—e.g., cardiac orthopnoea, the effects of gravity, muscular rigidity, and local injury to nerve. Appendix: A table applying the principles of analysis to eight postures—viz., the nervous hand, the energetic hand, the hand in rest, the straight extended hand, the straight extended hand with thumb drooped, the convulsive hand, the hand in fright, the feeble hand. The paper was illustrated by a large collection of drawings and casts—

THE PRESIDENT pointed out the difficulties that beset so apparently simple a subject, for so many factors were operative in these postures. The author deserved great credit for his painstaking inquiry and analysis of this complex matter.—Dr. HUGHLINGS JACKSON also spoke highly of the author's work, which he characterised as opening up a new subject in practical medicine. Dr. Warner had dealt with one of the most specialised parts, the hand, and it is the hand in all cerebral affections that the more specialised parts suffer in a greater degree than those whose functions are more general. As an instance of the latter, he mentioned the respiratory apparatus, where the same movements are being repeated continuously throughout life. But in the hand we have not only a part which can exhibit a vast variety of movements, but one which has a large number of small muscles carrying little weight; and the more intellectual the actions the lighter are the movements—e.g., the actions of the hand in writing, painting, and drawing, actions which might be contrasted with those of such a muscle as the deltoid, moving the whole limb to bear heavy weights. In a general sense in nervous disease the parts first affected are those of small muscles and small movement. In most cases of epilepsy the fit begins in such parts, so in chorea; so also in the commonest form of progressive muscular atrophy these muscles are the first to suffer. The tremor of paralysis agitans begins in the small muscles. Dr. Warner's work could be more generalised, to include attitudes in disease, as that of paralysis agitans, which is the reverse of the attitude in cerebellar disease; or it may be applied to the face as in the loss of expression seen in double facial paralysis, which gives a sullen look to the patient; in paralysis agitans, where the face is fixed there is a puritanical or aged look. The paper was an inspiring one, and Dr. Jackson regretted that, having no special knowledge on the precise subject, he was unable to discuss it.—Dr. WARNER explained that his object was rather to open up the subject of postures than to give many details, and he had therefore limited the remarks in his paper to two only of the natural postures of the hand. In the Appendix he had applied the same principles to the analysis of eight other postures without exhausting the list. For this study to be clinically useful it was necessary to take special types, from which many variations might arise; and he had taken as types such postures of the hand as had been recorded in works of art for centuries, and which were probably referable to particular conditions of the brain. Trousseau describes the hand in tetany, the fingers flexed over the thumb, and the arching of the metacarpus from its adduction. This arching of the metacarpus is an abnormal condition; another is the drooping of the thumb, which Dr. Warner believed to be the first departure from the normal in the weak hand. The face was even more specialised than the hand as regards its muscularity and movements, and the same principles of analysis might be applied to their study.

A paper was then read, on Seventeen Cases of Epilepsy treated with Sodium Nitrite, by Dr. CHARLES HENRY RALFE. The author, in the first place, claims the credit of first introducing this drug for the treatment of epilepsy to Dr. Law of Hastings, who was the first to administer it, and who has fully described the theoretical reasons which led him to employ it, together with an account of its physiological action in the *Practitioner* for June of the current year. Sodium nitrite in its action resembles nitrite of amyl and nitro-glycerine. It has one advantage over these remedies for the treatment of epilepsy; its effects are produced more slowly and are more permanent in character. The dose, the author's, should just fall short of producing full physiological effect. He advises that care should be taken to ascertain the purity of the drug, as many samples contain an admixture of sodium nitrate. The details of seventeen cases treated by the author in the out-patient department of the London Hospital is then given. Of these seventeen cases, three received no benefit, four improved slightly, one was a doubtful case, whilst nine benefited decidedly. Of all the cases, eight previous to treatment with sodium nitrite had been treated with bromide of potassium. Of these, three (Cases 1, 2, 3) had improved under its use, and went back when the medicine was changed to sodium nitrite. Of the other five, the bromide treatment was inefficacious from the first in three cases; and in two, though it had done good for some time, was losing its effect, and the patients were suffering from bromism. In four of these cases (9, 13, 14, 15) decided improvement followed the change to sodium nitrite, and the other (Case 7) improved to a lesser

degree under its use. Nine of the patients commenced treatment directly with sodium nitrite. Of these, the disease in four was of long standing, and probably the patients had already been subjected to a course of bromide at other hospitals. Of these, two improved under sodium nitrite, and two received decided benefit. The remaining five cases were all tolerably recent ones. Of these, three received decided benefit, one slightly improved, and one was a doubtful case. Among the cases that received decided benefit, the longest exemption from any kind of epileptiform seizure was in Case 17, who went eleven weeks without an attack, four weeks whilst under treatment, and seven weeks after leaving off the medicine. Case 14 went eight weeks without an attack, and had no relapse at the time he was last seen; he is still an out-patient and taking the medicine. Previous to commencing treatment he had on an average three fits a fortnight, and they were increasing. Case 16 remained free for a period of four weeks, and had had no recurrence when he gave up his out-patient letter. Case 9, who had a fit on an average every week, after taking the medicine was free for five weeks. The same result obtained with Case 15, who was free for one month. The author draws the following conclusions from these results:—1. That those cases in which bromide of potassium is of marked service are not generally suitable for a trial of sodium nitrite. 2. That those cases in which bromide of potassium does not agree well from the first will probably be found to improve under sodium nitrite. 3. That to patients who have taken bromide some time, and on whom the drug is apparently losing its effect, or who are suffering from bromism, sodium nitrite is useful as a change medicine. 4. That there is a class of cases, consisting chiefly of minor seizures or convulsive attacks, such as often occur in young persons, usually at night, in which sodium nitrite is especially beneficial.—The PRESIDENT, in inviting discussion, said that in epilepsy so many factors were at work, and the nature of epilepsy was so obscure, that it was difficult to explain the mode of action of drugs upon the disease; but the introduction of drugs was often based upon physiological grounds. Of course many cases of organic disease producing epilepsy were outside the category of remediable cases. He directed attention to a series of preparations collected from the museums of Guy's, University College, and St. George's Hospitals, illustrative of diseases of the cranium and brain producing epilepsy, and expressed the indebtedness of the Society to those gentlemen who had furnished the specimens for exhibition.—Dr. LAW had but little to add to what he had written in the *Practitioner*. He had employed nitrite of sodium in a case upon the theoretical ground that cerebral anemia was one of the factors in producing the fits; and had used the salt in preference to such compounds as nitrite of amyl and nitro-glycerine because of its greater stability. Dr. Richardson in 1865 pointed out the similarity of physiological action of the nitrites of amyl, ethyl, &c., and was inclined to attribute their action to the nitrogen they contained.—Dr. GOWERS after reading Dr. Law's paper had given nitrite of sodium to many patients—about twelve in all and in only one did it appear to do any good. Some of them were patients who had taken bromide for some time without effect; others were cases treated by other drugs. In every case the fits continued, in one or two with temporary cessation which in one case lasted for six weeks, and then the fits returned in spite of an increase of the dose. And very often, the fits cease for a time under any drug that has a considerable action on the system. Even if the theory of the action of the nitrite were correct, and its efficacy proved, he did not think that would establish the fact of cerebral anemia in epilepsy, for flooding the brain with arterial blood would conceivably act beneficially on the nerve tissue without assuming a prior anemia. Nitrite of amyl will check the spasm of tetanus. H. C. Wood of Philadelphia holds it to be more rapid in its action than chloroform in this disease, but no one has ventured to suggest the occurrence of anemia of the spinal cord as the grounds for its use; the condition in tetanus is rather one of hyperemia. Dr. Gowers had also given nitro-glycerine in epilepsy both before and since Dr. Hammond's advocacy of it, but had not found it to have the slightest influence. The dose of nitrite of sodium he had given was ten grains increased to twenty; in one or two cases it had been continued for a period of five months.—Dr. RAMSKILL mentioned the case of a girl five years old who was treated with the nitrite, which was discontinued owing to the great increase in the number of the fits;

bromide was then given with good effect. He had also had several similar cases; but he wished particularly to state his belief that the drug was not without dangerous effect, and referred to three cases in which alarming symptoms were produced by it. Dr. Ralfe's cases were probably chronic ones—e.g., cases of commencing sclerosis, where such treatment might do good; but he did not think it of value in idiopathic epilepsy. He agreed with Dr. Gowers as to any remedy having the effect of temporarily postponing fits, and also that rest alone or change in surroundings will do the same.—Dr. COXWELL gave brief details of three cases in which the nitrite of sodium treatment was compared with valerianate of zinc and bromide of potassium, and in each case fits recurred more frequently under the nitrite.—Dr. HUGHLINGS JACKSON considered Dr. Ralfe's facts too few, and the period of observation too brief, to draw favourable conclusions as to the efficacy of the remedy. He trusted he would pursue his investigations, as any new remedy which can be shown to be a little better than those at present used in epilepsy would be a gain. He would have liked more details as to the age of the patients, and the nature and duration of the attacks. For his own part, he laid great stress upon diet, and was especially careful in restricting nitrogenous food, a fact long ago insisted on by Heberden, and by other physicians, as Troussseau, James Jackson of the United States, Ireland, and West. So far as things go, bromide of potassium was the best; and although Dr. Ringer had demonstrated that potash salts were more depressant than soda salts, yet this was itself an advantage in epilepsy, where it was, above all things, desirable to bring the patient to a "low level." Tonics, as iron, and full diet, were bad. Adverting to the subject of "arresting" a fit, Dr. Jackson expressed his opinion that in the case of epileptiform seizures it was not a good practice to stop the fit—(e.g., by ligature) altogether at its outset, although it might be well to limit it to the limb. The effect of this is to leave the limb more paralysed, but it prevents the fit becoming general, with the resulting loss of consciousness and general powerlessness.—Dr. D. DREWITT drew attention to the method, adopted with good results at the Children's Hospital, of the application of a silk seton in the nape of the neck.—Dr. BROADBENT thought the cases too few and inconclusive to base any precise view of the action of the drug. He was not previously aware that the nitrite of sodium had analogous physiological action to nitro-glycerine; and would rather have thought that the nitrite would take up oxygen and be converted into a nitrate in the economy. He had met with two opposite conditions of the circulation in epilepsy—one of extremely low arterial tension and one of high tension—such vascular condition being probable a consequence and not the cause of the change in the nerve centres. Possibly the nitrite was of advantage in those cases where the arterial tension is low.—Dr. WILKS had not tried the remedy, but agreed with Drs. Gowers and Jackson that any number of remedies will arrest epilepsy, at least for a time. Very slight influences will produce a fit, and very slight influences will arrest it, so that the results are not always to be attributed to the drug that may be given. He instanced a case where a toothache or gum-boil arrested the fits, another where no fits occurred during an attack of erysipelas, and had several cases where epileptics had no fits whilst suffering from fever. In one case of a young lady, who had most severe fits, an attack of small-pox cured her epilepsy without return. He was, therefore, very sceptical as to new remedies in epilepsy, and confirmed Dr. Ramskill's remark upon the influence of rest in hospital in temporarily averting fits. He had often employed setons, and he mentioned one case of a gentleman who had to give up a Government appointment on account of epilepsy, but who had since been free from attacks for eighteen months by wearing a seton.—Dr. BUZZARD asked for information as to the dose, &c., of the bromide in those cases mentioned by the author where that drug had not been efficacious. The susceptibility to bromide varied with the individual; some cases of great severity were controlled by small doses; in other cases the drug had to be pushed to bromism before any effects were produced.—Dr. RALFE, in reply, said that the paper was based on some rough clinical experiments which he had made on hearing from Dr. Law about his case. They were not all chronic cases, most of them being in children. He thought his results had been estimated too highly; for it must be remembered that in only nine out of the seventeen cases did the drug succeed in controlling the fits. To those

who had been long taking bromide without benefit the bromide had been given in various doses. He thought a good deal depended upon the purity of the nitrite and the strength of the dose. He had found large doses to have no effect, and it was only after gradually trying smaller doses that he at length arrived at a dose of about twelve grains as the most suitable. Since the paper was written he had on one day prescribed the nitrite to three patients, two being cases of epilepsy, and one of asthma. All of these patients returned to the hospital suffering from the toxic effects with cyanotic symptoms. The sample of nitrite given to these patients was different from that previously described, and it had been set aside for analysis. It showed, however, that samples of the salt vary, and also that it was important to ascertain the physiological dose of each individual. He had also found marked differences as to their efficacy in epilepsy in two other samples, and suggested that possibly the negative results obtained by Drs. Gowers and Ramskill might depend on such differences.

The PRESIDENT directed attention to a series of photographs lent by Dr. Ziemssen, of Munich, showing the effect of stimulating the facial muscles separately, and interesting as an analysis of facial expression.

### CLINICAL SOCIETY OF LONDON.

*Symmetrical Congestive Mottling of the Skin.—Lumbar Nephrectomy for Carcinoma.—Subcutaneous Rheumatismal Nodes.*

THE ordinary meeting of this Society was held on Nov. 24th, J. Lister, Esq., F.R.S., President, in the chair. The proceedings were interesting, especial attention being given to the subject of renal surgery, arising out of a case communicated by Mr. J. Adams; subcutaneous rheumatic nodes were well shown in two cases contributed by Dr. Duckworth, who read a paper on them; whilst Dr. Cavafoy detailed the particulars of a peculiar cutaneous mottling, of which he showed two examples. Mr. Howard Marsh exhibited a child with very extreme deformity of the skeleton from rickets.

Dr. CAVAFY read a paper on Symmetrical Congestive Mottling of the Skin. In this paper two cases of a curious affection of the bloodvessels of the skin are described. The first was a young woman, aged twenty-two, shown to the Society, who was first seen in March, 1882, when the condition had existed for three years. It began as a reddish mottling of the left shoulder, which gradually spread down the arm, and soon afterwards appeared on the right arm, the cheeks, and both thighs, gradually increasing in intensity. At the date of her first visit the skin of both cheeks was mottled with blotches and irregular rings and streaks of a bluish-red colour, most marked on the right side, not prominent, and covered by normal epidermis. Singular, dull, bluish-red maculæ and irregularly confluent blotches and streaks forming reticulated annular and gyrate figures occupied the exterior surfaces of both arms and forearms and the backs of the hands, being especially distinct over the left wrist. The front and outer surface of both thighs near the knees was similarly mottled, but in a much less degree. The blotches and streaks were not sharply circumscribed, and disappeared completely on pressure, leaving in some spots a delicate fawn-coloured pigmentation. The marking also disappeared from the arms when they were held up, and returned when they were allowed to hang down. The neighbouring skin was normal in all respects, and the general health perfectly good. The girl had rheumatic fever a year before the mottling commenced, but the heart was unaffected. The only departure from perfect health was a liability to "dead fingers" and occasional dyspepsia. She continued to attend for a month, with no change in the state of the skin. The markings were always intensified by cold; they never completely disappeared, and were throughout unaccompanied by pain, numbness, tingling, or any abnormal sensation. She is still in the same condition. The second patient, also shown to the Society, is a healthy young woman, aged twenty-one, who has been under observation since August, and in whom the affection has existed eighteen months. It began over the ankles, and gradually spread to the legs and thighs. Twelve months later the arms became affected, and quite recently blotching has begun on the waist; the face has remained free. The mottling is an almost exact counterpart of that in the first case; but more

ensive and of a deeper bluish-red colour over both legs at the front of the thighs, especially near the knees. It is limited on the exterior surfaces chiefly, but also extends chiefly over the flexor sides. The condition above described was only due to venous stasis or passive congestion of the skin, and appears to be an exaggeration of the marbling often seen on the skins of children and young persons after exposure to cold; but in the above cases, though cold intensifies the marbling, the congestion remains more or less evident at all times. It is probably due to a vaso-motor neurosis, but the share taken in its production by arteries and veins is not easy to apportion. The affection appears to be quite harmless, and has not led to any changes except pigmentation, and that only slightly; but the disfigurement, especially when the face is attacked, is considerable. The treatment employed has not influenced the condition in any way.—Mr. S. MACKENZIE said the cases were interesting and rare, such a condition seldom being so marked and permanent; and Dr. Cavañy's explanation of it was probably correct. The cases had a superficial resemblance to similar conditions due to direct exposure to heat, as from much tanning before a fire. A condition of vaso-motor neurosis of the extremities has been described by Weir Mitchell, of which Dr. Mackenzie had seen one case; but this differs materially from these present cases.—Dr. GLOVER asked if the effect of a bandage had been tried. He was much struck by the good effect of such a measure in a case of long-standing purpura of the legs, where the application of an elastic stocking resulted in a cure.—The PRESIDENT alluded to the symmetrical character of the mottling proving it to be due to a neurotic origin.—Dr. CAVAÑY, in reply, said that the pigmentation, due to exposure to a fire, was excluded by the fact that the colour could be pressed out of the part, and that neither patient had been so exposed; further, the mottling in the present cases is diminished by heat. The vaso-motor neurosis of Weir Mitchell, of which a case was brought before this Society by Dr. A. Sturge, is different. The closest alliance was, perhaps, to local asphyxia, which may lead to symmetrical gangrene (Reynaud). The present cases might be a minor degree of that condition. Dr. Glover's suggestion was only applicable to the extremities.

Mr. JAS. E. ADAMS read notes of a case of Lumbar Nephrectomy for Carcinoma. The patient, a male, aged thirty-nine, had intermittent hæmaturia for two years; pain in right loin; latterly profuse hemorrhage from the kidney, leading to marked anaemia; blood, pus, triple phosphates, and epithelium in urine. The disease was clearly located in the right kidney, but its exact nature was not certain. The operation was undertaken in order to explore, and, if necessary, to remove the right kidney. By an incision parallel with the lower border of the last rib, the kidney was easily explored, and found to be the seat of a new growth, which had increased its size to about double the normal. In order to extract the organ it was necessary to enlarge the incision upwards; the organ was adherent to the peritoneum, and in separating it the serous cavity was opened. Owing to the size of the tumour, the ureter and vessels could not be tied separately, but were encircled *en masse* by a whipcord ligature. The peritoneal wound was closed with a catgut suture; the skin wound was freely drained. The hæmaturia ceased at once. The wound healed in a few weeks; but the patient gained no strength, suffered much throughout from cough, and was transferred back to the care of the physician, and died forty-four days after the operation, with effusion into both pleuræ, plugging of the left renal vein, and numerous secondary deposits in the lumbar glands and on the ribs.—Mr. CLEMENT LUCAS congratulated Mr. Adams on the success of the nephrectomy; though unfortunately the disease was too advanced for complete eradication. He had twice explored the kidney this year. In one case there were typical symptoms of stone; although the man had a severe rigor before passing the blood, which was attributed to his being moved. Mr. Lucas cut down on the kidney and punctured it in as many as five or six places for the depth of an inch and a half; no bleeding occurred, but the kidney appeared to be puckered. It was probably a strumous kidney. He mentioned these cases in order to encourage physicians to explore the kidney more readily in doubtful cases. No disturbance arose from the exploration, and the wounds healed rapidly and painlessly. The operation, then, might be regarded as perfectly safe, with no more danger than an incision of similar length in the calf of the leg.—

Mr. GOLDING BIRD asked Mr. Adams whether the opening was enlarged in a vertical or horizontal direction.—Dr. FOWLER had lately had a case under his care with symptoms of renal calculus in which Mr. Morris explored the kidney, punctured it in several places, without finding a stone, and the wound healed perfectly.—Dr. DOUGLAS POWELL asked for the results of cases where the operation is completed and the stone removed, but his impression was that many cases were disastrous in their results. He thought that we should not consider too much the fact that the kidney had been explored without finding a stone without ill results. These cases of stone in the kidney often go on for many years, and eventually the stone is discharged from the bladder. Therefore he did not think nephrotomy an operation of necessity or always justifiable. It would be a matter of importance as a guide to its performance if a diagnosis could be made as to the size of a stone. A small stone will give rise to as severe symptoms as a large one; and he cited a case where a small stone was eventually passed, but the patient returning later with renal symptoms, an exploratory incision was made, and no stone was to be found.—Mr. BARKER said that for the very reason urged by Dr. Powell the kidney ought to be explored. A stronger reason still for calling in the aid of the surgeon is that these operations can be done without any risk. He alluded to a case in which all the symptoms of stone occurred in a child; he explored and punctured the kidney without finding a stone. The wound healed rapidly. If all the cases of exploration were recorded it would encourage the routine resort to the procedure. The point between nephrotomy and nephrectomy turns upon the extent of disorganisation of the renal tissue. A small stone may be removed from the kidney without any risk whatever; but the case is altered when much disorganisation of the kidney is present.—Dr. WILBERFORCE SMITH alluded to one point in the diagnosis of stone in the kidney—viz., that of treatment by copious water-drinking, so as to produce diuresis. It was his habit to tell the patient to keep his urine down to a low specific gravity. There is prompt and considerable relief; the hæmaturia ceases and the pain is modified.—Mr. HAWARD, recurring to Mr. Adams's paper, asked as to the diagnosis between stone and malignant disease. There was considerable enlargement of the kidney; but was the examination made under an anæsthetic? In that way a stone may be felt in the kidney. Mr. Haward had succeeded in palpating an enlarged kidney by this manner in a case related last year. He also asked whether Mr. Adams had noticed great frequency of micturition, for a stone in the kidney is often accompanied by an irritable bladder, as Sir B. Brodie long ago pointed out.—Mr. H. MARSH, in reference to the question of making out a large kidney under an anæsthetic, said that in a case he related last year, no one succeeded in palpating the organ; but when he came to operate it was found to be very large indeed.—Mr. ADAMS, in reply, said that he enlarged the opening in a vertical direction, almost at right angles to the first incision. If he were sure that the kidney was very large and occupied by a large growth, the abdominal section would be preferred. He did not think that Dr. Powell's application of the term "disastrous" to exploration of the kidney was justifiable; and the operation is not performed except the patient is in much suffering and unable to perform his duties. He was in favour even of leaving a stone in the bladder if there was no suffering. The decision to remove a kidney would be based on the condition of the organ. This patient was examined thoroughly under an anæsthetic; but the difficulty or ease of the diagnosis will depend greatly on the amount of subcutaneous fat in the individual.

Dr. DYCE DUCKWORTH read notes of two cases of Subcutaneous Rheumatismal Nodes. Case 1. S. C.—, aged twenty-four, domestic servant, came to St. Bartholomew's Hospital on account of painful swelling on the right hand and knee. She had had no serious illness, no rheumatic fever or chorea. Suffered for eight years past with pains in the joints and limbs. Crackling in the larger joints was noticed. The nodules began eight months previously on the right hand, elbow, and knee, and are found to be quite subcutaneous, painful on pressure, and attached for the most part to sheaths of the tendons or deep fasciæ. The fingers were knotty at the joints and the right little finger was turned outwards at the last phalanx (not as the result of injury). The first sound of the heart was found roughened and somewhat reduplicated. The urine was alleged to be occasionally thick. The patient was exhibited, and casts of the right



hand and knee were also shown. In three months' time it was found that some of the nodules had grown larger and that new ones had appeared. Signs of slight hypertrophy of the left ventricle of the heart were noted, and the first sound was rough and reduplicated at the apex. Treatment by cod-liver oil and iodide of iron and potassium had not proved of material service, and there were still articular pains. The nodules ached more in damp weather. Case 2. E. L.—, aged nine years, a school girl, had suffered from pains in the feet, knees, and arms for two months, and at that time nodules were first seen on the ankles, elbows, and knees. The legs and hands were also swollen "as if dropsical." There was no history of chorea. Nodules of various sizes were found on the sheath of an extensive tendon on the metacarpus, on the olecranon, on the spine of a dorsal vertebra, on both patellæ, and on an external malleolus. The nose and finger-ends were clubbed. The cardiac physical signs indicated mitral regurgitation. In three weeks the nodules on the patellæ appeared larger. The child ceased attendance, and its parents could not be traced subsequently. A cast of one knee was taken at the first visit. Both cases were well-marked examples of rheumatismal subcutaneous nodules. Both occurred in females, as is found to be the case in most instances. The nodules have persisted longer in the first case than has hitherto been previously noticed—fourteen months against five,—and the age of this patient is more advanced than in most cases recorded. The heart was affected in both patients. All the points noted supported the previous observations of Drs. Barlow and Warner, as communicated last year to the International Medical Congress.—The PRESIDENT said it was remarkable that a disease like this should only be recently recognised. He was struck with the fact that the heart should be affected in these essentially chronic cases; was it a general observation that endocarditis accompanied these manifestations?—Dr. GREEN had seen one case in a boy, sixteen years of age, with acute rheumatism; the nodules were very marked. They were not complained of, but discovered accidentally. The heart disease seemed to develop during the development of the nodule.—Dr. BARLOW did not think there was always heart disease in association with these nodules, for some were cases allied to rheumatoid arthritis. But when one finds these nodules one should be on the *qui vive* for heart disease. About a year ago a young man came to the hospital with nodules about the patellæ and elbows. He had been in hospital four months before with subacute rheumatism, but no heart disease. Dr. Barlow sent him home, and, although the temperature did not rise above normal, prescribed salicylate of soda. A mitral murmur developed, so he could say these nodules make one look out for a form of rheumatism apt to attack the heart. The view put forward by himself and Dr. Warner was that these nodules were outgrowths of fibrous tissue, analogous to the simple vegetations found on cardiac valves—i.e., the slow change in the mitral valve which may protect the valve without causing any fibrinous deposit upon it.—Mr. GODLEE asked what structure was affected by these rheumatic nodules, for in a case supposed to be ganglion on the palm of the hand there were nodules on the palmar fasciæ. On searching he found many nodules elsewhere, and detected a bruit at the heart.—Dr. BARLOW had satisfied himself that these nodules were attached to the deep fasciæ. It had been asserted that the periosteum was their seat; but this is not the case; it is the deep fascia, and often the tendons.—Mr. BARKER believed he had seen these nodes in a middle-aged woman, between forty and fifty, suffering from rheumatic arthritis.—Mr. TRAVERS mentioned a case in a patient forty-five years old. It was a severe attack of acute rheumatism, with high temperature. The nodules which appeared on the right elbow and the patella caused some pain; there was no cardiac disease. The nodules eventually disappeared. This case was not benefited by salicin.—Mr. GOLDING BIRD asked whether the nodules were allied to Dupuytren's contraction of the fingers. Some years ago he saw a case of this affection in an early stage in a woman of forty-five; there were nodules on the palmar fasciæ adherent to the skin and tendons. No rheumatic pains. Observed for some months, the nodules gradually diminished under iodide of potassium. They had since recurred. The fingers were not much bent, and under treatment could be straightened.—Dr. DUCKWORTH, in reply, took the opportunity of stating that English literature was much indebted to Dr. Barlow and Dr. Warner for their papers on this subject at the Congress last year. He believed Mr. Parker had examined

these nodules microscopically, and found them to consist of delicate fibroid tissue. They come and go quickly, lasting in one of his cases for six months, the longest recorded. As to age, the majority of cases are in young people, but he had seen cases in old people.

### OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, Nov. 1st, 1882, Dr. J. Matthews Duncan, President, in the chair.

*Interstitial or Tubo-uterine Gestation.*—Mr. ALBAN DORAN exhibited a specimen of this condition. The gestation cyst was situated at the right side of the fundus uteri. At the anterior and outer aspect of the cyst the round ligament sprang from it, and the Fallopian tube passed into it, expanding as it did so into a funnel-shaped orifice. At the opposite aspect the cyst bulged into the uterine cavity, and a bristle could be passed from the uterus through the tube into the cyst; the tube being here also dilated into a funnel shape at its entrance into the cyst. The tubal origin of the cyst was thus proved. It had burst at the second month. There was a corpus luteum in the right ovary. Mr. Doran had examined other cases of the kind in the London museums, and gave an account of them. He remarked on the rarity of the condition, and the tendency to early rupture. Had the abdomen been opened, amputation of the uterus would have been the only practicable treatment. He thought that cases in which development in a supposed hernial pouch of the uterus was suspected were probably tubo-uterine.

*Cephalotribe.*—Mr. C. E. JENNINGS exhibited an improved cephalotribe.

*Hermaphrodite.*—Dr. CHALMERS exhibited the genito-urinary organs of a child in which the internal parts were female, while the external resembled those of the male. The clitoris was grooved below, but not channelled.—Mr. DORAN said that grooving, and even channeling, of the clitoris was normal in some of the lower animals.—Dr. FANCOURT BARNES informed the Society that the child he had exhibited at the last meeting had since died, and proved to be a female.—Dr. CHAMPNEYS exhibited the genito-urinary organs of a female with extroversion of bladder, described by him in the St. Bartholomew's Hospital Reports. The external genitals were such as might belong to either sex.

*Torsion of Cord.*—Dr. CHALMERS also showed an Umbilical Cord presenting remarkable twisting and narrowing near the umbilicus.

*Tumour of Placenta.*—Dr. GALABIN showed (for Dr. J. C. ROBERTS) a placenta in which was embedded a tumour about the size and shape of an adult human heart. It was encapsuled, and on the uterine side covered by a complete layer of placental tissue. Near it were several small similar detached masses.

*Description of a Kyphotic Pelvis, with Remarks on Breisky's Description.*—This paper, by Dr. CHAMPNEYS, was read. The pelvis, except for slight asymmetry, and a process which the author termed "posterior spondylolisthesis," was a typical kyphotic pelvis. The author criticised Breisky's description, laying stress on the influence of sitting, which, in the kyphotic pelvis, he believed, increased the inversion of the tubera ischii, while in the flat pelvis it increased their eversion; the difference depending upon whether the deformity caused the tubera ischii to be inside or outside the line transmitting the body weight—i.e., the sacro-iliac synchondrosia.

*Puerperal Diabetes.*—A paper on this subject by Dr. MATTHEWS DUNCAN was read. The author pointed out the distinction between the slight glycosuria of pregnant and suckling women and real diabetes, with its polyuria and large amounts of sugar. Physicians and surgeons were well aware of the dangers introduced into their cases by complication with diabetes. But the subject of diabetes complicating pregnancy and parturition had attracted almost no attention, and this probably arose from its rarity, which might be accounted for by the disease frequently destroying in women the sexual energies, as it is said to do in man. The author had collected twenty-two cases in fifteen women, and they demonstrated the great gravity of the complication, as respects both mother and child. Of the twenty-two pregnancies (including those ending prematurely), four had a fatal result soon after delivery. In

seven of nineteen pregnancies in fourteen women the child, after reaching a viable age, died during pregnancy. In two the child was born feeble, and died in a few hours, making an unsuccessful issue in nine of nineteen pregnancies. The histories showed that diabetes may intervene on pregnancy; that it may occur only during pregnancy, being absent at other times; that it may cease with the cessation of pregnancy; that it may come on after parturition; that it may not come on in a pregnancy occurring after its cure. They showed that pregnancy may occur in a diabetic woman; that it may be not appreciably affected in its natural progress and termination by the disease; that it is very liable to be interrupted by death of the fetus.—Dr. JOHN WILLIAMS thought that these cases were less infrequent than, owing to the fact that the urine was not always examined, was supposed. He had met with four. A trace of sugar in the urine was common, but this was not diabetes.—Dr. ROBERT BARNES had investigated the condition of the urine in pregnancy as to albumen, urea, and sugar. The occurrence of sugar was physiological, though not constant. Sinéty had shown that sugar appeared in the urine when lactation was suppressed; this was of interest in connexion with the normal fatty change in the liver shown by Tarnier to occur in pregnancy. He (Dr. Barnes) drew a parallel between albuminuria and glycosuria during pregnancy. Both were physiological, but might pass the physiological boundary, and then grave accidents ensued.—Dr. CHAMPNEYS inquired as to the treatment.—Dr. CARTER said that the tendency of diabetics to collapse and coma would make us expect danger from pregnancy and labour.—The PRESIDENT said that the terribly fatal complication he had been describing had no relation to normal glycosuria. He thought, with Dr. Williams, that attention having been drawn to the subject, more cases would be published. He could lay down no special rules as to treatment.

*On the Treatment of Post-partum Hemorrhage by Hypodermic Injections of Ergotinine.*—A paper on this subject, by Dr. C. CHAHBAZIAN (Paris) was read. Ergotinine was the alkaloid of ergot of rye; insoluble in water, soluble in alcohol or chloroform. One pound of powdered ergot yielded three grains of ergotinine. It was indicated in post-partum hæmorrhage due to imperfect contraction of the uterus. The dose for hypodermic injection was five to ten minims of a solution containing one-fiftieth of a grain in twenty minims. This might be repeated if necessary, but more than twenty minims should not be given. This produced strong and permanent contraction of the uterus, acted more quickly than ergotine (which was only an extract of ergot), and did not cause local abscesses or indurations. Ergotinine was to be used as morphia to extract of opium. It was discovered and prepared by Tanret of Paris.—Dr. CHAMPNEYS inquired how long ergotinine would keep.—Dr. WILTSHIRE suggested that the hypodermic injection of ether might with advantage be combined with that of ergotinine.—Dr. BRUNTON asked how long ergotinine took to act.—Dr. CHAHBAZIAN said that uterine contraction usually came on in from two to five minutes after the injection of ergotinine. He could not say how long ergotinine would keep.

## Reviews and Notices of Books.

*Chapters in the History of the Insane in the British Isles.* By D. HACK TUKE, M.D., F.R.C.P. London: Kegan Paul, Trench, and Co.

DR. HACK TUKE'S work is an addition to the literature of insanity that was greatly needed; it has been executed at the right time, and the author is in every way qualified for the work he has undertaken. His book manifests a wide and liberal comprehension of this subject; bears evidence of a most intimate and thorough knowledge of all relating thereto; and shows a most laborious, exhaustive, and painstaking power of research, together with an impartiality and freedom from prejudice, most remarkable in one so intimately connected with and so deeply interested in his subject. The wish might perhaps be expressed that Dr. Tuke had not been so simply historic, but had at times appended his own conclusions in regard to the opposing opinions so clearly and fairly stated. In manner the facts are well put

and interestingly associated. The book will not only be a medical classic, but will be read with interest by laymen, and may thus greatly aid in dispelling the ignorance that exists in the public mind in regard to asylums and the treatment of the insane.

The early chapters trace the popular idea of insanity, from the belief in demoniacal possession prevalent in early Saxon times, to the later beliefs in witchcraft and peccant humours in the blood. Side by side with this, the treatment is given, often amusing, in the mixture of exorcism, of superstitious spells, and of emetics and purgatives, with flagellation.

The history of Bethlem and St. Luke's displays a great amount of interesting antiquarian research, and affords an opportunity for the comparison of the former and present treatment of the insane by the introduction of plates representing a ward in Bethlem in 1745 and one at the present day, the details of which are more convincing than any words could be. A sketch of the miserable state of lunatic asylums in England, emphasised by the unfavourable comparison made by John Howard between St. Luke's and an asylum in Constantinople, is followed by the history of the foundation of the York Retreat in 1792 by William Tuke, the grandfather of the author. The principles for the moral treatment of the insane, laid down by this noble man, and quoted here, must ever remain as fundamental truths.

The history of the legislation for lunatics is next carefully traced, with the date of establishment and cost of the various principal asylums, acknowledgment being made of the great share taken in this work by the present chairman of the Lunacy Commission, Lord Shaftesbury.

In the next chapter the development of the non-restraint system is shown. The first efforts were made at the Lincoln Asylum by Dr. Charlesworth from 1819 to 1835, and from that date to 1839 by Mr. Gardiner Hill, who was the first to assert the principle of the entire abolition of mechanical restraint. Drawbacks in the shape of broken ribs, &c., at the Lincoln Asylum, as Dr. Tuke points out, might have produced a reaction but for Dr. Conolly's success at Hanwell, leading to the almost universal adoption of the principle in Great Britain. The disadvantage of large asylums in the loss of "individual and responsible supervision" is quoted from the Report of the Commissioners in Lunacy for 1857; regret must be expressed that this principle has been so much lost sight of in later years. The assertion made in the same report that large asylums are more costly than small is refuted by statistics, in an appendix. It should be remembered, however, that an economy may be apparent only.

Chancery Lunatics form the subject of another chapter, in which Dr. Lockhart Robertson's comparison of the 34.6 per cent. of those patients treated in private houses with the 6 per cent. of private patients so treated under the Lunacy Commissioners is reproduced.

In the chapter on Idiots and Imbeciles attention is drawn to the fact that accommodation for the teaching and training of this class in England is only provided for 1147, or 3 per cent. of the estimated total in the population. Dr. Tuke advises the establishment of additional training institutions, and quotes the conclusions of the Charity Organisation Society on this subject.

The history of the insane in Scotland is given in a very interesting form. It is noteworthy that so early as 1838, in some Scotch asylums amusements and employment were very fully carried out, while in 1855 the condition of the insane in many others was of a deplorable character. The points of treatment coming into vogue in Scotch asylums are also dwelt upon, such as the abolition of airing the open door system, and liberty on parole.

In Ireland, so late as 1815, it was reported to a special

commission "that when a strong peasant becomes insane the only way they have to manage is by making a hole in the floor of the cabin, not high enough for the person to stand up in, with a crib over it to prevent his getting up." Dr. Tuke traces, with his usual care, the legislation by which this condition of things has been amended.

The book concludes with the interesting address on the progress of psychological medicine during the last forty years, delivered by Dr. Tuke to the Psychological Association in 1881.

No one can arise from the perusal of this work without feeling an increased interest in the advancement of the humane treatment of the insane; and the hope may be expressed that this book may exercise an important influence in preventing the principle of "personal treatment," advocated by his illustrious ancestor, from being overlooked or ignored, in the tendency to excessive size in asylums, which an erroneous idea of economy is now developing.

*Die Öffentliche Reconvallescentenpflege.* Von Dr. PAUL GUETERBOCK. Leipzig: F. C. Vogel. 1882.

THIS work relates to the treatment and management of convalescents in homes and in hospitals. All points connected with this subject are discussed fully in every detail, so as to make the volume extremely valuable for purposes of reference. The first portion of the work especially aims at establishing beyond all question the necessity for the existence of convalescent institutions, and the importance of treating convalescents from a public health point of view. After considering most of the details connected with their situation, construction, and management, the author gives a plan and account of the asylum at Vincennes, and another of Burdett's "Convalescent Cottage Hospital." He takes these two as typical examples of what convalescent hospitals should be, although they are constructed on different principles. The vexed question of day rooms is fully gone into, and although Dr. Gueterbock approves of them as a whole, still he recognises Miss Nightingale's objection as to the difficulty of preserving discipline in them. He insists that patients recovering from chronic maladies should be just as much entitled to admission as those after acute diseases, and also that the treatment of convalescents should not be considered purely as a matter of charity. The second part of the volume is devoted to the special consideration of the working of the system in those European countries where it may be regarded as having taken firm root—namely, in Germany, England, and France, brief mention also being made of Italy, the Netherlands, and United States of America. It is flattering to read page after page of testimony to the efficiency and excellence of the English establishments. The boarding-out system is also highly extolled; although the author wisely remarks on the necessity of a very careful choice of boarders, not so much on account of their special ailments as of their moral character and social condition; in his opinion it is especially of advantage in chronic cases. Dr. Gueterbock, however, has apparently not become acquainted with the excellent results of the system obtained in connexion with the Cork Union, which were published not long ago in THE LANCET. In conclusion, the volume dwells upon the position of Germany as regards public convalescence; and the author deploras the backwardness of his own country and the lack of interest taken in the question by its people. We can cordially recommend Dr. Gueterbock's book; it is sound, practical, and thoroughly trustworthy, and fully maintains the credit the German school has obtained for producing works of solid information based on industrious research and high scholarship.

*The Journal of Anatomy and Physiology.* Conducted by Professors G. M. HUMPHRY, WM. TURNER, and J. G. MCKENDRICK. Vol. XVII., Part 1. October, 1882. London: Macmillan and Co.

THIS number contains eleven articles, namely:—1. The Lymphatics of the Walls of the Larger Bloodvessels and Lymphatics, by George and Elizabeth Hoggan. 2. Micrococcus Poisoning, by Alex. Ogston. 3. Omphalo-Mesenteric Remains in Mammals, by Dr. W. Allen. 4. The Action of Saline Cathartics, by Matthew Hay. 5. A hitherto undescribed Fracture of the Astragalus, by Francis Shepherd. 6. A Secondary Astragalus in the Human Foot, by William Turner. 7. Note on the Rectus Abdominis et Sternalis Muscle, by G. E. Dobson. 8. Ectopia Vesicæ, and other Imperfections of Development in a New-born Infant, by Francis Ogston. 9. Nickel and Cobalt, their Physiological Action on the Animal Organism, by Dr. Anderson Stuart. 10. A Kerato-thyro-hyoid Muscle as a Variation in Human Anatomy, by S. G. Shattock. 11. Cessalpino and Harvey, by Professor Humphry.

## Analytical Records.

### SNOW'S CARBOLISED EAU-DE-COLOGNE AND LAVENDER-WATER.

(R. SNOW & CO., SHAFTSBURY-ROAD, LONDON, W.)

It is curious how little the carbolic acid in these preparations interferes with the delicate perfumes with which it is mixed. It can just be perceived, and that is all; and yet it exercises a marked disinfectant action on the air of a sick-room.

### VASCON. (SPANISH RED WINE.)

(GRITTEN & POOLEY, CHAPEL-PLACE, OXFORD-STREET.)

Several good Spanish wines of the Bordeaux or Burgundy type have lately come before us. Vascon is a wine of the same class. It is a genuine, sound, and somewhat full-bodied wine, decidedly superior, in our opinion, to most if not all French wines sold at the same price. It is evident that for ordinary unfortified table wines we need no longer depend entirely on France and Germany.

### WHEELER'S EMULSIO PICIS LIQUIDÆ.

This is a brown viscid fluid, representing, in a convenient form, the constituents of wood tar. Of the value of tar as a medicinal agent there can be no question. As an external application it is largely employed in many forms of skin disease, especially the scaly varieties; whilst internally it is used with advantage in the treatment of chronic bronchitis and other affections of the mucous membranes. For the preparation of tar-water, it is recommended that the emulsion should be diluted with forty parts of water, and the mixture filtered. As a disinfectant a somewhat weaker solution would suffice.

### ADEPSINE (PURE WHITE AND ORANGE-YELLOW).

Prepared under the direction of Prof. Dr. R. Fresenius.

(WILLERINGHAUS, KLINKER, & CO., HAMSELL-ST., LONDON, E.C.)

This is a petroleum product sold in several forms—white and yellow, solid and liquid. The liquid oil is a remarkable substance. It is rather more limpid than olive oil, is perfectly free from taste and smell, and is so stable that it is hardly attacked by sulphuric acid, caustic soda, or metallic sodium. Such an oil cannot become rancid, and is admirably adapted for surgical use. White adepsine is really absolutely white, and, like the liquid, is perfectly free from taste and smell. It is of about the consistence of ordinary lip-salve, and is an excellent ointment for the skin.

# THE LANCET.

LONDON: SATURDAY, DECEMBER 2, 1882.

THE actual value of new discoveries in science can never be at once appraised. It is long before the true relations of fresh facts can be ascertained. They are magnified by the halo of novelty which surrounds them, and which itself depends on the mists of ignorance that prevent us from estimating the proportions, and discerning the position, of a new light in the sky of science. Sometimes a discovery at first is undervalued. Modest and unobtrusive in appearance, its significance is only realised when long-continued observation has shown its true position, or revealed the order to which it is the key. Much more frequently the influence of a new discovery is over estimated. Expectation is aroused by the trumpet-blasts which herald its approach, and the discovery is received with universal acclamation, as explaining all things, or about to explain them—as effecting all things, or about to effect them. This is rarely the fault of the discoverers themselves. New facts are never brought to light but after long and patient search, and he who is most familiar with the region in which the discovery is made is least likely to exaggerate the value of the fresh-found truth. Of no advance in medical science is this more probably true than of the wave of discovery on the crest of which pathologists now find themselves. Far be it from us to undervalue the remarkable facts of the relation of living organisms to disease, which have been ascertained by the not less remarkable investigations of the recent years. Their profound importance is beyond all question, and they will certainly constitute a chief landmark of the progress of medical science in the present century. But in the profession, and even more outside it, there has been, and still is, a widespread expectation of practical results of the highest importance from these discoveries—an expectation of an immediate and vast increase in our power of dealing with disease, of preventing its occurrence, and of curing it when it has developed. A caution is needed against such exaggerated expectation. That “knowledge is power” is not, alas! an aphorism of universal application. Doubtless, no great advance in our knowledge of disease can ever occur without entailing some increase in our power of coping with it, but every consequence does not closely follow its cause, and though knowledge comes, wisdom, its practical application, lingers on the way. It may be doubted whether there is at present any satisfactory evidence that these discoveries have yielded the slightest increased power of dealing with the diseases of mankind. Most, if not all, the means of treatment and of prevention, which they suggest, have been in use before, and if they have suggested some new methods, the value of these has not yet been proved by practical results. The discoveries enable us to understand the *modus operandi* of certain influences, morbid and therapeutic, more clearly than before, but there are others on which these new facts do not at present throw the faintest light.

We may take as an instance the remarkable discoveries regarding the relation of bacteria to tuberculosis. These have been at once received as evidence of the contagiousness of phthisis. All that they really do is to enable us to understand how phthisis may be contagious. They afford no proof that it is, and at present there is no more evidence of its contagious character than there was before. Rare instances of its apparent communication from one person to another have long been recorded, and before the discovery of the organisms there was some evidence—not very strong, however—to show that the disease may be produced by the consumption of the flesh of diseased animals, and still slighter evidence that it may be contracted from milk. But this is all. Indeed, so far as the indirect influence of the discovery can be traced, it has rather increased the evidence to show that the disease is not contagious, for it has led to the collection of facts, such as those lately published by Dr. THEODORE WILLIAMS, which prove that the conditions of aggregation, which conduce most powerfully to the extension of really contagious diseases from the sick to the well, are without influence in the case of phthisis. On the other hand, the discovery of the bacteria has increased the difficulty of explaining the influence of heredity, and still more the influence of subsoil drainage on the occurrence of the disease, so ably worked out by Dr. BUCHANAN. It has led to the adoption of antiseptic expedients in the treatment of phthisis, to the suggestion of numerous inhalers and inhalations but there is at present no evidence of their specific utility to the patients, although there is considerable evidence that they are of practical value as a means of displaying the names of physicians on the counters of chemists.

The discoveries and inferences regarding the relation of organisms to acute specific diseases force the same conclusions upon us, and also upon others, if we may judge from the cautious utterance upon the subject which Prof. JACCOUD lately delivered, in a lecture inaugural to his course of medicine at Paris. The question of the origin, prevention, and treatment of the acute specific diseases of man remains exactly as before the discovery of the relation of special organisms to some of them. Very wisely does Prof. JACCOUD warn his hearers against the “exclusivism” which would regard the bacteria as all and everything in the pathology of disease. He reminds us that the liquids in which bacteria grow have been proved to have toxic properties apart from the formed organisms, and that even the right to accuse bacteria of being the infective agents where they have been found, does not give us the right to accuse them where they have not been found. It is still unproved whether the different bacteria are of specific nature, or whether they acquire specificity under certain conditions of development. “Knowing,” he concludes, “the influence of the infected bacteria, we know one of the agents—say, if you will, the most powerful agent—in the diffusion and conservation of infectious diseases; but this conception still leaves us as ignorant of the morbid poison itself, leaves us as powerless in direct prophylaxis, as we were when we spoke of miasma instead of bacteria. Now, as then, we can only learn the real causes of these diseases by ascertaining the conditions in which the infective agents, judged by their effects, arise; by ascertaining the circumstances which limit or facilitate their diffusion; and by ascer-

taining what conditions, cosmical and personal, are opportune for their development."

THERE can be no doubt of the vast importance of, as well as the necessity for, the effectual practical teaching of Midwifery in our medical schools. The great majority of all those who engage in the private practice of medicine are called upon to attend women during their lying-in. A very large proportion of women who suffer from diseases peculiar to their sex refer their suffering to a previous labour, and justly. It has been proved that the mortality in childbed is very great—about 1 in 120; and in all cases of difficult labour two lives, that of the child and that of the mother, are at stake. These facts sufficiently testify to the importance of midwifery as a branch of medical education, as well as to the necessity of teaching our students the practical details and management of labour in all its varieties. The methods adopted in the English schools differ materially from those in use on the Continent. In France, Germany, and Austria large lying-in hospitals are common, and it is not an infrequent practice to conduct difficult cases of labour in the theatre before a crowd of students when any obstetric operation is to be performed. In this country, on the other hand, such practice is unknown, and the sentiment of the public would doubtless be altogether opposed to its adoption. At the same time, if the practice were of such value that it supplied the student with a knowledge of operative midwifery which he could not otherwise obtain, and in this way proved conducive to the safety of the public, poor as well as rich, the sentiment would be unreasonable, and should be as far as possible treated accordingly.

Operations in midwifery differ from most other operations in this—that they are performed, not under the guidance of the eye, or of the eye and the touch, but of the touch alone. They are done within the pelvis, and little or nothing is to be seen; and witnessing the forceps applied, the perforator used, internal version or any other purely obstetric operation performed, can give the student little or no idea of the manipulation necessary to their safe performance. He can acquire a knowledge of the subject only by doing such operations himself. This knowledge would of course be best acquired on the living subject, under the supervision of a competent teacher. Cases of operative midwifery are, however, not so frequent as to permit of this, and we have to fall back on the next best alternative—operating on a well-made model. By the latter method the student can acquire a fair knowledge of the use of instruments, as well as a certain amount of skill in obstetric manipulation—a knowledge which will enable him to operate successfully and without inflicting injury in the great majority of cases. A knowledge of how to use instruments is not more important in operative midwifery than a knowledge of when to use them. The latter is far more difficult of acquisition than the former. Examination in the living pelvis alone can supply it; and it is in the education of the student in this part of midwifery that lying-in hospitals may prove of the greatest value. There are in London a considerable number of large maternity charities, in some of which thousands of women are attended every year, others in which the patients are counted by

hundreds. Several of the largest are connected with our medical schools, and the cases are attended by students. There are others in which all the work is done by midwives, under the supervision of physicians. This material is enormous; but it is not possible at present, and as the work is now carried out, to make the best use of it in the interest of the public or of the student. For teaching purposes a great part of it is not available. The women attended by the students from our schools dwell in wretched rooms scattered over wide areas, so that not more than one can benefit by each case, and it is not possible for that one even to derive that legitimate advantage from it which he would derive were the patients gathered within a small area where the teacher could personally superintend the labours. For this object lying-in hospitals are necessary, and nothing else can supply their place. There are four lying-in hospitals in London, and, with one exception, there is not the least attempt to utilise the material in them for teaching purposes. We cannot but think that it would be greatly to the benefit of the public, and especially of the poorer classes, were these made teaching in addition to charitable institutions, and were students of our medical schools permitted to enter them under some strict regulations. There would be no difficulty in drawing out a working plan which would prove mutually beneficial to institutions and students, as well as safe for patients.

WHEN commenting on the Report of the Royal Commission on Small-pox and Fever Hospitals, we referred incidentally to a proposal by Dr. BURDON-SANDERSON, F.R.S., for the construction of small-pox hospitals in such a manner that none of the hospital air could leave the hospital buildings without being first submitted to such a heat as would effectually destroy all organic and infective matter. Since then we find that the subject has received attention elsewhere, and there is evidently an increasing desire so to deal with our future small-pox hospitals as to prevent their becoming possible centres of infection, either by means of aerial diffusion or otherwise.

Dr. BURDON-SANDERSON'S proposal is to construct a hospital with one ward, for twelve patients, of an annular shape on a floor slightly raised above the surrounding ground, and if necessary to increase the accommodation by the construction of one or two more similar wards on a second and third storey. In the outer wall of the annular ward, and just above the floor level, are a series of openings into the external air, and in the inner wall, above the head of each patient's bed, and immediately opposite each of these openings, is a similar opening leading to a chamber which forms the centre of the ring. It is intended that this chamber shall be fitted with an extraction-fan, and in its roof would be fixed a gas furnace. All the windows would consist of fixed sheets of glass, and with the exception of doors carefully guarded by springs, and communicating with a corridor, there would, apart from the apertures in the outer wall of the ward, be absolutely no openings into the external air. Under these conditions, and by the aid of the fan in the central chamber, it is alleged that the air, having first passed over hot-water pipes, would be drawn into the ward through the openings in the external wall, that it would be conveyed at the rate of about one mile an hour over each



patient's bed, and that the beds being guarded on either side by septa projecting into the ward, the air would pass out of the openings near the ceiling level in the inner wall of the ring, from which point it would be drawn by the fan up into the furnace. By means of this operation each patient, having 1200 cubic feet of ward space, would be provided with 10,000 cubic feet of air per hour, and thus it would seem that a quarter of a million cubic feet of air per patient per diem would have to be treated by heat. Dr. BURDON-SANDERSON, as the result of his experiments, anticipates that no difficulty would be experienced in securing this end, and he has shown in his description of the proposed hospital how the various necessary administrative details could be attended to without disadvantage to the patients or the staff.

Another scheme, prepared before the publication of the Report of the Commission, was recently submitted to the Leeds Corporation by Messrs. HARDING, engineers of that town. According to this plan, inlets for fresh air are placed above windows which consist of fixed sheets of glass, and over each patient's bed is a funnel-shaped hood, communicating with a tube which passes round the walls of an ordinary oblong ward, and is then conveyed beneath the flooring to a furnace in an adjoining apartment. The furnace thus exercises an extracting power, and it is assumed not only that none of the air-inlets will become outlets, but that all the ward air will gradually be drawn up the hoods over the beds, and so on to the surface of the fire, where it would be deprived of its infectious qualities.

The principal difficulty which we anticipate in the actual working of a hospital in which every movement of air and all ventilation must, in order to complete success, be dealt with artificially, and in which all air must be drawn out of, instead of driven into, the building, is that of ensuring that none of the openings into the external air shall, under any circumstances, become outlets instead of inlets. Artificial methods of ventilation seldom answer all the ends they were hoped to have attained, and even where the current of air is with certainty directed into the intended channel it is often done at the expense of creating draughts. Of the two schemes we have noticed, we cannot but think that the desired end is more likely to be gained by the plan submitted to the Royal Commission by Dr. BURDON-SANDERSON. The warmer air in the upper part of the ward is the air which it is most essential to remove, and this would perhaps be best secured by making the outlets at a much higher level than the inlets, and by fitting both the machinery of the fan and the furnace with gas, which would continue to work without the need of that constant supervision which always becomes necessary in the case of an ordinary furnace dependent for its efficient working on human labour. Under any circumstances, if the temperature to which the out-going air were subjected in the furnace could be maintained at such a height as to ensure the destruction of all its organic matter with such instantaneous rapidity as would be essential, owing to the necessary velocity of the air-current, a very large proportion, if not all, of the infected air emanating from the patients would be destroyed before it left the hospital buildings, and such portion of it as might find egress by air inlets not sufficiently under the control of the general ventilating machinery, would probably be so

small that even in connexion with a building containing some thirty-six beds, it would never lead to that mischievous condition of atmosphere in the neighbourhood of the hospital which appears to need for its production the aerial emanations of an aggregation of at least some such number as thirty small-pox patients. In short, it is quite possible the suggestions which we have commented on in this article may ultimately be found to indicate a remedy for the dangers which have been shown to attend upon the isolation of any large number of small-pox patients in the neighbourhood of centres of population.

AMONG the causes which lead to the numerous rejections at the College of Surgeons and some other examining boards, we must not omit to take into account that very important one which in many cases lies at the root of the matter—viz., an imperfect preliminary or school education. This has been brought forcibly under notice by the results of the examination instituted last September, at the suggestion of the Medical Council, by the Cambridge Local Examination Board, and also by the September examination held by the College of Preceptors. In both these examinations the rejections were very numerous, and the ignorance displayed by many of the candidates was remarkable. The seriousness of this deficiency can scarcely be over-estimated. If the foundation-stone of education laid at school be bad, the probability is that the whole subsequent structure will be bad also. The ill-trained schoolboy will prove an indifferent medical student; will probably be rejected at the examinations; and when, after sundry failures he manages to pass through the portals of the profession he is not likely to meet with great success in it. Whatever may be the curriculum of medical education, whatever may be the provisions and arrangements of examining boards, whatever may be the efforts of authorities and of teachers—from the Medical Council to the private tutor,—this radical school defect cannot be overcome. To it we would call the serious attention of parents and schoolmasters, and all who have the charge of boys intended for the medical profession. Even from a pecuniary point of view the curtailment of school education is the worst economy. It probably entails rejection, with attendant disgrace, at the medical examinations; a longer period, with proportionate expense, in medical education; and a lower status in the profession. As the lad starts from school, so will he usually go on in the profession. The measure of his success in the latter may commonly be estimated by the quality of his school training and his proficiency in school knowledge. It matters not so much *what* he has learned as *how* he has learned it. The tendency, perhaps, is to sacrifice quality in learning to quantity. A little well and thoroughly mastered is far better than a larger amount held loosely and indifferently. Let a good school be carefully chosen, a school in which there is some assurance that the subjects, whether linguistic, mathematical, or physical, are well taught, with a view to the mental training of the boys, and let the parents or guardians have an eye on the matter, and ascertain for themselves that this is being done, and evince their anxiety about the school teaching as well as about the school games—about the mental as well as about the bodily gymnastics; in short, use their best endeavours that a sound educational

basis has been laid before the boys enter upon their medical studies. They may then have good confidence that the result will be satisfactory; at any rate they will not have themselves to blame if it be otherwise. We are well aware that a variety of qualities, mental, moral, and physical, combine to give success in the medical profession. There is scope in it for a greater variety than, perhaps, in any other line of life. In no other do the personal element, the warmth of heart, the vigour of character, come so much into account. Happy are they to whom Heaven has granted these qualities in large measure; happier still, and certain of success in life, are they in whose case Heaven has added also the wise and continually watchful solicitude of parents that their early mental and moral training should be good.

## Annotations.

"Ne quid nimis."

### MEDICAL QUESTIONS IN PARLIAMENT.

A WEEKLY reference to this department of THE LANCET will show that few questions of any interest in medical or sanitary matters escape the attention of our reporter. No doubt many questions are put with little practical purpose, and some, it may be feared, with little more intention than to worry a minister or department; but, nevertheless, the power of questioning responsible ministers in their place in Parliament is a most valuable one, and leads sometimes to the correction of misrepresentations, sometimes to improved administration of the law, and sometimes to an amendment of the law itself. It is so difficult to get at the official and permanent heads of departments, and the forms of the House are withal so unfavourable to legislation, that if there were not the hope of doing some good by a plain and direct question to a minister, we should be ever so much worse off than we are. The use of questions in Parliament has been well illustrated in the present short and exceptional session of Parliament. In the very nature of it, work and legislation have been restricted to questions of procedure; but the questions put have covered a large amount of ground, and have elicited information as to facts and as to the intentions and views of Government which is interesting. The questions have ranged from the therapeutical value of phosphate of potash in scurvy, or the efficiency of the conduct of the medical officers of the expedition in Egypt, to the importation of drugs into Japan, or to the better supervision and education of the children of gipsies and other nomads. The answers, if for nothing else, are always worth attention for their discretion, and for what moralists would call the "economical" amount of reply and information they contain.

### THE PARKES MUSEUM.

THE newly appointed Council of the Parkes Museum have entered upon their work with a becoming sense of the possible importance of the institution over which they have been called upon to rule. They have, rightly we think, determined to go to very considerable expense before opening the museum to the public, and there can be no doubt that the work which is now being carried out in the new premises will add immensely to the efficiency of the museum as a centre for the practical teaching of hygiene. It has been determined to considerably enlarge the existing skylight of the chief hall of the museum, and to carry a light ornamental iron gallery completely round the main hall and the council-room, which will also be used as a library. These alterations will entail an expenditure of nearly four hundred pounds,

and the Council very properly hesitated to embark on such an undertaking without seeing its way with tolerable clearness to the source whence the necessary funds were to be derived, and it is right to state that the ability of the Council to proceed with this most necessary work is due to the public-spirited action of its individual members, who have given donations or promised subscriptions which we believe amount to nearly £500 in the aggregate. This action on the part of the Council, composed as it is entirely of professional men of high standing, will serve as a guarantee of their earnestness and *bona fides* in the work which they have in hand, and will certainly ensure an adequate and loyal support for the museum from the professional and general public. Not only have the gallery and new skylight been determined upon, but, as we have already mentioned, the whole of the drainage arrangements have been undertaken by Mr. Rogers Field, who has generously offered to superintend their construction and bear the whole expense of them. These arrangements will be so constructed that they will admit of ready display for the purposes of teaching. With regard to the heating arrangements, the Council have determined to utilise for this purpose as great a variety of apparatus as possible. More than one of the stoves and grates which were premiated at the Smoke Abatement Exhibition will be used, and economy of fuel, consumption of smoke, and the combination of heating and ventilating, are the principles which are guiding the Council in their selection. One fire-place is, we understand, to be constructed on the principle advocated by Mr. Fletcher of Warrington, and this work will be carried out under the personal supervision of Captain Douglas Galton, the Chairman of Council, whose practical knowledge of heating is well known. The details of the lighting have not yet been finally settled, but on one point we understand the Council to be unanimous—namely, that no gas-lamp shall be admitted to the museum which does not provide for the escape of the products of combustion from the apartment. Now that the museum has ceased to be connected with any one place of instruction, it will be of considerably more service than heretofore to all teachers of hygiene in the metropolis or its neighbourhood, and it is contemplated to give every facility to teachers and lecturers at medical schools and elsewhere for bringing their students to the museum for the purpose of practical instruction. The room appropriated for a council-room and library is admirably adapted for its purpose, and the gradually increasing number of works and periodicals bearing on sanitary subjects which are to be found upon its shelves cannot but prove an attraction to students, and a strong inducement for all who are interested in the museum to take up their membership. All who may wish to become members of the museum should communicate with the Secretary, Hon. Secretary (Dr. Dawson Williams), or the Treasurer (Mr. Berkeley Hill). All letters should be addressed to the Parkes Museum, 74A, Margaret-street, W.

### HEALTH OF THE TROOPS IN EGYPT.

WE are happy to learn that the latest intelligence from Egypt shows an improvement in the health of the troops, the percentage of sick having fallen to ten, and the mortality from all causes, including enteric fever, being much diminished. The information on the subject of the sickness and mortality has been very meagre, nothing having as yet been published officially. But, accepting as correct the numbers transmitted from Cairo, it appears that in the force stationed there, numbering 8725, there have been 1683 admissions and 51 deaths from Nov. 1st to Nov. 26th, inclusive. These figures give the annual ratio of 271 admissions and 8.21 per cent. of the strength. Considering the hardships the troops had gone through, and the causes of disease to which they had unavoidably been exposed, especially the condition

water which for some time they were compelled to, this rate does not appear to be greater than might been expected ; indeed, it is much under what occurs at stations in India, where the troops have not been exposed to any unusual hardship or privation. If the results for the whole of the troops in Egypt were published, the results would probably be much more favourable ; and, considering the reduction which is now steadily taking place both in the fresh cases of sickness and in the number of deaths, we think there is every reason to hope the health of the troops will soon reach a satisfactory standard.

RHEUMATISM OF THE BRONCHI.

UNDER the rather alarming, if etymologically accurate, name of "rheumatic leucinoitis," Dr. Buckler, of Paris, contributes to the current number of the *American Journal of Medical Sciences* a paper of some interest and value. States that for many years past he has believed in the existence of a condition of inflammation of the bronchial tubes in which the fibrous structures are primarily and the mucus membrane solely involved. It is a condition which he thinks remarkably frequent, and of considerable gravity, from secondary pneumonia it is liable to induce. Moreover, the recognition of such an affection, he maintains that they are able to complete the clinical picture of bronchitis which Laennec left unfinished, and may find here especially an explanation of those severe and persistent cases of so-called "dry catarrh" the pathology of which is veiled in obscurity. It is, as we have indicated, many years since Dr. Buckler first wrote on the subject, and, as he himself states, he has had to encounter much difficulty in the acceptance of his views. He has therefore returned to the subject with the additional force of several marked examples of the affection, which he maintains to be distinctly of a rheumatic character, from its supervening in the course of acute rheumatism, and from its occurrence under conditions favourable to the production of rheumatism, as well, finally, in the state of the urinary excretion. As to the physical signs of rheumatic "leucinoitis," they are as notable for their absence as snakes in Iceland. Indeed, the diagnosis is based upon a continued, distressing, hard, dry cough, for which physical examination reveals no sign ; the mucous membrane not being swollen or inflamed, there is presumably no change in the calibre of the tubes and no excess of bronchial secretion, and the bronchitis is therefore mute. But in several cases the condition leads to pneumonia, or at any rate to pulmonary engorgement, which is made manifest by physical examination. Dr. Buckler goes so far as to attribute the excessive mortality from bronchitis, especially that which occurs in London during the prolonged prevalence of fogs, mainly to this hitherto unrecognised affection ; and he details the case of a patient who attributed his ailment to this cause. He was a man of about forty years of age, and always of good health. He said, in answer to Dr. Buckler's queries: "I got this cough at the time of the great London fog which happened nearly eight weeks ago ; it has been all the time the same as I have it now. I went for three weeks as an out-patient to the Westminster Hospital, but at the end of that time my cough was no better than when I first went there. My worst spell of coughing begins about four o'clock every morning, and continues usually without little stop until seven. I have never had the slightest pain. My appetite is good. Going upstairs makes me short-breathed, and causes a feeling of suffocation. I sleep well when not disturbed by cough." There was only an occasional faint sibilant rale, and Dr. Buckler thought there was some evidence of commencing pulmonary congestion. Acting on his view of the case, he prescribed salicylate of soda, with speedy relief to the bronchial symptoms ; and it may be

added, as to the treatment of these cases, he prescribes the salicylate except when the urine, instead of showing an excess of urates, is found on the ammonia test to contain an excess of phosphates, when fresh lemon-juice is most useful. How far Dr. Buckler's idea as to the prevalence of this form of rheumatism is borne out by general experience we do not know, but the profession will doubtless be prepared to test the validity of his contention and the value of the line of treatment he suggests.

THE WEIGHT OF WOMEN'S CLOTHES.

THIS is a phase of the dress question which has been too much overlooked. The clothes worn by women are, as a whole, far too heavy ; and, by a perversity of fashion, they receive an enormous increment of weight at this season in the shape of cloaks or mantles of sealskin or plush with quilted linings. The attention of medical practitioners needs to be specially drawn to this matter, in order that they may remonstrate with their female patients, and also avoid misconception as to the actual strength of some who complain of fatigue in walking, which may be mistaken for a token of weakness, whereas it is only natural exhaustion from carrying a burden that few strong men would care to bear. There are even worse evils than mere fatigue consequent on the practice of loading the body feminine with the outrageously heavy outer garments now in vogue. Not only are the ordinary movements of the legs and arms injuriously impeded, but the waist is encircled as with a belt or hoop, to which a load heavier than a felon's chains is attached, and the shoulders and chest are compressed by an additional burden. Breathing is laboriously performed, and the contents of the trunk and pelvis are thrust down with a force which, if represented in pounds, would occasion considerable surprise. We venture to suggest that, as a matter of more than curiosity, medical men should ask their female patients to ascertain precisely the total weight of the clothes they wear in-doors and out. The matter is by no means unimportant. We have reason to think that not a few of the maladies from which women suffer acutely, and the general weakness and depression of the muscular and nervous system of which they very commonly complain, will be placed in an entirely new light when the facts to which we now call very serious attention are fully known.

THE "NON-RESTRAINT" LUNATIC SYSTEM IN AMERICA.

IT is amazing, as well as amusing, to read in a recent number of the *Boston Medical Journal* an announcement to the effect that the medical superintendent of an asylum numbering 800 (!) inmates, "many violent and noisy, making them difficult to control," has dared to adopt the non-restraint system. Of course it is only at one asylum that this temerity has been shown, and even there the doctor stands on his reserved right to restrain either by the usual devices or by the use of sedatives, if he thinks it necessary. By-and-by, if this sort of thing goes on, some one in connexion with a public hospital will be making the public hair stand on end, and at the same time earning for himself eternal gratitude, by venturing to give the victim of a formidable operation chloroform ! Happily, however, it is only in respect to the management of the insane America lags about forty years behind the rest of the world and is now just beginning, in a very small and limited way, to perceive what other peoples have long recognised—namely, that insanity is not either a "visitation" or a crime, but simply a disease, which only needs to be treated on medical principles to be brought within the pale of human influences, when its victims will be found not less easily manageable than the sane.

## DEATH IN PRISON.

WE regret, after only a short interval, to call attention to another death in prison under circumstances which call for explanation on the part of the Commissioners who are responsible for the working of the new Prison Act. In the present instance we are pleased, however, to state that no blame attaches to the officials in charge of the prisoner, and it was not their fault, nor that of the prison surgeon, that the deceased remained for several hours after the commencement of his fatal illness without medical relief being afforded, and in fact died before the medical officer of the prison could see him. The reason for this neglect is tersely stated in the evidence of the governor of the prison, "There are no arrangements under which, in event of any sudden illness or other emergency, and the surgeon or assistant-surgeon being absent from the town, I can call in another medical man to attend a prisoner." Such evidence is an emphatic condemnation of the niggard and parsimonious administration of our prisons under the working of the new Act. The unfortunate prisoner, who had been an inmate of Huntingdon Gaol for some time, was suffering from heart disease, on which account he had been excused from hard labour, and had been under treatment and visited every day, though apparently not ill enough for removal to the infirmary. On the day of his death he was taken ill at 6 A.M., he remained ill all the morning, and urgent symptoms developed till 11.40, when the authorities, becoming alarmed, sent off for the medical officer. This gentleman happened to be on his country rounds; the message reached him between 1.30 and 2 P.M., and he at once attended, but too late. The man was dead. The public, who know nothing of the conditions under which the Commissioners of Prisons secure medical attendance for the inmates of their gaols at the least possible expense, will probably feel inclined to lay the blame on the medical officer for being out of the way. It will be as well therefore to explain that the Commissioners, in order to secure medical services at as cheap a rate as possible, permit the holders of the appointment to engage in general practice. In this way they are enabled to secure the services of first-rate men for something like £100 or £200 a year, instead of paying £700 or £800, which would be the case if they were called upon to devote their whole time to prison duties. Now it is impossible for a man to be in two places at once, however zealous and energetic he may be, and therefore it is incumbent on the Commissioners to provide that in cases of emergencies, in the unavoidable absence of the prison surgeon, the nearest available medical man be called in to act for him till his return.

## RESIDENTIAL CHAMBERS FOR STUDENTS.

WE have always most strongly urged the desirability of an institution on the lines of the "Union" Societies of Cambridge and Oxford for the benefit of the students in attendance at our London medical schools, and a plan by which good residential chambers could be made available for such of them as would desire to adopt a collegiate form of life would also be a great boon, if good management and a proper system of discipline could be insured. Without these they would be unmixed evils. We should, for our own part, prefer that the various schools and colleges themselves establish residential chambers, reading rooms, &c., rather than that a large central institution should be founded, for in the former case the management and discipline would devolve on the proper authorities instead of being casual and inefficient, as would be more likely to occur under the latter system. At King's College and at St. Bartholomew's such residences, although by no means sufficiently numerous and not properly supplemented by recreation rooms, &c., do exist, and are in much demand both by parents for their sons and by the

students themselves. It would be a great advantage to medical students if chambers in connexion with the schools were general instead of being limited as at present, for undoubtedly many of the faults and much of the idleness now urged against those engaged in the study of our profession, are directly due to a want of supervision after lecture hours and to the dreariness and unsuitability of the lodgings in which, under the present régime, they are compelled to reside. We have our fears, however, whether any central scheme could secure the proper organisation essential to its success. A club—with reading and debating rooms, a gymnasium and a music room, &c.—is quite another and a more modest proposal. The necessary supervision and arrangements could be more easily arranged than if a residential college were added thereto. The "Unions" at the universities are very successful, and we can see no reason why, provided that it be worked by the proper authorities, and with great care and determination, a similar institution should not be well carried out in London, with signal advantage to the very numerous body of medical students now necessarily left to themselves in our metropolis. The dangers which threaten its success are obvious to every one, and can only be avoided by the use of circumspection and care at the outset, and to secure these great desiderata a very prudent selection of the executive is imperative. It is given to very few to understand the wants of the student and at the same time to command the qualities necessary to the successful management of a club or a residential college.

## THE SANITARY STATE OF YORK.

THE recent report issued by Mr. W. S. North, medical officer of health for the City of York, and of which we gave an abstract last week, has attracted a large amount of attention. During the third quarter of the year there had been in York a very high mortality from zymotic diseases, and especially from diarrhoea, and this is, in the opinion of Mr. North, a marked indication of the general prevalence of bad sanitary conditions. Privies and ashpits in which human excreta and garbage lie decomposing, remain in certain parts of the city for weeks and even months without being cleaned out, polluting the air and soil by their filthy emanations and soakage. Ill-constructed drains, frequently passing under living rooms, convey foul air into dwellings; ill-ventilated sewers lead to sewer air being forced up house drains; and piggeries, cowhouses, and slaughter houses are a source of nuisance. These are essentially the conditions which, according to Mr. North, are calculated to lower the health of the inhabitants and to render people susceptible to disease. Especially are their effects noticed in the case of infants whose vitality cannot resist such noxious influences, and hence doubtless the large diarrhoea mortality for which York has become noted. At a recent meeting of the York Town Council several councillors gave evidence of their sense of the responsibility attaching to their position as members of a board dealing with the sanitary interests of the city, for though admitting that Mr. North's report had produced considerable consternation and surprise, they felt that they were fortunate in possessing as medical officer of health a gentleman who had the courage openly to state his opinion as to the sanitary shortcomings of the city. Others, it is true, held a different opinion; they would either have kept the matter quiet because of its damaging influence on the value of property within the city, or they would have solaced themselves and others by attributing the diarrhoea mortality to "atmospheric causes." They were, however, in a minority, the report was agreed to, and we may look hopefully towards the adoption of measures for the gradual extinction of conditions so injurious to health as those now obtaining in York. As regards fatal diarrhoea, we learn that two of its principal factors are at work in York. There is a steady overcrowding of houses

on site in progress, and hence the density of population in area is becoming a matter of serious importance. And not only so, but the limited open space about houses is occupied by conditions ensuring the pollution of the air breathed. The Town Council should set itself earnestly to remedy these conditions, on the one hand by adopting by-laws which will for the future ensure ample open space about newly erected houses, and on the other by securing a better system of closet and ashpit construction, together with regular and frequent scavenging. When these matters have been dealt with, and when sewers and drains have ceased to pollute the air which infants breathe, then it will be time enough to inquire whether the atmosphere is at fault in the production of an essentially preventable disease.

#### POISONOUS MUSHROOMS.

THE question of the poisonous nature of certain commonly-eaten mushrooms is again attracting some attention, and not without reason, for, as is generally admitted, the study and investigation of the properties of the edible fungi is one of the most difficult which can fall to the lot of the toxicologist. Our acquaintance with the subject is limited, for we know little or nothing of many of those active principles which occasionally produce such direful effects. Professor Ponfick, of Breslau, has recently made a series of experiments with the common mushroom, and his practical results are of considerable interest and value. He considers that all common mushrooms are poisonous, but that cooking deprives them more or less completely of their deleterious qualities. The repeated washing with cold water to which they are usually subjected to clean them dissolves out a portion of the poison, whilst the subsequent boiling completes the process. The water in which mushrooms has been boiled is a strong solution of the poison, and should be at once disposed of in such a way that it can do no harm. Professor Ponfick found that when dogs were made to eat 1 per cent. of their weight of raw mushrooms, they fell sick, but recovered; when the dose was increased to 1½ per cent. the poisonous effect was more pronounced, whilst 2 per cent. invariably proved fatal. The water in which mushrooms had been boiled was far more poisonous than the mushrooms themselves, whilst, after boiling, the fungi could be taken without the production of any symptoms to the amount of 10 per cent. of the dog's weight. Another point of interest is that dried mushrooms remain dangerous for from twelve to twenty days. They should be dried for at least a month, and are really safe only after four months' drying.

#### TYPHOID FEVER IN PARIS.

THE weekly admissions into hospital and deaths by this disease are as follows:—

For the week ending	Admissions.	Deaths.
Sept. 28th . . . . .	213	5
October 5th . . . . .	536	134
"   12th . . . . .	1001	250
"   19th . . . . .	741	244
"   26th . . . . .	406	173
Nov. 2nd . . . . .	423	125
"   9th . . . . .	341	112

The number of cases remaining under treatment in the hospitals on November 2nd was 2085. The deaths from typhoid fever among the population of Paris from the beginning of the year till November 16th have amounted to 2765, or in the annual ratio of 141 per 100,000. This is greatly in excess of the mortality from the same cause during the last decade, the highest proportion having occurred in 1876, when it amounted to 102·2 per 100,000. The average of the five years 1875–9 was 61·4 and of the two years 1880–81 it was 96·5, so that the deaths this year have exceeded by one-half the average of the latter period.

#### THE ASYLUMS BOARD AND THE HOSPITAL COMMISSION.

THE Metropolitan Asylums Board have, through their General Purposes Committee, had an interview with the President of the Local Government Board, with reference to the action they should pursue with a view to the future exercise of their powers for the protection of the public from the spread of infectious diseases. The Government have had it fully explained to them that the threatened litigation with regard to the Hampstead and the Fulham Hospitals, and the ejectment order which has been obtained with regard to the ambulance station at London Fields, have tied the hands of the Asylums Board, that they cannot properly perform their duties unless fresh legislation supercedes that under which they now exercise their powers, and which has been admitted to be defective. The Asylums Board have expressed their willingness to undertake the functions suggested by the Royal Commission, provided they receive the support of the Local Government Board. They have not, however, hesitated to throw the whole burden of the responsibility as to the future upon that Board; they have distinctly called upon the Government not to delay any further in taking action with regard to a matter affecting the health and lives of the community; and having regard to their previous experience under somewhat similar circumstances, one of their members has suggested that they should appeal directly to the Prime Minister.

#### COLD DRINKS IN COLD WEATHER.

THERE is a practice against which many persons, and particularly public speakers, need to be put on their guard—namely, drinking cold watery beverages in cold weather. The body becomes heated with the excitement and physical and mental exertion of addressing crowded assemblies. Nothing is more natural than to desire, under such conditions, a draught of some cold beverage. Now it happens that cold drinks are depressing in their influence, and the result of taking such draughts when performing more than common feats of strength and endurance, particularly in middle-age and advanced life, is to lower the tone of the nerve centres at a time when it is most desirable that they should be in exceptionally good working order, so that they may retain the vitality necessary to meet unusual need. So far as we are aware, the physiological effect of iced potations taken hastily when putting forth special strength and making a peculiarly large demand on the vital force of the nervous system, is either not understood or is forgotten. For the sake of the many zealous statesmen and politicians who do not seem to have given the need of special precautions in this particular a single thought, it is desirable to point out that the worst illnesses may, and do, proceed apparently from insignificant causes. This is one of the petty causes which may give rise to sad results.

#### SYPHILITIC ORGANISMS.

FURTHER observations of micro-organisms in syphilitic new growths have been published by Birch-Hirschfeld. He has examined a number of recently extirpated condylomata, and also a syphilitic growth in the wall of the heart, and has come to the conclusion that the organisms are not distinct rods or bacilli, as he formerly described them, but merely micrococci, and the appearance of rods is due to the linear association of a number of these elements. It is much more difficult to distinguish the individual elements than in the case of most micrococcal chains, because the organisms in syphilis are not round but oval, so that they are visible, not as points, but as short streaks. In most cases there are both monococci and diplococci; less frequently three



or five individuals are united, which curiously simulate long rods with rounded ends. In this the observations of Aufrecht are corroborated. For the demonstration of the organisms in recent preparations, Birch-Hirschfeld prefers potash, by the clearing action of which the micrococci are visible in the tissue on account of their strong refracting power. In a broad condyloma, they lie, for the most part, in small aggregations in the papillæ, and in many of the cells of the adjacent layer of the rete Malpighii. They may readily be detected in the juice of a recently excised condyloma, by tinting in the ordinary way; and of the various tinting agents, Birch-Hirschfeld concludes that fuchsin and gentian-violet are the best. In the growths in internal organs the smallest micrococci are most abundant, and the larger forms seen in the condylomata are seldom met with. In gummatous scars they have been sought for in vain. In more recent gummatous products they were most abundant in parts which had the aspect of growing granulation-tissue. They were partly scattered, partly aggregated into groups, which never exceeded a granulation-cell in size; they were also distinctly seen within cells. Many epitheloid cells seemed to have their nuclei filled with these organisms.

#### M. GAMBETTA'S WOUND.

OUR Paris correspondent writes:—On Monday morning, about eleven o'clock, M. Gambetta met with an accident at his country house at Ville d'Arzay, a small town just outside Paris, under the following circumstances. M. Gambetta fired off a revolver in his bedroom, and, forgetting that another barrel was still loaded, held it with his hand over the muzzle, when it went off, the ball entering the palm of the hand and making its exit about the middle of the forearm. The doctor of the place was immediately sent for, and the wound was dressed by him. Meantime, Dr. Lannelongue, hospital surgeon, was summoned to the patient from Paris, and arrived about two hours after, when he examined the wounds superficially, and dressed them temporarily with the intention of re-examining them more minutely the next day, which he did, and declared that there was no fracture, no artery wounded, and that he did not anticipate any complications, notwithstanding the fever which had declared itself, owing to which the patient was obliged to take to his bed. Dr. Lannelongue reports that the patient's condition is as satisfactory as possible, and that the fever has entirely subsided.

#### BOLINGBROKE HOUSE PAY HOSPITAL.

THE second report of this hospital is now published. The institution represents an experiment of interest both to the public and the profession. The promoters of a provident dispensary were led to found it on the double ground that the nearest hospitals, St. Thomas's and St. George's, were too far off; and, secondly, that many of the members were not of a class for which these hospitals were founded. Query, were they of a class by whom provident dispensaries, at their very unremunerative rates of payment for medical men, ought to be used? Be this as it may, the foundation of a pay hospital was an undertaking creditable to the boldness of the Vicar of Battersea, Canon Clarke, and the generosity of the residents of Battersea, Wandsworth, and other places. The principal comparative facts of the two years of its existence are as follows. In the first year the total number of patients, men and women, admitted was thirty-four, in the second sixty-five. The total payments made by the patients in the two years respectively were, in round numbers, £202 and £652; the total cost of maintenance, £407 and £858; of management, £84 and £34; the average days' stay of each patient in the two years respectively, twenty-seven and forty-four; the average weekly

payment of each patient £1 10s. 6d. and £1 10s. 1d.; the average weekly cost of each patient, £2 0s. 5d. and £2 0s. 11d. The number of beds available at the end of this year (Sept. 1882), as compared with the end of last, is twenty-eight against twelve. The table of occupations of patients who come from both London and the provinces is satisfactory. The diseases treated are chiefly phthisis, genito-urinary affections, and ophthalmia. It is noticeable that there is only one case of fracture, in an artisan. His friends agreed to pay 10s. 6d. weekly, but the day after admission his father called and removed him to a general hospital, "because he could get the same thing for nothing," though there was little doubt about ability to pay. We regret to see that the sum owing to the vicar as trustee has increased from £1300 to £1620. The services of the medical staff are still wholly honorary. It is premature to criticise so interesting an experiment. We shall content ourselves with recording its progress, and the perseverance of those lay and professional gentlemen who sustain it. It must be a valuable accommodation to persons of limited means, if it cannot be said at present to be remunerative to the profession or easy to Canon Clarke.

#### MR. TEALE ON ECONOMY IN USE OF COAL.

THE *Leeds Mercury* of Nov. 22nd gives an interesting report of a lecture delivered by Mr. Teale before a large audience in the Leeds Philosophical Hall on the previous night. The subject was the economical combustion of coal. Mr. Teale's genius is many-sided. It is above all practical and kindly. It concerns itself with many things outside what a narrower mind would consider its sphere. It has made its impress on modern surgery, but it can take thought for sound drains, cheap and effective fires, and all that will add to the domestic and municipal welfare of a community. The lecture we have mentioned is a striking illustration of this. It is a careful description of the various plans for securing a slow and complete combustion of the coals in our ordinary household fire-grates. Mr. Teale says the slow combustion of coals in a house fire depends on two conditions—first, that no current of air should pass through the grate beneath the fire; the second, that the space or chamber under the fire should be kept hot by being shut off from the outer air. He has been telling the public how for a few shillings one of two or three arrangements may be applied which will secure these conditions, and how by securing them a saving of one-fourth of coal may be effected, smoke and soot greatly diminished, and the ash refuse reduced by two-thirds. We cannot here detail the experiments by Mr. Teale and others which prove his assertions. The profession well knows that Mr. Teale is not likely to make any statements which he has not carefully verified. The particular "economiser" he advocated for ordinary stoves and grates, "applicable to every house," was a simple shield resting on the hearth, and rising as high as the bottom of the grate. Various speakers of authority confirmed Mr. Teale's estimate of the advantage of using "economisers." The profession will be induced by Mr. Teale's example to consider this question.

#### RETIRING PENSIONS TO MEDICAL OFFICERS.

MR. ROYLE, medical officer of the Milnthorpe district of the Kendal Union, lately tendered his resignation after twenty-six years' tenure of office. He naturally raised the question of a retiring pension. The guardians, notwithstanding a feeling speech from Mr. Barwise, pointing out that Mr. Royle's resignation was based largely on the ground of ill-health, declined by a large majority to make such a grant. Indeed only Mr. Barwise voted for it. This is poor treatment of an old servant who had served the Board well, and is scarcely consistent with the spirit of the law.

## LUNATICS IN PARIS.

THE report just issued by the Prefect of the Seine upon condition of the lunatic asylums in the department of Paris shows at what an alarming rate insanity is increasing in that city. At the beginning of the century there were only 946 lunatics in Paris, whereas at the end of last year the total stood at 8260, or, in other words, while the population has only increased threefold the number of lunatics has increased nearly ninefold. For the last ten years there has been an annual increase of about two hundred, the number of male and female lunatics being in the relative proportions of 54 and 46 per cent. The number of lunatics placed in asylums during last year was 2438, of whom 1293 were men and 1145 women, the ages of nearly half of them being between thirty and forty. Up to the year 1878 unmarried persons were in the majority, but of the lunatics admitted to asylums last year 1016 were married and 1002 single. With regard to their education, it is stated that 144 were highly educated, 1655 could read and write, 138 could only read, and 474 were completely illiterate. A third of them were either labourers or mechanics, and only 79 persons are described as following one of the liberal professions. More than 15 per cent. of the cases are attributed to overindulgence in drink, while among the moral causes, domestic trouble and sudden fright hold the chief places. The number of cases was greatest in the month of August, and fewest in January. About 180 of the lunatics placed under restraint last year were natives of Belgium, Germany, Italy, and Switzerland. The expenditure which their maintenance entails is partially reimbursed by the Governments of their respective countries. Thus Germany takes her lunatics back, but does not pay for their maintenance, while Russia and Switzerland defray all expenses. England, upon the other hand, neither defrays the cost of their maintenance abroad nor has them brought home. The number of cures effected last year was 683, or about one in nine, while the number of deaths was 1443, or one in eight, the majority of deaths and cures being among first-year patients. The cost of keeping up the lunatic asylums for 1883 is estimated at £192,000 for 8320 patients, but out of this sum £22,800 will be contributed by the families of the well-to-do patients.

## PUERPERAL FEVER AND ITS RISKS.

THE danger to nurses arising from attendance on cases of puerperal fever is illustrated by a case which lately came before Dr. Danford Thomas, the coroner for Central Middlesex. A woman named Ann Hart, aged seventy, nursed a Mrs. Breely in her confinement. Mrs. Breely suffered from puerperal fever and died. The day after her death the nurse was taken ill and was seen by Drs. Read and Hall, who recognised the presence of blood-poisoning. In spite of their efforts the patient died, and Dr. Hall stated at the inquest that in his opinion the poison entered the system of the deceased through the cracks in the skin of the hand and fingers. Cases in which nurses attending patients suffering from blood-poisoning, pyæmia, or puerperal fever, have become themselves infected, although rare, are not unknown. The hands and fingers are often the seat of small punctured wounds, such as pin pricks, the existence of which is overlooked or unsuspected, and these are often ways by which the poison of secretions of the patient suffering from puerperal fever may infect the system of the attendants. The risk of such occurrences may be greatly lessened, if not entirely removed, by the antiseptic precautions now frequently, although not generally, taken in cases of labour. These are important not only to the lying-in woman, but to the doctor and nurse also. Were the hands washed in a five per cent. solution of carbolic acid and afterwards

anointed with carbolic oil or unguent, the unsuspected spots capable of receiving infection would be rendered proof against it, and the hands might with comparative safety deal with the secretions and discharges of the puerperal period.

## REWARDS FOR THE EGYPTIAN CAMPAIGN.

TO the rewards which we announced in our last number as having been conferred on medical officers in connexion with the late campaign in Egypt, we have to add that of Companionship of the Order of the Bath conferred on Surgeon-Major H. B. Scott, M.D., who was attached to the personal staff of the Duke of Connaught. It is also announced that Mr. J. Watt Reid, C.B., the Director-General of the Medical Department of the Navy, is to be promoted to K.C.B., and that Brigade-Surgeon W. Jackson, C.B., who was recommended for special promotion by Lord Wolseley, is to have the honour of knighthood conferred upon him. We are glad to see that Mr. Childers, with his characteristic sense of justice, has found a means of rewarding Mr. Jackson without inflicting an injury upon the other medical officers, or establishing the dangerous precedent of recalling to the active list an officer who had been retired in conformity with the provisions of a Royal Warrant.

## WET CARRIAGES.

WE have on more than one occasion embraced an opportunity to warn the public against the danger of riding in hansom cabs with damp cushions. It is necessary to repeat the warning in consequence of the lumbago and inflammatory mischief, even extending to the kidneys, which are due to carelessness, not only in regard to cabs, but private carriages. During the recent wet weather attention has been attracted to the matter by the utter recklessness of servants, who, not being expressly told to put up the hood of victorias and open vehicles generally, have left them open until the cushions have been literally soaked by the rain. Not a few serious illnesses have already been traceable to this cause. It is useless to expect that coachmen or footmen will think of these things of their own motion. Servants are, as a rule, careless of the comfort of their masters and mistresses, and unless it be to save themselves a little trouble, they will not take thought for the soaking which an open carriage standing in the rain must certainly receive. It is no uncommon occurrence to find the cushion completely saturated; and when a susceptible person comes out of a heated house and sits for some time in a cold vapour bath, the consequences may be very serious indeed.

## THE RECENT OUTRAGES IN DUBLIN.

OUR Dublin correspondent writes:—In the affray between the police and some members of the secret societies which infest Dublin, on last Saturday night, one of the former was deliberately shot dead by bullet wounds from a revolver fired by a man named Dooley. A comrade of the policeman immediately fired on Dooley, and, after a struggle, he and another of the scoundrels were secured and removed in custody. Dooley was brought to Jervis-street Hospital, and on examination the following wounds were found to have been inflicted: a bullet wound through the right radius, a wound in the neck, and another which entered at the upper part of the right shoulder and passed through without injuring the bone; a contused wound on the back of the head, and a fracture of the left parietal bone, evidently produced by a blow from a revolver, were also present. He was not insensible, and was perfectly quiet and apparently unconcerned at his position. There was but little hæmorrhage. The pulse and temperature have both been normal, and in all probability the man will recover. Cox, the unfortunate

policeman, who was killed almost instantaneously, was shot in the back of the head, the bullet penetrating the bone and lodging in the brain; he also received a bullet in another part of the body. On Monday evening, a gentleman who lately served as a juror on the trial of Walsh for the murder of Constable Kavanagh was attacked by two men close to his residence, and stabbed in several places; he is now dead.

#### THE PRIX VOLTA.

THE French Government has decreed the creation of a prize of fifty thousand francs, which is to be called the Prix Volta, and awarded in 1887. The prize will be given to the author of the discovery which shall increase the facility of the application of electricity in one of the following departments (*qui rendra l'électricité propre à intervenir avec économie dans l'une des applications suivantes*): (1) as a source of heat, of light, of chemical action, of mechanical power, as a means of transmission of messages; and (2) in the treatment of disease. The second article of the decree states that *savants* of all nations may compete. This probably means that the prize is open to the whole world, although, as far as the wording is concerned, it might be refused to a practical discoverer on the ground that he was not a *savant*. The third article fixes June 30th, 1887, as the last day for putting in claims. A Commission nominated by the Minister of Public Instruction will examine into the merits of the discoveries specified by the competitors, and decide whether they fulfil the necessary conditions. The report of this Commission will be published in the *Journal Officiel*.

#### CURIOUS DEATH AND INQUEST IN CARMARTHENSHIRE.

THE *South Wales Daily News* has some very proper reflections on an inquiry into the death of a lady at Maesgwynne, near Llanstephan. This lady was found dead in her husband's bed. He was an epileptic. On the previous night two bottles of brandy were bought. Two servants and a child (a boy) lived in the house. No care seems to have been taken to ascertain whether the lady and her husband were alive or dead on the day of her death till seven at night, when a servant went in and found her dead, and the husband in a confused state, saying she was only asleep. A doctor was summoned to verify the death; but the coroner, in spite of the opinion of several jurors, would not take his evidence. Such imperfect inquests bring discredit on the coroner's office, and leave unmerited suspicion on families. Since then the husband of the deceased has died.

#### VACCINATION PROSECUTIONS AT BRIGHTON.

AN extraordinary story is told in an evening contemporary of evidence given before the Brighton magistrates in a case of prosecution for non-compliance with an order made for the vaccination of a child. Henry Holman, we are told, had been previously ordered to have his child vaccinated, and, having failed to comply with the order, was again brought before the magistrates. For the defence, it was stated that the defendant had actually taken his child to the vaccination station and requested that it might be vaccinated with pure lymph, but that the vaccinator told him "he had no pure vaccine lymph, and if he had he would not use it." The child was, therefore, taken away unvaccinated. The fact that the Bench overruled this objection in the case of Holman and that of other children where a similar contention was put forward makes it probable that this story was not believed. It cannot, however, be doubted that if left uncontradicted much harm will arise from its publication; and

we would, therefore, strongly recommend that no time may be lost in contradicting a statement so seriously reflecting on the conduct of a public officer.

#### THE HEALTH OF THE DUKE OF EDINBURGH.

WE are glad to be able to report that His Royal Highness is recovering from his indisposition. The Duke has been suffering from a pulmonary and nephritic congestion due to exposure on board the *Lively*. All serious symptoms have now passed away, but Dr. Wilks of Ashford is still in attendance on His Royal Highness. Though there need be no anxiety about a permanent recovery, it is obvious from the peculiar nature of his malady that many months must elapse before His Royal Highness will be able to undergo the fatigue and exposure incident to his professional vocation.

#### THE NAPOLEON OF CHESS.

OUR Newcastle correspondent, in his letter this week, alludes to the extraordinary playing of Mr. J. H. Blackburne, who has made a descent on Newcastle-upon-Tyne and tackled some of the hard-headed players of the North, playing blindfolded eight simultaneous games, and for the most part successfully. As if this were not enough, he proved his lasting powers and resources by engaging thirty players the next day; of these he vanquished twenty-seven, two were drawn battles, and he lost only one. Mr. Blackburne, in his style, refuses to be allured by the most tempting offers of his adversary; but, looking only to the end, hampers him, and at last swoops down in unexpected ways. It may be mentioned that, although his use of tobacco is by no means excessive during his play, he is particular as to quality, and he may be fairly classed in the category of "steady smokers."

#### THE SPEAKER'S INDISPOSITION.

GREAT sympathy and regret were expressed by members of the House on its becoming known on Tuesday evening that the Speaker was indisposed and unable to return to the chair. Though the House has not sat much later than midnight during the autumn session, the continuous consideration of the procedure rules, unrelieved by any breaks of committee work, as in an ordinary session, must have been very trying to Sir Henry Brand's health, and no surprise was felt by the House on Wednesday at the Deputy-Speaker, Dr. Lyon Playfair, again taking the chair.

#### MEDICAL SOCIETY OF LONDON.

ON Monday evening next the subject under discussion will be the preparation and examination of various tissues infected by bacteria. Dr. Heneage Gibbs will exhibit an interesting series of microscopic specimens illustrating tubercle, bovine tuberculosis, splenic fever, diphtheria, typhoid, &c.; and will subsequently give an account of the methods in which his results have been obtained. The clinical side of the subject will be discussed at a future meeting of the Society. We shall hope to publish in an early number the result of Dr. Gibbs' recent work on the subject of tubercle.

#### PORRO'S OPERATION.

THIS operation was performed on Monday by Dr. Godsen, in a lodging in Islington taken for the purpose, on a dwarf aged twenty-four, for extreme distortion of the pelvis. The child (a girl, living) weighs 8½ lb., and measures 20 in. in length. The height of the mother is only 52 in. Up to the present she is progressing most favourably. The operation was completed in just an hour.

## SIR THOMAS WATSON, BART.

THERE has been during the last week a continued decrease of strength, with distressing restlessness. The weakness is now so great that the end cannot be distant.

## WAITING-ROOMS AT RAILWAY STATIONS.

IF we may judge by the pestilential effluvia which reach the nostrils of passengers strolling into some of the waiting-rooms at railway termini in London, the sanitary condition of certain of the inner rooms appropriated to ladies must be most unsatisfactory. This is a matter which ought on no account to be overlooked. It is the duty of the officials of railway companies to see that their premises are in a condition conducive to health, and not in a state which can scarcely fail to favour the dissemination of disease. If proper precautions are not taken, the attention of sanitary authorities must be called to the matter, and at once.

## MR. ANTHONY TROLLOPE.

MR. TROLLOPE has made considerable progress towards recovery since the publication of our last report. The attacks of dyspnoea have now entirely ceased, and Dr. Murrell considers that there is every prospect of a speedy restoration to health.

IN the usual quarterly return of prevalent diseases presented to the Medical Society of the Paris Hospitals by M. Castel on Nov. 10th, it was pointed out that, although typhoid fever had raged so severely in Paris, the rate of mortality from this disease in the hospitals was lower than in the corresponding period of 1881. From lack of information as to the actual number of cases occurring outside the hospitals, it was not possible to say whether the same diminution in the comparative mortality characterised the epidemic as a whole.

THE *Citizen and Evening Chronicle* (Halifax, N.S.), reports the death of a boy while under the influence of chloroform, preparatory to the extraction of a tooth. A folded towel was used, on which were poured at intervals two teaspoonfuls of chloroform. Alarming symptoms supervening, artificial respiration was resorted to, nitrite of amyl was exhibited, and subsequently the patient was suspended with his head downwards; all, however, proved unavailing, and the boy succumbed.

THE death is announced of Dr. Henry F. Draper, Professor of Physiology in the University of New York. The deceased, who was born in 1837, was a son of the late Dr. J. W. Draper, author of "History of the Intellectual Development of Europe."

THE typhoid fever epidemic at Bangor appears to have almost completely disappeared. No deaths from the disease have been reported for more than a fortnight, and the number of convalescents has been reduced to fifteen.

MR. GEO. THOMPSON, jun., of Pitmidden, has placed £6000 at the disposal of the Senatus of the University of Aberdeen for the purpose of founding ten medical bursaries.

DR. J. BURDON SANDERSON, F.R.S., has been elected to the Waynflete Professorship of Physiology at Oxford.

SMALL-POX is reported to be ravaging the East African districts north of Delagoa Bay.

DR. A. E. SANSON has been elected Lecturer on Medical Jurisprudence and Public Health at the London Hospital Medical College. Dr. C. Meymott Tidy will lecture on Toxicology in the place of Dr. Rodgers, who resigned last summer.

## Public Health and Poor Law.

## LOCAL GOVERNMENT DEPARTMENT.

## REPORTS OF INSPECTORS TO THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*Southborough.*—This urban district, which lies between Tunbridge and Tunbridge Wells, has been visited by Mr. Spear, one of the Local Government Board's medical inspectors, because of an outbreak of enteric fever. The district consists in the main of a small straggling town containing 3870 inhabitants; it has many natural advantages of site, soil, and scenery; and its main sewerage has been carried out satisfactorily. But most unfortunate mismanagement has been shown in other matters. The private drains allow of the retention and deposition of sewage matter within them, they exhibit defective and leaky joints, right-angled junctions are frequent in them, they are scarcely ever ventilated, and there is commonly a direct communication between them and the interior of dwellings. And further, the soil, which in consequence of drain defects has become polluted, is the source from which the domestic water-supply is derived by means of local wells, each house or group of houses having its catch-pit for liquid filth, and its well sunk in the same soil. Under these circumstances the story told by Mr. Spear becomes simple enough. The copious evacuations of an imported case of enteric fever are poured down without disinfection into the drains; the disease extends, leaky drains are found close to wells, and the consumers of the water sicken with enteric fever, until thirty-three persons residing in twenty-four houses have been attacked and four have died. In view of the urgency of the case Mr. Spear recommended that immediate disinfection of the sewers should be carried out, that a systematic inspection of house-drains should be at once commenced, that polluted wells should be closed, and a wholesome supply of water be delivered at houses daily by means of a hand cart, and also that further action of a permanent character should be no longer delayed. The sanitary authority appear fully to have carried out the more immediate of the recommendations, and it is to be hoped that they will for the future see the importance of securing, by means of efficient by-laws, proper drain connexions and of laying on a wholesome public water service.

## REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Hastings (Urban).*—The medical officer of health for the Borough of Hastings, Mr. C. K. Shaw, has recently issued his quarterly report upon the health of this watering-place, the population of which is estimated at 44,239 persons. The birth-rate did not exceed 25.4 per 1000, showing the abnormal character of the population and of its age distribution. The 159 deaths registered within the borough were equal to a rate of 14.3 per 1000, which is stated to be a little below the average rate in the seven preceding corresponding quarters. It appears, however, that five deaths of residents of the borough were recorded in the Workhouse and Sanatorium situated outside its boundaries, while twenty-six of the deaths occurring within the borough were of "non-residents." Applying these corrections the health officer declares the "accurate death-rate to have been only 12.4 per 1000." The death-rate in the borough last quarter, whether we place it at 14.3 or 12.4, undoubtedly points to satisfactory health conditions, but we must demur to the assertion as to the "accuracy" of the lower rate. The correction of death-rates of watering-places for the deaths of "non-residents" is by no means a sure way to accuracy. In such cases the definition of a "non-resident" should always be stated, and the effect of such a definition upon the population should always be borne in mind. It would be interesting to know what proportion of the population of

Hastings would be pronounced "non-resident" if judged by the same standard. It certainly does not conduce to accuracy to exclude the deaths of "non-residents" and yet to count all "non-residents" in the population upon which the death-rate is calculated. It is reported that nearly 31 per cent. of the deaths of "non-residents" were due to phthisis, and it is beyond question that Hastings owes a considerable proportion of its increase of population to the suitability of its climate for persons of a phthisical tendency. The zymotic death-rate in Hastings last quarter was equal to 2.9 per 1000; the thirty-two deaths referred to the principal diseases of this class included twelve from diarrhoea and ten from whooping-cough. The fatality of the latter disease was, indeed, excessive for Hastings. Considering the incidence of summer diarrhoea, the proportion of infant mortality may be considered to have been satisfactorily low.

*Presteigne.*—Dr. C. J. Covernton, medical officer of health to the Knighton rural sanitary district, has prepared an exhaustive report on the sanitary condition of the town of Presteigne. The sanitary conditions of the place were such in 1878 that Dr. Airy inspected it on behalf of the Local Government Board, and, as far as we can judge, nothing seems to have been done there since that date. The place is without proper drainage or sewerage, the privy-with-pit is in general use, the lodging-houses are overcrowded and ill-regulated, and some of the schools are in a bad sanitary state. The conditions which may be deemed as satisfactory in the place are mainly so because of local advantages afforded by nature. Thus the wells are believed to be free from pollution because the rain rapidly washes all filth from the surface into the streets, and the street gutters to some extent answer the purpose of sewers, because a heavy rainfall secures their frequent and effectual flushing. Dr. Covernton, however, strongly urges the provision of a proper system of sewers, and the adoption of by-laws to regulate cleansing, nuisances, and lodging-houses.

*Cork.*—During the four weeks ending Nov. 4th the births registered amounted to 174, being equal to 28.0 per 1000. The deaths numbered 138, or a death-rate of 18.7. These returns, when compared with those for a corresponding period last year, show that the ratio of mortality remains practically unchanged, but they also indicate that there has since then been a decided diminution in the amount of febrile diseases of every description in the city.

At a meeting last week of the ratepayers of the parishes of Great and Little Waltham a resolution was passed approving of the scheme of sewerage and improved water-supply of the district proposed by the Chelmsford Rural Sanitary Authority.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5721 births and 3919 deaths were registered during the week ending the 25th ult. The annual death-rate in these towns, which had been equal to 21.3, 21.7, and 22.6 per 1000 in the three preceding weeks, further rose to 24.2 in the week ending the 25th ult. The lowest death-rates in these towns last week were 14.7 in Bolton, 19.7 in Wolverhampton, and 19.9 in Birkenhead. The rates in the other towns ranged upwards to 28.0 in Plymouth, 28.9 in Oldham, 32.2 in Hull, and 47.8 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 501, and within 9 of the number in the previous week; 120 resulted from measles, 110 from scarlet fever, 96 from "fever" (principally enteric), 88 from whooping-cough, 53 from diarrhoea, 29 from diphtheria, and 5 from small-pox. The lowest death-rates from these zymotic diseases occurred in Norwich and Wolverhampton, and the highest in Liverpool and Sunderland. Measles caused the highest death-rates in Liverpool and Sunderland; scarlet fever in Leeds, Blackburn, and Sunderland; whooping-cough in Birmingham and Preston; and "fever" in Sunderland, Liverpool, and Portsmouth. The 29 deaths from diphtheria in the twenty-eight towns included 16 in London, 4 in Liverpool, and 3 in Sunderland. Small-pox caused 2 deaths in London, 2 in Manchester, and 1 in Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which had been 70 and 73 on the two preceding Saturdays, declined to 68 at the end of last week; only 7 new cases of small-pox were admitted to these hospitals during the week, against

7, 12, and 16 in the three previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 330 and 345 in the two preceding weeks, further rose to 411 last week, but were 69 below the corrected weekly average. The causes of 97, or 2.5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Newcastle-upon-Tyne, and in four other smaller towns. The proportions of uncertified deaths were largest in Oldham, Blackburn, Halifax, Sheffield, and Sunderland.

### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 22.0 and 25.8 per 1000 in the two preceding weeks, was 24.3 in the week ending the 25th ult.; this rate was almost identical with that which prevailed last week in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 89 and 98 in the two previous weeks, declined to 78 last week; these were equal to an annual rate of 3.3 per 1000, which was 0.2 above the rate from the same diseases in the English towns. The fatal cases of whooping-cough declined from 15 and 26 in the two previous weeks to 19 last week, of which 12 occurred in Glasgow, and 3 in Dundee. The 20 deaths referred to diphtheria showed a decline of 4 from the number in the previous week, and included 13 in Glasgow, and 2 both in Dundee and Greenock. The 18 fatal cases of scarlet fever, however, showed a further increase upon recent weekly numbers; 8 were returned in Glasgow, 4 in Edinburgh, 3 in Dundee, and 2 in Paisley. The 6 deaths referred to "fever," were below the average, although 3 occurred in Edinburgh. Seven of the 12 deaths from diarrhoea, and 2 of the 3 from measles were recorded in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 130 and 172 in the two preceding weeks, were 167 last week, and exceeded by no fewer than 75 the number in the corresponding week of last year. The causes of 111, or 19 per cent., of the deaths registered in the eight towns last week were not certified.

### HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been equal to 27.7 and 26.1 per 1000 in the two preceding weeks, rose to 29.2 in the week ending the 25th ult. During the first eight weeks of the current quarter the death-rate in the city averaged 24.1 per 1000, against 20.3 in London and 19.1 in Edinburgh. The 210 deaths in Dublin last week showed an increase of 21 upon those in the previous week, and exceeded any weekly number since the middle of May last. The deaths from the principal zymotic diseases, which had been 14 and 11 in the two previous weeks, rose again to 14 last week; they included 6 from "fever," 4 from whooping-cough, 2 from diarrhoea, and 1 each from scarlet fever and diphtheria. The death-rate from these zymotic diseases was equal to 2.1 per 1000, while the rate from the same diseases last week was 2.8 in London and 2.2 in Edinburgh. The deaths referred to "fever," which had been 8 and 3 in the two previous weeks, rose again to 6 last week. The 4 fatal cases of whooping-cough also exceeded recent weekly numbers. The deaths both of infants and of elderly persons exceeded the numbers returned in the previous week. The causes of 9 of the deaths were uncertified.

## THE SERVICES.

**ARTILLERY VOLUNTEERS.**—1st Cornwall (Duke of Cornwall's): Surgeon Arthur Austen Davis is granted the honorary rank of Surgeon-Major.—3rd Middlesex: Alfred Lingard, Gent., to be Acting Surgeon.

**RIFLE VOLUNTEERS.**—1st Suffolk: Surgeon and Honorary Surgeon-Major J. Mitford Ling resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement.—6th (West) Suffolk: Acting Surgeon John Sinclair Holden, M.D., to be Surgeon.

**ADMIRALTY.**—Fleet Surgeon Gordon Jackson to be Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet with seniority of the 24th ult.

In accordance with the provisions of Her Majesty's order



incil of April 1st, 1881, Fleet Surgeon George William Sutherland has been placed on the Retired List from the ult.; Surgeon John Christian has been placed on the Retired List of his rank from the 18th ult.

The following appointments have been made:—Fleet Surgeons Chas. A. Lees, M.D., to the *President*, additional, Jackson, promoted; James Flanagan to the *Duke of Devon*, vice Lees; and Stephen Sweetnam, to the *ce. vice Flanagan*. Staff Surgeon Edward W. Doyle to the *Valiant*, vice Sweetnam.

## Correspondence.

"Audi alteram partem."

### "PICRIC ACID AND SUGAR TESTING."

To the Editor of THE LANCET.

SIR,—I am sorry to have anything to say to detract from the value of the "happy accident" through which, on the evening of the 14th inst., Dr. Johnson, whilst using picric acid as a test for albumen, came upon what he believed to be an extremely sensitive test for grape sugar whether in the urine or elsewhere; but I cannot allow his letter upon the subject in your issue of the 18th to pass without a few comments upon it.

I have followed the directions given by Dr. Johnson, and the results of my own observations upon the employment of picric acid as a test for sugar stand thus:—When equal volumes of a saturated solution of picric acid and liquor potassæ are mixed a bulky precipitate of the comparatively soluble picrate of potash is formed. If now the contents of the test tube are boiled, the precipitate disappears, and a deep colour is developed. This change occurs without the addition of anything to the mixed picric acid and potash. On next pouring in some healthy urine and further boiling, notably deeper colour, now amounting to a claret red, is produced, and if the urine should be a concentrated specimen, the depth of colour may be very intense—so much so as to approach towards an appearance of black on being viewed by reflected light, but transmitted light shows it to be a deep claret red. If, instead of healthy urine, some diabetic urine be poured into the mixture of picric acid and liquor potassæ, a very dark colour is, on boiling, at once assumed, which appears almost, or it may be quite, black by reflected light; but it nevertheless, as shown by transmitted light, and also by diluting the product with water, consists of the same claret red character as in the other instance.

Without the addition of any foreign agent, then, to the picric acid and potash, boiling produces a certain amount of colour, healthy urine increases this, and diabetic urine increases it further still. The same kind of tint is throughout manifest. There is only a difference in the degree of colour produced, and by dilution with water the deep-coloured product yielded by the diabetic urine may be brought to resemble, so as to be undistinguishable, the test treated with healthy urine and the test taken alone.

Dr. Johnson suggests that the effect of picric acid is to intensify the colour produced by the reaction of caustic potash and grape sugar—the reaction known as Moore's test. If we refer, however, to "Watts' Dictionary of Chemistry," we find that the action of reducing agents upon picric acid is to lead to the production of picramic acid, which is a red-coloured principle. Various reducing agents are named which convert picric into picramic acid, and amongst them are the sulphides of ammonium, potassium, &c., which are susceptible of being generated by boiling urine with potash. The colour developed by boiling the mixture of picric acid and potash with a sulphide so resembles that produced by boiling it with healthy and diabetic urine that, as the result of observation, I could not distinguish any difference when brought to the proper extent of dilution, and I think it may be considered that the effect of grape sugar is to act as a reducing agent upon the picric acid instead of the picric acid intensifying the action of potash upon grape sugar.

A few words upon the subject of extent of sensitiveness that it is desirable for a test for sugar to possess looked at in relation to its employment as a qualitative clinical test. I believe it would be an absolute misfortune for a more sensitive test than the cupric test to be introduced into

general use. What is wanted for medical purposes is not to recognise the small fluctuating amount of sugar existing in healthy urine, but sugar when it reaches an amount to be of clinical significance. The ammoniated cupric test, which has been described by me and which I employ for quantitative purposes, and which is so sensitive as with the greatest facility to reveal not only the sugar but the amount of sugar existing in healthy urine, would be an exceedingly dangerous agent to employ as a qualitative test. Had I not been strongly impressed with this I should have long since introduced it to notice as a qualitative as well as a quantitative test. A good form of cupro-potassic test furnishes, I consider, exactly what is wanted by medical men. It resists being influenced by, or rather does not show the effect exerted by, the sugar present in healthy urine, but does reveal the presence of sugar when existing to an extent to be of clinical significance. A cupro-potassic test, if kept in solution for some time, loses its stability and becomes too easily influenced to be relied upon, unless certain precautionary measures are taken. I feel that I ought to be under some reserve in speaking about the cupric test pellets (supplied by Mr. Cooper of 26, Oxford-street) as they originated with me; but, at the same time, I believe I am serving the interests of medical practitioners in stating that experience has led me to regard them as supplying the safest test that can be used. I am, Sir, yours, &c.,

Grosvenor-street, Nov. 22nd, 1882.

F. W. PAVY.

P.S.—Will you allow me to add under the form of postscript to the letter which I sent you last week, and which reached you too late for insertion then, a few remarks suggested by the further communication contained in your last issue from Dr. Johnson. Appended to Dr. Johnson's letter is a communication from his son, which bears the impress of careful observation as far as it goes. Mr. G. Stillingfleet Johnson confirms what I have mentioned about potash alone and healthy urine giving the colour produced by sugar, and he enumerates several precautions as being necessary in the use of the test. He fails, however, to say anything about the effect produced by the presence of sulphides, which is identical with that produced by sugar. The sulphide produced by boiling albumen with potash suffices to give a deep colouration. Let some thoroughly washed precipitated albumen be dissolved in a boiling solution of potash and then a little of this be boiled with the mixture of potash and picric acid; the result observed is a deep colouration like that produced by sugar. I expect in Dr. Johnson's original observation on the two specimens of albuminous urine the albumen had something to answer for in the result he noticed. Again, a small piece of white flannel which represents hair may be boiled and dissolved in potash; a little of the liquid added to and boiled with the picric acid and potash gives an exceedingly strong behaviour. These are illustrations of how a reaction may be produced by a sulphide derived from the action of potash upon organic principles, and that a sulphide is actually produced by the action of potash upon the constituents of healthy urine is shown by the well-known fallacy that Moore's or the liquor potassæ test is open to from the presence of a little lead. Thus as a means of displaying the presence of sugar in healthy urine which Dr. Johnson lays stress upon, the indication is mixed up with error. Neither for qualitative nor quantitative purposes in relation to clinical utility do I consider the behaviour of picric acid and potash suitable for being turned to account as a test for sugar. Certainly as far as applicability to the requirements of the medical practitioner is concerned, I think it will be found that the discovery which Dr. Johnson so hastily communicated to you will prove devoid of value.

November 28th, 1882.

F. W. P.

### "SCURVY."

To the Editor of THE LANCET.

SIR,—I have read with interest the letters of Dr. MacDowall and Dr. Lucas on "Scurvy," which appeared in THE LANCET last week. I should like, however, to make a few remarks which, I think, will lessen the discrepancy that they both point out, as appearing to exist between Dr. Parkes and myself with regard to the antiscorbutic properties of lactic acid.

Dr. MacDowall observes that Dr. Parkes "teaches that lactic acid simply goes to form alkaline carbonates in the

body," and Dr. Lucas further points out that Dr. Parkes thought "fresh, and especially raw, meat useful in scurvy, and this is conjectured to be from its amount of lactic acid." Now, whilst these statements prove my position with regard to the view that I have advanced, that scurvy is induced through a diminished alkalinity of the blood, they are fatal to the suggestion I offered, that the inferiority of hung to fresh meat as an antiscorbutic is due to the presence of lactic acid, the result of muscle decomposition after rigor mortis and the increase of acid salts in the blood. A little consideration will show, however, the two views can be brought into harmony.

It is quite true that lactic acid goes to form alkaline carbonates in the body; but, then, what form do the carbonates take? If the base and acid are in due proportion, we may have the normal carbonate ( $\text{Na}_2\text{HCO}_3$ ), an alkaline salt with an alkaline reaction. This, most probably, is the condition in which the alkaline carbonates are formed in the living body, whilst the lactic acid formed in the muscle passes out into the circulation, and fresh portions of the base are being brought into contact for it to combine with. But, on the other hand, if the acid be in excess, then we have an acid carbonate ( $\text{NaH}_2\text{CO}_3$ ), the bicarbonate, an acid salt which, though it has an alkaline reaction, has the effect of an acid, since with neutral salts in the blood it is capable of forming acid salts with acid reactions. It is probably this form of carbonate which is derived from the lactates formed in muscles by decomposition after death, since the lactic acid is not carried off as soon as it is formed into the circulation; nor can a fresh supply of alkali be brought to it for it to combine with, so that acid lactates will in turn be reduced to acid carbonates. Again, free lactic acid developed from muscle in forming a lactate must take the base from some other salt, unless we assume that potash or soda exists uncombined in the tissues. The salt that is apparently robbed, as far as experiment enables us to judge, is the neutral phosphate of soda or potash. Lactic acid deprives this of one atom of its base, forming a lactate, but converting the neutral phosphate into acid phosphate. I may add that Maly has determined the presence of both acid sodium phosphate and acid sodium carbonate in blood.

Dr. Parkes' assumption, therefore, that fresh meat is antiscorbutic on account of the presence of lactic acid, is not opposed to my hypothesis that preserved or hung meat loses its antiscorbutic virtues owing to the development of this acid; since, as stated above, in the one case a small quantity of lactic acid and a sufficiency of base lead to the formation of alkaline salts, whilst in the other excess of acid and deficiency of base cause the formation of acid salts.

I am, Sir, yours obediently,

CHARLES HENRY RALFE.

Queen Anne-street, W., Nov. 28th, 1882.

### SPINA BIFIDA.

To the Editor of THE LANCET.

SIR,—In your issue of November 18th there appears a report of a discussion on the subject of spina bifida before the Clinical Society of London, and I am gratified to notice that some cases successfully treated are mentioned. My object in noticing the discussion is not to criticise the remarks of any of those who took part in it, but rather to name one or two observations or reflections which an increased experience has enabled me to make. Let me state in *limine* that I never treat a case without previously informing the parents of the extreme danger, and of the possibility of even instant death, and my assistants are instructed in regard to the certainty of a fatal result if the cerebro-spinal fluid is allowed to drain away.

It is now my impression that many cases are lost from delay in the treatment; the tumour grows, and thus the interior presents a much greater surface, so large in fact that the infant's feeble powers are unable to bear up against the local excitation requisite to effect a cure, and exhaustion follows. Pressure also, but very gentle pressure, ought to be useful in dealing with the larger tumours. Again, although very many lumbar cases have been successful, I am satisfied that the injection ought to be made with greater care than usual in low lumbar, or those almost coccygeal. This is the opposite of what might be expected, but from dissection I have learned that there the openings into the

spinal canal are often large, allowing the injected fluid to run further than is desired, and the shock is thus apt to be greater and more immediate.

In respect to hydrocephalus, it will occasionally occur in such cases, yet the history of at least two cases, known to me, shows that there was a threatening of hydrocephalus before operation, which afterwards permanently disappeared, as the patients are still alive and well. After injecting a spina bifida we should wait usually three weeks, longer if the tumour seems to be shrinking. The necessity for earlier interference might arise from circumstances too varied to be noticed here.

One case of meningocele was presented to me, which I injected not fewer than eight times with a solution of double strength (twenty grains of iodine and sixty grains of iodide of potassium in an ounce of glycerine), and which became perfectly consolidated. Nearly two years thereafter the child died of hydrocephalus.

I have been much pleased with the numerous successes of which, from time to time, I have been informed (now about forty), and my object in now writing you, is to lead, if possible, to greater security in an operation so critical.

I am, Sir, yours faithfully,

Glasgow, November 20th, 1882.

JAMES MORTON.

### ON THE DISTRIBUTION AND GERM ORIGIN OF CANCER.

To the Editor of THE LANCET.

SIR,—In the year 1875 attention was afresh directed to the geographical distribution of disease by the lectures of Haviland. Turning to one of the maps by which they were illustrated, that on cancer, we find that each bank of the Tweed about Berwick, of the Tyne at Newcastle, of the Swale, the Ouse, and the Humber in Yorkshire, the Trent about Nottingham, and the whole of our beautiful Lake districts are most fertile beds of cancer. Wales is nearly free except about the Conway and the Dovey; so are the manufacturing districts. Whilst Chester, Shrewsbury, Derby, Newark, and Lincoln are bad; as are, also, parts of Birmingham, the towns of Nuneaton and Lutterworth, and Huntingdonshire, Norwich, Stamford, and Peterborough. Cornwall is comparatively free except in the neighbourhoods of Falmouth and Bodmin. A belt of liability runs across Devonshire from Barnstaple to Exeter and Exmouth. Plymouth and the vicinity, with Totnes, is above the average; as, also, are Taunton, Axminster, and Bridport, Wells, Warminster, Blandford, and Poole in Dorsetshire. Bath stands high for mortality from cancer; so do Tetbury, Marlborough, Devizes, Shaftesbury, and Lymington. The Isle of Wight is all but free from cancer; and so is, likewise, the New Forest. Brighton and its district are bad; so are Hastings, Romney Marsh, Folkestone, Dover, Deal, Ramsgate, and Margate. Coming nearer to the metropolis, we find that in Chertsey, Guildford, Dorking, Epsom, Reigate, and East Grinstead cancer is pretty equally prevalent. The huge London district, with the exception of Uxbridge and Hendon, if we extend it to Oxford and Aylesbury, with St. Albans on the one side, to Ware, Epping, Ongar, and Shoeburyness on the other, constitutes one appalling cancer field. In London proper, strangely enough, the parish of St. Luke's, the swarming neighbourhood of Bishopsgate, crowded Bethnal Green, far away Old Ford, Bow, Poplar, the Isle of Dogs, savoury Rotherhithe, and fragrant Bermondsey, are almost entirely exempt. The west, the north, the south as far as Wandsworth and Clapham, have a second degree of mortality; the parts about the Marylebone-road, Regent's-park, and Primrose-hill are exceptionally bad. The returns for London go to show what is demonstrable in another way—that density of population, hard living, and laborious toil have very little to do in favouring the appearance and growth of cancer. Liverpool, like London, is situated on the banks of a large tidal river; it has a teeming and not over sober population; its deaths in 1878 from all causes out-numbered by a thousand the total of its births; and yet it, with this heavy general mortality, has an enviably small percentage of deaths from cancer. The reason being that it is surrounded by a district not liable to cancer—one, in fact, affording the lowest mortality from this cause. On the contrary, London is a huge cancer-bed in itself, and at every

ivable point the country for many miles round is almost ally bad. From these facts Haviland deduces the following conclusions:—All places and districts with a high mortality cancer present common characteristics. They have s or streams taking their rise in soft, crumbling rocks; volume of water is liable to overflow after violent rains sudden thaws, submerging the country to a greater or less nt on either side. The subsidence of these floods is very h more gradual than the rapidity with which they spread. ice a complete saturation of the soil to a considerable th, and from the surface a constant exhalation of decaying etable and organic matter. The land having never time urge itself from the poisonous malaria thus engendered, a store constantly in hand with which to welcome the t deadly overflow. Hence, I would submit, that it ows incontestably that cancer beds, once formed in this ion, must go on in an ever-increasing ratio in the manu- ture, propagation, and dissemination of germs which are ; sole efficient cause of cancer.

If this theory, which I contend the logic of facts estab- es, be correct, it throws much light on the increase of cer, its apparent hereditary nature, its liability to return, d preponderating influence amongst females, whilst it ords some hope of successful treatment.

I am, Sir, yours obediently,

Brook-street, W., Nov. 6th, 1882. R. S. GUTTERIDGE, M.D.

### DEATH AFTER ABDOMINAL OPERATIONS FROM HEART-CLOT, DUE TO DISEASE OF THE KIDNEYS.

To the Editor of THE LANCET.

SIR,—IN THE LANCET, November 25th, 1882, Mr. Lawson Tait asks "help from those who are familiar with kidney troubles." I doubt if he will find anyone who can help him to diagnose these granular kidneys before operation; or who can teach him how to prepare the patient so as to avoid possible evil results from their presence. I will, however, venture to tell him how to avoid such deaths as he describes. Let Mr. Tait protect his patients from sepsis during the operation, and he will avoid these deaths "in thirty-six hours from heart-clot," which simply mean deaths from acute septicæmia, or septic intoxication. "The details of the operations were found to be quite satisfactory." Why? Because the poisoning is so rapid that all secretion and excretion is checked, and all the vital processes are in abeyance. If the patients lived long enough septic peritonitis, pleuritis, &c., would develop, and we should not find the details of the operation so satisfactory. If Mr. Tait will consult Mr. Spencer Wells' admirable ovariectomy tables, he will find plenty of such cases as he records, but the deaths are not attributed to the diseased kidneys. The deaths are due to the disease of the kidneys, but only indirectly so. The septic virus is the real cause of death; the diseased kidneys cannot eliminate it, and the patients are poisoned right off with it; whereas if their kidneys had been healthy much of the poison would have been eliminated, and they might have struggled through, or died later with distinct post-mortem evidences of the septicæmia. The rapidly-ascending pulse is the characteristic feature of the condition; high temperature may be absent, or the temperature may even be subnormal; the poison acts too quickly and violently for the development of the tissue changes which cause high temperature.

It has become the fashion with those who discard Listerism to attribute all their mortality after operation to diseased kidneys. First it was the carbolic acid which caused fatal nephritis, or overworked these diseased kidneys. Now the carbolic acid has been sent to the right about, and still the patients with diseased kidneys die; so it is only the kidneys that cause death. I do not deny that carbolic acid recklessly used may cause death with these diseased kidneys or even without them; but I affirm that all evidence is in favour of the septic virus being the greatest danger to patients with diseased kidneys. Some time back I called attention to the fact that in spite of Listerism, patients who have been tapped will die of septicæmia. Mr. Tait would have none of it, but now he comes forward and in his own practice demonstrates the association between tapping and death after ovariectomy from heart-clot, which is simply death from septicæmia, as everyone with sufficient experience in abdo-

minal surgery knows. Perhaps Mr. Tait can tell me why he and those who agree with him, with regard to Listerism, are so afraid to admit a death from septicæmia.

I am, Sir, yours faithfully,

J. KNOWSLEY THORNTON.

Portman-street, W., November 27th, 1882.

### "SHOULD DISEASES OF CHILDREN BE MADE A SPECIALITY AT OUR GENERAL HOSPITALS?"

To the Editor of THE LANCET.

SIR,—Mr. Churchill's letter and your remarks thereon bring prominently forward the remarkable fact that by far the majority of those who leave our medical schools at the present time, to face the responsibilities of general practice, leave with a very inadequate knowledge of the diseases of children, although in all probability the major portion of their first patients will consist of children. Possibly under the idea that the greater includes the less, or that opportunities of frequenting the out-patient room of a children's hospital are not readily afforded, and do not pay from an examination point of view, they never familiarise themselves with the clinical examination and treatment of children whilst students, and find out their error only when fairly launched upon general practice. It is beyond all doubt a fact that not only the average student, but by far the majority of the men who have held the most valued resident posts at our large hospitals, leave to enter upon practice unfamiliar with the ordinary complaints of childhood, and are completely at sea in the matter of prescribing medicine or a diet for a child. To take one familiar instance: How many children are sent into a fever hospital in the course of a year suffering from acute pneumonia, the sender unfamiliar with the facts, that croupous pneumonia in children as often attacks the apex of the lung as the base, that it is frequently attended with delirium, and that the classical physical signs may be latent or may never appear. In some cases, no doubt, men have the means and the wisdom to take a clinical assistantship or house-surgeoncy at a children's hospital or dispensary before entering upon private practice, but this can only be the privilege of the few; the majority will still be dependent upon the clinical instruction to be derived from lectures and visits to the out-patient room or wards of a children's hospital or special department of a general hospital. How is it possible to facilitate the study of children's diseases at our medical schools? I have often been struck by the absence of any questions on diseases of children, except, perhaps, one or two stock ones, in the medicine papers set by the various examining boards; no one wishes for a separate examination paper, but surely, considering the importance of the subject, it should fairly claim a fair share of attention. Why, also, will not the examining boards recognise three months spent in attending the practice or filling the post of clinical assistant at a children's hospital, as they do at a lunatic asylum, to count as part of the time devoted to clinical study? I must confess, Sir, too, that I cannot agree with you when you deprecate the giving of a course of systematic lectures on diseases of children. No one doubts that the multiplication of lectures is a weariness to the flesh; but surely a course of, say, ten or twenty lectures on a subject that bears so closely on the daily work of every ordinary practitioner would be at least of equal value to the courses regularly delivered on botany, comparative anatomy, toxicology, or lunacy? Need there be any real severance of the course from that of systematic medicine because given by a second person whose daily work renders him specially familiar with the subject? The classical lectures of Watson and West are found, or ought to be, side by side on the shelf of every practitioner: would anything be gained by binding them up together? Surely the lecturer on medicine will not feel himself aggrieved because he is relieved of the necessity of discoursing on diseases incident to birth, or on the athrepsia of infants or even congenital syphilis or whooping-cough? While, on the other hand, it would be absurd for the children's course to cover the whole ground occupied by pneumonia or typhoid fever because they both happen frequently to occur in childhood. If these lectures are illustrated by clinical teaching in the out-patient room and wards, I cannot but think that they would be productive of

good and help to fill up a hiatus that undoubtedly exists in the teaching arrangements of our medical schools. A special department may possibly be organised at some general hospitals; but I fancy a good many will be found to oppose the emptying of an adult ward to fill it with children. In spite of the distance which often exists between the various institutions, I believe if regular clinical instruction is given at the various children's hospitals in London and in the provinces they will not fail to attract students, and facilitate the acquirement of knowledge closely bearing on their future career. As a welcome sign of the increased interest taken in the subject comes the newly created section for diseases of children at the British Medical Association meeting to be held at Liverpool next year.

I am, Sir, yours faithfully,

HENRY ASHBY,

Lecturer on Diseases of Children at the  
Owens College.

Nov. 20th, 1882.

### "THE CONTAGIOUS DISEASES ACTS."

To the Editor of THE LANCET.

SIR,—In THE LANCET of October 28th there is a short article by my friend Mr. Rawdon Macnamara, advocating the extension of the Contagious Diseases Acts to Dublin; will you kindly allow me space for a few observations on that article?

In the first place, Mr. Macnamara, no doubt unconsciously, does great wrong to those gentlemen who have all along steadily contended for the extension of the Acts. He takes up the ground that they have always approached the question solely from the man's point of view, ignoring the woman altogether. On the contrary, they have always argued that the system benefits the woman in securing her better health, greater decency of life, and opportunities of reclamation, which she could not otherwise have (see the evidence of Dr. Barr before the Parliamentary Committee).

Secondly, Mr. Macnamara says that those who oppose the Acts contend that any beneficial results (if there be any) are confined to the male sex, they also ignoring the woman. So far from this being the case, those amongst us who are opposed to the system of regulated prostitution base our opposition on our conviction that no benefit whatever arises from it to either sex. We believe that it causes an increase of vice in the male sex, by leading men to suppose that the risk of incurring infection is, at least, very much lessened; that their moral feelings, particularly those of the young, are perverted by finding that the State undertakes to provide them with healthy prostitutes; that this engenders in the rising generation of young men a feeling of cynical brutality in their view of the mutual sexual relations. Further, we are satisfied by the evidence laid before the Parliamentary Committee that no improvement in the health of either the army or navy has been obtained through the agency of this system, while there is shown to be an increase of disease among the women, and a greater difficulty of escaping from their wretched life, as proved by the fact that the average age of the women on the register advances year by year, showing the almost impossibility of their escaping from their mode of life when once they are put upon the register. Still, it does appear, from the legal sanction given to their wretched trade, that they obtain more emolument, and so have the means of making themselves personally more attractive. Is this an advantage for public morality? Let those members of our profession who wish to know the exact truth on this question take the trouble to read the evidence given before the Parliamentary Committee. They will find abundant proof that the Acts are an utter failure in a sanitary point of view; the navy returns, published from year to year, show that contagious diseases are even more prevalent among the crews in the protected than in the unprotected stations.

Further, let me remind the profession of the utter confusion that fell upon our foreign visitors, at the International last year, when they found such a strong medical opposition in England to their favourite system, an opposition led by such names as those of John Simon, Henry Lee, and H. A. Allbutt, the result being that neither in the section of public health nor in that of military medicine did anyone venture to propose a resolution in favour of regulation, though this had been done over and over again in the different continental meetings of the Society.

I now see by your last number that you fully concur in the views of Mr. Macnamara, but as there is no probability of the Contagious Diseases Acts being extended to London, or to any other place, during the continuance of the present Parliament, seeing the prudent advice of the Select Committee that there should be no attempt to extend the Acts in the teeth of the strong opposition of the Non-conformists—this being so, I would suggest that if those (magistrates or vestries, as may be) who are responsible for keeping order in the London streets would take a hint from this city, they would find that one inspector with a dozen intelligent constables could easily maintain order from Cheapside to the Haymarket without requiring any extraordinary powers.

I am, Sir, your obedient servant,

EWING WHITTLE, M.D., M.R.I.A.

Liverpool, Nov. 15th, 1882.

\* \* The facts are so plainly conclusive as to the social value of the Acts in repressing the vice of our streets that there is really nothing to discuss. The average age of the women has increased because, happily, the proportion of young girls in the class in protected districts is reduced. The majority of the Parliamentary Committee, after a most protracted inquiry, in which every possible objection was urged, came to the conclusion "that the Acts are necessary for the good of the community."—ED. L.

### SUPRA-CLAVICULAR PSEUDO-LIPOMA.

To the Editor of THE LANCET.

SIR,—By a singular coincidence, a leaderette in your issue of Nov. 4th throws light on a case which I saw for the first time yesterday.

My patient is a man fifty-nine years of age, and had a fall a week or two ago. Since then the neck has been very stiff, and it was on account of this that he came to consult me. On examining the neck yesterday my attention immediately directed itself to a soft elastic tumour in the left supra-clavicular region. The man had been for many years in the habit of carrying sacks of corn on that shoulder, and I was at first inclined to regard it as an artificial bursa. It was, however, somewhat firm for that, and I fancied, as did also Mr. Banatvala, who saw the case with me, that I could detect some indefinite lobulation. On baring the neck completely we found a similar, but less marked, tumour on the right side, which at once disposed of the theory of the bursa, as my patient had not been in the habit of carrying on that shoulder. The tumour, however, scarcely answered fully to the description of an ordinary lipoma; and in this state of mental uncertainty I read your leaderette this morning. I have since then examined the case further, and desire to report the following facts:—The patient is of a distinctly rheumatic diathesis, having suffered from rheumatic pains in the limbs and joints for upwards of thirty years, but he has not had either acute rheumatism or rheumatic iritis. He has frequently had lumbago, and there is evidence of chronic rheumatic arthritis in the metacarpophalangeal articulations, and in the right knee-joint, besides considerable thickening and irregularity of both tibiae. The right first metacarpophalangeal articulation gives distinct crepitus on motion. The tumour itself on the left side lies in the triangular space formed by the sterno-mastoid, trapezius, and clavicle. It is two inches in diameter from the centre of the clavicle to the upper part of the tumour at the apex of the triangle, and two inches and a half from the front lower angle of the tumour, overlying the posterior border of the sterno-mastoid to the posterior upper part of the tumour in front of the anterior border of the trapezius. The skin moves freely over it, and is not discoloured. The tumour on the right side is similar to, but smaller than, that on the left. To the left of the spinous processes of the upper cervical vertebrae there is a marked, firm, and rather tender swelling, contrasting strongly with the flaccid condition of the muscles on the right of the same spines. This I take to be a hypertrophy of the trapezius, due to the patient carrying weights on the left shoulder, and possibly aggravated at the present time by slight muscular rheumatism. There is some oedema of both legs; but there are no similar swellings, either oedematous or lipomatous, in any other of the situations mentioned in your article. The urine has always been from time to time liable to deposit lithates; its specific gravity

016, but it is pale, limpid, and colourless, markedly without either albumen or sugar, and does not present appreciable quantity of uric acid. It appears to me that, *à propos* of your article, this case is of interest, and I therefore send you details to publish if you think fit.

I am, Sir, yours faithfully,  
KENNETH W. MILLICAN, B.A. Cantab., M.R.C.S.  
Inston, Warwick, Nov. 4th, 1882.

## THE RECENT BANQUET TO THE MEDICAL OFFICERS FROM EGYPT.

To the Editor of THE LANCET.

SIR,—You will greatly oblige me by kindly inserting this in your next issue to prevent any misunderstanding in what I meant to say about my Division at the banquet given by the profession to the medical officers of the Egyptian Expedition. It should have run thus:—"The death-rate (from cholera) was *nil* from August 21st to October 16th. We had an admirable ambulance corps, of which we were able to send 400 to the Army Medical Department to carry off the wounded at the battle of Tel-el-Kebir, and they did their work admirably. We gave them also an ambulance column of ninety-six dandies (stretchers), which, however, did not arrive in time for the battle, &c."

I remain, Sir, yours faithfully,  
COLVIN SMITH, M.D.,  
Deputy Surgeon-General Madras Army, lately P.M.O.,  
Indian Division, Egyptian Expedition.  
Marloes-road, Kensington, Nov. 28th, 1882.

## NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

AT Sunderland the high death-rate—viz., 47.7 per 1000 by the latest returns—now prevailing is producing some anxiety in the minds of the authorities. It is, no doubt, principally owing to a very severe epidemic of measles, which is causing a mortality of about twelve children weekly. Scarlet fever is slightly in excess, and there is also typhus existing to a considerable degree. The authorities are fully alive to the matter, and are doing what they can to prevent the spread of the disease. There is another matter which may make the Sunderland death-rate appear higher than it really is, and that is that the population is believed to be in excess of the Registrar-General's estimate, for when the census was taken there were about 1453 houses uninhabited, whereas, owing to trade revival, there are now only 150 unoccupied. The occupied houses are also more crowded from the increase in employment, and more than three hundred new houses have been built, so that the population of the borough is now believed to be 130,143 at least. The death-rate from measles for a considerable time has been 5.0 per 1000 inhabitants. The typhus fever has not assumed an epidemic form, it has been principally among the Irish population, and occurring in tenemented houses; the same remark applies to small-pox, and prompt measures having been taken as to isolation and disinfection there has been no death so far from it. Much good has followed the free distribution of handbills and placards instructing the poor as to disinfection and isolation of zymotic diseases. South Shields, considering the communication constantly going on between it and Newcastle and Sunderland, would appear, as has been frequently noticed before, to enjoy some degree of immunity from epidemics; the mortality from autumn diarrhoea, which was somewhat high, has now disappeared. There is some prevalence of scarlet fever, but it has been hitherto of a mild type, and unaccompanied by any serious fatality.

The last returns of zymotic diseases notified by practitioners in Newcastle show, during the fortnight ending Nov. 11th, the presence of 109 cases of infectious disease, inclusive of thirty-six cases of small-pox. As regards the last disease there is reason to fear that these numbers are not to be accepted as a complete account of the prevalence of this disorder; for I was told by a practitioner of good standing here that in a single street in Newcastle

there had been sixteen cases of small-pox, not one of which had been attended by a medical man, and were, as a matter of course, unnotified. Poor people, from prejudice, conceal the disease if at all possible, and through ignorance, for they fear medical attendance leads to compulsory removal to the hospital, followed by destruction of their bedclothes. These cases were "prescribed" for by chemists, grocers, and old women, and were, of course, mild, or concealment would have been impossible. But what about the spread of the disease?

The subject of bridge accommodation in Newcastle has been much mooted lately in public meetings, and otherwise it is one that immediately affects practitioners here who cannot, without much loss of time, pass over to Byker, a district of the borough containing a population of 30,000, without paying toll going and returning. A bridge over a ravine of the Ouseburn was constructed by a private company; the people now reasonably ask for the purchase of the bridge by the Corporation, seeing that they contribute so largely to the rates, and are likely to do more so in the future provided the bridge is made free. Newcastle and Gateshead, so far as regards medical practice, may be considered one town, for Newcastle men visit a good deal in Gateshead, and our Gateshead neighbours return the compliment, perhaps with "interest," yet there is no practical way of passing between the towns, without much loss of time and some risk from dangers of heavy traffic, except by taking choice of two bridge tolls. It is not too much to hope that the inhabitants of both great towns may bestir themselves before long, and ask for freedom of communication. But would you believe it? There is actually a medieval impost also kept up, by which small articles of merchandise and food are taxed by the Corporation of Newcastle. This relic of "the dark ages" is called "the through toll;" and to see a poor man's cart stopped, and the traffic thereby impeded while the search goes on, makes a stranger doubt his whereabouts, the impost and custom so much resemble the *octroi* of continental towns.

The photographic art has attractions for some of our practitioners as a useful amusement, as was evidenced by the meeting of the Newcastle and Northern Counties' Photographic Society held here the other day, Dr. G. Berwick of Sunderland presiding. Dr. G. Berwick has himself followed the art as an amateur with not a little success, and has made it subservient in portraying forms of parasitic disease. I saw a very nice picture by him, which was developed two years after exposure; the character of the work spoke well in the durability of effects for the care exercised by the operator.

It may interest those of your readers who are chess-players to know that we are having a visit from Mr. J. H. Blackburne, the great player; and on Friday last he played eight simultaneous games blindfolded, in which he was pitted against some of our crack players, with the result of winning five, two were drawn, and he lost only one. Was not this a physiological as well as an intellectual feat, as during the battle, which lasted several hours, he sustained himself solely by a cup of coffee and an occasional havannah?

Newcastle-on-Tyne, Nov. 28th, 1882.

## SCOTTISH NOTES.

(From our own Correspondent.)

I HAVE so recently had something to say regarding the position occupied by Professor Pirrie, at Aberdeen, that I do not now wish to say more than his loss, had it come before his day's work was well done, would have been quite irretrievable. His whole soul was engaged in his work as a teacher; and old students everywhere will feel his death as a great personal grief.

So far as yet ascertained, the number of matriculated students of medicine at Aberdeen University for the present winter session is 314, an advance of 23 upon last year's aggregate.

Interest attaches to the report of Mr. Turnbull, M.B., superintendent of the Fife Asylum, chiefly from the enthusiasm with which he, aided largely by Dr. Fraser, Deputy Commissioner in Lunacy, carried out the system of boarding out his chronic cases. Year by year there is a stronger tendency on the part of superintendents to adopt this



method of relief from overcrowding, but it too often seems that it is only because the house will hold no more that these harmless creatures are sent into the suitable quiet of the cotter's family. If the commissioners' reports are looked into, it will be found that there are some asylums where the boarding-out system has certainly been put into force, but it is evident that the patients have been squeezed out only to make room for more urgent cases. Mr. Turnbull evidently pursues the subject *con amore*. Taking all the reasons for the discharge of patients, he shows that the admissions will usually exceed the number discharged by about 20 per cent.; and he argues that this residuum might in great part be suitably consigned to the care of people of the same class as that to which the patients themselves belong; that they can thus be most economically supported; that they there lead happier, and often useful, lives; and that, in point of fact, his own experience, and that of his predecessors, show the advantages of the plan. He finds no difficulty in securing suitable guardianship; though he apparently sends the greater number of his cases at first on probation, he finds that few require readmission. During the five months ending in July, twenty-five cases were disposed of in this way; and the general result for the year is, that notwithstanding an admission rate above the average, the number of patients under treatment is eighteen less than at the end of last year.

The General Board of Commissioners in Lunacy has just been successful in an action of considerable importance to those engaged in the working of the lunacy laws. The Board craved power for the removal of a female lunatic from her mother's charge, and that she might be placed in the asylum. The application was under section 14 of the Act 29 and 30 Vic., chap. 51, and evidence showed that the patient was subjected to compulsory confinement in her mother's house, and that the filthy manner in which she was kept amounted to harsh or cruel treatment. The authorities of the parish of Cameron concurred in the application, and the sheriff granted a warrant for the removal of the lunatic.

From the appointments made last week at the University College, Dundee, it appears that considerable caution is being exercised before the authorities commit themselves to any scheme for the general teaching of science. The appointments now made complete what will form the first teaching staff, but so far only five chairs have been filled—viz., classics, mathematics, chemistry, English, and engineering. These are all classes which must necessarily be provided in such a college as is proposed for Dundee; but the profession will be chiefly interested in knowing what is to be done with the other science subjects which form part of the medical curriculum. The chief difficulty exists in finding a simple and satisfactory agreement between St. Andrews and the new institution, by which the new and well-endowed school should have recognition and status accorded it by its dignified and ancient neighbour, while the latter might have that association with a large commercial centre, which seems, now-a-days, so needful to success. With the new Tay Bridge, Dundee will be but half an hour distant from St. Andrews, and in such close proximity two strong colleges can scarcely exist in rivalry. The newly appointed professors are young, and apparently able men in their respective departments.

### PARIS.

(From our Paris Correspondent.)

At the last meeting of the Academy of Sciences M. M. Charles Richet and Rondeau submitted a short note on some experiments performed by them, with a view of studying the mechanism of death by the action of extreme cold. Dogs resisted extremely low temperatures without any inconvenience, whereas rabbits submitted to the same temperature were with great difficulty restored to their normal condition. These animals, subjected gradually to temperatures marked by the Centigrade thermometer 20° C., 18° C., 15° C., 14° C., below freezing point, or within four degrees of 0° F., presented the following phenomena: The respiration was slackened, the excitability of the muscular system was gradually diminished, although it lasted for some time, the contractions of the fibres continued, but slowly as in chelonian reptiles,

the turtle, for instance. The pulse was reduced in the number of beats. At a temperature of 17° C. below freezing-point only ten or twelve beats per minute could be counted. The authors assert that animals suffering under the influence of extreme cold, and in which their vital energy would be insufficient if left to themselves may be restored to their normal condition by artificial respiration; and they add that a sort of artificial hibernation may be produced in animals, provided the refrigeration does not exceed certain limits.

At the same meeting, M. Béchamp read a paper relating to the influence of hydrocyanic acid on oxygenated water by fibrine. The result of the experiments performed by the learned professor was that the acid, so powerfully toxic, is destroyed by contact with fibrine.

M. Faye, the Director of the Paris Observatory, has endeavoured to explain the cause of the almost incessant fall of rain we have had during the present year, and which has been more or less prevalent all over the continent of Europe. According to the learned astronomer the number of comets that have made their appearance within the last four years would be the only cause of this atmospheric perturbation. These wandering stars, which move around the sun, absorb a very great proportion of its rays. The heat not being sufficient to draw up the vapours accumulated around our planet, the result is the condensation of these vapours, which fall to the earth in the form of continual rain. If the comets continue during a certain number of years to obstruct the sun's rays, M. Faye predicts the earth will become unproductive, and be transformed into an extinct globe, floating about in the air in obedience to the laws of gravitation. I may, however, observe that the cause of unusually dry seasons has been attributed also to the presence of comets.

Dr. Martineau, physician to the Lourcine Hospital, delivered a series of interesting lectures on "The Evolution of Syphilis." He devoted a whole lecture to the medical geography of that malady, of which I send a short summary. He commenced his lecture by observing that the subject under notice was very interesting, but at the same time most difficult to solve. He then put the question, Why should the evolution of syphilis take place abnormally? What are the etiological factors of this deviation of the evolution of this malady? In his inaugural thesis Dr. Ott, one of Dr. Martineau's pupils, has attempted to solve the questions, and he has studied the various circumstances which would appear to exercise a certain influence on the evolution of syphilis. The author remarks that military and naval surgeons have written a great deal on the subject, but they have fixed their attention only on the influence of climate in the evolution of the malady, without taking into consideration other factors. All writers, however, on the subject seem to be agreed on one point—viz., that the temperature alone does not appear to influence, in a marked degree, the evolution of syphilis. But if only the temperature be taken into account, syphilis would show itself in a more aggravated form in the temperate and warm zones than in the tropical, torrid, or the polar regions. Dr. Ott, however, observes that the gravity of the malady depends less on the climate than on defective hygiene, and on the existence of any previous malady (scrofula, tuberculosis), or on endemic cachexia (paludism, alcoholism).

A telegram has been received in Paris contradicting the report of the persistence of cholera at Mecca, whereas the Egyptian delegate at Alexandria declared that the disease is still prevailing at that place. The French Minister of Commerce, however, not placing much reliance on these contradictory reports, has taken such measures as will prevent the incursion of the malady into Europe, and among others he has stationed at the Italian opening of the tunnel at Mont-Cenis, two chemists who are charged with the duty of submitting all letters and other papers coming from the East *via* Brindisi and the Italian railways to a particular process of disinfection before being transmitted to their destination.

An epidemic of typhoid fever has broken out at Saintes, a small town in the department of the Lower Charente. There have been upwards of 200 cases during the last week, which is considered a large proportion, as the inhabitants number only about 12,000. Several of the nuns who have been attending the sick have fallen victims to the malady.

The epidemic of Paris continues to decline, and hopes are entertained that it will soon disappear altogether. The present epidemic has been productive of some good, it has aroused the municipal authorities to a

of the importance of attending to sanitary measures, the treatment of the malady is being fully discussed at the Academy of Medicine. is, Nov. 28th, 1882.

## MEDICAL NOTES IN PARLIAMENT.

### *Scurvy in the Mercantile Marine.*

At the House of Commons on Monday, Mr. Dillwyn asked whether the President of the Board of Trade was prepared to take any action upon the report of Mr. Thomas Gray as to the increase of scurvy in the mercantile marine.—Mr. John Holms replied that the report had been forwarded to various local marine boards, with a circular asking for their observations. Some of the replies had not yet been received, the matter was under consideration, and it was at present impossible to say what action the Board of Trade would decide to take.

### *Brixton Military Prison.*

Sir A. Hayter, in reply to Mr. Bourke, said Sir Edmund Cane, Surveyor-General of Prisons, had received no report of any injury to the mental or physical condition of prisoners by the system of solitary confinement at Brixton Military Prison. The prisoners were mainly employed in rum-picking, and were kept in their cells except when at drill, exercise, or shot drill. He would communicate with the army clothing department, and see whether some employment other than rum-picking could not be found for those who were eligible for it.

### *Vaccination Questions.*

On Tuesday, Mr. Hopwood asked the President of the Local Government Board whether his attention had been drawn to the statement by the inspectors in the inquiry into the case of eight children attacked with erysipelas after vaccination at Norwich, as to four of the cases which terminated fatally: "we cannot divest our minds of the strong impression that the lymph used in vaccinating these children must have carried with it the elements of the disease which they subsequently developed;" whether the public vaccinator had been recommended for a award from the Parliamentary grant; whether Dr. Buchanan, the medical officer of the Local Government Board, in his memorandum urged the same vaccinator with using dirty or improperly washed instruments in the processes of vaccination during the years 1876 to 1880, and later; and whether it was any cause by law, in answer to fresh summonses to vaccinate, on the parents of any of the children so attacked to urge their fear of similar risk to the survivors; if not, whether it was proposed by legislation to relieve such parents from the compulsion at present existing.—Mr. Dodson pointed out that the quoted words had reference not to four cases which terminated fatally, but to four cases vaccinated from one child, and of which two did not get erysipelas. Dr. Guy, the public vaccinator, was recommended in 1874, but not in 1876 or 1878, and he was again recommended in 1880, when the objectionable practice previously discovered by the inspector appeared to have been discontinued, inasmuch as it was not again charged. It was no legal defence to a summons for parents of children who had been attacked with erysipelas after vaccination to urge their fear of similar risk to their other children. He was not prepared to assent to the view that because one child happened to have suffered, owing to malpractice, or to some accidental circumstance, therefore all other children should be deprived of the protection which vaccination afforded. At the same time, it was open to the justices in any such case to impose a nominal fine, or to decline to make an order for the vaccination of the child; and he hoped that whenever any such case occurred it would be considered and tenderly dealt with.

### *The War Office Committee.*

Lord Burghley inquired whether it was correct, as stated by Lord Morley at the dinner to the Medical Staff on Nov. 21st, that the War Office Committee was not appointed to inquire into the alleged defective condition of the Army Medical Department during the Egyptian War.—Sir A. Hayter replied that he thought the noble lord's observations must have been misinterpreted. The following were the Secretary of State's instructions to the Committee: "It will be advisable that the Committee appointed to inquire

into the organisations of army hospital corps should extend the scope of its inquiry into the question of hospital management and nursing in the field, as well as the sea transport of sick and wounded. The recent experience in the Egyptian campaign will be most valuable in such an inquiry. The Committee should ascertain what deficiencies, if any, existed in the field or other hospitals, or hospital ships, in that campaign, with a view to future remedy."—Lord Burghley asked when it was likely the report would be presented.—Sir A. Hayter said great efforts would be made to complete it by next session.

### *The Contagious Diseases Acts.*

Mr. Stansfeld gave notice that he will move for correspondence relating to the operation of the Contagious Diseases Acts in Devonport; and also that next session he will again bring forward a resolution in opposition to the Acts.

On Thursday, the Speaker was able to resume his duties in the House.

### *Bengal Gaols.*

Mr. O'Donnell asked what steps had been taken to reduce the mortality in the Bengal gaols, since the last report showed that though less than in the exceptional year of 1879, it was still immensely higher than among the free population of all conditions.—Lord Hartington said that since papers were laid on the table on this subject in the present session, the only additional information that had been received was contained in a despatch from the Government of India, dated July 29th. It was there stated that in consequence of his (Lord Hartington's) despatch in May, a circular address had been issued to the various local centres to ensure greater vigilance in the matter of the mortality returns. The dietary scale now in operation was sufficiently good to keep the prisoners in health. The report stated that the returns of the deaths among the free population could not be relied upon in the same way as those of the deaths in gaols, where every case was strictly recorded. The Government of India had promised to send home annually a general review of the gaol statistics.—Mr. O'Donnell asked that inquiries might be made as to the effect not only of the dietary scale, but also as to the effect of the absence of ventilation and overcrowding in the gaols, and also as to the effect on the health of the prisoners of the habit of heaping together mounds of earth instead of beds.—Lord Hartington said he thought the sanitary condition of the gaols was under the consideration of the Government of India and of the Local Government Board. He would cause inquiry to be made into these allegations.

### *The Artisans' Dwellings Acts.*

Mr. Dodson stated to Sir R. Cross that the attention of suburban sanitary authorities had been called to the evidence given before the Select Committee on these Acts, as to the want of sanitary regulations with regard to some of these dwellings erected outside the jurisdiction of the Metropolitan Board. He would consider whether it was necessary that the powers of local authorities in this respect should be extended.

## Obituary.

PROFESSOR PIRRIE, M.D., LL.D., F.R.C.S. ED., &c.

EMERITUS PROFESSOR WILLIAM PIRRIE died at his residence, in Union-street, Aberdeen, on Nov. 21st, at the age of seventy-five years. The sad announcement was scarcely a surprise to those who knew how he had suffered for the past eight months, at first from an attack of peri-hepatitis, and quite recently from an abscess, the result of an enlarged prostate. Little of wonder need be occasioned by the death of one who has attained to such a venerable age; but those who knew the fine physique, the working qualities, and youthful spirits of Dr. Pirrie were not accustomed to consider him as almost an octogenarian, but as one who had yet the capacity for much good work.

William Pirrie was the son of a small farmer in the parish of Gartly, near Huntly, in the county of Aberdeen, where he was born in 1807. His general education, begun in the

parish school, was carried on in the grammar school, and finished in Marischal College, Aberdeen, where he graduated in Arts. The moderate curriculum then necessary for graduation was completed by Dr. Pirrie in Aberdeen and Edinburgh; and how moderate it really was is illustrated by the fact that only one professorship of a purely medical subject then existed in Aberdeen. In 1828 he became Licentiate of the Royal College of Surgeons, Edinburgh, and in 1829 took his degree as Doctor of Medicine. While in Edinburgh he had the advantage of a close connexion with his *beau idéal*, Liston, for whose memory he throughout life cherished the warmest regard. Liston he considered as the greatest of British surgeons, and amongst his wonderful collection of instruments there was none so prized as the amputating knife formerly used by his master. The manner in which the ambidextrous surgeon held his knife while operating was a subject which Dr. Pirrie would debate with warmth; and his oil painting of Liston's hand, showing the method considered proper, was valued much above its merits as a work of art. After a year of study in Paris, Dr. Pirrie returned to Aberdeen, and in 1830 was appointed Lecturer on Anatomy and Physiology in King's and Marischal Colleges. Thus began his career as a teacher, which was destined to last for over half a century and to win for him a great name. Till 1839 he continued this lectureship; and ever afterwards attributed his success as a surgeon in great part to the thorough acquaintance with anatomy then obtained. In 1839 the chairs of anatomy and surgery were founded, and Dr. Pirrie, who had already a large surgical practice, was elected the first professor of surgery. From that time till a few months ago he maintained the dignity and the usefulness of the chair in such a manner as has done more to establish and enhance the fame of the Aberdeen School than has the work of any other man connected with it. It is as a teacher that Dr. Pirrie will be remembered; in the lecture-room he was *facile princeps*. From the first he gave himself with rare devotion to the work which he thought so honourable; his interest and enthusiasm were in the highest degree contagious; his commanding presence and his confident tone gave weight to his statements; while his practical method of teaching was no new development in response to modern clamour, but the system which he had consciously and from the first maintained as the most useful. His readiness of speech allowed him to dispense with manuscripts; but as a consequence he was somewhat given to repetition, though seldom in other than important points. Occasionally, in the hurry of thought and articulation, delightful "bulls" were perpetrated, which his students would not willingly have missed, and a string of adjectives was formed which would not always bear analysis. Many a story is told of the surgery class when old Aberdeen students get together, but the mirth is always leavened with respect and even love for him who is now gone, and, indeed, the most delightful reminiscences of student life in Aberdeen somehow connect themselves with his class. As we have said, his manner of teaching was chiefly demonstrative, and for this purpose he had brought together a number of specimens and instruments, the latter especially which were quite unique. No other collection of surgical instruments in the kingdom, in the hands of any practitioner, equalled that of Dr. Pirrie. Some of his pathological specimens were most valuable; and how delighted he was to expatiate upon these all Aberdeen graduates will remember. Upon this practical method Dr. Pirrie was able to bring to bear an amount of knowledge of the history and literature of his subject, which must be most exceptional; and we believe that the acquaintance with all that has been written on surgery, which Dr. Pirrie showed, would have given him high rank as an author had he chosen to publish on the subject. He has been known to hint his intention of publishing a "History of Surgery" could he but find time, and it is just possible that he had advanced so far with this work as to make his labours available to others; it is almost certain that had he been spared to the profession but a little longer such a history would have been forthcoming. An old assistant and house-surgeon of Dr. Pirrie's writes:—"I verily believe he knew Paré by heart. He certainly knew everything worth knowing that was written on surgery from the beginning of time to the eighteenth century." To his lifelong habit of early rising Dr. Pirrie was probably indebted for his almost encyclopædic knowledge of his subject. It was his custom to devote four hours every morning to reading and writing, and this custom he maintained till near the end. As an

author the late Professor is best known by his "Principles and Practice of Surgery," a work which has passed through three editions in this country, and as many as five editions in America. Some years ago, when acupuncture was first introduced by the late Sir James Simpson, Dr. Pirrie espoused the subject rather warmly, and, along with his colleague Dr. Keith, wrote a pamphlet on the subject, besides putting the method largely in practice. Mr. Lister's system has in great measure obviated the necessity for this method of closing bloodvessels; but till the last Dr. Pirrie insisted upon the importance and value of Simpson's discovery. His contributions to THE LANCET were numerous, and so late as August we published his last contribution to medicine, in his address to the North of Scotland Medical Association, of which he was president. Throughout his long career Dr. Pirrie has conducted a practice so large that only his lion-like strength could be equal to it. Unfortunately for his own comfort, he did not confine himself to surgery, and, indeed, was to the last in great part occupied as a general practitioner. Ill-natured remarks were frequently made regarding this feature of his work, but we can at least admire the determination with which he struggled through an almost overwhelming amount of toil. His practice was, perhaps, the most extensive ever held by one man north of Edinburgh, and, if we are not mistaken, so was his income. Both these circumstances gave him a justifiable pride, but it was only his closer friends who knew of this satisfaction. As an operator he was, perhaps, scarcely brilliant, but a man decided in action, and whose every cut had its decided purpose. It was a treat to see him trim a stump: one cut did this.

During his long and distinguished career Professor Pirrie had many honours heaped upon him. He was peculiarly gratified when, in 1875, the University of Edinburgh conferred upon him the honorary degree of LL.D. The Clinical Society of London a few years ago elected him an honorary member, and since 1877 he has been surgeon in Scotland to H.R.H. the Prince of Wales. Perhaps the honour which he valued most was the warm regard of his students, and many evidences of this he continued to receive from men who in after life had been distinguished and useful. Students are not usually slow in detecting their best friends in the professoriate, and they felt sure of their interests being regarded so long as Professor Pirrie had a seat in the Senatus. He warmly supported his colleague, Dr. Struthers, in his endeavour to raise the necessary funds to provide bursaries for the medical students, and in every way assisted by his counsel and influence the friends of progress in the teaching of medicine. His enthusiasm in this direction was well shown in the recent establishment of the Chair of Pathology, as it is well known that Sir Erasmus Wilson's regard for his old friend induced him to place reliance on Dr. Pirrie's views regarding the direction of his munificence.

So long ago as 1847 Dr. Pirrie was appointed surgeon to the Aberdeen Infirmary, an office which he held till, in 1880, he resigned his position as senior surgeon, and was elected consulting surgeon to the institution. His work at the infirmary he looked upon as secondary only to the work of his Chair, and the regularity and devotion with which he carried out these duties were remarkable when the amount of his practice was considered. Of such a practical man it is needless to say that he thoroughly entered into the clinical part of his teaching. Not contented with the enormous field of labour occupied by him professionally, Dr. Pirrie found time to devote to many objects of philanthropic or religious interest. Several local institutions, and more especially the Young Men's Christian Association, owe much of their vitality to his advice and assistance, while in private he was most helpful to many struggling creatures.

Dr. Pirrie leaves a widow and a family of seven. Of these, three sons are in the medical profession: Dr. William Pirrie of Bournemouth, Dr. George Pirrie of the Indian Army, and Dr. Gordon Pirrie of Aberdeen, the last of whom, along with Dr. Burridge, attended the deceased professor during his last illness.

Dr. Pirrie was accorded a public funeral by the authorities, and how well the public sentiment had been interpreted was shown by the enormous concourse which accompanied the remains from Marischal College, to which, in accordance with an old custom, the body had been removed. The Lord Provost, Magistrates and Council, the University authorities, a large number of students, and the members of the Medico-Chirurgical Society walked in procession, while the sympathizing crowd was supposed to number thirty thousand.

## BRIGADE-SURGEON T. M. BLECKLEY, M.D., C.B.

DR. BLECKLEY was the son of the late Rev. John Bleckley, M.A. He was born in 1828, was educated at Trinity College, Dublin (B.A. 1852, M.D. 1863, M.A. and LL.B. 1872), and was hon. F.K.Q.C.P. He entered the Army Medical Department as Assistant-Surgeon in 1854, became Surgeon-Major in 1863, and retired on half-pay in 1880 as Brigade-Surgeon. He served in the Crimean campaign, 1855 (medal, with clasp, and Turkish medal), and in the Ashantee war, 1873-4 (mentioned in despatches, and medal). When secretary to the Inspector-General of Hospitals, British Forces, in India, he was twice thanked by the Governor-General in Council for professional services. He married in 1865 Lydia, daughter of Andrew Hamilton, Esq., of Cootown, co. Donegal, and was created C.B. in 1874. The deceased had long suffered from grave incompetency of the aortic valve. This condition induced a train of distressing symptoms, which, although they were borne with much exemplary resignation, had of late deprived life of all its savour. He died of syncope on November 23rd at his residence, Lorne House, Upper Norwood, leaving a widow and five children to cherish the memory of a devoted husband and father. Outside his family circle, many will lament the loss of a friend whose genial, kind, and gentle disposition supplemented a blameless life.

## Medical News.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Nov. 23rd:—  
Cunnington, Cecil W., Bartholomew-road, Kentish Town.  
Peskett, Alfred Freeman, Leyton, Essex.  
Serjeant, George, Lewannick, Cornwall.  
Tiseman, Arthur Lumley, Howden, Yorkshire.

The following gentlemen also on the same day passed the Primary Professional Examination:—  
Arthur Edwin Huxtable, Charing-cross Hospital; Ernest William Phillips, Guy's Hospital; Fredk. Owen Y. Roosmale Cocq, University College.

The following gentleman passed the examination and received a certificate to practise on Nov. 16th:—  
Dalton, Arthur John, Albert-road, South Norwood.

THE proceeds of the Hospital Sunday collection at Hastings amount to £517.

THE foundation-stone of the new infirmary at Chelmsford was laid on Tuesday.

LAST week at Greyabbey, county Down, the skeleton of an Irish elk was discovered by some men working in a bog. The antlers from each extremity measure about ten feet.

COLLECTIONS were taken last Sunday in most of the churches in Belfast on behalf of the Royal Hospital of the town.

THE cutlers and surgical instrument makers of London have resolved to form themselves into a trade association.

MR. TIMOTHY L. WALFORD, M.R.C.S., L.S.A.L., late medical officer of the workhouse of the Reading Union, has received a superannuation allowance of £87 a year.

OVARIOTOMY IN AN INFANT.—Dr. Hingston, of Montreal, recently removed an ovarian tumour from a child two years of age. The patient was doing well at last account.

MISS ELIZABETH KNOX has left £250 to the Adelaide Hospital, £200 to the City of Dublin Hospital, £200 to Meath Hospital, £200 to the Hospital for Incurables, and £150 to the Rathdown Hospital.

THE GUEST HOSPITAL, DUDLEY.—The report of the general committee, read at the annual meeting of the subscribers and friends of this institution held on Nov. 21st, stated the income of the past year to be £3017, and the expenditure £3224. The benefits of the charity had been participated in by a larger number of patients than in any year, with the exception of 1880. Last Hospital Sunday 1500 visits from friends of the patients were paid, and the sum collected on that occasion at the doors amounted to £8. 5s.

THE public charitable hospitals of the city of New York contain a total of 5108 beds, the largest being the Emigrant Hospital with 1200 beds, the Charity Hospital coming next with 990 beds. The various private hospitals have a capacity of 2302, and the lunatic hospitals of about 3000.

THE QUEEN AT NETLEY.—Her Majesty, accompanied by the Duke of Connaught, the Duke of Albany, and Princess Beatrice visited Netley Hospital on Wednesday. The Queen, conducted by General Sir Charles Pearson and the medical staff, stopped at the bed of every wounded soldier, addressing to him words of sympathy and bestowing upon him a decoration. The Royal party returned to Windsor in the evening.

THE ROYAL SOCIETY.—At the anniversary meeting of the Fellows of the Royal Society, held on Thursday at Burlington House, the Copley Medal, awarded at a previous meeting, was presented to Professor Cayley, F.R.S., of Cambridge, for his numerous researches in pure mathematics; and a Royal Medal to Professor Flower, F.R.S., of the Royal College of Surgeons, for his valuable contributions to the morphology and classification of the mammalia and to anthropology.

A CENTENARIAN.—Miss Sarah Apted, residing at Fern Villa, Garlands-road, Redhill, attained on the 29th ult. the great age of 100 years, she having been born at Reigate on December 2nd, 1782. There is no doubt about the authenticity of her age, as the entry of her birth and the date may be found in the books of Reigate Parish Church. We are informed by Mr. W. A. Berridge that this venerable old lady enjoys very fair health, gets up and dresses herself every day, has a good appetite, and occasionally takes and enjoys a glass of port. She has only one useful eye, having lost the other, as she says, "from inflammation, in the month," meaning in the first month of her life.

## BOOKS ETC. RECEIVED.

- BLACKIE & SON, London, Glasgow, Edinburgh, & Dublin.  
The Imperial Dictionary of the English Language: a complete Encyclopedic Lexicon, Literary, Scientific, and Technicological. By John Ogilvie, LL.D. New Edition, carefully Revised and greatly Augmented. Edited by Charles Annandale, M.A. Illustrated by above 3000 Engravings printed in the text. Vol. IV. With Supplement and Appendix.
- BLAKISTON, SON, & Co., Philadelphia.  
Speech and its Defects. By Samuel O. L. Potter, M.A., M.D. pp. 117.
- CASSELL, PETER, GALPIN, & Co., London, Paris, and New York.  
The History of the Year: a Narrative of the chief events and topics of interest from Oct. 1st, 1881, to Sept. 30th, 1882. pp. 568.
- CHARPENTIER, G., Paris.  
La Prostitution. Par Yves Guyot, Membre du Conseil Municipal de Paris. pp. 596.
- CHURCHILL, J. & A., London.  
Practical Chemistry: Analytical Tables and Exercises for Students. By J. Campbell Brown, D.Sc. Lond. Second Edition. pp. 52.  
A Treatise on Diseases of the Liver, with and without Jaundice. By George Harley, F.R.S. pp. 1182. Illustrated with Coloured Plates and Woodcuts.  
Spinal Curvature. By R. Heather Bigg, Assoc. Inst. C. E. pp. 128. Illustrated.
- COLLINS, SONS, & Co., London and Glasgow.  
Drink and Strong Drink: a Series of Readings for Schools and Families. By B. W. Richardson, M.D., LL.D., F.R.S. pp. 150.
- LONGMANS, GREEN, & Co., London.  
Common British Insects, selected from the typical Beetles, Moths, and Butterflies of Great Britain. By the Rev. J. G. Wood, M.A. pp. 284. With 130 Engravings.  
Magnetism. By Thos. P. Treglohan, Head Master, St. James's Science and Art Schools, Keyham. pp. 66. Illustrated.  
Quain's Elements of Anatomy. Edited by Allen Thomson, M.D., F.R.S., E. A. Schäfer, F.R.S., and G. D. Thane. Two Vols. Ninth Edition. pp. 747-847. Profusely Illustrated.
- The Transactions of the Clinical Society of London. Vol. XV. pp. 321. With 10 Plates.  
Short Studies on Great Subjects. By J. A. Froude, M.A. Fourth Series. pp. 396.
- MACHILLAN & Co., London.  
On the Relation of the Chest-movements to Prognosis in Lung Disease. By Arthur Ransome, M.D. pp. 100. With Illustrations.
- MASSON, G., Paris.  
Des Tumeurs de l'Ovaire et de l'Utérus, leur Diagnostic et leur Traitement. Par T. Spencer Wells. Traduit de l'Anglais par le Dr. Paul Rodet. Avec une Préface par Prof. Simon Duplay. pp. 562.

## NEW SYDENHAM SOCIETY.

Atlas of Portraits of Diseases of the Skin. Fasc. XVI.

## OLIVER &amp; BOYD, Edinburgh.

Transactions of the Medico-Chirurgical Society of Edinburgh. Vol. I. pp. 188.

Transactions of the Edinburgh Obstetrical Society. Vol. VII. pp. 161. Illustrated.

## SAVY, F., Paris.

Maladies par Ralentissement de la Nutrition. Par Prof. Ch. Bouchard. Recueilli et publié par le Dr. H. Frémy.

## STANFORD, EDWARD, London.

Transactions of the Sanitary Institute of Great Britain. Vol. III. Editors: H. C. Burdett, F.L.S., F.S.S., and F. S. B. F. de Chaumont, M.D., F.L.S. pp. 125.

Water and its Teachings in Chemistry, Physics, and Physiology. A Suggestive Handbook. By C. Lloyd Morgan, F.G.S. pp. 216.

Colburn's United Service Magazine, No. 648.—The Murmurs of Debility in the Pulmonary and Tricuspid Areas; by W. Russell, M.B.—Zeitschrift für Biologie; von M. v. Pettenkofer und C. Voit; XVIII. Band, 2 Heft.—The Germ Theory of Phthisis Verified; by William Thomson, F.R.C.S. (Sands & McDougall, Melbourne).—Reduplication of the Cardiac Sounds; by James Barr, M.D., L.R.C.S.Ed. (Dobb, Liverpool).—Metropolitan Sewage, and what to do with it; by Edw. Monson, Assoc. M. Inst. C.E. (Prentice & Monson).—Some Points on the Administration of Anæsthetics; by G. H. Roué, M.D.—A Plea for Medical Providence, and the Prevention of Disease in General Practice; by W. F. Phillips, Physician and Surgeon. (Wyman).—On the Practical Working of Direct Vaccination from the Calf; by Dr. Benj. Browning.—Cassell's Illustrated Almanack, 1883.—Our Happy Family; being the Little Folks' Annual for 1883. (Cassell & Co.).—Journal of Cutaneous and Venereal Diseases, Nov.—Nouveau Ligne de la Grossesse; par le Dr. G. Jarissenne.—The Scottish Review, No. I.—Life (Christmas Number).—Longman's Magazine, No. II.—Good Words, Dec.; Sunday Magazine, Dec., with Christmas No., "Nobody's Neighbour." (Labister & Co.).—Milk, its Adulterations, Analysis, &c.; by D. J. Morris, Baltimore.—Index Medicus, Vol. IV., No. X.—La Predilezione dei Tubercoli per gli Apici Polmonari e la Ginnastica Respiratoria; del Cav. Dott. Ottavio de Stefano.—Microbes in Fermentation, Putrefaction, and Disease; by Charles Cameron, M.D., LL.D. (Baillière, Tindall, & Cox).—Patagonia de la Febre Amarilla; por el Dr. Carlos Finlay.—Health Lectures for the People: No. I., Ventilation; by Dr. D. MacLagan. (Macniven & Wallace, Edinburgh).—The Leisure Hour, Sunday at Home, Boy's Own Paper, Girl's Own Paper (with the Christmas Carillon), for December.—Student's Pocket Prescriber; by Aubrey Husband. (Livingstone, Edinburgh.)

## Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

BATESON, J. F., M.B., C.M. Edin., has been appointed Resident House-Surgeon to the Liverpool Royal Infirmary.  
BEATLEY, WM. CRUMP, M.B. Durh., M.R.C.S., L.S.A. Lond., has been appointed Resident Medical Officer to Charing-cross Hospital.  
BICKLE, L. W., L.R.C.P., M.R.C.S., has been appointed Non-resident House-Physician to St. Thomas's Hospital.  
BRADSHAW, T. R., M.D. Dub., has been appointed Resident House-Surgeon to the Liverpool Royal Infirmary.  
BRAILEY, WM. ARTHUR, M.D. Camb., M.R.C.S., has been appointed Assistant Ophthalmic Surgeon to Guy's Hospital.  
COOPER, G. F., M.R.C.S., L.R.C.P., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.  
COTTER, JEREMIAH, M.D. M.Ch., has been appointed Assistant-Surgeon to the Cork North Infirmary.  
CREMEN, P. J., M.D., has been elected Physician to the Cork North Infirmary.  
EAMES, JOHN DAVEY, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Workhouse of the Driffield Union, vice Scotchburn, deceased.  
FELL, W., M.A., M.B. Oxon., L.R.C.P., M.R.C.S., has been appointed Assistant Non-resident House-Physician to St. Thomas's Hospital.  
GRACIE, C. B., M.R.C.S., has been appointed Resident House-Physician to the Liverpool Royal Infirmary.  
HAIG-BROWN, C. W., M.R.C.S., L.S.A. Lond., has been appointed House-Surgeon to St. Thomas's Hospital.  
HERN, WM., M.R.C.S., L.D.S. Eng., has been appointed Demonstrator of Cohesive and Contour Filling to the Dental Hospital of London.  
HIGGINS, CHARLES, F.R.C.S. Eng., has been appointed Ophthalmic Surgeon to Guy's Hospital, vice C. Bader, resigned.  
JONES, D. LLEWELLYN, M.R.C.S., has been appointed Resident Assistant Surgical Officer to Charing-cross Hospital.  
JONES, WANSBROUGH, M.A., M.B. Oxon., M.R.C.S., has been appointed House-Physician to St. Thomas's Hospital.  
LOWE, T. P., M.R.C.S., has been appointed Resident House-Physician to the Liverpool Royal Infirmary.  
MACLEAN, CHARLES, M.D., M.Ch. Aber., has been appointed Medical Officer to the Epworth District of the Thorne Union.  
MARLOW, F. W., M.R.C.S., L.S.A. Lond., has been appointed Ophthalmic Assistant to St. Thomas's Hospital.  
MILLIGAN, WILLIAM, L.R.C.P. Ed., M.R.C.S., L.S.A. Lond., has been appointed Medical Officer to the South Norwood District of the Croydon Union.  
NETTLESHIP, EDWARD, F.R.C.S. Eng., has been appointed Assistant-Surgeon to the Royal London Ophthalmic Hospital, Moorfields, vice Lyell, deceased.

RIDPATH, D., M.D., C.M., has been appointed Medical Officer of Health for the Urban Sanitary District of Great Driffield.  
SUTTON, S. W., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Resident Accoucheur to St. Thomas's Hospital.  
THOMPSON, EDMUND JOHN, M.R.C.S., L.S.A. Lond., has been appointed Medical Officer to the Sixth District of the Ashby-de-la-Zouch Union.  
TREASURE, W. B. C., L.S.A. Lond., has been appointed Resident Assistant Medical Officer to Charing-cross Hospital.  
TYRRELL, WALTER, L.R.C.P. Lond., M.R.C.S., has been appointed Junior Anæsthetist to St. Thomas's Hospital.  
WELLS, A. E., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed House-Physician to St. Thomas's Hospital.  
WHITE, E. F., M.R.C.S., L.S.A. Lond., has been appointed House-Surgeon to St. Thomas's Hospital.  
WIGAN, C. A., M.R.C.S., L.S.A. Lond., has been appointed Resident Obstetrical Officer to Charing-cross Hospital.  
WILLIAMS, E. R., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Medical Officer to the Derby Amalgamated Friendly Societies' Medical Association.  
WILSON, A. H., M.R.C.S., has been appointed Resident House-Surgeon to the Liverpool Royal Infirmary.  
WRIGHT, GEORGE ARTHUR, B.A., M.B. Oxon., F.R.C.S. Eng., has been elected Honorary Assistant-Surgeon to the Royal Infirmary, Manchester, vice Mr. J. Hardie, promoted to Honorary Surgeon.  
WYBORN, S. BARGRAVE, M.R.C.S., L.S.A. Lond., has been appointed Resident Surgical Officer to Charing-cross Hospital.

## Births, Marriages, and Deaths.

### BIRTHS.

DOUGLAS.—On the 24th ult., at Newbury, the wife of W. T. Parker Douglas, B.A., M.B. Cantab., of a son.  
GANDY.—On the 23rd ult., at Hill Top, Gipsy-hill, S.E., the wife of William Gandy, M.R.C.S., of a daughter.  
ILES.—On the 23rd ult., at Watford, the wife of Wilson Iles, M.D., of a son.  
MACSWINEY.—On the 16th ult., at Corradino, Malta, the wife of Surgeon-Major MacSwiney, M.D., Army Medical Department, of a daughter.  
ORR.—On the 21st ult., at Worlston, Wellingboro', the wife of James W. Orr, of a son.  
WEST.—On the 25th ult., at Wimpole-street, W., the wife of Dr. S. West, of a daughter.

### MARRIAGES.

BATCHELOR—HAWKINS.—On October 12th, at Port Elizabeth, Cape Colony, George Arthur Batchelor, M.B., &c., late Resident Physician of London Hospital, to Beatrice, eldest daughter of the late Dr. J. S. Hawkins, of London.  
MACDONALD—MACDONALD.—On the 2nd ult., at the Free Church, Esplanade, Bombay, by the Rev. Robert Jeffrey, Duncan Macdonald, B.Sc., M.D., Professor of General Biology, Elphinstone College, Bombay, to Mary H. Macdonald, third daughter of the late Rev. John Macdonald, Free Church, Fearn, Ross-shire.  
MULLIN—FINCO.—On the 28th ult., at the Church of Our Lady of Seven Dolours, James Mullin, M.A., M.D., M.Ch., L.M., late Q.C.I., of Cookstown, to Annie, widow of the late Eusebio Finco, of Rome.  
POPPELWELL—LEWIS.—On the 23rd ult., at St. Peter's Church, Harrogate, George Ball Poppelwell, Brigade Surgeon, Army Medical Department (Retired), to Ann, widow of Samuel Lewis, Esq., of Rowley Regis, Staffordshire, elder daughter of the late Joseph Leing, Esq., of Tynemouth, Northumberland.  
ROBERTSON—FRASER.—On the 21st ult., at Tornaveen, Aberdeenshire, Douglas Argyll Robertson, M.D., F.R.C.S.E., of Charlotte-square, Edinburgh, to Frances Garden Carey, youngest daughter of Wm. N. Fraser, Esq., of Tornaveen.  
SMITH—CHAMPNEYS.—On the 26th ult., at the Parish Church, Stepney, Dr. Frederick A. A. Smith, son of Dr. Smith, of Portland House, Cheltenham, to Anna Maria Mundell, only daughter of Alexander Mundell Champneys, M.R.C.S., of Hanbury-street, London.  
STUART—AINSLIE.—On the 21st ult., at Lansdowne-crescent, Edinburgh, T. P. Anderson Stuart, M.D., Professor of Anatomy in the University of Sydney, to Lizzy, third surviving daughter of Archibald Ainslie, Esq., of Doderidge, East Lothian.

### DEATHS.

BLECKLEY.—On the 23rd ult., at Lorne House, Upper Norwood, T. M. Bleckley, M.D., C.B., Brigade Surgeon, Army Medical Department, aged 52.  
BRAID.—On the 22nd ult., at Lawnswood, Burgess-hill, Sussex, after a few days' illness, James Braid, M.D. Edin., aged 60.  
BUCKLE.—On the 19th ult., John Buckle, M.R.C.S., of Great Bardfield, Essex, aged 26.  
CHADWICK.—On the 19th ult., at Beckenham, Kent, of typhoid fever, James Chadwick, only son of James Chadwick, of York, and late student at Guy's Hospital, S.E., aged 19.  
CROSS.—On the 18th ult., at Carlton House, Scarborough, Richard Cross, M.D., F.R.C.S., J.P., aged 64. R.I.P.  
MACK.—On the 21st ult., Robert Litguard, son of Robert Mack, L.R.C.S.I., L.S.A., of 26 and 28, St. Paul's-road, N.  
PAUL.—On the 20th ult., at Kelso, James, son of J. Paul, M.D., of Barnes, Surrey, aged 39.  
PEARSON.—On the 20th ult., at St. Luke's-road, Bayswater, Francis Pearson, Deputy Surgeon-General, Bengal Army (retired), aged 56.  
PIRRIE.—On the 21st ult., at 253, Union-street, Aberdeen, William Pirrie, M.D., LL.D., Emeritus Professor of Surgery in the University of Aberdeen, and Surgeon in Scotland to H.R.H. the Prince of Wales. Friends will kindly accept this (the only) intimation.  
WORBOYS.—On the 23rd ult., at Blackfriars-road, Thomas Sanders Worboys, M.R.C.S., L.S.A., aged 45.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.



# Medical Diary for the ensuing Week.

Monday, Dec. 4.

AL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.  
 AL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.  
 TROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 AL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.  
 MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.  
 YAL INSTITUTION.—5 P.M. General Monthly Meeting.  
 EDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Heneage Gibbes will give a Demonstration on Bacilli and on the manner of Staining them.—Dr. C. Theodore Williams, "On a Case of Bronchiectasis treated by Tapping."

Tuesday, Dec. 5.

Y'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.  
 ESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 EST LONDON HOSPITAL.—Operations, 3 P.M.  
 THOLOGICAL SOCIETY OF LONDON.—8.30 P.M. The following specimens will be shown:—Fatty Degeneration of Walls of the Heart; Acute Dilatation of Stomach; Photographs and a Living Patient with Ostia Deformans; Congenital Malformation of the Heart; Stricture of Intestine; Tubercles of Liver; Joints from a Case of Scarlet Fever; Malformation of Heart; Excessive Deformity from Rachitic Osteomalacia; Disseminated Polypi of Colon; Polypus of Rectum; Polypus of Small Intestine; Disseminated Abscesses in Liver of Python and of Kangaroo.

Wednesday, Dec. 6.

ATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.  
 IDDESEX HOSPITAL.—Operations, 1 P.M.  
 C. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
 T. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
 T. MARY'S HOSPITAL.—Operations, 1½ P.M.  
 ONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.  
 GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.  
 AMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.  
 NIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.  
 PIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Dr. Edward C. Seaton, "On the Influence of Small-pox Hospitals, illustrated by the recent behaviour of Small-pox in Nottingham."  
 BSTRICTAL SOCIETY OF LONDON.—3 P.M. Specimens will be shown by Dr. Cleveland, Dr. Edis, Dr. Galabin, and others.—Dr. Hopkins Walters, "On a Case of Post-partum Avulsion of the Uterus, Right Ovary, and Fallopian Tube; followed by recovery."—Dr. A. Wynn Williams, "On a Case of Ruptured Perineum; improved method of operating."—Dr. Edis, "On a Case of Epithelioma of the Cervix Uteri, Pregnancy, Cæsarian Section; Recovery."—Mr. J. Knowsley Thornton, "On a Case of Extirpation of Uterus and Appendages for Epithelioma of the Cavity."

Thursday, Dec. 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.  
 ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.  
 CHARING-CROSS HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.  
 NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.  
 HARVEIAN SOCIETY.—Harveian Lectures: Mr. Henry Power, "On Ophthalmic Medicine and Surgery in relation to General Practice."

Friday, Dec. 8.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.  
 ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
 KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.  
 CLINICAL SOCIETY OF LONDON.—Mr. Godlee, "On Three Cases of Intussusception in Infants treated by Abdominal Section."—Dr. Coxwell, "On the Case of a Child with Symptoms resembling those of Myxedema" (patient will be shown).—Mr. Nunn, "On a Case of Necrosis of the Hyoid Bone and Larynx."—Mr. Davies-Colley, "On a Case of Enormous Enlargement of the Lower Lip, cured by Operation."—Cases of Pseudo-hypertrophic Paralysis in Adults will be shown by Dr. T. H. Green and Dr. J. K. Fowler.

Saturday, Dec. 9.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.  
 YAL FREE HOSPITAL.—Operations, 2 P.M.

## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Nov. 30th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Nov. 24	29.25	W.	50	48	..	54	46	.65	Raining
" 25	29.29	W.	43	42	..	49	39	.02	Overcast
" 26	29.34	W.	47	45	..	49	38	..	Cloudy
" 27	29.31	N.W.	38	36	..	45	33	..	Foggy
" 28	29.04	N.W.	40	37	..	45	34	..	Cloudy
" 29	29.71	N.W.	44	43	..	47	32	.22	Overcast
" 30	30.04	N.E.	42	40	..	44	37	.04	Overcast

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### SEASIDE CONVALESCENT HOMES FOR CHILDREN.

THIS movement is making progress in Germany, and the result of this year's work having encouraged the promoters of the scheme to extend the circle of their operations, a large institution is intended to be built at Norderney. The Emperor of Germany has contributed £12,500 on the understanding that a like sum is collected before the end of 1883 by means of the voluntary offerings of the German nation. The plan of the institution does not include (according to the *Cologne Gazette*) the strictly gratuitous support of the children, a small weekly payment being expected. It is thought that this institution will be opened in 1884.

*Medicus.*—Our correspondent would seem, from the statement forwarded to us, to have good ground for refusing to continue to carry out his part of the contract. But the questions are legal. A good arbitration would be the best way out of the difficulty.

### "VICARIOUS MENSTRUATION."

*To the Editor of THE LANCET.*

SIR,—In answer to a letter in your issue of to-day, under the title of "Vicarious Menstruation," will you give me space for a few remarks. It seems to me that Dr. Morris has jumped to the conclusion that he has to deal with a case of vicarious menstruation, with scarcely any grounds for doing so. He appears to have called his case one of vicarious menstruation because he was at a loss to explain the hæmorrhage otherwise. "She does not appear to be plethoric and the heart sounds are healthy," he says, as if these were the only causes (besides vicarious menstruation) of hæmorrhage from the parts he mentions. From what I gather from his letter I conclude that the hæmorrhage occurred in August only, and that there has been no monthly recurrence. Because hæmorrhage occurred last August from the eyelids, nose, and mouth of a woman who appears healthy, except that she does not menstruate regularly, surely we are not justified in saying that it is a case of vicarious menstruation. The fact that the menstrual flow is irregular and scanty does not favour the idea that hæmorrhage was "vicarious of menstruation." If the menstrual flow had been natural before and had failed or diminished at the time of the hæmorrhage, the fact would have been worth mentioning in favour of its being so. The fact that the pain in the right eye is constant, points rather to some local cause of the hæmorrhage. It is as well that Dr. Morris has "determined" to watch the case; and it will be interesting to know whether the hæmorrhage recurs, and at what intervals. Also whether it is accompanied by any of the symptoms which commonly precede or accompany the menstrual flow. Should hæmorrhage occur again I should advise the use of hæmeline.

I remain, Sir, yours truly,

London, Nov. 18th, 1882.

R. J. COLLYNS.

## THE NEW YORK POST-GRADUATE MEDICAL SCHOOL.

THIS school (says the *New York Medical Record*) had a very successful inauguration at Chickering Hall on November 4th. Dr. Wm. A. Hammond presided, and delivered the opening address. He said that the course of study for medical students in American colleges rarely lasts more than three years, and in that time it is simply impossible for a student to gain sufficient knowledge to enable him to practise his profession intelligently and safely for his patients. If the student wishes to excel, and is wealthy, he may go to Europe and there complete his studies, or, in some instances, he may enter a hospital and there gain a practical knowledge of his work; but the great majority are obliged to go out into the world without being well grounded in the principles of their profession. Medical science, too, is progressive, and it is difficult for a practitioner to keep pace with the progress of the science. It is not agreeable for him to attend the lectures to the undergraduates, and even if it were, he would not get what he wants there. It is to provide for the wants of such men and to give them a higher clinical education than they can secure in our colleges that the Post-graduate School has been organised.

*Dr. G. Stanley Murray.*—We should have a published report of the case before the county court judge. It is clearly not desirable to comment on an *ex parte* statement.

## THE TREATMENT OF BRONCHOCELE.

To the Editor of THE LANCET.

SIR,—Since no notice has been taken of the fatal case of cystic bronchocele reported by Mr. Herbert Smith in your issue of Nov. 4th, allow me to point out that the treatment recommended by Dr. Mackenzie was not pursued, since Mr. Smith employed a dilution—or, as he calls it, a solution—of iron tincture, which, in the absence of any statement as to its free acid having been neutralised, is, even without the consideration of the presence of alcohol, a very different thing from an aqueous solution of the neutral salt, as recommended by Dr. Mackenzie. I have myself employed this treatment repeatedly, and have never had a fatal case; nor do I know of any on record when Mackenzie's treatment has been exactly pursued, except the one reported by him, in which immediate death resulted from entrance of air into a vein. The precautions he has since prescribed should effectually prevent recurrence of such an untoward accident. As a matter of practice it is also well, having found by experiment with a grooved needle that the case is cystic, to continue then and there the curative treatment by injection. In this instance two tapplings and aspirations had been performed at short intervals before the final operation. Beyond all this, it must be very clear to anyone who reads the case that there was not a free exit for the matter, since after death the cyst ruptured, discharging half a pint of fetid pus into the mouth. In point of fact, the success of the treatment in destroying the blood-cyst and promoting suppurative is strikingly exemplified, and the patient, as the French surgeon had it, "died cured."

It may be useful to point out that the writer of the article on goitre in Dr. Quain's recently published Dictionary of Medicine makes the same mistake as Mr. Smith in recommending the tincture. He further gives the opinion that in the treatment of goitre by seton the patient may continue his ordinary occupation. I can only hope that no surgeon will follow this advice, certainly not without taking note of the temperature of his patient, which, until suppuration is established, generally varies from two to four degrees above the normal.—I am, Sir, your obedient servant,

Nov. 13th, 1882.

CHIRURGUS.

P.S.—Mr. Herbert Smith's reference to Vol. II. of the Clinical Transactions is inaccurate, or inaccurately printed. It should be Vol. VII.

*B.A. Dub.*—The name is not to be found either in the Medical Register or the Medical Directory for the present year.

*Mr. Williams (Portsmouth).*—The paper is marked for insertion.

*Dr. Lerat (Nantes).*—We cannot exchange.

## DIET OF NURSING MOTHERS.

To the Editor of THE LANCET.

SIR,—I read with much interest your annotation on milk and alcohol. The use of stimulants and the best diet for nursing on is frequently brought before us. I have usually advised as the most suitable that mode of living which experience has taught the mother has kept her in the best health when not nursing, and such an admixture of fruit and vegetables as will prevent the necessity of taking aperient medicines. Stimulants are to be looked upon as condiments. If a glass of ale or stout makes her enjoy her meals, and consequently digest them better, it is to be preferred to water, which would make them less enjoyable, and diminish the salivary secretion. The popular custom of drinking stout to increase the flow of milk is an error; if it does act as a lactagogue, it is like feeding cows on brewers' grains—the quantity of milk is greater, but with the sacrifice of its quality and nutritive value, and therefore no gain to the infant. The use of stronger stimulants is most to be deprecated. The best drink, I believe, for a nursing woman, to stimulate the glands and produce a more abundant and, at the same time healthy secretion of milk, is thin barley gruel made with milk.

November 14th, 1882.

I am, Sir, yours faithfully,

D. H. G.

## EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

At the half-yearly examination for the Fellowship of the College, on the 23rd, 24th, and 25th ult., there were sixteen candidates, of which number nine are reported to have been successful. At the corresponding period last year there were twenty-five candidates, seventeen of whom were referred for one year. The following were the questions on Pathology, Therapeutics, and Surgery submitted to the candidates at the written examination on the 23rd ult., when they were required to answer all four questions, between 1.30 and 5.30 P.M. :—

1. What do you understand by the term organisation of blood-clot? Describe fully the process to which, in your opinion, the expression may be applied.
2. Describe the causes, and discuss the treatment, of secondary hemorrhage after amputation through the middle of the thigh.
3. What are the diseases to which the thyroid gland is liable? Give their diagnosis and treatment.
4. Describe the various surgical affections consequent on locomotor ataxy and their diagnosis.

The names of the successful candidates cannot be published until they have been submitted to the Council, at its next meeting on the 14th instant.

## ON TRANSFUSION.

To the Editor of THE LANCET.

SIR,—Undoubtedly I should feel, and I really think I do feel, a sense of obligation to Mr. W. H. Fenton-Jones for so kindly, so courteously, and with so much generosity and disinterestedness favouring your readers with his opinions on my transfusion apparatus. And especially so as he has gone to the great trouble of elaborating that opinion from the evidence furnished by an imperfect woodcut.

One little circumstance, however, unfortunately, in a small but appreciable degree, detracts from the weight of his erudition. The London Hospital is the head-quarters of the "salino-alcoholic" disciples. There it is that "the many objections inherent in blood transfusion" are considered to render it an operation which should never be performed, at least not whilst salino-alcoholic fluid is the hobby. There also it is that Mr. Jennings' "syphon"—which I have had the pleasure of seeing and of hearing described by himself—is used; where, with it, the "fluid" has stood the test of two cases, which is, no doubt, an unnecessarily prolonged succession of successes to establish the foregone conclusion that the "salino-alcoholic" fluid is the only fluid, and Mr. Jennings' "syphon" the only instrument. Mr. W. H. Fenton-Jones is, or was very recently, resident accoucheur at the London Hospital.

My indebtedness would have been, if possible, enhanced had he kindly gone to the further trouble of avoiding an imaginary quotation from my article. He says, "I cannot conceive that it is a very facile matter, alone and unassisted, to retain both cannulae in the veins of the donor and receiver of blood with one hand, &c." Certainly it would not be a facile matter. It would be a feat which I for one should neither attempt nor suggest. What I wrote was that with my apparatus skilled assistance was not necessary. The operation, if to be performed at all by the country practitioner, must be such that available assistance may suffice where skilled assistance is unobtainable.

Mr. Jones considers my "diverticulum" ingenious, but that "surely it may be a source of some trouble in that it will want some dexterity to empty the branch of the air it originally contained." I stated that all that was needed was to charge the instrument with the air chamber downwards. The "trouble" and "dexterity" requisite for this procedure would, I think, not place any very severe strain on the surgeon. He adds, "Again, the diverticulum will be useless, as far as arresting air is concerned, unless it can be kept upright, or nearly so, throughout the operation." Notwithstanding his opinion, at every angle above the horizon, air, if present, is arrested by it. Mr. Jones argues that "it is impossible to predict that the receiver requires so many ounces, or that the donor can give so much." Quite so, but his deduction seems to be that therefore no advantage accrues from my transfuser measuring the quantity transmitted. Differing from him, I regard as highly convenient a record of the quantity of fluid injected. Again, he urges that in the cases "which the accoucheur and general practitioner most frequently have to face" the dynamic effect "is the sole effect which is desired." How then does it happen that the ever-to-be-praised "salino-alcoholic fluid" does not normally take the place of blood, if the oxygen carriers—the red corpuscles—perform a function of no significance?

Notwithstanding the many objections which Mr. Jennings, of the London Hospital, considers "inherent in blood transfusion," many successful cases are on record in which death was otherwise inevitable; and the lesson taught is that the two dangers attendant on the operation are the injection of air and the formation of coagula. The first I have overcome by the use of an air receiver; the second by preparing the blood of the donor before it is drawn from his vein. I have proved by repeated experiment that the administration of as large a dose of ammonia and of a saline as can well be tolerated, ten minutes before blood is allowed to flow, very conspicuously retards coagulation.

It is devoutly to be wished that the successes of the advocates of the syphon may be multiplied, and that therewith may dawn a consciousness of the fact that, although their treatment of the very distressing cases which point to this operation may be good, it does not by any means follow that it is either the only scientific one or the best.

I am, Sir, yours faithfully,

Meadowfield House, near Durham,

November 20th, 1882.

J. F. LE PAGE.

**M.B. London.**—An analysis of the candidates at the recent examination for the Bachelorship of Medicine shows that out of 52 who presented themselves for examination 41 passed, the rejections amounting to rather over 21 per cent. Of those who passed we find that 13 came from University College (and of these 8 were in the first division), 8 from St. Bartholomew's (2 in the first division), 7 from Guy's (all in the first division), 4 from Owens College (2 in the first division), 3 from King's College (1 in the first division), and 1 each from the Westminster, St. Mary's, St. Thomas's, Leeds, the Royal Free, and the London School of Medicine for Women. This was the first occasion on which ladies had presented themselves for a final medical examination. There were two lady candidates, who were both successful, one being in the first and the other in the second division.

**Dr. J. B. Gill.**—We have not heard of the decease of the person mentioned.

#### "INUNCTION IN SCARLATINA."

To the Editor of THE LANCET.

SIR,—Seeing that there is much controversy and difference of opinion at present carried on in your valuable journal on the above subject, will you allow an insertion of the following, which appeared in the *Gazette Hebdomadaire* of April 1st, 1859, written by M. Scoutetten, of Metz:—

"Many precautions have been adopted by physicians to prevent the unfortunate sequelæ of scarlatina and measles, and the confinement to the sick room for several weeks after convalescence ranks among them. I have adopted the following plan: As soon as convalescence commences, that is to say, when the skin is no longer red with the eruption, I rub over the whole body, slightly warmed, oil of sweet almonds or olive oil, and put the patient in bed again for two hours. The next day I give him a tepid bath for an hour, and then place him in bed, and if the skin is very dry a new friction with the oil is made. Those two frictions and one bath are usually enough to remove all danger; still, in severe cases, it is well, to avoid any risk, to repeat the means indicated from time to time, until the skin regains its suppleness. These precautions taken, convalescents may be permitted to go out without fear of bad results. In order to justify this method and explain its importance, it is necessary to remember the state of the skin in persons affected with measles or scarlatina. At the commencement of the disease the dermis is thick and swollen; during convalescence the tissues return to their normal condition, but the epidermis, which has been distended, not being elastic, becomes detached, and falls off in the shape of fine powder when the attack has been slight, and of large scales (desquamation) when it has been severe, and more especially is this noticed in scarlatina. The skin beneath is dry and harsh; perspiration and transpiration are badly performed, and the functions of this important organ are either impeded or suspended altogether for a time. When the skin acts badly, the kidneys and the mucous membranes of the air passages or of the digestive apparatus undertake to supply its place; thence arise a thickened sedimentous and often albuminous urine and severe diarrhoea, which generally terminate in emaciation and death; obstinate cough, sore-throat, croup, pneumonia, pleurisy with effusion; finally serous infiltrations into the areolar tissue of the limbs, and effusion into the various serous membranes. These severe symptoms occur after an exposure to cold of the skin, which inflammation has rendered more sensitive, and the functions of which are interfered with by an inert epidermis, which obstructs its pores. The object of the treatment proposed by M. Scoutetten is to oppose the causes of these symptoms."

I am, Sir, your obedient servant,

EDWARD A. BURGESS.

London, Nov. 28th, 1882.

To the Editor of THE LANCET.

SIR,—In reply to "Cutis" on the above subject, I would say that inunction in scarlatina is an old but efficient adjunct. I have for many years been in the habit of having my scarlet fever patients greased with pure lard from the commencement. It relieves the dryness and mitigates the great heat of the skin, and when the peeling commences it not only protects the denuded skin, but forms a nidus for the poison-laden scales, and prevents or retards the latter from causing further mischief. When this plan has been faithfully carried out I have seldom had any kidney trouble with my cases. In my opinion the neglect to oil, unless some precaution is taken during desquamation, produces renal trouble. The patient gets exposed with his denuded skin, and immediately the escape of the fever poison through the pores of the skin is checked, which consequently is directed to the kidneys in larger quantities than they can bear, giving rise to acute desquamative nephritis. The oil gives warmth and promotes the healthy action of the skin.

I am, Sir, yours faithfully,

H. ISAAC JONES, L.R.C.P., &c.

Scranton, Pa., U.S.A., Nov. 27th, 1882.

To the Editor of THE LANCET.

SIR,—Some years since (Jan. 7th, 1870) you permitted me to point out in your pages that restoration of skin action in febrile conditions was more completely and permanently effected by anointing than by the warm bath. How, then, can inunction, with consequent free skin action, have "a bad effect upon the kidneys?"

I am, Sir, yours faithfully,

H. G. KNAGGS.

Camden-road, N.W., Nov. 15th, 1882.

#### STRAMONIUM.

To the Editor of THE LANCET.

SIR,—In your issue of November 4th, page 744, a case is reported from the Bristol Royal Infirmary, under the care of Dr. Shingleton Smith, of poisoning by berries of stramonium (*datura stramonium* or thorn apple). In the first place, I would draw attention to the fact that *datura stramonium* has no berries. In the second place, that in poisoning by stramonium, dryness of throat is a common and persistent symptom. Even a small dose of tincture of stramonium will in some people occasion a very disagreeable dryness of the fauces.

I hoped some other reader of THE LANCET would have noted these errors, for, in the interest of toxicology, cases of this kind ought to be fully reported, both as to the real nature of the poison taken and the action of the antidotes employed, as in this case attention is drawn to the antagonism manifested by morphia to stramonium. I would also note the large dose of morphia injected—viz., one-sixth of a grain, the child being only seven years of age.

I am, Sir, yours faithfully,

Derby, Nov. 18th, 1882.

T. CARTER WIGG, M.D.

**Dr. Laffan.**—The communication forwarded is not sufficiently explicit as to the precise nature of the complaint.

#### TOBACCO-SMOKING: A HINT.

To the Editor of THE LANCET.

SIR,—I have only to-day seen your excellent article on the physiological effects of tobacco. Although accustomed to smoking for the last twenty years, I believe it has lately had a somewhat pernicious effect upon me; I, however, do not wish to give up my customary smoke, and for some time past I have smoked only cigarettes of my own make. I use the ingenious Connium machine, which enables one to use paper mouthpieces. Into the mouthpiece I insert a small plug of cotton-wool; the smoke being drawn through this filtering medium is, I think, almost entirely deprived of all noxious matter, and enters the mouth deliciously cool and not deprived of its aroma. I think if other smokers would try this method they would recommend it with advantage to some of their patients to whom the deprivation of tobacco would be a hardship.

I am, Sir, yours faithfully,

Bethel-street, Norwich, Nov. 17th, 1882.

H. TURNER, M.R.C.S.

**H. D.**—The subject is taught at nearly all the medical schools.

**A. X. G.**—We do not prescribe.

#### "PAINFUL MICTURITION."

To the Editor of THE LANCET.

SIR,—Your correspondent on the above subject has, I should infer from reading his letter, failed to make a careful and correct diagnosis in his case—the essence of successful treatment. It is possible, should the diagnosis be a villous tumour in the bladder, that great benefit may be secured to the patient by the following treatment. An injection of nitrate of silver, well diluted with lukewarm water, should be used twice a day, combined with the warm hip bath. I can testify to the success of this plan of procedure in a most formidable case of tumour of the bladder, concerning the nature of which there could be not the least doubt. Combined with this I should advise the internal administration of Fello's syrup of the hypophosphite of iron.

I am, Sir, yours very truly,

Bath, Nov. 28th, 1882.

M.R.C.S. ENG.

**Mr. Bradburn (Eccles).**—The full recipe was given in our last issue.

**M.D. (Tunbridge Wells)** has not enclosed his card.

#### HAZELINE IN PROLAPSEUS ANI.

To the Editor of THE LANCET.

SIR,—A widow lady, aged about forty years, has suffered for several years with prolapseus ani of a severe character, attended with frequent hæmorrhage. About a fortnight ago the bleeding was very profuse, so much so that wine and brandy had to be given to her frequently to keep life in her. All remedies had been tried by her medical attendant, Mr. Hutchings, of Southborough, and failed to arrest the hæmorrhage for any time. I wrote and advised them to try hazeline, and found it had just been tried with great success, all bleeding having stopped, and there has been no return of it. The patient is recovering.

I am, Sir, yours, &c.,

Lewes, Nov. 16th, 1882.

G. HOTHER, M.R.C.S.

An Australian Surgeon's letter is unavoidably held over till next week.

**Dr. H. Bruce (Edinburgh).**—Yes.

#### INSTITUTION FOR DUMB BOYS.

To the Editor of THE LANCET.

SIR,—I shall be obliged if any of your readers will inform me where there is a Protestant institution for dumb boys, and also let me know the charges, &c.

I am, Sir, yours truly,

Darwen, Nov. 27th, 1882.

JOHN H. WRAITH.

*To the Editor of THE LANCET.*

**COLONIAL.**

**To the Editor of THE LANCET.**

EDWARD ELLIS.

*Bradford Observer, Port Elizabeth Telegraph, Southend Standard, Daily Free Press, Flintshire Observer, La Hyggene, Western Morning News, Citizen and Evening Chronicle, Gardeners' Magazine, Warehousemen's and Drapers' Trade Journal, Westminster and Chelsea News, Dudley Herald, Lymington Chronicle, Dundee Advertiser, Wexford Independent, &c.,* have been received.

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# Considerations

BEARING ON

## ON THE PRESENT KNOWLEDGE OF FEVER.

A First Lecture.

By WALTER MOXON, M.D., F.R.C.P.,

PHYSICIAN TO, AND LECTURER ON THE PRINCIPLES AND PRACTICE OF MEDICINE AT, GUY'S HOSPITAL.

(Concluded from p. 333.)

NOW, with reference to fevers, I wish to draw your attention to the fact that we are able to be clear upon the idea of fever, both in the wider and the more restricted sense which I have just laid before you; and that in this relation of kind fevers differ from all other classes of diseases; at least this is the case of the contagious fevers, in which the disorder is propagated in a manner only comparable to descent by generation. Indeed, one of the most practical of the fruits of wisdom which experience will develop in you when you have seen much of professional work amongst families will be the earlier conclusion of the nature of an attack of illness by ascertaining the kind of fever to which a child has been exposed. And, again, it may be said that the chief evidence of the distinctness of kind among some of these contagious fevers has been obtained through most patient investigation and watching of local epidemic attacks of one fever or the other, in which it has been proved that each disease spreads in its own kind, and not in any other. This is the only conclusive argument to prove that typhus fever is distinct from typhoid fever; for all the differences which I shall have to detail to you as characterising typhus in its divergence from typhoid might be differences through accidents. I have seen a very crowded outburst of typhoid eruption amongst the rash in typhus, and *vice versa*. Ulcerated intestine might be a character superadded to some cases of typhus, as pneumonia is superadded to some cases of measles, or as diphtheritic disease to the fauces is fatally superadded to some cases of scarlatina. But when you find typhoid always breed typhoid, and typhus always breed typhus, then all question as to distinctness of kind ceases, or at least lapses into the more general question, whether species of fever can be constant when, as modern biology has shown or brought up to a general belief amongst all biologists, no species of any living thing either constant or ever has been constant. Not that this last reflection brings existing species nearer each other; for though they vary they do not vary towards each other, but always away from each other. They ever diverge; cats never varying to become dogs, nor dogs to become cats; so typhus never varies to become typhoid, nor typhoid to become typhus. This certainty of kind in fevers marks a vast difference in their nature and relations as compared with those diseases which I shall have to introduce before you when speaking of disorders of the lungs, heart, and brain. I shall then detail to you the characters of many things spoken of as kinds of diseases; but the word kind is much looser here, and indeed has only a quite vague and popular application. I remember being amused by a passage in some story. The author had got one of his characters into a hospital, and made a little poor fun in setting out the effect

said as how the thing what No. 3 has got in his head is the same as No. 6 has got in his stomach."

I suppose that the clinical teacher must have been asserting in the hearing of the author of this character that inflammation of the brain was of the same kind as inflammation of the peritoneum, and if the question was raised, Is meningitis the same thing as peritonitis? you would certainly see that meningitis differs from peritonitis, not like typhus and typhoid differ as generated kinds differ from each other, but meningitis and peritonitis would be always held to differ by differences untraceable in their nature, as the purple and white foxglove differ, so long as you considered them to be separated by the inalienable peculiarities of origin and relationship which separate the meninges from the peritoneal sac. But if you think that the physiologist and the pathologist could really set forth and explain all the differences between these membranes, then would peritonitis and meningitis differ in kind to you only when you used the word kind in a vague popular way, as when one might say that a knife is a different kind of a thing from scissors, or a pen from ink, in which case the phrase "different kind" means no more than that the differences are untraceable as regards the intents and purposes before you at the time. In short, popularly the word "kind" is applied to things in virtue of any likeness sufficient for the purposes of the occasion. This digression has been so long and our progress in the direct line so short, that you may scarcely remember that we digressed from the question, What are the general facts common to the several kinds of fever? into the question, What do you mean by a kind of fever? And now we must go back to the original question, and I must proceed to show you what those general facts are which are common to all fevers.

Stay though, we must have another digression, for I am afraid you might be content to regard every distinct kind of fever merely as a distinct sort of fever, and thus to ignore the relations of the several kinds of fever to one another. But if you take the facts of the several kinds of fever you will find that there are some of these facts special to each distinct kind, and others that are general to several of the kinds. And on perceiving and admitting this you must perforce regard the group of kinds of fever which have general facts amongst them, which facts are common to all of the group, but absent from all other kinds not included in the group. I say you must regard the group of kinds which have the common characters as in some sort genera of fever. And when you further find that some of the groups of kinds have facts common to such groups but absent from other groups, the groups thus connected must associate themselves into yet more general groups which become orders. So that, for example, Mr. Jones's fever has characters which bring it together with all cases of scarlatina, but amongst those scarlatinal characters is the fact of shorter duration, which makes scarlatina differ from continued fevers, but agree with a group including measles and small-pox, &c. But, again, amongst the characters common to all the group so included are some characters, such as the possession of a specific eruption, which bring Mr. Jones's scarlatina into association with the more continued fevers, typhus, typhoid, &c., but which separate it from all non-eruptive fevers. Mr. Jones thus becomes a case of the species scarlatina of the genus not continued of the order eruptive of the class contagious fevers, and thus you, as it were, perceive whereabouts Mr. Jones hangs upon the family

### PYREXIA OR FEVER.

#### PRIMARY.

#### SECONDARY.

#### CONTAGIOUS.

#### NON-CONTAGIOUS.

#### CONTAGIOUS: NON-CONTAGIOUS:

Epidemic  
wound fevers.  
Erysipelas.  
Pneumonia and  
other inflam-  
matory fevers.

#### ERUPTIVE.

#### NOT ERUPTIVE.

Miasmatic:  
Intermittent.  
Remittent.

Autogenetic:  
Rheumatic.  
Gouty.  
Erythema nodosum.

Continued:  
Typhus.  
Typhoid.  
Relapsing.  
Brief:  
Small-pox.  
Measles.  
Scarlet fever.  
Râtheln.  
Roseola.

Whooping-cough.  
Influenza.  
Erysipelas.

on the ignorant patients of the learned doctor's clinical remarks to his group of students. The impressions of the patient were rendered something in this way, "The doctor

tree of fevers, and you view his position with a greater total comprehension. Such a family tree view is a nosological view of fevers. You can construct such a tree as to



the family of fevers, but not as to other diseases. The nosology of other diseases is only an appendix of the anatomical and physiological arrangement of the several organs and parts of the body.

You will, I daresay, remember that all the while our question is, What are the general facts common to the several kinds of fevers? Well, now, you can see that we have reached a point from which we are at an advantage in solving that question. For when we have recognised what are the general facts that form the bonds of association of the several generations and families of fevers, then, as we have seen that these facts are themselves the principles of medicine with regard to fevers, we find that we thus reach at once our general principles, and can study them with due observance of their order of succession in importance. The facts common to the most inclusive group will be the most general facts and principles, and so on with less general facts to the less inclusive groups. Now, if you look at this scheme of fever, you observe that the most general division of fever is into primary and secondary fever. This is, indeed, not only the first in the order of nosology, but the first in practical application. In every case of fever that comes before you the first question is, Is it primary or secondary fever? One question only can precede this—namely, Is it a fever at all? What is fever? In its most general sense fever is still febris, fervid heat, and its only and sufficient criterion is heat. Not the feeling of heat. A patient may feel hot to you or to himself when he is really not so, and may be shivering with cold when he is thermometrically very hot, as in the cold stage of ague. But since the introduction of the clinical thermometer you can easily be quite sure of fever, or, as in this widest and most general sense it is more properly termed, pyrexia. You decide it by the thermometer. If his temperature is above 100° the patient has pyrexia. But in a vast proportion of cases pyrexia or feverishness is secondary to inflammation; and, in fact, before you pronounce a case to be fever you must be sure there is no local cause on which the pyrexia depends. Search for local inflammation. If there is no local inflammation, then it is fever, and it is called primary, or essential fever, or “fever” as distinguished from mere pyrexia. The next great characteristic, in which you find the first line of division of essential fevers is the character of contagiousness. This, too, is not merely first in order of generality, but in order of practical importance. When you are sure that the case is some kind of essential fever you will be asked by the friends, Is it contagious? A very serious consideration, on which depends the taking of immediate steps to ensure the safety of those around, steps which are annoying, troublesome, and costly, and which therefore must not heedlessly be enforced, but which are so imperative when necessary that there is no forgiveness if you fail to take them in due time.

And here I think it will be well to consider in a general way, and once for all, the great fact of contagion which is common to the more dreaded and deadly of the fevers. What do we know about contagion? Well, we seem on the very brink of knowing all about it, and yet we must perhaps on that very account be cautious. It is well to be circumspect on brinks. And the attitude of science is properly one of caution, especially of caution against the very probable. Science used to be always being misled by the probable. Therefore now let us challenge strictly all evidence when a general conclusion is to be drawn. The general conclusion is none other than that all contagious fevers arise through the entrance into the system of what are called “germs,” and that these germs are of the nature of living organisms, such as have from the first microscopical ages been known to microscopists as bacteria spirillum, micrococcus, &c. Many an hour have I spent in watching these, but never thought of associating them or any of their kind with fever; yet what I witnessed many years ago might have awoke a quicker perception to the anticipation of recent discoveries. I was watching floscularia, a stationary species of rotifer, resembling a relatively large bell with a Japanese quaintness of design about its figure. These creatures had come in large numbers in the aquarium at my dining-room window. Their textures are entirely transparent, and I was discovering their sense organs and the ganglion that represents their brain, and in particular I was watching the curious disappearance of a pair of bright-red eyes, which these creatures possess whilst they are young and active,—eyes which, like some other creatures, they lose when they grow old and acquire established positions. But, to my great sorrow, my floscularias, which had been thriving and multiplying freely, began

to die away before I could finish all the observations I had hoped to include in a paper which is in the Linnæan Society Transactions. As the creatures sickened they became turbid instead of clear; and whilst I was endeavouring to follow the nerves from the ganglia I saw that the obscurity which clouded them was due to the presence of countless bacteria, exactly such as I am now familiar with in Koch's figures. I now know that I was witnessing an epidemic of bacterium fever in a population of floscularias, but I was not seen enough to see what was before me then, as I looked for and thought only of nerves.

In 1873, Oberheimer of Berlin discovered spirillum in the blood of persons suffering from relapsing fever; and the fact that such organisms are in the blood in relapsing fever is beyond all question. This discovery might at first seem only a further extension of the knowledge we have of scabies through the finding of the itch insect. But there is this vital difference, that whilst the itch insect is living his quiet little life as an unwelcome guest, he creates no general disturbance except for some importunate sensations; whereas when spirillum gets into the system there is fever, and indeed intense fever. Evidently, then, the spirillum has a much more intimate and general relation with the system than the itch insect has, and it becomes a most interesting question what those relations really are. The facts are simple enough; indeed, are they not precisely such as science has long been aware of as occurring in the popularly well-known processes of vinous and acetous fermentation? In the fermentation and in the fever have we not definite systems of turbulent changes determined by the presence of living germs? Even before the discovery of the yeast plant fever was seen to resemble fermentation. Well, there we have a familiar and apparently close analogy to incline us to the view that relapsing fever, at least, is a colonisation by foreign living creatures which in some way breed a poison, or which, as some think, fill up and choke the life out of vital parts of the frame. This is a simple and plain view, and is easily accepted and understood. But the truth may not be so simple and plain, and I wish to draw your attention to an alternative view. This alternative view will appear to you if we ask the question, Are these spirilla—which, by the way, much resemble some spermatozooids—spermatic in any sense useful to recognise? Are they the offspring of the human body endowed with powers to disturb the vital processes of other human bodies? In a general way, there is a range wherein life and fever show enough in common to have been more than merely poetically or metaphorically parallel. For fever is like life in having its times of duration limited though uncertain, and in having its stages so that you can anticipate them, and you can recognise whether the fever is a young or an old fever; and, as our very question shows, fevers reproduce their kind. Here, then, are all the characters of a life: its uncertain yet sure limits; its stages of development; its power of reproducing itself. And so a fever might appear to be another life lived in and by its sufferer, and the human fevers would thus become, as it were, episodic lives supplementing human life; so that you have not quite lived until you have had your fevers; though it may be found for you that you have quite lived when in the middle of one of them.

There may be too much of some sorts of life. In strychnia poisoning or in laryngismus stridulus, for instance, the convulsions themselves cause death. But convulsion is itself an act of life, and so you may die by too much life. Life is a paradox, look at it as you will. You know that from the chemist's point of view life ought to settle itself at once by the several elements obtaining their favourite affinities, and being forthwith satisfied, which they never do until life is over. Life is such a paradox. But from my present point of view life itself is, as it were, a protracted infection of the germ by the sperm, and the living body remains during its life germinal to other infections when suitable spermatic elements come in contact. If this view seems to you more fanciful and supported by less analogy than the fermentation theory, I will at once put before you what is a serious difficulty in accepting the fermentation theory of fever. On this theory is it not very difficult to explain how it comes to pass that one attack of a contagious fever protects from the danger of that fever ever after? This, as we shall subsequently see, is not strictly true, but it is generally true. If fever is merely colonisation with germs who feed upon and live in the body, why should they not come and feed and live again? The only explanation I remember to have seen offered is that the unsophisticated human frame is born

with a small amount of some very special food of which the fever germs are very fond, and it is supposed that these little organisms are so fastidious, that they will not take any other nourishment, so that when they have consumed the whole supply of this kind of food, they die or depart to other feeding-grounds. Now, seeing that according to biological science these germs are only protoplasm, it would be very surprising if it turned out to be true that minute unspecialised organisms such as swarm in every puddle where organic decay is progressing should refuse to accept any nutriment other than some inborn kind of delicacy; and when you reflect that there must be a number of these delicacies, for no fever germs will pasture on the food of others, and in fact the ambrosia of one is caviare to the rest, it puts no little strain on the highest genius for imaginative scientific belief to suppose that we are all sent into the world each to bear a little special supply for the several kinds of fever germs to thrive upon.

On what seemed to you perhaps the more fanciful view we may suppose that the human frame can cast off spermatic elements which when they enter other human frames engage in an activity remotely like that which originates germination, so that for awhile, if I may so speak, the protracted germination which constitutes life is itself reinfected and diverted. We may suppose that this activity constitutes the fever; and that when once the fever is over and its life lived, it does not return. Were this really the case, would you not expect that these episodic lives would be most probably lived during the actively growing germinal years of earlier existence, or, in other words, would not the fevers attack children? Which indeed they do. Again, if you suppose the immunity from subsequent attacks which fever affords to be due to exhaustion of materials suitable to the parasitic germs, how can you explain those rather frequent cases in which typhoid fever or measles repeats its attack upon the convalescent patient, and even recurs a third time after defervescence? For if you suppose the immunity to be due to exhaustion of a material suitable to the parasitic germs, how can you explain the reappearance of the fever, and therefore of the germs with their supplies, just after the cessation of the first typhoid attack has shown that all supplies were exhausted? But if you concede that this proves the immunity in question not to be due to such exhaustion of supply, then how do you at all explain that subsequent immunity which is so marked and so happy a feature in the history of contagious diseases?

Well, then, the recurrence of typhoid fever cannot be a question of food of the germs. And if not, we must suppose that the repetition which makes three typhoids is due to some measure of time in the life of the typhoid germs themselves, so that each brood lives just the time of one attack, and the next attack is due to other broods whose life has a time limit equal to that of the fever. But these germs are minute unspecialised particles, which reach their little perfection with extreme rapidity, and all that is known of their rate of growth is the reverse of conformable to periods of fever measured by weeks.

On the other hand, if we suppose the fever process to be an episodic vital action between the elements of texture of different individuals, there is nothing contradictory in supposing such vital actions to be sometimes lived through a second or even a third time. Not long ago at the Pathological Society, there was under debate a question how we should explain the late manifestations of so-called tertiary syphilis and the syphilitisation of the fetus whose mothers, having passed through the disorder, are not then actively diseased. And I endeavoured to show that these and similar facts are explicable by assuming that tissue of recent origin, or tissue by chance left unsyphilitised during the syphilitic fever, undergoes impregnation with the syphilis germs which chance to come from habituated older parts of the frame into contact with the new tissue, either through such an intercommunication of the several parts of the frame as is supposed in Darwin's theory of paragenesis, or, else, in the more easily understood instance of the syphilitic fetus, through the blood of the mother. And I pointed out that the observations of Mr. Tomes on the Haversian spaces of bones, proving that fresh texture arises and replaces old texture in the life of adult bones; that these observations make it probable that similar new formation occurs in other textures, giving rise to new-formed tissue, which would be germinal to or capable of vitally receiving any poison which might be transmitted to it from the already syphilitised general textures. If this is true, though I now cannot give you all the evi-

dence in favour of such a view, then, in tertiary syphilis we have occurring within the body of one and the same individual an infection of young and virgin tissue by a poisonous effects of older tissues charged with a cause of infection to which those older tissues are themselves longer susceptible. Such a fact would form a step towards the admission of a like infection by the tissues of a habituated individual of the tissues of another not habituated.

But I have hitherto overlooked a branch of evidence of the existence of which you must be duly apprised. Though I may be allowed to deal judicially with the facts as offered, and facts are offered by the most accredited observers which would go to prove that the germs of a fever to which mice are subject can be grown into a fungus which produces spores, and that the spores of this fungus will reproduce the fever in other mice, whilst the fungus threads do so unless spores be present. Such researches are, of course, very elaborate, and when admiring the thoroughness and continuity of the work, and the skill and insight displayed in the views of the experimenters, I must recognise also the extreme difficulties in avoiding fallacy, and the corresponding possibility that fallacy was not avoided; for to obtain the germs of fever about 10,000th or 20,000th of an inch large, and to plant them and grow them to a fungus, you must be able to follow the individuality; nay, you should never, if possible, lose sight of the individuals. It would be well to identify these germs and, indeed, it would be much more secure if they could be marked—say, for instance, by tying little bits of blue ribbon upon them to distinguish them from the infinitude of vulgar multitudes of other germs everywhere around them. And it might be said that these germs did deserve such a token of distinction on account of the sober way in which they behave exactly according to what the commanders in the experiment expected of them. Indeed, if you will trail a little poetry amongst bacteria, they are so numerous and so light that they will gather around and give body enough to the form of your conception so as to make good your theory and set it going in living shape; and a biological theory will have a very happy life when enclosed in a body of active germinal infective protoplasm. It is, indeed, the most fashionable creation of the period. But one must not speak irreverently of protoplasm, and our subject is all the more serious. The question may appear a very narrow one when we ask whether fever germs are independent parasitic organisms on the one hand, or specialised parts belonging to the human species originally taking their life from the human body. But to be stuffed with foreign germs is really so very different a thing from having your texture life set into new vital action by spermatic particles from the texture of another person, that it would be well to know which is the truth, if we can only find it out. As to the coarser view which has been advanced, to the effect that the mechanical action of fermentation germs may cause the phenomena and fatality of fever, we are not without an instance to show us what really are the consequences of the presence in immense numbers of micro-organisms in the human blood. The recent discoveries concerning *filaria sanguinis hominis* show that the minute worms may exist in myriads and circulate in the blood without producing any fever, and, indeed, without causing any grave symptoms, and this, when these worms are so numerous as to be immediately found in every drop of blood examined. Indeed, the history of *filaria sanguinis hominis* seems almost to give a crucial negative to any theory which would suppose fever to arise from a mechanical action of germs—that is, through mechanical destruction produced by the germs. For when we thus speak of fever germs as perhaps always present in the blood, we must not suppose that one only has to get a microscope, a slide and put a little fever blood under it to find it full of germs. No, try in any of our cases of typhoid in the way and you will find these germs by no means very easily covered or obvious things. At the outset of such an inquiry you must take notice that the blood serum is often crowded with minute particles which must not be confounded with bacteria, and which exist often to a large extent in the blood of healthy persons. During last winter clinical session I was one of my most acute and intelligent friends, perhaps now absent, sent, searched carefully for germs in the blood of severe typhoid cases. The result was that one bacterium was seen, only one, but I was told it was a very active one. When I say that Mr. Booth saw it, you will know it.

well seen, for we all regard Mr. Booth as one of the very ablest and very best students at Guy's, but perhaps the main fact was that all were quite sure that there was only one bacterium. Next lecture we will take up in detail the consideration of the history of contagion.

## A CASE OF ULCERATIVE ENDOCARDITIS WITH PYÆMIC SYMPTOMS.

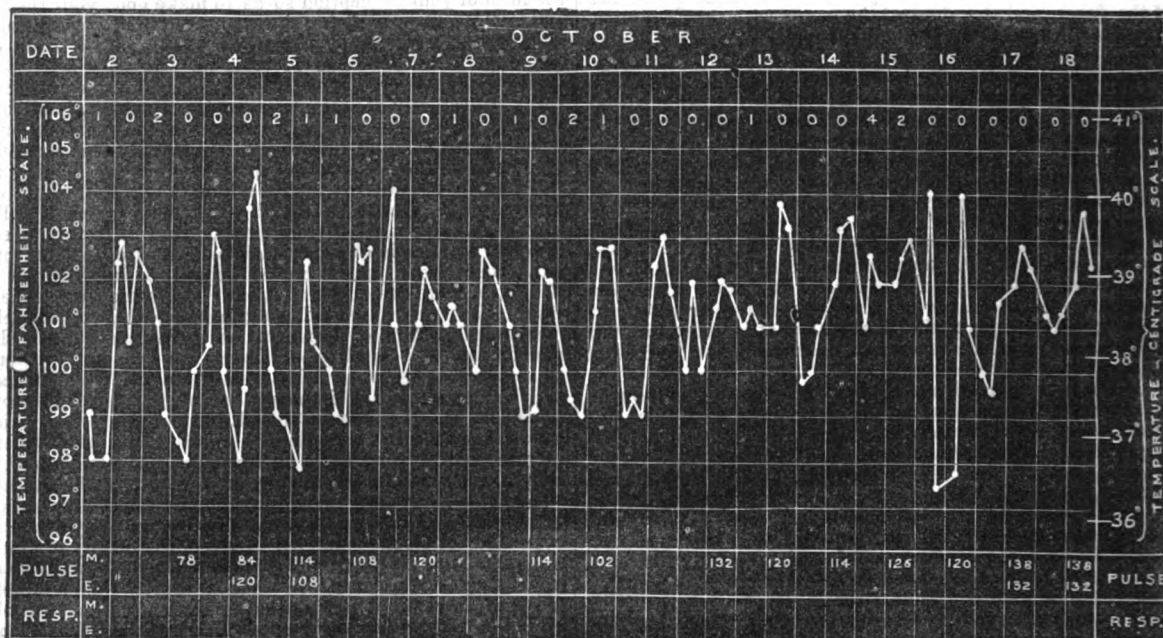
BY JULIUS POLLOCK, M.D.,  
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ATTENTION has lately been drawn by Dr. Sidney Coupland, Dr. Wilks, and others, to a rare and interesting form of ulcerative endocarditis with pyæmic symptoms. In most, if not all, of the cases there has been old valvular mischief of the heart, upon which the fresh ulceration has been grafted, and some importance has been attached to the presence of former cardiac mischief. In the following case the symptoms came on during the course of a first attack of rheumatic fever, the heart being quite sound; and it has this further interest, that the case is absolutely complete, having been under observation from the first appearance of the rheumatic fever until the closing scene. I am indebted to Mr. C. A. Wigan, resident medical officer, for the carefully prepared notes of the case.

M. J.—, aged twenty-two, a single woman, was admitted into Charing-cross Hospital, under the care of Dr. Pollock, on Sept. 7th, 1882, suffering from a first attack of acute rheumatism. On admission she complained of pain in both knees and ankles and in the shoulder of the left arm. She also had some pain and stiffness in the joints of the right hand. Temperature 101.2°; pulse 84; heart normal, with no irregu-

loss of power in the left shoulder. On the 5th the joints in both legs became painful and swollen, so a doctor was sent for, who recommended her to go into a hospital, and accordingly she was admitted into Charing-cross Hospital on Sept. 7th.

Her temperature on admission was 101.2°, and the pulse 84. There was the usual sour-smelling sweat, and the urine was high-coloured and acid, but otherwise normal. The heart was carefully examined, and found to be normal. As the bowels were confined, she was ordered ten grains of colocynth and calomel pill for that night, and the following mixture: Salicylate of soda, fifteen grains; carbonate of ammonia, four grains; decoction of cinchona, one ounce, every six hours. A chart of the temperature, taken every four hours, was started.—Sept. 3rd: No change in temperature. The urine contained no albumen, but was found to be very acid, and thirty grains of bicarbonate of potash and three grains of iodide of potash were added to the mixture. Pills repeated. The patient shortly lost all pain in the right arm, both knees, and ankles, but suffered much in her left shoulder and arm, the slightest movement causing great pain. Pulse about 90; heart normal.—28th: Patient still complains of great pain in the left arm, especially in the muscles of the upper part. The temperature at 6 P.M. was 102.8°, consequently the old mixture was discontinued, and the following ordered:—Sulphate of quinine, two grains; carbonate of ammonia, two grains; bicarbonate of potash, twenty grains; chloroform water, two drachms; to one ounce of water: to be taken three times a day. This seemed to have a very beneficial effect, as the temperature fell to normal, and remained so until the morning of October 2nd, when at 9 A.M., without any apparent cause, she was seized with a severe rigor, lasting fifteen minutes, and followed by a profuse sweat. The temperature ran up from 98° to 102.4°, but fell at 2 P.M. to 100.6°; rising again to 102.6° at 6 P.M.—3rd: The temperature at 2 P.M. was 98°, but another rigor, as severe as before, occurred at 12 P.M., the temperature



larity nor bruit. From her previous history she appears to have had measles when an infant, but no other serious complaint. Her father died of pleurisy (double) aged forty-four; had always been a healthy man. Her mother is still alive and healthy. Three brothers and five sisters alive and healthy; four died quite young. The patient states that on Sept. 3rd, the day before she felt ill, she had a hot bath and went out for a walk directly afterwards in the rain, and got wet through. The same night she felt chilly and sick, and vomited shortly after getting into bed a greenish fluid with a bitter taste. Patient got no rest during the night, owing to the feeling of sickness, which continued. The next day (Sept. 4th) she got up. She did not complain of any chilliness or fever, but felt some stiffness and experienced

rising to 103°.—4th: Another rigor at 6 P.M.; temperature 104.4°.—6th: Another rigor at 9 A.M.; temperature 102.8°. The rigors were followed by a profuse sweat in a quarter of an hour. Up to this date the heart-sounds had been normal, and excepting some increase at the time of the rigors, the pulse-rate had varied from 76 to 96 per minute; but on the morning of the 6th a very soft and indistinct whiff was heard with the first sound at the apex of the heart. This gradually developed, until, on the morning of the 12th, a characteristic murmur was plainly heard at the apex with the first sound, and was gradually lost when traced into the axilla.—14th: Three grains of the sulphate of quinine were given in milk three times a day, and four ounces of brandy per diem.—16th: The murmur is now very dis-

t, and is rasping in character. It can be heard all over chest. A very wide range of temperature was noted—104° at 2 A.M., 97° at 6 A.M., 104° at 2 P.M., and 101° at 3 P.M.—17th: Up to this date the breathing has been good, and not much increased in rate; but to-day she had a short and irritating cough. Respiratory murmur sh, no dulness on percussion, slight amount of sputum. Pulse was quickened considerably, being 138 in the morning and 132 in the evening.—18th: The variations of temperature are not so severe; it now ranges between 100° and 103°; pulse still 138. Cough harder, sputa more abundant, and rather rusty. Respiratory murmur harsher; apnoea at times. She complains of loss of appetite and a feeling of sickness, and has not slept for two nights. Ordered solution of hydrochlorate of morphia, five minims; nitrate of bismuth, ten grains; bicarbonate of soda, ten grains; compound tragacanth powder, ten grains; one ounce of water: to be taken at bedtime. This had a good effect, and she slept for five hours.—19th: Dyspnoea has a good deal increased. The cough is irritable; sputum very rusty, almost red, but with a greenish-purple tinge and there. Some dulness and bronchial breathing over both bases. Pulse 138 in the morning and 150 in the evening. The cardiac bruit is very loud and harsh. Brandy creased to eight ounces.—20th: Dyspnoea very marked. Pulse 138. Dulness on percussion most distinct over the middle of the left lower lobe. Temperature 103.6°.—21st: Breathing very laboured; respiration 56. Very small expectoration over the left lower lobe; coarse râles over the right base. Temperature 101°; pulse 138, very feeble, and evidently failing. Sputa free in quantity, of a dark-prune colour. Very small amount of urine passed; sp. gr. 1021, and a trace of albumen for the first time.—22nd: At 2 A.M. the patient was comatose, the pulse being just perceptible. Death took place quietly two hours later.

*Necropsy, thirty-four hours after death.*—The body was well nourished; some rigor mortis still present, and no external appearances of disease. On opening the chest, the left side was found to be full of fluid; there was also some, but less, in the right. The left lung was indurated about its middle third, and the upper part of the lower lobe was of a dark prune colour, with granular consolidation, and readily broken down. There were evidently two or three infarctions of recent date. The rest of the lung contained a small amount of serum, but was otherwise healthy. The right lung was the seat of four or five indurated patches, the result of pyæmic pneumonia, and also contained some serum. The heart weighed nine ounces and a half. The wall of the left ventricle was somewhat thickened, and there was recent ulceration on the right border of the mitral valve, and around it some exuberant vegetations, soft and easily detached. These were continuous for nearly an inch along the right border of the valve. No atheroma, no other valvular mischief. The liver was normal, weight fifty-one ounces. The spleen normal, weight eight ounces and a half. The kidneys weighed nine ounces and a half. Their capsules were slightly adherent, and the pyramids congested, otherwise healthy. Brain normal, weight forty ounces.

*Remarks.*—Ulcerative endocarditis with pyæmic symptoms must be very rare. I have watched with much interest the course of a large number of cases of acute rheumatism, many of which were accompanied by valvular cardiac disease, but the above case is the first of its kind that I have come across. What is it that determines the pyæmic symptoms? Presumably the presence in the blood of minute organisms—microzymes; but how they get there is as yet unexplained. As Dr. Burdon-Sanderson has pointed out,<sup>1</sup> it is necessary for the production of infective disease that there should be present at the same time inflammation and bacteria; either may exist alone, but no pyæmic symptoms result. In the foregoing case the absence of all trace of metastatic abscesses in the liver, spleen, and kidneys is rather remarkable. The chief evidence of the existence of pyæmic dissemination was found in the lungs, and during life the sputa were very characteristic. The treatment of ulcerative endocarditis with pyæmia is most unsatisfactory. None of the ordinary remedies had any real effect, nor did large doses of alcohol sensibly improve matters. I wish now that I had tried the inhalation of carbolic acid, or the carbolate of iodine, and I would suggest giving such a line of treatment a fair trial in any cases of the kind, especially where the lungs appear to be much affected.

Harley-street, W.

<sup>1</sup> Lumleian Lectures, 1892

## REMARKS UPON THE OSSEOUS LESIONS OF LOCOMOTOR ATAXY,

WITH A CASE SIMULATING MALIGNANT DISEASE.

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THE conspicuous absence from our museum, previous to the researches of Charcot, of specimens illustrating the osseous and articular lesions of locomotor ataxy, induced Sir James Paget<sup>1</sup> during the meeting of the late International Congress to ask Professor Charcot, "Whether these are not instances of a disease which has lately for the first time appeared, or at least has lately become much more frequent than formerly it was?" Now with all due deference to so great an authority, I cannot but think that their more frequent recognition in modern times is mainly owing to the increased facilities afforded us for the diagnosis of the disease in its early or pre-ataxic stage, and this is chiefly due to the labours of Duchenne, Westphal, Erb, Hutchinson, Jackson, Charcot, Buzzard, Robertson, and many others. For Professor Erb<sup>2</sup> writes, "this arthropathy is most common in the early stages of tabes, and chiefly in the preliminary period before the ataxic disturbances of motion have appeared, and when the lancinating pains constitute the chief feature of the complaint," and this assertion I believe holds good for the osseous lesions. Hence it is highly probable before the diagnostic significance of "lightning pains," ocular pareis, and Westphal's symptom were known, that many cases presenting tabetic arthropathies, or osseous lesions, were diagnosed as examples of rheumatoid arthritis, or of malignant disease of bone, &c., as might easily have been done in the case now recorded. The frequency with which patients describe their pains as "rheumatic" is strong presumption in favour of this view. Dr. Hughlings-Jackson,<sup>3</sup> referring to a case of tabes whose only symptom besides lightning pains was the Argyll-Robertson pupil, says "the case might be taken for one of neuralgia only by those who have not studied lightning pains, and who do not examine the pupils." Dr. Buzzard in a foot-note to his paper<sup>4</sup> upon the subject, says, referring to the arthropathies, "In most of those which I have published, the nature of the underlying disease had never been suspected." He instances a case in which excision of the knee-joint was very nearly performed in a surgical ward of a hospital; also of two other patients, inmates of surgical wards, who had been exhibited to candidates at an examination for a diploma as examples of rheumatoid arthritis. Charcot, in answer to a remark of this same authority, complaining of their rarity in England, said, "You will find them in the workhouse infirmaries, and in the surgical wards of hospitals." How true this remark was recorded cases testify.

In addition to the case I am about to record, in which, although the tabetic symptoms were recognised, a diagnosis of malignant disease was nearly completed and operative procedures almost resorted to, I can remember the case of a middle-aged man who came under my observation for incontinence of urine, at a time when I was house-physician to Dr. Gilbert Smith at the London Hospital, under whose care he was admitted. Here none of the ordinary causes of incontinence could be found, but the right hip-joint was much enlarged and disorganised by large irregular bony outgrowths, which also projected into the pelvis. The patient, a dull stupid man, had never before noticed the enlargement around the joint, but he walked lame with that foot. On inquiry into his history it was found that his lameness dated from an injury received some six or seven years previously, in which he said his hip had been dislocated by its entanglement in a cart wheel. Further inquiries elicited the fact that he was the subject of marked ataxic symptoms; thus he had been subject for many years to sciatica, his pupils presented the Argyll-Robertson phenomenon, and there was a total absence of knee-jerk in both knees. He walked with the

<sup>1</sup> Transactions, vol. i., p. 129.

<sup>2</sup> Ziemssen's Cyclopædia of Medicine, vol. xiii., p. 126.

<sup>3</sup> On the Eye Symptoms in Locomotor Ataxy, Ophthalmological Society's Transactions, vol. i.

<sup>4</sup> On the Affection of Bones and Joints in Locomotor Ataxy, &c., Brit. Med. Jour., March 5th, 1881.



aid of a stick, and had a somewhat ataxic strut, which, however, might have been due to his lameness. The eyesight was not affected, and so far as I remember the optic discs were normal. There had been no gastric crises. He was seen by Dr. Jackson and Mr. Hutchinson, both of whom confirmed Dr. Smith's diagnosis of ataxy, and considered the osseous material surrounding the joint to be unabsorbed callus, produced in excess in an ataxic patient, as a result of previous injury to the femur close to its neck. Now, such a case, in the event of the pain not having been inquired after, and the eye and knee phenomena not tested, might readily have passed for a severe example of rheumatic arthritis, or even of malignant disease of the bone.

From the analogy which these trophic changes in bones and joints present to the arrest of the growth of bones often observed in infantile paralysis, they have been assumed by Charcot to be due to implication of the anterior cornua of the grey matter in the sclerotic process. Buzzard, on the other hand, having observed gastric crises to be more frequent in these cases, has suggested sclerosal invasion of the roots of the vagus nerve as the cause of the altered nutrition in the osseous system. Neither of these theories, however, has been satisfactorily borne out by anatomical observations, and it is to be noted that in neither of the cases here referred to were gastric crises observed. Charcot, when demonstrating the arthropathies upon the wax model of Berthelot, before the late International Medical Congress, remarked<sup>6</sup> that "fracture of the bones and diseases of the joints appear to belong to the same pathological condition—i. e., when the disease attacks the diaphyses of the bone, the atrophy is proved by fracture; when it attacks the joints, we get the wasting of the head of the bone with erosion of the surface." In this case nearly all the larger articulations were affected, and there was an excessive production of callus around an old fracture of the right pelvic bone upon its inner surface. In the main these arthropathies are characterised by a rapid and sudden effusion of serous fluid into a joint, the knee most frequently, usually unattended by inflammatory symptoms, but followed by rapid erosion and absorption of the articular extremities, with relaxation or destruction of ligaments; the joint becomes flail-like, and dislocations readily occur. Such a condition might readily be mistaken for a simple hydrops articuli were the ataxic symptoms neglected. The swelling is never entirely confined to the joint itself, but is diffuse and often extends over the entire extremity, and large osseous outgrowths often occur around implicated joints. The rapidity with which these changes are produced in ataxy is peculiar, a few days sometimes sufficing for the complete destruction of a joint (Buzzard). Osseous lesions often coexist with arthropathies, and *vice versa*. They are characterised by abnormal brittleness of bone, due to a rarefying osteitis, whereby the Haversian canals become abnormally widened at the expense of the osseous matrix—as a result spontaneous fractures from the slightest movements, such as turning in bed, &c., are of frequent occurrence. These fractures seem to possess great reparative power, and "it is common to find a more than usually exuberant callus thrown out" (Buzzard). This statement is typically illustrated by the following case, in which from slight muscular exertion the right femur became spontaneously fractured, rapidly followed by an excessive production of callus, causing great swelling of the affected thigh, and in its clinical aspects closely simulating malignant disease.

Philip H—, aged forty, street musician, was readmitted into the Royal Portsmouth Hospital on July 2nd, 1882, under the care of Mr. Rundle, with a fracture of the right femur. He gave the following account of his accident:—On April 23rd, when taking off his boot, he crossed the right leg over the left knee, but meeting with some difficulty in pulling at the boot, he gave the leg "an ugly strain," producing what on admission, the same evening, proved to be a transverse fracture of the right femur at the junction of its middle and lower thirds. The fracture was treated with plaster-of-Paris splint encasing the foot, thigh, and pelvis, and thus far successfully that on June 18th there was good bony union, and he was discharged cured, the leg for a short distance above and below the site of fracture being encased in a short plaster-of-Paris splint. No excess of callus was then observed. When at home, he said everything progressed satisfactorily, and, with the exception of slight pain beneath the splint, he had nothing to complain of. In about a week he discontinued

the use of the splint, but remained cautious in his movements upon crutches. On July 1st, in walking across his room, he incautiously placed his body weight upon the injured leg, and immediately felt it give way beneath him. Next day, when brought to the hospital, he was found to have refractured his right femur at the seat of the former lesion. Next morning (July 3rd) the limb was observed to be much swollen, and very painful. In its lower two-thirds the femur appeared immensely thickened, by a hard and osseous-feeling material, which below terminated abruptly at the knee-joint, posteriorly the popliteal space was almost entirely filled by a similar material; above the thickening gradually terminated so that the upper third of the femur felt normal. The superficial veins of the thigh were very conspicuous; but the inguinal glands were not enlarged. Circumferential measurements of the thighs in different positions showed a great increase in the size of the right thigh, thus:—

	Just above knee.	Middle of shaft.	Level of groin.
Left thigh, 12 in.	..... 15½ in.	..... 19 in.	
Right " 16 "	..... 18½ "	..... 19½ "	

On inquiry into the general history of the patient the following was ascertained:—He had formerly been a cork-cutter by trade, but for the last six years has been blind, and has since earned his living by playing the concertina. When seven years of age a "terrible" tumour was removed from over the right inner malleolus, the scar of which is still visible. When fourteen years old he had a bubo in the right groin. He denied syphilis, but in addition to the scar in the groin he has numerous coppery scars on both shins and spots on the chest, and, besides, presented well-marked ataxic symptoms. Thus: he has been subject to sciatica for the last seven years. His eyesight failed him six years ago; it commenced as dimness of sight, which gradually got worse, so that he is now totally blind, even to the discernment of light. During the last two years he has walked badly; "staggers slightly," this he attributed to his blindness. When in hospital it was observed that the pupils were unequal, the left being about the size of a No. 9, the right about the size of a No. 6 catheter on the English gauge. They presented the Argyll-Robertson phenomena—inactive to light, active during accommodation. There was well-marked white atrophy of both optic discs, and an entire absence of knee-jerk in the left knee; that in the right could not be tested on account of the fracture. There were no gastric crises. On account of the condition of the limb, malignant disease of the bone being suspected, no further treatment than placing the legs between sand bags was deemed necessary. It subsequently increased still further in size, and on July 5th attained its maximum measurements of: above the knee, 17½ in.; middle of shaft, 19½ in.; level of groin, 20 in. On July 17th, iodide of potassium was prescribed internally, and oleate of mercuryunctions applied locally. The limb, then, contrary to expectation, decreased gradually in size, and firm osseous union between the fractured ends resulted, so that on Sept. 23rd he was again discharged cured. At this time the limb measured: above the knee, 15 in.; middle of shaft, 17½ in.; level of groin, 19 in. There was still a large amount of unabsorbed callus surrounding the femur, most evident at the site of fracture and in the popliteal space. As a precaution, the limb was encased from the toes upwards in a stout plaster-of-Paris splint, and the patient warned to be very cautious in his movements and to use crutches.—Oct. 27th: Visited the patient at his home. He walks with aid of a stick, and has discontinued the use of a splint for two weeks past. The right knee, he says, feels very weak, and the ligaments are somewhat relaxed. Both knees present Westphal's symptom. The swelling of thigh has slightly decreased since last observation; it now measures: above the knee, 14½ in.; middle of shaft, 16 in.; level of groin, 19 in. There is still great excess of callus around lower two-thirds of femur, the upper third still being free. No glandular enlargements. The right foot has become cedematous during the last month, probably due to pressure upon the veins by the callus. The other symptoms are unaltered, and the fracture is firmly united.

Remarks.—This case affords a good illustration of most of the points previously referred to in the paper. The difficulties attending a correct diagnosis were such that at one time a consultation of the hospital staff was held to consider the advisability of amputation for malignant disease. Recognising, however, the difficulties attending the case in the absence of cachexia, glandular enlargements, and signs of

<sup>6</sup> Transactions, vol. 1, p. 128.



secondary deposits it was thought best to watch its progress for a short period before resorting to operative procedure. The wisdom of this decision was subsequently proved by the slow but steady decrease in the swelling, and the unexpected repair of the fracture. The changes, in fact, so far as the illness was concerned, were regressive and reparative, not progressive and destructive, as in carcinoma, &c. It will be served that the ataxic symptoms present were those which only belong to the pre-ataxic stage and were such that the ocular and Westphal's symptoms been neglected the injury must have remained undiagnosed. Another noteworthy feature was the rapidity with which the callus was grown out, for immediately after the second fracture when refully examined by Mr. Claremont, the surgeon to the hospital, no abnormal excess of callus or osseous material was observed. Yet forty-eight hours afterwards (July 3rd) when I first examined him there was then found very excessive formation of callus as recorded in the notes. This fact becomes of special interest when we consider Buzzard's statement, previously referred to, regarding the rapidity with which the joints are sometimes destroyed in these cases.

For permission to record this case I am indebted to Mr. Temple, under whose care he was admitted, and for many of the notes to my friend Mr. Cooke, the dresser to the case. Portsmouth.

## OIL OF TURPENTINE IN EGYPTIAN ENDEMIC HÆMATURIA (BILHARZIA HÆMATOBIA).

By JOHN WORTABET, M.D.,

PHYSICIAN TO THE HOSPITAL OF THE KNIGHTS OF ST. JOHN, BEYROUT, SYRIA.

MY attention was first drawn to endemic hæmaturia about five years ago. Since that date I had seen six cases, three of which I had under close observation for some time in the hospital, affording me a good opportunity of studying the disease and trying different methods of treatment. I am allowed to give the results of this study with the hope that they may be useful to the surgeons of the British army now in Egypt, where they may have occasion to see and treat the disease. I shall first give the notes of my last case, in which the oil of turpentine produced a complete cure, and then give some remarks on the general nature of endemic hæmaturia and its parasitic origin.

B. M.—, a well-made young man, aged twenty years, a native of Egypt. He was admitted into the hospital on June 2nd, 1882, and gave the following history of his case:—When he was twelve years of age he began to feel pain in voiding his urine, and wetted the bed every night. Four years ago he observed a small quantity of blood passing with his urine, or soon after it, and always with some pain. After he had passed water about seven or eight times a day. At night he invariably had incontinence of urine and unconsciously wetted the bed. His strength was fair, but he was not able to sustain much or long-continued physical exertion. On his admission there was only a slight trace of anemia, and with the exception of his urinary trouble he complained of nothing else. During his stay in the hospital his urine was examined frequently, often daily, and with the blood, ova and free embryos of the bilharzia were at all times always and plentifully found. In other respects the urine was not much changed from the normal state. Soon after his admission he was prescribed large doses of quinine, taking the first day sixty grains, and forty grains on each subsequent day for five days. But there was no change in any of the symptoms, and the blood passed was as full of ova and living embryos as before.

On June 14th I ordered a teaspoonful of oil of turpentine with a little milk three times a day, and this treatment was continued to July 8th. The blood was examined almost daily, and I was gratified to observe that in a few days it presented only broken ova and what appeared to be the debris of dead embryos. On the 25th the blood ceased, the nocturnal incontinence of urine stopped, the strangury was less, and the calls for micturition were diminished.

On July 8th he seemed to be perfectly cured. There was no blood, no ova in the urine, no strangury, and no incontinence, but there was still abnormal frequency of voiding

his urine. At this date the oil of turpentine was stopped. He had taken it for a little more than three weeks. He was retained another week in the hospital for further observation, and was dismissed on the 13th. I saw him again about six weeks afterwards, and he reported himself perfectly well, with the exception of a slight pain in passing his water. I examined his urine, and found it quite normal.

*Remarks.*—Though endemic hæmaturia has been long recognised as a distinct variety of bloody urine, its true nature and connexion with the parasite was discovered in 1851 by Bilharz, a professor of anatomy in the Egyptian Medical School, who, with Griesinger, found the worm in the portal, mesenteric, and vesical veins, thus accounting for the presence of its ova in the urine. Dr. John Harley and others saw and described a number of cases from the Cape of Good Hope; and Dr. William Roberts says that the disease has been identified in the Mauritius and Brazil. To this geographical distribution I can add Syria, at least the town of Jaffa, from which place I have seen one unmistakable case, and have heard of others there; but this is the only Syrian case I met, though I have carefully watched for the disease. Bilharz and Griesinger found the parasite in 117 cases of autopsy out of 363; and they believed that probably more than half of the native inhabitants of Egypt were victims of this disease. Sonsino found it in thirty cases out of fifty-four; and he believes that nearly all the natives of Egypt have it. The symptoms of the disease are few and simple, but well marked. The patient complains of passing a small quantity of blood, varying from a few drops to a teaspoonful, just at the end of making water, with a little pain, which continues for a short time afterwards. The frequency of micturition varies from half a dozen times to a dozen. There is always more or less anemia and a sense of weakness after any ordinary exertion. The quantity and specific gravity of the urine are natural, but there is always blood, more or less of albumen, and an abnormal deposit of mucus. In bad cases the reaction is alkaline, and the sediment shows a number of crystals of triple phosphates, indicating some degree of chronic cystitis, for which the disease may be easily mistaken. The chief point of interest in examining the urine is the ova of the bilharzia, which are found in large numbers entangled in the clots, though they may be often seen free among the blood corpuscles. They may be detected by a low power, and can be afterwards examined with one moderately high. They are about  $\frac{1}{10}$  of an inch long, quite ovoid in form, with a spike at one extremity, and once seen cannot be easily forgotten. When the ovum is carefully examined with a magnifying power of 250 or 300 diameters, the embryo is seen within it, having a distinct border of its own lying close to the egg-shell, except at the two extremities. In some of the ova, which appear to be in a more advanced state of maturity, but not in size, the embryo may be seen to expand and retract itself, probably in a fluid which lies between it and the egg-shell. Dr. Harley hatched the eggs by immersing them in water. A more expeditious way is to crush the egg and liberate the embryo by gently pressing the two glasses. This can be done while the eye watches the process from above, and it is interesting to see the egg broken and the living embryo emerging from the shell, and its cilia put at once into vigorous motion. Not unfrequently free embryos may be seen with their broken shells among the blood-cells, occasionally, in very fresh specimens, racing across the field with incredible velocity. The form of the embryo is also ovoid, not much larger than the egg, having a somewhat pointed extremity, which appears to be the head or mouth; and projecting from its sides from one end to the other are innumerable fine cilia, which appear to be always in motion, though the animalcule does not change its relative position. It is supposed that the embryo must undergo more than one transitional stage before it assumes its ultimate shape of the adult worm. The worm, which never comes out with the urine, is described by Bilharz as a filiform body measuring from three to four lines in length. The male is thicker than the female, and has a long canal into which the female is received during copulation. It inhabits the portal vein and its branches, and the vesical veins, and can be seen only after death in post-mortem examinations. Nothing definite is known of the diseases to which this parasite gives rise, except the hæmaturia above described. The mucous membrane of the intestines is said to be affected, occasioning dysenteric symptoms, and I have been told lately by a medical man from Egypt that in such cases he has sometimes brought down with the fingers from the rectum nodules

which were attached to the mucous membrane and which swarmed with ova. He has assured me also that the spine of these ova was lateral while that of the urinary ova was terminal. If this should be so, it would account for the statement of Bilharz and Griesinger as to some of the ova having lateral and others terminal spines, which has appeared strange to those who have, like myself, studied only the hæmaturic form. All seem to be agreed that the source of the parasite is infected and unfiltered water; and Sonsino adduces in support of this opinion the fact that Europeans and well-to-do natives never use the water of the Nile unfiltered, and are therefore exempt from the disease, while the lower classes use the water as it comes from the river and suffer accordingly. But I am not aware that anyone has seen the animalcule in infected waters. As a prophylactic measure it is suggested by Harley and Sonsino that drinking water should be conveyed in covered channels to prevent contamination by the excreta of persons infected with the parasite, that it should always be filtered, and that vegetables and fruits should be washed with filtered water before use. How the entozoon penetrates the bloodvessels and finds its natural habitat there is still a mystery. The size of the adult worm and of its ova and embryos precludes the idea that they can be carried through the capillaries or even through the smallest arteries and veins. In one of my cases I once opened a vein in the arm, but found no traces of the parasite in the blood. If the ovum or embryo be the starting-point, it is difficult to understand how they can enter through any part of the absorbent system into the bloodvessels. Dr. Harley supposes that during bathing the leech-like animal may lay its eggs through the skin into some superficial vein, or more likely find its way into the bladder through the urethra.

The case recorded above is the only one in which I succeeded in obtaining apparently a perfect cure. The drug used was oil of turpentine, given in teaspoonful doses three times a day, and continued for about three weeks. I had employed in my previous cases every method which I had read of, or which suggested itself to my mind, but without the slightest effect on the disease as such. When strong tonic medicines were given the general strength may have been slightly benefited; but the examination of the urine revealed in every case the persistence of the parasite. Among other things I tried ten-minim doses of oil of turpentine, with the same quantity of extract of male fern, and carbolic acid, by the mouth and hypodermically, for some weeks, until the system was thoroughly saturated with it, and the urine became smoky. Injections with one-scruple doses of iodide of potassium into the bladder, as recommended by Dr. Harley, I never employed as far as I could wish, and the result was abortive. But in the case he mentioned it does not appear that the success was all that could be desired, for "the patient still passed a few eggs . . . and the ova were in a more lively condition."

P.S.—I should have preferred to delay this communication until I might have had another case for testing again the efficiency of the oil of turpentine; but in the present circumstances, when the disease is attracting so much attention, I thought it my duty to publish the only case of cure by medicinal treatment, so far as I know, and to leave to others, who are now seeing the disease, the opportunity of repeating the use of this drug, and finding out whether we have in it a real specific for endemic hæmaturia.

Beirut, Syria.

**VOLUNTEER AMBULANCE INSPECTION.**—The annual inspection of the Ambulance Company of the Tower Hamlets Rifle Brigade took place on the 29th ult., at the Headquarters, Hoxton. The class numbers thirty members, two or more men being taken from each company of the regiment for instruction in ambulance duties and stretcher drill. The Company was commanded by Surgeon Platt, assisted by Acting Surgeon A. O. White. The inspecting officer, Surgeon-General McKinnon, A.M.D., who was accompanied by Surgeon-Major Don, A.M.D., having witnessed the exercises of drill and stretcher duty, with the application of tourniquets, splints, and bandages, expressed himself as highly satisfied with the inspection. The result, he said, reflected great credit upon Surgeon Platt and the non-commissioned officers and men of the class; and he should have great pleasure in signing the War Office certificates of those members of the class who did not already possess them.

## THE CLINICAL CLASSIFICATION OF BACKWARD DISPLACEMENTS OF THE UTERUS.<sup>1</sup>

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It is a truism in medicine that for treatment to be successful diagnosis must be accurate. The backward displacements of the uterus, retroversion and retroflexion, are met with sometimes without symptoms, sometimes with symptoms; and in the latter case the symptoms, in different instances, differ widely in kind as well as severity. In some cases the symptoms are removed with striking rapidity and completeness by mechanical treatment, while in others the same treatment entirely fails to relieve. Clearly, therefore, all cases of backward displacement of the uterus are not alike; and before we can treat them with any approach to certainty of result, we must be able to make a diagnosis between those cases which require a particular treatment and those which do not; in other words, they must be classified.

The classification at present most in favour depends upon the shape of the uterus: whether it is bent or not; the sharpness of the bending; the greater or less difficulty of straightening it or keeping it straight. Such a classification of course implies that bending is the important feature of the cases to be classified. I believe that bending of the uterus *per se* is, as a rule, an unimportant condition. I have set forth the reasons which induce me to take that view, so far as dysmenorrhœa is concerned, in papers communicated to the Obstetrical Society of London; and therefore I need not here again defend it. I will only make these assertions: that there are many cases in which symptoms associated with retroflexion will entirely disappear, without any appreciable alteration in the shape of the uterus having taken place; and that there are many others in which mechanical treatment, perfectly successful so far as removing the flexion is concerned, fails to remove the patient's symptoms. Cases such as these are not exceptional, but quite common. Of course there are others in which the reverse is the case. But the existence of the former class of cases is enough to show that a classification based merely on the shape of the uterus is not an adequate one, not one which helps in the treatment of backward displacements of the uterus.

To make clear the principles upon which I think that distinctions should be drawn between different cases of backward displacement, I would ask attention to the circumstances in which such displacements occur, and the conditions upon which, in my opinion, the symptoms connected with them depend.

The essential abnormal condition which produces these displacements is yielding of the pelvic floor—that is to say, the muscles, fasciæ, fat, and cellular tissue, which form, as Dr. D. B. Hart has pointed out, a compact layer closing the abdominal cavity below. I see no reason for attributing them to an isolated alteration in any single structure; for it has been shown by experiment<sup>2</sup> that different component parts of the pelvic floor may be separately divided without producing descent or displacement of the uterus. When slight yielding of the pelvic floor takes place, one of the first results is that the mobility of the uterus is increased, and that this organ slightly sinks. The greater mobility of the uterus which the loosening of its supports obviously involves allows it to fall either forwards or backwards. If it were rigid, a falling forwards or backwards of its body would be accompanied with a relative elevation of its cervix in the contrary direction, seeing that the uterus is most firmly fixed at about the level of the os internum. Often this is what takes place, and then we have anteversion or retroversion, as the case may be. But sometimes, instead of altering its position in the manner described, the uterus bends, the body thus sinking without much change in the position of the cervix. Retroversion and retroflexion are

<sup>1</sup> Read before the Hunterian Society.

<sup>2</sup> Savage: *Surgery of the Female Pelvic Organs*, 1870, Pl. xi. Hohl (quoted by Aran): *Maladies de l'Utérus*, p. 980.

s results of a slight degree of prolapse. They are often, eed, valuable indications of a slight yielding of the pelvic r. There are cases in which the uterus, while the patient n the ordinary obetetric position, is not measurably lower the pelvis than natural, and yet we find symptoms. Did look to the amount of descent of the uterus appreciable the medical man as the indication for mechanical treat- nt, we should detect no necessity for it; but the version flexion of the uterus reveals to us the altered condition of uterine supports.

This, then, is the first point to which I would ask atten- n: that retroversion and retroflexion, when pathological, e alike results of slight yielding of the pelvic floor. outhout such yielding they cause no symptoms. Their eence with symptoms is an indication of a degree of pro- pse which may be too slight to be detected in the linary obstetric position, except by the alteration in the elination and shape of the uterus.

The next thing to be borne in mind is that the most mmon cause of yielding of the pelvic floor is par- ition and its effects. After delivery the pelvic floor ould return practically to its condition before the preg- ncy. But this is not always the case. From the injuries the parts which attend childbearing, and from disturbances the process of involution, some loss of tone in the pelvic or frequently results. Hence we find prolapse, retro- rsion, and retroflexion, chiefly in women who have had ildren, and comparatively seldom in virgins. But par- ition also brings with it an increased liability to many lvic disorders: metritis, perimetritis, ovaritis, &c. These nditions are thus very commonly associated with back- ard displacement of the womb, simply because they are one to occur in the same class of patients.

Anteversio and retroversion resemble one another in ing alike results of slight prolapse. But the consequences these displacements differ, for the reason that behind the uterus there is occasionally an anatomical disposition of arts to which there is nothing analogous in front of it. ere are two folds of peritoneum, containing some muscular d fibrous tissue, running back from the neck of the uterus the sacrum—the utero-sacral ligaments. These bands ry very much. Commonly they are small, wide apart, and ose; they may even not exist at all as visible folds of ritoneum. Sometimes they are so strong, tense, and ose together that Douglas's pouch is a sac with a distinct d narrow neck. When this disposition of parts is present d the uterus becomes displaced backwards, its body may, y the intra-abdominal pressure acting on its anterior urface, be forced down into Douglas's pouch, against the margins f which the veins running in the broad ligaments, and re- turning the blood from the body of the uterus, will then be ressed. The return of blood from the uterus may thus be obstructed, and congestion of that organ be the consequence. The body of the uterus may even, there is reason to believe, e so far pushed down as to become grasped by the utero- sacral ligaments, and incarcerated in Douglas's pouch. It s rare to find these ligaments so tense and so close together s to be capable of grasping the body of the uterus. But it s not uncommon to find one or both of them quite strong ough to be capable of exerting pressure on the veins of the broad ligaments when the body of the uterus is pressed low between them.

The utero-sacral ligaments have another effect beside this. When strong and tense they tend to restrict movement of the neck of the uterus in a forward direction. Hence when, this condition of parts being present, the body of the uterus becomes displaced backwards, the utero-sacral ligaments prevent the cervix from moving upwards and forwards. The womb therefore bends, and retroflexion is the result, instead of retroversion, which would be the kind of displacement produced if the cervix were free to move.

I would now ask permission to briefly repeat the im- portant points in what I have been saying:—

1. Backward displacement of the uterus, when pathologi- cal, is a result and indication of slight yielding of the pelvic floor.
2. It is prone to occur in the class of patients who are most liable to inflammatory and other diseases of the pelvic organs.
3. The disposition of parts behind the uterus is sometimes such that when the uterus falls backward, the veins which return the blood from it are pressed on, the return of blood is impeded, and the uterus becomes congested,

On this view of their pathology I would classify backward displacements as follows:—

1. Those which cause no symptoms of any kind.
2. Those in which the displacement (including under that term the totality of the conditions which produce it) is the only morbid condition present, and there is no congestion, the symptoms being those of prolapse only.
3. Those in which there is not only descent, but congestion of the uterus.
4. Those in which the displacement is complicated by other conditions, which may or may not be aggravated by it.

Upon each of these classes I would now offer some further remarks:—

1. It is difficult to get at a correct estimate, at least in this country, of the frequency with which retroversion and retroflexion occur without any symptoms; and it is not of great practical importance. Circumstances every now and then make it our duty to examine the pelvic organs, although the patient has never complained of any functional disturbance referable to them. No one can have made many such examinations without occasionally finding the uterus displaced backward; and from the few such patients whom one is required to examine, one may infer as to the many whom one does not examine that such displace- ments occur also in them. Further, retroversions and retro- flexions have been found post mortem in patients who were known not to have any uterine symptoms during life. But the most important piece of evidence, from the large numbers of which it consists, is that furnished by Vedeler.<sup>3</sup> This physician, who practises in Christiania, examined 414 healthy virgins, and found the uterus retroverted in 45 of them, or 11 per cent., and retroflexed in 13, or 3 per cent. He also examined 506 healthy nulliparæ, and found retroversion present in 47, or 9 per cent., and retroflexion in 17, or 3 per cent. (I have myself examined 111 nulliparæ who sought advice not for uterine symptoms, but for local contagious disorders, and I found retroversion twice present and retro- flexion once.) Vedeler also examined 584 healthy women, each of whom had had one or more children. Among these he found 57 retroversions, or 10 per cent., and 69 retro- flexions, or 12 per cent. In all, out of 1504 healthy women, Vedeler found the uterus displaced backwards in 243, or 16·49 per cent. Out of 1158 women who were suffering from uterine symptoms, he found similar displacements present in 259, or 22·37 per cent. Other writers have published statistics showing the frequency of retroversion and retro- flexion in patients not selected by their seeking treatment for uterine disease, as well as in fetuses and children; but none have investigated such large numbers, or differentiated so carefully between the different classes of patients, as Vedeler. As evidence of his accuracy, I may compare one of his statistical statements with a similar one compiled from his own experience, by Dr. Graily Hewitt.<sup>4</sup> This latter author, out of 1205 women suffering from uterine symptoms and examined by him, found retroflexion in 112, or 9·3 per cent, Vedeler, out of 1106 patients suffering from uterine disease, virgins being excluded, found retroflexion in 112, or 10·1 per cent. As retroflexion is not common in virgins, it is possible that if the few virgins probably included in Dr. Hewitt's tabular statement were subtracted from it, as they have been from Vedeler's, the result might be to make the percentage of retroflexions almost the same.

It is necessary, in classifying the backward displacements of the uterus, to recognise the frequent occurrence of these cases—viz., those without symptoms; because in practice it is essential that we should always bear in mind that as retroversion or retroflexion may exist in a healthy woman without causing symptoms, so either of these displacements may be present along with functional derangement, which it has no share whatever in producing or modifying.

(To be concluded.)

<sup>3</sup> Archiv für Gynäkologie, Band xix., S. 294.  
<sup>4</sup> Diseases of Women, third edition, 1872, p. 5.

DR. HENRY BROWN, of Northallerton, Yorkshire, one of the honorary surgeons of the Northallerton Cottage Hospital, has tendered his resignation to the committee as medical attendant to that institution.

THE proceeds this year of the Hospital Saturday and Sunday collections in Manchester amount to £7537, being an aggregate increase of £1585 over the sum raised in 1881.

## NEW SAFETY HYPODERMIC INJECTOR.

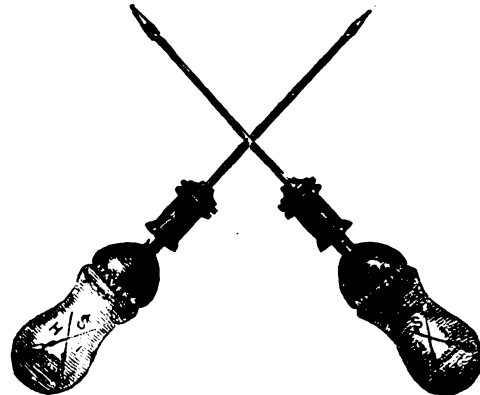
By J. WARD COUSINS, M.D. LOND., F.R.C.S.,  
SURGEON TO THE ROYAL PORTSMOUTH HOSPITAL.

DURING the last few years treatment by hypodermic injection has been very generally adopted in many forms of disease, and the number of remedies introduced into the system by this method has also steadily increased. Up to the present time the hypodermic syringe has been the only instrument employed by medical men, and the great demand has resulted in the production of many new forms and many ingenious modifications. It is, however, a very general opinion that the syringe does not even now readily and conveniently fulfil all the purposes for which it is required in practice. It is easily deranged, very liable to accidental injury, and always requires very careful manipulation. In any form it must be considered a costly instrument, and certainly very troublesome to clean. When not in daily use it soon gets out of order, and the piston is a constant source of trouble. The washer shrinks or becomes worn and loose, so that the syringe does not work well, and often the operator discovers to his great vexation that the fluid, instead of entering the patient, gradually makes its appearance at the other end of the barrel. I am sure there are few medical men constantly employing hypodermic remedies who have not been disappointed by the faulty action and sudden failure of this delicate little instrument. The vast majority of practitioners, moreover, employ the same syringe for every emergency, and in the case of those who are fortunate enough to possess two such instruments it will be very frequently found that one of them at least is broken or otherwise out of order. The same hypodermic syringe is used for every patient as well as for every remedy, and in fact for every purpose for which it is required both in medical and surgical practice. Sometimes morphia has to be hypodermically injected for the relief of pain, then ergotine has to be administered in the same way during labour, and after that some other remedy must be introduced into another patient. At one time the syringe is charged with perchloride of iron for the treatment of nævus, and at another time it is used for injecting iodine into an indurated thyroid or other glandular enlargement. By the general use of a single instrument much extra labour and additional responsibility are always incurred. The same syringe when continually employed for a large number of potent medicines demands at the hands of the busy practitioner of the healing art the most scrupulous care in washing and cleaning after every operation. Of course this difficulty is readily overcome by obtaining a set of instruments, and by using a special syringe for every patient and for every remedy; but this alternative involves considerable outlay, and certainly renders the administration of hypodermic remedies an expensive form of treatment, and quite beyond the reach of a large class of patients. The syringe always requires care in its application: the eye must generally assist the hand, and the quantity of fluid injected must be regulated by the movement of the piston over an index. The piston is often furnished with a movable stop, and this is no doubt a valuable safeguard. Still it must be remembered that every addition involves extra attention, and that the stop itself has to be properly adjusted before every operation. The hypodermic injection of an active medicine and the due regulation of the dose always involve considerable responsibility, and for this reason it is never my practice to place the administration of any remedy by the syringe in the hands of attendants or friends.

The little instrument which is accurately represented in the figure is intended as a substitute for the hypodermic syringe, and I venture to hope that many of my professional brethren will find it a simple and economical contrivance, and well adapted for every medical and surgical purpose in which such an instrument is essential. The injector consists of two parts: an elastic measuring ball and an injecting needle; the latter is provided with a boss, which serves for a handle during its introduction. It is conveniently furnished with a joint, so that the same needle may be adjusted on several measuring balls. The prefix "safety" is employed to indicate the important fact that its simple construction affords a valuable safeguard against accident, and that it renders an overdose practically impossible. The measuring

balls are made in different sizes, and each ball is capable of holding only a definite amount of fluid, the quantity varying from one to twenty minims. The number placed on the exterior of each ball expresses its capacity, so that by selecting an injector the exact dose can be at once administered.

The instrument can be instantly charged by compressing the elastic ball and inserting the point of the needle or the open end of the joint into the fluid to be injected, and it is generally advisable to repeat this little operation two or three times to ensure the complete expulsion of air. It can be discharged slowly or rapidly under the skin, and this is of course regulated by the pressure of the thumb and finger. It can be washed out and cleaned in a moment, and it is no trouble to keep in order for any emergency. It cannot be broken by an accidental fall, which is too often the fate of the hypodermic syringe, and when it is worn out, it may be



very easily replaced. The injector can be used if necessary under the bedclothes, and as a mistake in the dose is impossible, the performance of the operation does not require the guidance of the eye. It has still another important quality, which cannot fail to increase its utility—the cost is so moderate that a separate instrument can be used for every remedy as well as for every patient.

In conclusion, the safety hypodermic injector will serve many important surgical purposes, and it is a perfect substitute for the syringe in the treatment by injection of nævi and other tumours. It is made for me by Messrs. Mayer and Meltzer, 71, Great Portland-street, and can be obtained from that firm in the form of a single instrument, or in a little case containing several injectors of various sizes. The surgical needle is furnished with three openings at the point to facilitate the escape of fluid into the tissues.

Portsmouth.

## FATAL CASE OF LARYNGISMUS STRIDULUS.

By JOHN McMUNN, L.R.C.P. ED., L.R.C.S.I.,  
LATE DEMONSTRATOR OF ANATOMY, CARMICHAEL COLLEGE, DUBLIN.

ON May 5th, 1882, a woman sought advice for her little daughter, aged one year and nine months. The general health of the patient was good, but at certain times she lost her breath and had to struggle hard to regain it. There were three previous children, all of whom had died in infancy. The duration of disease in the present instance was three weeks; such was the mother's story. The child looked healthy, voice and respiration were normal; the lower gum was swollen and tense over the sites of the temporary molars. Finding here a probable exciting cause of what I believed to be laryngismus stridulus, I determined to lance the gums. As the knife grated on the subjacent tooth the child commenced to cry violently, but at the expiration of one long loud cry it became silent. Breathing was suspended. After the lapse of a couple of seconds a struggle for breath ensued, the face assumed a frightened look, the mouth was widely opened, the trunk and limbs were stiffened, the toes and fingers worked, while the inspiratory muscles were thrown into violent contraction, and signs of asphyxia rapidly developed; the face grew livid, drops of sweat stood on the forehead, the pulse grew feeble and small, while with widely dilated pupils the inturnd and suffused eyeballs seemed to

art from their orbits. Violent inspiratory efforts culminated in general convulsions. Soon all was still, the pulse vanished from the wrist, impulse and sound ceased over the heart, and general muscular reaction took the place of contraction.

**Treatment.**—The child was shaken, its face mopped with wet handkerchief, its back and stomach slapped with the flat hand, attempts to excite vomiting were made, the tongue was drawn forwards, and the vapour of chloroform blown down the throat from the palm of the hand, when muscular relaxation took place; artificial respiration was carried out for some time, while endeavours were made to excite anew the heart's action. Tracheotomy was proposed early, but no reasonings would induce the mother to give her consent.

**Remarks.**—The tongue of a child is fitted to the arch of the palate; it breathes through its nose; in crying the tongue is flattened, depressed, and drawn backwards. Laryngeal obstruction took place after a violent expiration, or at the commencement of an inspiration. Sudden falling of the epiglottis would be thus easily induced, this would induce spasm in the irritable muscles which guard the entrance of the windpipe, while further inspiratory efforts would tend to perpetuate obstruction, especially in the yielding larynx of a child.

Park-lane-terrace, W.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORAGNI *De Sed. et Caus. Morb.*, lib. iv. Procrimium.

### ST. BARTHOLOMEW'S HOSPITAL.

#### THREE CASES OF ACUTE RHEUMATISM COMPLICATED WITH PERICARDITIS AND PLEURO-PNEUMONIA; REMARKS.

(Under the care of Dr. SOUTHEY.)

THE following notes and remarks illustrate the supervention of some grave complications in acute rheumatism:—

**CASE 1.**—Letitia T—, aged sixteen, a machinist, single, an anæmic strumous-looking girl, was admitted on Oct. 5th with rheumatism and pericarditis, having been laid up at home with articular rheumatism since September 28th (eight days). This was the first attack of rheumatism she had had, and with the exception of scarlet fever and whooping cough she had never been laid up before.

**Condition on admission.**—Perspiring profusely; temperature 102° 6'. Decubitus dorsal; no pain in chest, no cough; she lay very still quite low in bed; mind clear. Tongue white and furred; breath foul; bowels costive. Micturition natural, urine high coloured, otherwise normal. Catamenia just ceased, always regular. Heart apex beat in the fifth interspace below the nipple. Thrill felt with systole, and friction rub heard all over the cardiac region. Pulse 144, soft. Lungs presented no abnormal sounds or dullness. Respiratory sounds clear; respiration 90. Abdomen natural. Large joints, as shoulders, hips, and knees, were more affected than the small ones.

Treatment by twenty grains of salicylate of soda, and seven drops of tincture of opium every four hours. The temperature fell the following morning to 98° 6', and only rose to 100° 2° on that and the next day. Her pains promptly subsided. There was no anxiety; no restlessness. On the thirteenth day of the rheumatism the temperature fell to normal and remained so for three days, but the friction rub became less distinct, and the præcordial dullness increased. She was very drowsy, but woke up to take her nourishment. The opiate was now diminished, and the salicylate given less frequently. There was effusion enough to produce marked præcordial dullness on the twelfth day of illness, and contemporaneously, or nearly so, bronchial breathing and bronchophony were noticed at the root of the right lung, and over more than two-thirds of the left lung. The dorsal position was maintained. Temperature 102° 6'; pulse 120. Symptoms of more active implication of the left pleura

were noticed on the nineteenth and twentieth days of the illness. Pain stitchlike and friction rub. At the same date the dislocation of the heart's apex upwards and outwards, and its disappearance from the chest-wall, too, were well marked. The heart's impulse being felt on the level of the mammae, she was advised to make some effort herself to lie on both sides alternately, and was directed to be propped by pillows into such position. Slight ægophony was noticed over the area of bronchial breathing.

**Treatment.**—Twenty grains of salicylate of soda, and five drops of tincture of opium, every four hours, were repeated. Her temperature fell gradually from the nineteenth day of illness, and her pulse improved. She has been able to sit up in bed and do needlework. Since the twenty-fourth day her pulse has been from 74 to 84; respiration 24; and temperature below normal. Heart-sounds have been clear, and no friction sound has been heard over front of chest. She has had no fever and no cough, but there is still a friction sound synchronous with respiration behind over left lung, some dullness and evidence of feeble air entry at base of lower third of left lung. She entered upon convalescence on the twenty-fourth day of her illness.

The facts in evidence of the course of this patient's disease are:—Pericarditis; pericardial effusion; imperfect air entry into lower lobe of left lung. Bronchial breathing; no rusty expectoration, followed by lateral and posterior friction rub and slight ægophony; rheumatic pleuro-pneumonia, with slight pleuritic effusion. Her temperature fell from 102° 6' to 99° 4' on the ninth day of her illness, pericarditis notwithstanding, and it was not till ten days later that it rose at all high again, 100° 6' and 101°, when she had some fever from her left pleuro-pneumonia. This febrile disturbance lasted four days, and she has since convalesced with one slight relapse.

**CASE 2.**—Eliza P—, aged forty-six, and fairly nourished, prematurely grey-haired woman, single, entered on her menopause at the age of forty-one. She had small-pox at nine years old, and her first attack of rheumatism at nineteen, which laid her up for some weeks; second attack at the age of forty-five, during which she was laid up six weeks. The present illness began three weeks before her admission by swelling and pain in her left foot, which shifted to her shoulders, calves, knees, and lastly wrists. She was feverish, had no appetite, and the pain made her feel sick.

**Condition on admission.**—Sept. 9th: Lying flat on her back, unable to help herself; all the joints of her arms stiff and painful; both wrists swollen; the right red and very tender. Knees and right hip-joint very painful; ankles swollen, red, and hot to feel. Pulse 108; respiration 18; temperature 100° to 101°. Bowels open four times freely; tongue coated with usual thick white fur, and inclined to dry; urine high-coloured; skin moist; pupils large.

**Physical examination.**—Fauces and abdomen yielded negative signs; heart impulse feeble, apex-beat indistinguishable, systolic apex murmur; præcordial dullness increased over both lungs before and behind; rhonchus and catarrhal sounds, but resonance unimpaired. She was placed on the usual slop dietary, and treatment by salicylate of soda was pushed to salicylism, an event established in twenty-four hours.

**Course and progress.**—Three days later her pains were gone; but she complained much of her head, and her cough was troublesome. She took her nourishment fairly, but slept very little. Pulse 78, small and weak; respiration 20. Good resonance over lungs, front and back, and fewer moist sounds. Joints still swollen, and painful upon least movement. General condition extreme weakness; lies always in the same posture. After she had been under treatment twelve days, and therefore on about the thirty-third of her illness, we noticed that her pulse had risen to 96, respiration to 36, and temperature, which had gradually fallen to below normal, rose to 100° 5'. Her cough was more troublesome, and she had a relapse of pains. Pericardial friction was now audible all over the cardiac region in front, and the dullness increasing. The following day the effusion was obviously increased and her temperature went up to 104°, but no physical signs as yet of pressure upon the lungs were observed. The relapse of pains lasted for the usual three days; improved on the fourth, when she slept well without any opiate. But we observed marked dullness on percussion on this the thirty-seventh day of her illness at the base of the left lung. Pericardial friction and præcordial dullness still well marked in front. Since her pericarditis had been ascertained beyond



doubt she had taken repeated moderate doses of morphia, and was propped up in bed. The following day fine pneumonic crepitation could be heard over the dull area of her left lung, with bronchial breathing, transmitted also to the right lung. The colour of the sputum was distinctly rusty. Meantime, notwithstanding the pneumonic complication, the temperature fell to nearly normal. Three days later both legs were anasarcaous, and pitted widely. Stimulants had been given, but were now increased. Two days later improvement commenced, and gradually the dullness receded, and more air entered the affected lung; but her cough, she said, "tore her to pieces." Pulse 96; respiration 42. Her improvement steadily went on; the cough subsided, and she was free from all pain on the forty-eighth day, on which she was able to wash herself.

On the fiftieth day the pericardial friction gradually disappeared, but a pleural rub remained at the left base, and in the left lower lateral region for some days longer. She got up for a short time a few days ago, the sixty-sixth day of her disease.

In this case again there was pleuro-pneumonia of the middle or lower portion of the left lung occurring shortly after the evidence of a considerable pericardial effusion has been established. Yet it ran a favourable—nay, more, a speedy—course to entire resolution, so that in a fortnight or three weeks afterwards the woman was convalescent.

CASE 3.—Emma W., aged nine, a poorly nourished strumous child, with dark hair and pasty anæmic look, was admitted into Faith ward on October 3rd, suffering with acute articular rheumatism and pains in her chest. Her illness had lasted a week, and the pains and swelling had begun in her right hand.

*Condition on admission.*—Temperature 102° 6'; skin hot and moist; cervical glands enlarged. Tongue moist, but furred; abdomen nil; bowels confined; urine scanty. Chief seat of pain and rheumatic inflammation in left hip-joint. Pulse 112; respiration 33.

*Physical examination.*—Heart's apex in fifth interspace outside the left nipple, systolic murmur at apex; pericardial friction at base; præcordial dullness scarcely increased abnormally. Lungs: no morbid sounds, but enfeebled vesicular sounds, and slight dullness at both bases behind, and, laterally, over the right. She was treated with salicylate, and for four days went on remarkably well; her temperature fell to below normal, and pericarditis and endocarditis notwithstanding, she had four days' intermission of her fever; but then her temperature gradually rose, in forty-eight hours, from 97° to 100° 6'; pulse 108. The pain in her heart region was greatly increased, and the præcordial dullness increased also, showing no inconsiderable pericardial effusion, extending all across the chest in front, and well up into the left axilla. She had to be propped up in bed to get her breath, and we recognised dullness, with bronchial breathing, all over the middle portion of the left lung; posteriorly in scapular, interscapular, and subscapular region, also across the root of the right lung. The cardiac region was painted with iodine and poulticed, and some morphia was given in small doses,  $\frac{1}{4}$ th of a grain every four hours. For four days she was extremely ill, then suddenly began to improve. Her temperature fell to 99°; her skin acted, and her pulse was 108; tongue moist and clearing. Dullness on percussion; bronchial breathing, and bronchophony still marked the area of the left lung consolidation; but there was no redux crepitation, and no expectoration, and very little cough.

Again the mode of recovery was in the order which I have exactly observed—namely, that as the præcordial dullness diminished and the effusion was reabsorbed, so the lung consolidation lessened, and air re-entered it, with here and there a little bronchial crepitation; on the twenty-eighth day of her illness, having had no further elevation of temperature or increase of rheumatic pains, sleeping and eating well, the pericardial friction rub became re-established all over the chest in front. Breathing sounds were faintly heard over the area of previous lung consolidation, and she steadily convalesced. Yesterday, however, and for the last week, we have been able to recognise a distinct pleuritic friction sound over the left lung base.

*Remarks by Dr. SOUTHEY.*—I have taken three cases of pericarditis that had well-marked pericardial effusion; no rare, no exceptional cases, but all illustrating a rule so invariable in my experience that I have often wondered it should have escaped comment—the association of pericardial effusion with pneumonia of the lower lobe of the left

lung, or with pneumonia of the middle symmetrical portions of both lungs. In slight pericardial effusion this complication is not met with; in large effusion it is invariable. The left lung is that which is always first and most involved. Is it an effect of pressure? Is it a consequence of dorsal decubitus? Is it a result of the filling up of the posterior mediastinum and that complementary space into which the lung ought to be expanded in the inspiratory augmentation of the thoracic chamber? I believe the latter explanation is the correct one, because the order of physical signs is so very regular. Increased præcordial dullness in front, absence of respiratory sound first between the lower angle of the left scapula and the spine, then dullness on percussion over the same area. The affair terminates in some cases with nothing more than inexpansion of the lung; there is superadded no bronchial breathing, while in others bronchial breathing is well marked. And in some of these, again, the morbid process advances no further; effusion into air cells and solidification of lung tissue are all; a little friction rub follows, but no rusty expectoration, no attendant bronchitis, no fine or redux crepitation; while a third degree of the same lung disease may occur, as in E. P.'s case, attended by both rusty expectoration and fine crepitation and redux crepitation, in other cases where the pericardial effusion is of longer duration or slower absorption. I do not remember to have ever found this pneumonic rheumatic complication independently of pericardial effusion, although I have seen repeated examples of slight superficial rheumatic pericarditis which were not thus complicated. This rheumatic pneumonia has a far more favourable prognosis than either its extent or occasional doubleness would at first thought entitle it to. If my theory of its causation be correct, the treatment I adopted in the three cases I have brought before you, and which experience has taught me is good, is also rational—viz., subduing the joint pains by opium, so that the patient may be moved into a less dorsal position; propping up of the patient by pillows; and administration of stimulants. Rheumatic pericarditis and rheumatic pneumonia, or pleuro-pneumonia are doubtless attended seldom nowadays by a fatal issue, but when bleeding and mercury were principally relied upon for conducting these local inflammations to resolution, and even in the time when alkalies were chiefly trusted to in the treatment of rheumatism, death was far from being uncommon. That the lesser mortality of rheumatism of late years may be due to some alteration in type of the disease I am not prepared to dispute. It may be so, but how can we prove it, and to what are we to refer such an alteration? To better living, better clothing, less wet weather, better draining of our lands, and the more hygienic housing of our population? This may be the case, but I see no evidence of it. But as a hospital physician I avow that we admit no fewer cases of acute rheumatism than formerly; nor comparing the cases I see to-day with those I saw twenty years ago can I perceive any difference in the severity of the general symptoms, or in the degree or kind of its ordinary complication. Still I certainly fail to witness so many autopsies upon cases of rheumatism, and have fewer butter-pat pericardial effusions and solidified lungs, with lymph-coated surfaces, to show my clinical clerks. The cases complicated by pericarditis are less noisy, less restless, less wild in their delirium, often scarcely delirious at all throughout their course. To what shall we attribute this? Is it to salicin, to the salicylates, or to a generally more rational treatment of the disease? I believe it is that we are biased by less theory in our conduct of each individual case, that we do not aim at neutralising some possible lactic acid, destroying some ferment, or even ousting some poison. We neither purge, nor sweat, nor diuretic, nor nourish our patients so much, nor use an exclusive milk, or alcohol, or broth dietary. We seek, at least I can speak for myself, to ease pain by local sedative applications, and rest overstrained nerves by opiates. We wait till stomach catarrh subsides, and then give peptonised or part-digested meats. For three or four days together, we have learnt, patients can live very well on toast-and-water, and if their tongues are very thickly furred will seldom take much else than warm tea or clear meat soups. A little weak brandy-and-water is often a much more suitable nutriment than a pint of milk, although this is thought and believed to be the simplest, the most entire, and the most suitable of aliments. *Pace* my total abstainer; alcohol is physic. In the treatment of acute rheumatism this gastric catarrh is no unimportant affair; and I believe that the real use of salicylate of soda lies in the good effect it appears to exercise upon the

stomach. The tongue cleans rapidly under the repeated doses of the remedy. There is another remedy which seems to be adapted to the later stages of the malady, to the relapsing cases—the cases, too, which perspire very profusely—this is salicin, which some of you have recently seen me prescribe pretty largely. I give ten grains with one grain of the iodide of potassium and ten drops of the tincture of iodide to an adult every four hours. And this remedy doubtless exercises what virtue it possesses upon the gastrointestinal functions, for the appetite and digestion improve under its use.

### SEAMEN'S HOSPITAL, GREENWICH.

TRANSIENT RIGHT HEMIPLEGIA FROM INJURY TO THE HEAD.

(Under the care of Mr. G. R. TURNER.)

FOR the following notes we are indebted to Mr. E. PENNY, house-physician:—

**Maude M.**—aged two years, was brought to the hospital on August 7th, 1882, at 8.30 P.M., with the following history:—At 5 P.M. on the same day she fell off the table, striking the left side of the head with some violence as she fell. She did not complain of feeling any uneasiness until 6 P.M., when she became steadily but rapidly unconscious. Soon afterwards she was seized with convulsive movements of her right arm, right leg, and right side of the face. These occurred every few seconds. When brought to the hospital she had been in this condition an hour and a half.

On admission she was quite unconscious, and could not be roused in any way. Every few seconds she was seized with violent convulsive movements of the right arm, the right leg, and the right side of the face. Both pupils were dilated and insensible to light, but the right was larger than the left. Both eyes were turned to the left side, but the head was quite natural. Her pulse was 60, and very good; respiration 29, deep, but no difficulty about it; temperature 100° F. There had been no vomiting. Her head was examined, and a swelling found over the anterior and inferior part of the left parietal bone, but there was no evidence of any fracture. She was put to bed and an ice bag applied about 10 P.M.; the right arm and leg ceased their convulsive movements, and in the course of a few minutes were completely paralysed, and the side of the face dropped. Her urine was passed in bed from time to time. Her temperature was now 98.4°; pulse and breathing unchanged. About 1 A.M. she was noticed to move both right arm and leg, and from this time the paralysis gradually passed off, the face resuming its normal look last of all, and the leg recovering first. At 8 o'clock in the morning she vomited freely, and almost immediately afterwards she recognised her mother. From this time she rapidly recovered, and left the hospital quite well in four days.

### STROUD GENERAL HOSPITAL.

OVARIOTOMY DURING PREGNANCY; SUBSEQUENT NORMAL PARTURITION.

(Under the care of Mr. STORRY.)

FOR the following notes we are indebted to Mr. R. D. Cameron, resident medical officer:—

**Emily B.**—aged thirty, married, four children, was admitted on April 1st, 1882, with an ovarian tumour, the swelling of which she noticed eighteen months ago. She last menstruated in January, 1882. Being incapacitated from following her household duties, and having lately suffered considerable pain in her abdomen, on the 11th of April (believing her to be pregnant), she was placed under the influence of ether. Mr. Storry, with the assistance of his colleagues, and with the ordinary carbolic spray, opened the abdomen, torsioned one vessel in the abdominal walls, but found no adhesions. He then tapped one large cyst and one small one, tied the pedicle with chromicised catgut, and removed the growth. The uterus was found to be enlarged in the pelvis. The wound was brought together with chromicised catgut sutures. An india-rubber drainage-tube was left hanging from the lower part of the wound, and communicating at the other end with the abdominal cavity, and the usual gauze dressing and india-rubber bandage were applied. Eight hours after the operation two drachms of blood-clot were removed with a syringe from the drainage-tube. The tube itself was removed on the fourth day. The temperature in the axillæ was taken every two hours for the first week and it never rose above 99°.

The patient was catheterised every six hours for the first week. The bowels were opened by an enema on the eighth day after the operation. On the fourteenth day she was sitting in an arm-chair, and a fortnight after this she returned home to her friends.

On Oct. 18th Mr. Storry delivered her of a fine female child.

## Medical Societies.

### MEDICAL SOCIETY OF LONDON.

*Case of Intra-thoracic Aneurism.—Treatment of Pleural Effusion.*

A MEETING of this Society was held on the 20th ult., Mr. F. Mason, President, in the chair.

Dr. HAWARD showed a man suffering from Intra-thoracic Aneurism. The case was that of a carpenter, thirty-eight years of age, who had suffered from what was taken to be left pleurisy in February, 1882, and had been unable to work since. In June last he began to have throbbing in the chest, and came into the hospital six weeks ago. The cardiac sounds were normal at the apex; but in the second left interspace, half an inch outside the sternum, there was a rough blowing bruit blending with the first sound. There was no bulging or thrill, but a faintly visible impulse. "Each expiration is broken by a series of audible puffs, like the distant snorting of a goods engine. These correspond to the cardiac contractions, and are slightly anterior to the radial pulsation. They are increased in loudness by exertion, and are even felt, as well as heard, by the patient; but after prolonged rest in bed they disappear altogether, returning directly he rises." There was a small bronchocele. In reply to questions put by Drs. Habershon, Hall, and Cavafy, Dr. Howard said that the thyroid enlargement had not increased; he was not aware whether the sound was modified by sleep or repose, and thought the disease to be in an early stage; no laryngoscopic examination was made. The case was referred to a committee consisting of Drs. C. T. Williams, de H. Hall, Thorowgood, and Cavafy, and the author.

Dr. FREDERICK HICKS drew attention to an improved form of Apparatus for Paracentesis Thoracis. The advantages were:—1st. That it enabled any degree of pressure, high or low, to be used and maintained during the operation. 2nd. That a manometer, for ascertaining the intra-thoracic pressure either at the commencement or during the operation, could be employed easily and without encumbering the apparatus. Two forms of manometer were shown, and their action explained and demonstrated; in one the fluid was mercury, in the other coloured water. In the latter the disarrangement of the apparatus by the oscillations of pressure during coughing were divided by a mercurial valve, so constructed as to allow a slow current of air at any pressure to pass freely and affect the water-gauge only, whilst any sudden gust of air acted on the column of mercury, and in doing so closed the tube connecting the trocar with the manometer. The construction of this apparatus was explained, and model shown. The use of the manometer was recommended in all cases of paracentesis thoracis. The intra-thoracic pressure was not proportionate to the amount of fluid present. In many cases the fluid was under slight or even no pressure, and in some there was actually suction which might amount to half an inch of mercury. Without a knowledge of this condition it was impossible to estimate the force required to withdraw, which if too low rendered the withdrawal less complete, and increased the liability to the sucking-in of air on the patient coughing or taking a deep inspiration, which, if it were too high, blood was easily expressed, especially so in tapping recent effusions. The same apparatus was also adapted for washing out fluid contained in cavities by alternately injecting from one bottle and drawing into another. This was done through the trocar by means of a three-way stopcock, and the opening or closing of the apparatus was unnecessary during the operation. It was important to prevent the accidental introduction of air into the pleura during the various arrangements and manipulations. An instrument was shown for exploring, and if necessary introducing a drainage-tube into cavities in the lungs resulting from phthisis or bronchiectasis, or introducing a drainage-tube into the pleura in cases of empyema when an anæsthetic is

not given, but only the skin frozen, and rapidity in operation became a matter of importance.

Dr. THOROWGOOD made some remarks on the Treatment of Intra-pleural Effusions. He commenced by pointing out that the operation of tapping the chest for the evacuation of collections of fluid, though old as the days of Hippocrates, had only of late years taken its position as a recognised and successful mode of dealing with such effusions. Before the days of Laennec the difficulty in diagnosis caused the postponement of such operative measures until the chest bulged or an abscess pointed. Then it was thought justifiable to puncture, but it was common for the enfeebled patient to sink from exhaustion before very long. In his own experience rapid evacuation by the aspirator was almost always followed by speedy reaccumulation, and it was hence his practice to wait three weeks generally in a case of obvious intra-thoracic effusion before aspirating. Brief details of cases were given where pretty copious effusion had become absorbed satisfactorily under small doses of mercury, combined with diuretic mixtures. When aspiration became necessary stress was laid on very gradual evacuation of the fluid under a low suction power. In cases of empyema, as a general rule, the open method of continuous drainage succeeded best, but the details of one case were given where an empyema was treated by two aspirations with a perfectly successful result. The first time pure pus was drawn out, at the second operation, twelve months later, a blood-stained fluid appeared, after which steady and complete recovery followed. As a rule, there should not be so long an interval between the tapping, but if pus appear once in the aspirator, and a week or two later the chest seem to have again filled, no time should be lost in again emptying it, so that the lung may have a chance to expand. A case seen with Mr. Bullock, of Isleworth, proved the expediency of this course. A youth had an empyema on the right side, which was evacuated by aspiration. In eight days' time the pus again collected and was let out by free incision, and a drainage-tube was inserted, the operation being done antiseptically. In two months' time recovery was complete, the lung filled well, and there was no deformity. Washing out the chest was only required when the discharge was offensive, the great point being to secure free drainage. Dr. Thorowgood drew attention to right hydrothorax being sometimes caused by cirrhosis of the liver, and the details of a well-marked case were given.—Dr. GREEN pointed out the different objects with which paracentesis was performed in a case of serous and in one of purulent effusion. In the former it was only needful to remove the intra-thoracic pressure, and for this he preferred Dr. Hicks' method. The cases marked by the greatest amount of effusion were those that were most insidious in onset and least attended by pyrexia. In such cases he did not anticipate much benefit from drugs, but advocated early operation.—Dr. C. T. WILLIAMS thought that in very early stages drugs were of service. So far as his own experience went, the cases treated by aspiration did better than the others. The occurrence of pain in the side was an indication for ceasing to withdraw fluid, the remainder being always absorbed. He mentioned a case in which paracentesis was refused, and where treatment by drugs took a year to accomplish the cure. He had not seen much success from division of ribs or cartilage.—Dr. HALL remarked on the importance of a counter-opening in the lowest part of the chest in empyema, to efficiently drain the cavity.—Dr. SYMES THOMPSON thought in sero-purulent cases it was important to empty the pleural sac completely. In such cases Dr. Hicks' apparatus for the introduction of air was useful.—Dr. HICKS said he strongly advocated the use of the least possible amount of suction in treating pleural effusions, the aspirator being used only as a safeguard in case the tube became blocked. The danger of making an opening very low down was that it might get blocked by the diaphragm.—Dr. THOROWGOOD thought that in serous effusion the use or not of the aspirator was of minor importance.

#### MEDICAL OFFICERS OF HEALTH SOCIETY.

AT a meeting of this Society, held at Adam-street, Adelphi, on November 17th, the President, Dr. J. W. Tripe, in the chair, a paper was read by Mr. ROGERS FIELD, M.I.C.E., on "Certain less recognised, but highly important, points in the Drainage and Ventilation of Houses," of which the following is an abstract:—Three

sanitary principles govern house-drainage. These are: 1. All refuse matter must be completely and rapidly removed from the house. 2. There must never be any passage of air from the drains or waste-pipes into the house. 3. There must be no connexion between the drains and the domestic water-supply. These principles, although so simple, are very frequently neglected. The first goes absolutely to the root of sanitation; for were it strictly complied with there would be no leaky drains, no polluted subsoil, and no production of foul gases in the drains from decomposing organic matter. There cannot be a greater mistake than to assume, as is commonly done in investigating drainage, that if water runs away with freedom this is all that is required; numerous cases are on record where the sewage from houses has apparently run away freely for years, but where the greater portion of it has really been leaking out of the drains into the ground under or close to the house. In illustration of this point the author quoted two cases in his own practice: one in which the connexion with the sewer was actually found to be blocked with shavings, which had been left in when the house was built three years before; the other that of a school, in which the drainage from the lavatories had leaked through disused drains under the floor of a large portion of the building, and where, although there was a mass of filth in some places seven feet deep, no leakage had been suspected. If the drains are exposed and found clean and jointed with cement this is not sufficient; the tops of the joints may be good and the bottoms bad. The only safe method is to actually test the drains by plugging them at the lower end and filling them with water; very few house drains indeed stand this test. Even if the drains are outside the house, it is a mistake to assume that it is unimportant whether they are sound; for not only may sewage leak out of faulty joints and percolate under the house, but foul air may be drawn into the house. It is important to realise how small an amount of deposit will create mischief by decomposing and degenerating foul gases, a mere irregularity of the joints even when the drain has a good fall is sufficient to cause this. There is no better test of the condition of the drains than the amount of smell emitted from a ventilating opening, for if drains be properly laid and in thorough working order, practically no smell should exist. Examples were given. Faulty forms of traps and water-closet apparatus were strongly condemned by the author, and diagrams descriptive of good and bad closets were exhibited. The principle that there should never be any passage of air from the drains or waste-pipes into the house was then considered, and the means of isolating the house drains from the public sewer, the necessity of keeping the drains outside the house, their ventilation as well as that of the soil-pipes, the position of the waterclosets, the disconnexion of the sanitary fittings inside the house from the drains, were referred to. It was insisted that the danger should be guarded against of trusting too much to those parts of the drainage of a house which are visible as an index of the condition of other and important parts which are concealed, and an instance was mentioned of a house the drainage of which had been recently reconstructed, and where all the sanitary arrangements appeared at first sight to be perfect, but where a subsequent examination of the drains, which were under the house, showed that the joints were in many places defective, and at one point the pipes were not jointed at all, but a space left large enough to put a hand in, though it was stated that special care had been taken to make the drains watertight. Old drains, which had no outlet connected with gullies, were found beneath the passages and rooms; the housemaid nearly died of typhoid fever, and beneath the room she occupied was found an old drain with a large amount of foul deposit. A long list of other defects was described, leading to the conclusion that the drainage instead of being very good was really so radically defective throughout that it was necessary to reconstruct the whole of it. Another instance was given in which a lady and her cook were attacked with erysipelas and blood-poisoning shortly after occupying a house. Various alterations were made in the drainage in the absence of the family, but on their return the lady was again attacked with erysipelas, and shortly after other members of the household. Again alterations were made, and again the lady was attacked with erysipelas, and the housemaid with typhoid fever. An examination of the house by the author showed that an old stoneware drain in the scullery into which the sink formerly discharged, before it was disconnected, had not been removed, and

ugh stopped with cement, the stopping was imperfect, thus allowing the air of the drain to enter the house. The author next considered the various ways in which foul air from faulty drainage inside the house passes to different parts, and pointed out the opportunities which are given for the passage of air from one part of a house to another, depending chiefly upon windows and doors; the latter, of course, mainly acting by drawing air through passages, staircases, and doors. But other means must also be borne in mind; and an interesting point was given of the passage of foul air along bell-wire pipes, the proximity of the bell-pull to the fireplace giving increased opportunity for air to be drawn from a distance to this part of a room. Channels for gas-pipes and for hot-water pipes also not uncommonly give facility for the admission of foul air. In connexion with this part of the subject, a remarkable instance was given of a particular bed in a school, the occupants of which were constantly the objects of slight attacks of pneumonia, with tendency to phoid. In this case the foul air was conducted from a lavatory, where there was defective drainage up a staircase, and, impinging on the ceiling of the dormitory, was reflected to the bed where the sickness occurred. An interesting account was given of the cause of the Duchess of Connaught's recent illness. Defective drainage was found in the basement of the house; and after numerous experiments, the means by which the foul air entered the Duchess's bedroom were discovered. These showed that it was only when occupying certain positions in the room that she would be exposed to the influence of the foul air, while in a bed she would escape. As a matter of fact, in twenty-four hours after sitting on a sofa in one of these exposed positions Her Royal Highness's symptoms fully developed themselves. These two cases were illustrated by diagrams. The necessity of a thorough disconnection between the drains and the domestic water-supply was then dwelt upon, and the mistakes most commonly made in this particular pointed out.—In the discussion which followed the President, Dr. Buchanan, Dr. de Chaumont, Dr. Corfield, Mr. E. C. Robins, Dr. Bate, Mr. Jacob, Dr. Rogers, Dr. Poore, and Mr. Shirley Murphy took part.

#### CAMBRIDGE MEDICAL SOCIETY.

AT the meeting on November 3rd (Professor Humphry in the chair) the subject for discussion was "Sudden Death (irrespective of Hæmorrhage) during Confinement, or within three weeks after—the Causes, &c."

In answer to a circular requesting members to inform the President whether they had seen any cases, and if so to give the particulars, thirty-five replies were received. A total of twenty-nine cases were supplied by fifteen persons; twenty-one members had not seen a case. Professor HUMPHRY had made an analysis, and divided the cases into three classes—viz., of sudden death (1) before the birth of the child; (2) soon after delivery; (3) within three weeks after confinement. Under the first heading five cases were reported, in two of which death was apparently due to exhaustion from long and complicated labour. Fifteen cases were reported under the second heading: in two the cause of death was not apparent; in three the labour was tedious and severe; two were cases of inverted uterus; one case was marked by diabetic coma and one by albuminuria; three were cases of placenta prævia; in one case rupture of the uterus occurred; and in one parturition supervened during an attack of typhus. Under the third heading eleven cases were returned: nine of the deaths were attributed to embolism; in one case there was albuminuria, and in another apoplexy.

Dr. STOWERS (of London) exhibited a male patient, aged twenty-eight years, who had been under his care eight months suffering from Acne varioliformis. The disease first appeared on the skin in front of each ear, and had throughout been almost entirely limited to the face, scalp, and upper part of chest. Deep punched-out scars, or pocks, marked the sites of the pustules, so that the deformity remaining was equal and similar to that of confluent small-pox. Several unsuccessful attempts at inoculation were made to test the character of the pus. The patient recovered entirely under the influence of increasing doses of arsenic, aided by the topical application, by puncture, of carbolic oil, thus supporting the belief previously held by Dr. Stowers that the affection was in no way related to syphilis.

## Reviews and Notices of Books.

*Quain's Elements of Anatomy.* Edited by Dr. ALLEN THOMSON and Professors SCHAEFER and THANE. Ninth Edition. London: Longmans, Green, and Co. 1882.

THE name of Quain has long disappeared from the list of editors of this work, and now that of Sharpey is also missing. The late Professor Sharpey had been so long and honourably associated with the production of its successive editions; his writing and supervision conferring on the chapters on the general anatomy of the tissues and the anatomy of the viscera their especial charm of style, their marvellous accuracy, and progressive development in accordance with whatever has been new and at the same time true in modern research, that it is hard to realise the issue of an edition without his name on the title-page. But, alas! he has passed from amongst us, and we are reminded by a simple preface of the great debt which anatomical and physiological science in England owes to his writings and example: "This ninth edition of 'Quain's Elements of Anatomy' is dedicated to the memory of William Sharpey, M.D., LL.D., F.R.S., formerly Professor of Anatomy and Physiology in University College, London, and during thirty-five years one of the editors of the work." The chief responsibility of the revision has therefore devolved on Dr. Allen Thomson, who now for the third time appears as editor, in association with Professor Schäfer, who was responsible for most of the histological portion of the preceding edition, and Professor Thane, to whom has now been allotted that part of the subject which deals more especially with descriptive anatomy. We congratulate Professor Thane on his succession to so honourable a distinction, and we consider the choice an admirable one, having regard both to Professor Thane's extensive and accurate anatomical knowledge, and to the fact that to his predecessors in the Chair of Anatomy at University College the work itself owes its origin, its special features, and many of its most marked improvements.

The first volume of the new edition contains the descriptive anatomy of the bones, joints, muscles, vessels and nerves, and a special chapter on superficial and topographical anatomy, whilst the second volume is devoted to general histology, the anatomy of the viscera, and embryology. The chief alteration in the text of the descriptive anatomy is in the chapter on the bones of the head, to which a short but very clear account of the methods of modern craniometry, with examples of the varieties of the skull in some typical races, has been added. As minor changes we find the position of the liver in the living subject described according to His, the classification of the cranial nerves according to Soemmering, and the divisions of the mediastinum mainly in accordance with the views of Struthers. The superior division of the mediastinum is introduced, and its boundaries and contents are for the first time laid down in a text-book. We much prefer the divisions of the pleural interspace which were suggested by Professor Wood in his article on "The Arch of the Aorta," in the *Journal of Anatomy and Physiology* for 1863, to those of either Professor Struthers or the editor, and it is in that article that the great importance of a more accurate division is first referred to, and the "superior mediastinum" as a distinct region named and defined. The laborious and careful investigations of Wood on the true position of the aorta and the thoracic contents, which have only been introduced into the last two editions of "Quain's Anatomy," demand far more notice than the general description given by Struthers. Even the very term "superior mediastinum" is used by Wood. The sections on the bones, joints, muscles, and nerves show marks of careful revision, and those on the vessels are now much improved by coloured drawings. We could wish that some of the illustrations of

the bones, especially those of the skull, and even of the more important nerves, had been replaced by new and larger woodcuts, for when the details are so very numerous, any representation which is overcrowded with reference-numbers is of but little value to the student. The descriptions of the bones and joints, although admirably done from a purely scientific standpoint, must be greatly enlarged and modified before they will come into general use by medical students. Whether topographical anatomy as a separate subject is not a little out of place in this work is a question on which opinions will be divided, but all anatomists will agree that Professor Thane and Mr. Godlee have given us a most accurate and thorough epitome of the relations of the various structures to the surface, which cannot fail to be of great value to the physician and surgeon.

In the second volume more considerable changes have been made than in the first, for in the past six years great advances have taken place in histological and embryological research, and the most important and trustworthy observations have been incorporated in the text. These alterations have been made very judiciously, and have been supplemented by many original investigations by the authors themselves. In the histology of the cell and of the tissues we find the latest views of the editor, Klein, and Flemming, illustrated by many new and beautiful drawings from specimens made by Professor Schäfer himself, whilst the researches of Key and Retzius, Ranvier, Recklinghausen, Ehrlich and other less known microscopists have every attention. Many new drawings from Henle, Schwalbe, and Luschka have been added in illustration of the anatomy of the central nervous system, and so much new matter has been introduced into this part of the work that it almost seems to be a new treatise. The most important alterations in the chapter on Embryology are due to the researches of His, and particularly to those of the late Professor F. M. Balfour, whose important contributions to this branch of science have considerably modified many of the older teachings on the subject. The value of the monograph on the Development of Elasmobranch Fishes, and of his masterful treatise on Comparative Embryology, can only be correctly estimated when we see the observations and views contained therein at once accepted and acknowledged by the father of embryology in Britain, Dr. Allen Thomson.

The careful and thorough revision, the many improvements, and last, but not least, the bibliography at the end of every section in the second volume, not only again mark out "Quain's Anatomy" as the best work on the subject in the English language, but make it in many respects superior even to such classic works as those of Henle, Cruveilhier, and Sappey. It is now a text-book of which every English anatomist must feel proud.

It is but justice to the publishers to add that they have not failed in performing their share of the task of producing the work. The type is unusually clear and bold, and by extra care in printing many of the old engravings have been almost transformed.

*The Student's Guide to Materia Medica and Therapeutics in Accordance with the British Pharmacopœia.* By JOHN C. THOROWGOOD, M.D., F.R.C.P., &c. Second Edition. London: J. and A. Churchill. 1882.

*A Medical Formulary Based on the United States and British Pharmacopœias, together with numerous French, German, and Unofficial Preparations.* By LAWRENCE JOHNSON, A.M., M.D. London: Sampson Low, Marston, Searle, and Rivington. 1882.

*Catalogue of the Collections in the Museum of the Pharmaceutical Society of Great Britain.* 1878. Compiled by E. M. HOLMES, F.L.S., Curator of the Museum.

WHATEVER satirists may say to the contrary, the value of medicines in the practice of physic is only beginning to be realised. The growing efficiency of chemistry as a hand-

maid of medicine, analysing medicinal substances and separating in minute forms their active principles, and the closer study of the action of medicines, both from a physiological and pathological point of view, have resulted in therapeutical discoveries of the greatest interest and value. To take one instance only, that of the action of pilocarpine, the active principle of jaborandi. What action of any of the older diaphoretics will compare in certainty and efficiency with that of pilocarpine, which will produce salivation and diaphoresis within ten or fifteen minutes of its administration? Of course the discovery of such powerful agents involves a corresponding obligation in those who use them to do so intelligently and carefully. Hence the increasing importance of works on *materia medica*, three of which we have named at the head of these remarks, and which, in their several ways, will be found very useful on the table or in the carriage of the practitioner.

Dr. Thorowgood's book has worthily reached a second edition. It assumes a knowledge of, or the means of reference to, the British Pharmacopœia. But it explains the principles of the chief pharmaceutical processes employed in making the preparations of the British Pharmacopœia. It would be greatly enhanced by a more complete supplementary notice of drugs which, though not in the British Pharmacopœia, are used by the best practitioners in this or other countries. Unfortunately, the British Pharmacopœia does not at any given time include some of the most valuable preparations and drugs. Notwithstanding this defect, Dr. Thorowgood's book is a most excellent one, not only for students, as he modestly says in the preface, but for practitioners. It gives a clear and concise account of the chemical and pharmaceutical bearings of a drug. But the therapeutical part of the book is also admirably executed. It indicates the personal opinion and experience of the author, in a way not fanciful and far-fetched, but judicial and practical.

The work of Dr. Lawrence Johnson, of New York, has a plan larger than, and different from, Dr. Thorowgood's. It aims at giving the drugs and preparations in common use, and includes those of all the Continental, British, and the United States Pharmacopœias. It seeks too to give not merely pharmacopœial preparations, but formularies from leading hospitals and practitioners. It is weak in the statement of therapeutical doctrine and experience, but is nevertheless a work of very great convenience, and one implying much labour and trouble on the part of the author.

The Catalogue of the Collections in the Pharmaceutical Society of Great Britain is a collection which every practitioner would do well to take an opportunity of seeing whenever it presents itself. It is useless for a practitioner to attempt to keep pace with the rapid achievements of organic chemistry and advanced pharmacy. Every week discovers a new alkaloid or a new preparation. But there is no place where an inquiring practitioner can spend a more profitable half hour than in the museum of the Pharmaceutical Society, where he is not unlikely to have at once his pleasure and his knowledge enhanced by meeting Mr. Holmes, the author of the very valuable catalogue under notice, which we may hope soon to see superseded by a new edition.

*Diseases of Women.* By ARTHUR W. EDIS, M.D. Second Edition. London: Smith, Elder, and Co. 1882.

WE so fully reviewed the first edition of this work that we shall content ourselves with a few remarks on the second edition. Of the errors which we pointed out many have been corrected, but some retained. For instance, our author adheres as tenaciously to the pathological view of "glairy cervical mucous like white of egg" as this clings to the place of its birth. This is an accurate description of the normal and healthy secretion of the cervix, which may,



indeed, be associated with other pathological conditions, but shows that, whatever else is wrong, the secreting apparatus of the cervix is right. The retention of such an error as this must result in the unnecessary and prolonged treatment of numbers of healthy women, and it is in our opinion as easy and as rational to cure this condition as it would be to put a stop to the secretion of gastric juice by the stomach or saliva from the mouth. We are not sure how far the actual words of the description are answerable. "Glairy" is a mysterious and ill-sounding word, and "glairy tenacious discharge" sounds terrible indeed. What woman could live comfortably with a "glairy tenacious discharge" from her uterus? Although Dr. Edis has become decidedly less heroic in his second edition, we think that the mention of any operation endangering life should include a careful definition of the objects in view, the risks run, the prospects of success, and the indications calling for, or at least justifying, the procedure. Such an operation as division of the cervix should surely not be left as a "something to be done." In treating the subject of Sterility, Dr. Edis recommends (p. 478) the preliminary elimination of male incompetence. Is the examination necessary for ascertaining this, then, to become a practice with "the student and junior practitioner"—to whom the work is addressed—whatever may be Dr. Edis's custom in such cases? It remains to say that the second edition has in no way changed the opinion we formed of the first.

*Ogilvie's Imperial Dictionary of the English Language.*  
Edited by CHARLES ANNANDALE, M.A. London and  
Edinburgh: Blackie and Son.

THE amount of information contained in the older editions of this work has rendered it invaluable to English-speaking peoples for the last quarter of a century, and we cordially welcome this, the latest edition, and predict for it a large and well-deserved sale. Enriched as it is by the addition of new quotations illustrative of the various changes a word may undergo, and the shades of meaning it may possess, it may be regarded not solely as a mere dictionary, as that word is commonly understood, but as a valuable addition to the English encyclopædic literature of 1882. We note with special pleasure the correct and clear meanings that are given to scientific words—medical, chemical, zoological, &c.; and can well understand the pains and trouble that have been taken in these various departments; the woodcuts are numerous and admirably executed; the classical quotations and derivations with which the work abounds are extremely appropriate to a dictionary of a language which is indebted for words to so many different sources as is the English language. Printed in clear legible type, on good paper, and bound in a solid and useful form, this book fully merits the name "imperial,"—a word which is defined in it, amongst other meanings, as "anything of unusual excellence." It is one of the few works of its kind that we are able to speak of in terms of high commendation, and we feel that Mr. Chas. Annandale and his coadjutors deserve praise for their labours, which, it is stated, have extended over ten years.

*Christmas Cards.*—The development which the "institution" of Christmas cards has obtained is, it must be confessed, almost marvellous. It is impossible to estimate the amount of time, ingenuity, and artistic skill expended in the production of the "things of beauty" which at this season of the year find their way into nearly every English home. Two packets of elegant trifles of this class have reached us. One comes from the ARTISTIC STATIONERY COMPANY, LIMITED, Dyers' buildings, Holborn, and includes a selection of choice designs on card and gelatine, and etchings on satin. The cards are remarkable for chasteness and originality, and are deserving of high praise. The

etchings especially are worthy of commendation. The second packet is from the firm of Mr. WILLIAM LUKS, of Bedford-street, Covent-garden. These cards are of five sizes, and consist for the most part of floral groupings, standing out in life-like form and colouring on substantial and worthily permanent mounts. They are certainly beautiful specimens of art.

## New Inventions.

### CARBOLIC SPRAY PRODUCERS.

ON two previous occasions (Oct. 25th, 1879, and July 24th, 1880) we have written in terms of praise of the spray producers manufactured by Messrs. Matthews Brothers, of Carey-street. We have now to record some further improvements adding to the efficiency, safety, and convenience of these apparatus. The improvements may be enumerated as follows:—1. Filter of finely perforated metal tube to top mount, protecting delivery-point and valve from the impaction of foreign particles from the interior of the boiler. 2. Filter to protect delivery-point. 3. Joint near "point" giving universal movement, and forming stopcock when at right angles. 4. Copper reservoir for carbolic solution, at the base of the stand, doing away with the ordinary glass jar, and enhancing the portability, as well as keeping the lamp cooler. 5. Metal filter, instead of sponge, on india-rubber tube from the carbolic acid solution. 6. Simplification of slide-tube regulating lamp flame. 7. Increased size of feed-hole to boiler, expediting filling, and allowing of thorough examination of interior of boiler. 8. Horned "point" protector, instead of the hood. 9. Change in safety-valve, which is now provided with set screw to facilitate cleaning. The piston of the valve, instead of being solid, is now composed of three fine rods, thus enabling steam to escape through the whole of the steam-way, and relieving pressure in half the usual time.

### EUCALYPTOL SPRAY.

THIS apparatus, manufactured by Messrs. Mayer and Meltzer, was devised by Mr. Robson, of Leeds, with the view of producing an aseptic and antiseptic atmosphere. It consists of a series of wide metal tubes, through which the air is forced by bellows. The first tube is filled with cotton-wool, which acts as an efficient filter, and the second and third tubes are filled with pumice-stone saturated with eucalyptol. The air is distributed by means of five coralline nozzles working on a universal joint. It has been used by Mr. Robson himself, Mr. Teale and Dr. Churton, at Leeds, and by some metropolitan surgeons. If the air thus filtered and saturated with eucalyptol be as efficient as the carbolic spray, it is needless to say that Mr. Robson's apparatus possesses very obvious and important advantages over the older spray-producers.

### "THE DISCOVERY OF TRICHINA SPIRALIS."

To the Editor of THE LANCET.

SIR,—If I had sent to press my note to Mr. Wormald acknowledging the parts enabling me to make the discovery of the microscopic worm, an earlier date would have been attached thereto. But I was more concerned in the working out the evidences of its structure and zoological position than in a mere announcement of the contents of Mr. Hilton's cysticerci. The consequent delay giving me the opportunity of referring to Mr. Paget's observation on the same subject, will not, I feel assured, be interpreted as a mere zoological elucidation of a species of entozoon for a knowledge of which I had been indebted to another, and of which I had not been a *bona fide* and independent discoverer.

I am, Sir, yours obediently,

Sheen Lodge, Richmond-park, Nov. 30th, 1882. RICHARD OWEN,

# THE LANCET.

LONDON: SATURDAY, DECEMBER 9, 1882.

IT is well understood that the Scottish Universities are opposed to the establishment of Conjoint Boards by the compulsory fusion of the existing examining bodies in each division of the kingdom. They are satisfied with things as they are; and well they may be. They educate probably as many students as all the London schools put together, and their Degrees, though only qualifications in medicine, entitle the holders to registration. Still, it is not so easy to see why they should think it consistent with their dignity and duty as great and famous medical schools to oppose legislation which, in the opinion of the great bulk of the profession, of the Medical Council, and of successive Governments, is necessary in the public interest, and which would be a great boon to the poor medical student, on whose back such heavy burdens of education and examination are laid. It is true that their graduates, under the system of licence by a Conjoint Board, would not be able to register without first passing the final examination of one of the Conjoint Boards in clinical subjects. But let us see how the Commissioners put their proposal with regard to the Scotch as to all the other universities of the kingdom.

"We do not propose in any way to interfere with their teaching [that of the Scotch universities], nor do we believe that students will cease to recognise the cheapness and excellence of their education. We propose that all their examinations, save the final one, should, if satisfactory to the Medical Council, be accepted by the Divisional Board, and we require from them no concession which is not required from every other university and corporation in the kingdom, &c. &c."

In other words all the university examinations are to be accepted but the closing one in clinical subjects, at a cost, probably, of a five pound note. Persons who are not possessed with the fear of the imminent ruin of the Scotch universities will be apt to think that legislation in this line will actually benefit the Scottish universities. A student will be apt to say to himself, "By passing the university examinations, I not only secure a degree and an honourable title, but ensure exemption from all other examinations by mere licensing authorities, but one that will give me no trouble and cost me little money. I will make an extra effort to enter the profession through a Scottish university, where so much is done for medicine." This seems so clearly the tendency of such a system that we should expect to see the Scotch universities eagerly accept it, apart from their binding duty to consider the question from the standpoint of what is best to give public satisfaction. It may be said that this privilege of the universities—Scotch and English too—is to be dependent on the satisfaction of the Medical Council. So it should be. The Scottish universities ought to be sufficiently conscious of the worth of their examinations and their education to invite the criticism of the Medical Council. They are no friends of the universities or of Scotch graduates who shrink from this.

Professor TURNER, in his dissent from the proposal of the Royal Commissioners to form Divisional Boards, speaks with proper pity for the student in regard to any legislation calculated to increase the cost of examinations. But we do not see that under a proper Conjoint Scheme the University graduate at least will be mulcted of so much as he is at present by the existing authorities. A graduate is seldom content with his mere degree; he wishes to have a diploma besides, and generally takes it from a College of Surgeons. Under the proposals of the Commissioners he will, after passing his University examinations and the clinical examination of the Conjoint Board, be completely qualified, and have an honourable Degree for a much less sum than he now must generally pay for similar advantages and multiplied examinations.

It will be the more unseemly if the Scottish Universities oppose any well-considered legislation on the lines of the Royal Commissioners, inasmuch as the interests of these Universities are safe-guarded by the Commissioners on a proposal offered by Professor TURNER himself, and endorsed by Professor STRUTHERS, before the Select Committee of the House of Commons. Here is a quotation from the evidence of Professor TURNER before that Committee:—

"Question 3155, by the chairman, Mr. W. E. Forster. Is there not another direction in which the difficulty might be met?—There is: and I have another suggestion to make, and that is, that the conjoint examination, so far as regards university candidates, should be restricted to the clinical examinations—that is, the examinations in clinical medicine, clinical surgery and midwifery, which would test whether a man really has a knowledge of practice, because that, I submit, if there is to be any legislation, is really all that is needed. I would consider that all that is required, if you are going to have legislation, is that you should satisfy yourselves that every man going into practice has got that amount of information which is necessary for practice, and that may be got through an examination in clinical medicine, in clinical surgery, and midwifery. That is an alternative proposition; but I consider that our clinical examinations, as at present constituted, are an ample test of competency to practise."

Professor STRUTHERS put in a paper before the Committee which, though ten years old, he said "exactly expressed the present opinion of the Faculty of the University of Aberdeen." It said:—

"The security which the Faculty desires would be given by the introduction of the following provision as a substitute for Clause 10, Section 2: 'Candidates for admission to the examination, who are also candidates for university graduation, and have passed the examination or examinations conducted by the university on the accessory and fundamental sciences of medicine, including chemistry, natural history, botany, anatomy, and physiology, shall, on their having completed the curriculum of study required for examination by the medical examining board, be entitled to be admitted to the final examination of the board on payment of a fee not exceeding five pounds.'"

Dr. GAIRDNER objects, in a letter to Dr. GLOVER, published elsewhere, to being supposed a party to such offers as are involved in the above answers of Professor TURNER and Professor STRUTHERS. And it is quite true that he much preferred the alternative proposition to allow assessors representing the Medical Council to take part in the University examinations. But Dr. GAIRDNER will not deny that

Dr. GLOVER was substantially right in saying that the Commissioners have adopted a proposal made by eminent representatives of the medical interests of Scotch universities with whom he was in general accord. Since this proposal was made, the principle of a reduction in the number of Licensing Boards has received the support of a Royal Commission, and the Scottish universities will be very badly advised if they resist legislation on a Report embodying safeguards for them suggested by Professor TURNER and Professor STRUTHERS.

THE term "dyscrasic albuminuria" has been applied to the albuminuria which depends on a change in the blood, and is supposed to be independent of structural alterations in the kidney. Its mechanism has often been the subject of speculation, and attempts have been made from time to time to elucidate the problem by experimental research. It is true that the exact conditions of dyscrasic albuminuria in man cannot be exactly reproduced in animals, but the injection of various albuminoid substances into the blood of animals has thrown considerable light on the probable origin of this form of albuminuria. Such bodies as egg-albumen and casein, injected into the veins of an animal, pass into the urine, at least in part. The explanation which is usually given of this fact is that these albuminoid bodies have a diffusive capacity which is higher than that of the albuminoid bodies contained in the normal serum, and hence the latter remain in the blood, while the former pass out through the kidneys. The fact appears to be true within certain limits. ESTELLE and FAVERET, pupils of LÉPINE, and working under his direction, observed that by injecting into the veins one of the albuminoid constituents of normal serum, serin or globulin, there is produced in the animal serinuria or globulinuria respectively—i.e., a special albuminuria in which the substance injected reappears in the urine. LÉPINE, in a note published in the *Lyon Médicale*, thinks that these results cannot be readily explained on the hypothesis that the effect is due to a difference in diffusibility. It seems, *a priori*, unlikely, he thinks, that the manipulations necessary for the isolation of serin or globulin should so change their diffusive power as to account for the result. At any rate, the hypothesis is unable to explain the albuminuria which results from the injection of normal serum into the veins. It was formerly believed that the latter effect could be explained by an assumed increase in arterial tension, but we now know that this tension is not sensibly modified by the injection into the veins of a small quantity of serum. The phenomenon can, LÉPINE believes, be explained by considering the particular conditions in which it occurs. It does not happen if a small quantity of perfectly fresh serum is injected into an animal of the same species; it occurs, however, if serum of the dog is injected into a rabbit. This is in harmony with the fact that the transfusion of small quantities of perfectly defibrinated blood into an animal of the same species produces no ill effect, but if dog's blood is transfused into a rabbit, there is necessarily dissolution of a certain number of red globules, with consequent hæmoglobinuria. LÉPINE suggests that the same explanation may be given of the albuminuria which results from the injection of heterogeneous serum. The effect is due to the injurious action, of the substance injected, on the blood-corpuscles in one case, on the kidney in the other. All our

tissues are susceptible to a dyscrasic influence, however trifling, and the renal glomeruli do not escape the general law. The albuminuria may be the result of the influence on the tissues of the glomeruli, and its only manifestation. As far as our methods of observation go, the serum of the dog seems to be identical with the serum of the rabbit, but however slight is the difference between the two, it is sufficient to determine an albuminuria, and may be sufficient to irritate the kidney of the subject transfused. It is not, therefore, surprising that isolated globulin or serin injected into the veins should produce a similar irritation of the kidney.

A grave difficulty in the way of this hypothesis is the fact that the result of the irritation is the passage of the irritant substance only, and not of the normal serum-albumen of the blood. LÉPINE admits this, and suggests an explanation which, at first sight, appears very hypothetical. He suggests that the pores of the renal filter are only enlarged on the contact of the irritant molecules, and close immediately after the passage of these, just as our soft tissues permit the passage through them of foreign bodies, as needles, although no permanent solution of continuity results from the passage. According to this hypothesis, a dyscrasia, in order to give rise to albuminuria, need not necessarily act upon the albuminoids. It is sufficient that either the albuminoid or the saline materials of the serum should be modified quantitatively or qualitatively. In support of this proposition he cites some experiments which he has made, in which transient albuminuria has been produced in dogs by injecting chloride of sodium in the proportion of one per thousand of the body-weight of the animal. If the solution is but little concentrated, and the injection is slowly made, no perceptible effect is produced except the albuminuria, which results apparently from the action of the altered blood upon the kidney. We may point out, moreover, that the theory of LÉPINE derives support from experiments lately published by KNIPERS on the effect of the injection of egg-albumen into the blood. STOKVIS and LEHMANN had shown that the amount of albumen which then passes off by the kidney may be actually greater than that which is injected into the blood. KNIPERS only corroborated this statement in two out of twenty-two cases. In several instances hæmoglobinuria was also produced, and apparently depended on the quantity of water which was injected with the albumen. It occurred whenever the amount of albumen exceeded two per thousand of the body-weight of the animal, and irrespective of the addition of chloride of sodium. Moreover, the effect was not confined to the excretion of albumen. An estimation of the nitrogen and phosphoric acid, made in six experiments, showed a constant increase in the elimination of phosphoric acid, and an occasional increase in the elimination of nitrogen. The latter occurred especially in the cases—not rare—in which the animals lost flesh. Intravenous injections were followed by intense and prolonged dyspnoea. The most important fact ascertained by the experiments, so far as the origin of the albuminuria is concerned, is that the kidneys almost invariably presented structural changes. The kidneys were swollen, the epithelium of the tubules presented cloudy swelling here and there, its nuclei were increased in number, and minute fatty globules were scattered through it. The

glomerular capsules were sometimes distended by a mass, solid after the organ had been boiled; sometimes the capsule was simply raised, and appeared separated from the glomerulus by an empty space. The interstitial spaces of the kidney appeared to be enlarged, and their cell-elements increased in number. Hyaline or granular casts were found in the tubules or in the urine. The occurrence of these structural changes certainly gives some support to the theory of LÉPINE (not altogether new), that it is by an action on the kidney that blood-states cause albuminuria.

THE Edinburgh Royal Maternity<sup>1</sup> is a small hospital in which about two hundred women are annually delivered. Its medical staff consists of several of the leading accoucheurs of the Scotch metropolis. They serve the hospital in turn, each for three months, and they publish accordingly quarterly reports of the work of the hospital. There is an out-door department, with which we are not at present concerned. The quarterly reports laid before the Obstetrical Society of Edinburgh, and published in its Transactions, are of considerable value in the respect that they make known from time to time the amount of success which has been obtained in the working of the charity. The example thus set by the Edinburgh hospital is deserving of imitation by the lying-in hospitals of London as well as by those of the provinces. There are four lying-in hospitals in London, in which from twelve to fourteen hundred women are confined every year, and no account of the working of any one of them is made known to the profession, unless the annual report issued to the subscribers be regarded as such. A full report of the medical work carried on in them is nowhere published, and the loss to science thus accruing is, or ought to be, incalculable. The method of carrying on the work of the Edinburgh charity has within the last few years been greatly altered. The mortality had always been high, and, with a view to reducing it, the systematic use of antiseptics was introduced, and Dr. HALLIDAY CROOM drew up a series of rules to be observed by the nurses and by the students attending the practice of the hospital. These rules have regard to the disinfection of the hands of the students and attendants, of instruments and appliances, and of the generative passage. Most of these rules are unexceptionable, but some of them are calculated to encourage an unjustifiable sense of security. Such are the rules relating to sponges and linen fabrics, which absorb infective material with great readiness, and retain it with great obstinacy, so that it is not possible to be certain that they have been rendered again non-infective and harmless by washing, boiling, or soaking in a solution of carbolic acid. They can, however, be entirely dispensed with: diapers can be replaced by cotton-wool or fine tow, and sponges by cotton-wool, all of which can be burnt when used. In this way a very grave source of danger may be completely removed. The rule prohibiting the admission of visitors unless provided with a special pass from the resident medical officer appears unnecessarily severe, especially when it is borne in mind that women when taken in labour are admitted from the poorest and most wretched homes. Disease may doubtless be carried into hospitals

by visitors, and this is more especially true of children's hospitals. In hospitals where the inmates are adults such occurrences are rare, and it has yet to be proved that the poison of the acute specific diseases (if we except erysipelas) plays any part in the production of puerperal fever. The introduction of these rules into the practice of the hospital appears to have exercised a beneficial influence. From the foundation of the Edinburgh Lying-in Charity up to November, 1880, the maternal death-rate was nearly 2 per cent. In May, 1879, a new hospital was opened. The building was completely new, "with all the most modern sanitary improvements, examined by the most competent sanitary authorities," and yet, under these apparently favourable circumstances, between May 1879 and Nov. 1880, out of 320 women delivered in the institution, 12 died, and 10 of these from metritis—a mortality of nearly 3·8 per cent. During the three quarters ending April 30th, 1881, 159 women were delivered, and 5 died; while during the year ending April 30th, 1882, 225 women were confined, and 3 died. This is a high death-rate, but there are doubtless causes contributing to it which are not met with in out-door practice, for during the last year there were in 225 cases, 22 preterm or complex labours, and 17 instrumental deliveries. During the previous nine months, of 159 deliveries, 18 were forceps cases, and 10 were of a complex or preterm character. This high proportion of abnormal and instrumental labours may in some degree account for the high mortality. At the same time a stricter supervision of attendants, and greater care in carrying out antiseptic precautions, will probably reduce the mortality below any yet seen in the hospital.

THE general concern which is excited by the serious illness of Mr. FAWCETT will be shared, in a special manner, by all members of our profession, and has doubtless been increased by the change in the character of the later bulletins. Some surprise has been excited by the altered language regarding the disease which followed the consultation with Sir WILLIAM JENNER on Saturday last, and the rather vague announcement that the fever accompanying the diphtheria had "assumed a typhoid character." It is not difficult, however, to find an explanation of the change. The coincidence of diphtheria and typhoid fever has been several times observed. Indeed, it is a matter of surprise that the two diseases are not more frequently concurrent. Their conditions of origin, as far as we understand them, are nearly the same. Although the causes of each often elude discovery, especially those of diphtheria, there is a strong consensus of fact to show that each occasionally arises from the inhalation of sewer gas. It is a moot point whether, in the cases in which the two are coincident, the patient is actually suffering from two distinct maladies, or whether the diphtheritic membrane in the throat is the result of the poison which causes the typhoid fever. There is much to be said in support of either view. There is one other disease in which throat diphtheria occurs not unfrequently—scarlet fever. The cases of scarlet fever thus accompanied are always severe; and it seems certain that the false membrane in the throat is the result of the scarlet fever poison, and is not the expression of a coincident and independent affection. This fact renders it conceivable that the typhoid fever poison may also be capable of causing a similar local affection.

<sup>1</sup> Quarterly Reports of the Royal Maternity and Simpson Memorial Hospital.

But, on the other hand, diphtheria is an extremely rare complication of typhoid; false membrane is, as a rule, absent, even in the most severe cases, in which the poison is most intense in its action. Hence it is clear that, if the diphtheria is due to the typhoid poison, the latter must have, in such cases, some special character. But the fact that the throat affection runs its course and subsides, while the typhoid fever continues, makes it on the whole more probable that the two diseases are coincident, the results of separate poisons, doubtless generated together, and obtained from the same source. If the diphtheria occurs, as in the case of Mr. FAWCETT, early in the course of typhoid fever, the existence of the latter can scarcely be suspected at first. Even in an uncomplicated case of typhoid fever, the nature of the disease can rarely be diagnosed with certainty until the end of the first week or ten days. Thus diphtheria commencing nearly at the same time as the typhoid would have run its course, and be in process of subsidence, before the nature of the typhoid malady was clear, or even its existence could be suspected, since its only symptoms up to the end of the first week or ten days might also be due to the diphtheria. Indeed, it is somewhat remarkable that the existence of the typhoid fever should have been discovered in the case of Mr. FAWCETT before the subsidence of the throat affection gave significance to the continued pyrexia.

This combination of diseases is one of the most grave with which medical art is called upon to deal, and the anxiety which it has caused is certainly well founded. Happily it is not necessarily fatal. A case in Paris, on which we commented some time ago (*THE LANCET*, June 25th, 1881, p. 1037), presents considerable analogy to Mr. FAWCETT's, and the patient recovered. The false membranes in the throat made their appearance on the fourth day of the disease, and continued until the twelfth. The abdominal symptoms and eruption of typhoid were characteristic, and the patient had to contend against the additional complication of an attack of phlebitis on the nineteenth day. The unquestionable gravity of initial complications of typhoid is perhaps apt to be over-rated. It seems impossible that a patient should live through such a disease as typhoid fever when it supervenes on another malady (for instance, pneumonia), itself sufficiently severe to prostrate him completely, and yet every physician can call to mind such cases in which the typhoid fever was borne at least as well as in other instances of like severity, with no preliminary disease to lessen the patient's strength. While, therefore, there is cause for much anxiety, there is also reasonable ground for hope that a life so valuable may be spared.

WE regret to have to report another case of a practitioner signing a certificate of death for a case seen not by himself but by his assistant. The mother testified that the child was taken ill on Oct. 5th, and taken to a surgery, where it was seen and prescribed for by an assistant. The usual certificate was given by the principal. The defence was that the latter had seen the child in September, which was denied by the mother, and that the assistant was qualified. It was not explained why, if the assistant were qualified, he had not signed the certificate. The magistrate considered that the law had been broken, not corruptly but knowingly, and ordered a fine of £5 and costs.

## Annotations.

"Ne quid nlmis."

### THE LATE PROFESSOR FRIEDREICH OF HEIDELBERG.

THE first article in the current number of Virchow's *Archiv* is contributed by the illustrious editor himself, and is devoted to a memoir of Nicholas Friedreich, one of Virchow's early pupils, who died a few weeks since of aneurism. Professor Virchow remarks that on the occasion of the festival given in his honour last year, all but one of his former assistants during thirty years were living—that one being Professor Hoffman of Basle, who died in the previous year. Since then two others have passed away, Karl Hüter and Nicholas Friedreich. The latter was at Würzburg when Virchow came there in 1849, and had just distinguished himself, with his fellow-student Gegenbaur, by a memoir upon the skull of the axolotl. It was natural that Friedreich should be attracted to Virchow's side, for he seems to have been a man moulded in the same type, full of the spirit of scientific inquiry; and an attachment grew up between them from that time. The former pupil invariably, in after years, submitted his work to the criticism of his master, and became a constant and prolific contributor to the pages of the *Archiv*. In the preface to his best-known work, that on Progressive Muscular Atrophy, Friedreich records the indebtedness he was under to Virchow; and now in the article above referred to the latter shows to how great an extent their feelings were reciprocal. Friedreich's last writing is published in the same number of the journal that contains this tribute to his memory. We do not desire to criticise it, although we cannot endorse its conclusions, striking as the cases apparently are whereby they are supported. Briefly, it consists in the advocacy of a surgical method of treatment of certain cases of inveterate hysteria similar to that which, some sixteen or seventeen years ago, was so indiscriminately urged by a late London gynaecologist, with the most disastrous results to himself. Where, however, the latter employed the knife, Friedreich advises the actual cautery; and, in referring to the history of the subject, he cannot understand why in London the question was treated upon moral rather than scientific grounds, yet in spite of his arguments, and the melancholy circumstance that forces his paper upon attention as being the last product of an active mind, we do not think the practice will be reintroduced into this country, even under the limitations he enjoins.

### THE LAST HOURS OF THE PRIMATE.

SOON after our last report of Archbishop Tait's condition (October 7th) he seemed somewhat to improve; the lungs cleared, the respiration decreased in frequency, falling to 29 per minute; the heart maintained its improved condition, but the pulse seldom fell below 100. To outside observers he seemed to be gaining ground; he sat up for several hours each day, and transacted a good deal of business, but on one occasion, when an attempt was made to place him upright, it was immediately seen that his muscular power was very defective. The respiration at once became very frequent, and the pulse rose to 130, but the aortic murmurs did not again develop. He was well able to take food, which was apparently assimilated, so that hopes were entertained by his friends that he might be able soon to make a change to the South. This was not, however, the opinion of his medical attendant, and in that he was supported by Sir W. Jenner and Sir W. Gull. Occasionally the contents of the stomach were thrown up suddenly, without apparent cause; now and then there was a tremulous motion in the left arm and leg, which occasionally extended to the right; the tremor would last a few minutes, and was similar to that



of paralysis agitans. This tremor culminated in a convulsion which affected the left arm and leg, but not the face; this was manifest when an attack came on whilst Dr. Carpenter was present. These attacks were similar to those experienced by his Grace fourteen years ago; they recurred at first at intervals of a few weeks, then after a few days; they were generally (not always) preceded for a day or two by a continuous nausea, and a condition which he himself described as a bilious state. When the colder weather set in about the middle of November there was a rise of temperature from 99.5° to 101°, a return of congestion in the lungs and dulness on percussion, but the cough was not very troublesome, and the expectoration did not again become rusty. Notwithstanding this rise, the Archbishop disliked to remain in bed, and continued to sit up for a few hours every day until four days before his death. The troubles connected with the state of the kidneys continued, and on several occasions it was manifest that a large cyst existed, which occasionally filled, and gave rise to great discomfort; this was usually remedied by gentle pressure with friction, by which means the cyst was emptied. During the last week of his illness the pulse gradually became more frequent and the respiration shorter; the tremulousness became more manifest on the right side until early on Friday morning, when a more general convulsion occurred, but not affecting speech or consciousness. From that time the temperature began to fall, and the urinary secretion to diminish in quantity. Three or four tremors occurred before the end came; there was one on Saturday night, which he recognised by calling out, "It is coming—it is coming," and after it had passed he asked for a little water, and soon after sank into a doze. The temperature at that time was 96.8°. There were two slighter convulsions in the course of the night, and he passed away without any other changes than falling temperature and slowing pulse and respiration, until the latter ceased at 7.15 A.M. on December 3rd. There was a very peculiar state of the body on the following day. The wrinkles had disappeared from the face, all sign of heaviness and suffering were gone, and the countenance of the Primate was more like that of a young girl smiling in her sleep than that of an aged man; this impression was produced by his wavy curls and whiskerless cheeks.

#### A SCOTTISH NATIONAL CHANGE.

WHEN Dr. Johnson issued his famous sally upon the poor of the Scottish people there was much of truth in the remark that oats—or, at least, oatmeal—constituted the diet of the northern people, while they were reserved for the use of the horse in England. Scotchmen need not feel ashamed of the charge, as upon this food work of a kind to render the world a debtor to their country has been done; and the simple surroundings of many a Scottish youth have been the fitting preparation for a life of honourable toil and subsequent distinction. With such a history as that of the Scottish peasantry—for it is specially to them that our remarks apply—their well-wishers will be anxious that changes should have due consideration, and that they be not undertaken rashly or in ignorance. We fear that the characteristic simplicity in Scottish, and perhaps English, rural life is being fast lessened, that the aggregation of our population, which goes on apace, is productive of physical evils to those specially affected, while those left in the country accommodate their method and manners to those of the town with but doubtful advantage to their own wellbeing. In nothing is the change more manifest than as it affects the food of the people. Attention has recently been given to the fact that food literally makes the man, and a nation well fed must be a nation prosperous and happy in most respects. But the nutritive value of foods differs so much that greater attention might profitably be given to the question, and the people

shown that quantity alone ought not to be considered irrespective of the force-giving powers of food. Judged either physiologically or economically, the Scottish national diet of porridge and milk must be highly esteemed, and it is questionable whether any other food in common use is so useful as a force-giver, while so cheap and easily obtained. During recent years we learn that oatmeal has become less and less the food of the Scottish people. Even in the agricultural districts, where this article forms part of the labourers' wage, it is no longer freely consumed by that class, but sold or exchanged for articles such as tea and other doubtfully nutritious commodities which are now habitually used as substitutes. Milk has long been allowed to farm labourers in sufficient quantity to be of the greatest value as a food for the young, but in many cases this too is stopped, and money given instead. The working classes should know how their best interests are affected by this gradual change, while farmers and other employers must observe the working power of their *employés* gradually diminish as insufficient and improper food takes the place of that till now in general use. There is no more important question than the best and cheapest food for the general population of a country; and a nation which by good fortune has hit upon a system so excellent as the Scotch should not lightly throw aside the advantage thus gained.

#### ORCHITIS IN TYPHOID FEVER.

ORCHITIS is one of the rarest complications of typhoid fever. So uncommon is it that its occurrence is not even mentioned in Murchison's classical account of the disease. Nevertheless a good many cases have been lately recorded. An instance (of doubtful nature) was described by Bouchut in 1867; and Dr. Duffey observed in the same year, at Malta, no less than eighteen examples of this complication of Maltese fever. Since then a number of cases have been observed in France, and at the beginning of last year its occurrence in the Mediterranean fever was described in our columns by Ellis. Another example has been lately published in *L'Union Médicale* by M. Sevestre, who has added some interesting comments on the complication. The patient had suffered from a severe attack of typhoid, of ordinary type, and was in full convalescence, free from fever, walking about the ward, when he suddenly experienced considerable pain about the groin, and it was found that the right side of the scrotum was reddened, and the testicle swollen and painful. The epididymis was not involved, but the spermatic cord was slightly painful. The left testicle was normal. There was no urethral discharge. The inflammation gradually subsided, and had disappeared at the end of six days. The affection usually comes on in the same sudden manner as in this patient. In most other cases the onset occurs during convalescence—three, six, ten, and even twenty days after the cessation of pyrexia. In no recorded case had any complication accompanied or followed the fever to which the orchitis could be referred. The onset of the testicular inflammation is usually attended with a return of fever, and the temperature may even rise to 103° or 104° F., the pulse to 120, and violent rigors may occur. In such a case, especially if the local pain is slight, the physician may think he has to do with a relapse of the typhoid, and in a case of unexplained pyrexia during convalescence from this disease the testicle should always be examined. In very rare cases the orchitis comes on before the primary fever is over. When the pain is slight it may only amount to a sense of uneasiness in the testicle, which is not always exaggerated by pressure. When severe it does not amount to a very intense degree, and is never neuralgic in character. The inflammation is always unilateral, and the epididymis is never involved. It appears to be more frequent on the right side than on the left (in seven out of nine observations). In

majority of cases (eight out of twelve) the affection is acute; the inflammation does not go beyond the congestive stage, and it ends in from six to ten days. Occasionally even a permanent degree is not attained, and transient hyperæmic swelling is noted. Sometimes its course is less benign; the inflammation attains a considerable degree of intensity, abscess may be formed, and the suppuration may go on to complete destruction of the organ. Moreover, in the cases which run a mild course the affection may leave a permanent induration about the epididymis, and in one case atrophy of the testicle ensued. The pathology of this condition is still obscure. That it should recur especially in certain epidemics affords no explanation of its origin. Of the theories proposed, that it is a rheumatic inflammation, allied to the inflammations which follow scarlatina, or that it is due to a thrombosis in the spermatic vein, none is very satisfactory.

DOWNING COLLEGE, CAMBRIDGE.

WE are glad to learn that Downing College, Cambridge, assuming the position in the university which was contemplated in its foundation. It was founded at the beginning of the century for the especial promotion of law and medicine. A professorship of each of these sciences was richly endowed, and all its Fellows were required to engage to one or other of these professions, and it was presumed that they would promote the study of law and medicine in the university. This is now being done. Besides the professors there are now three lecturers in each science, and the students can thus obtain all the personal superintendence of their studies required for the examinations without incurring the expense of private tuition. The number of students both in law and medicine has been recently increased, and last year the success in University honours in the two sciences was marked. An additional impulse to the study of medicine has recently been given by the election to a fellowship of Mr. Alex. Hall, M.A., M.B., who was highly distinguished in the Natural Sciences Tripos, and is at present Demonstrator of Anatomy in the University Medical School. He acts as adviser to the undergraduates in their medical studies, and also lectures in the college.

THE BOARDING-OUT SYSTEM v. WORKHOUSE SCHOOLS.

A DEPUTATION waiting on the President of the Local Government Board the other day, to urge the expediency of extending the boarding-out system instead of establishing more workhouse schools, was regaled with the more or less ratifying intelligence that the subject is "under consideration." Mr. Dodson went even further than this; he expressed his pleasure at the volunteer service which takes the form of raising institutions for the shelter and support of pauper children. It is well, we know, to cherish a contented mind and to cultivate thankfulness for small mercies. And it is gracious to be grateful for official utterances of the class which would seem to have afforded so much satisfaction to this deputation. Meanwhile, no one should be misled by statements which mean nothing. If the boarding-out system is to supersede that of training and teaching in workhouse schools, the desired result must be gained in the legislature, not at the feet of the President of the Board. It is ridiculous to sue any longer in the audience chamber of Mr. Dodson. The battle must be fought in Parliament, and the sooner the better. Every deputation which leaves Whitehall satisfied is a new obstacle in the way of reform, a fresh excuse for delay. Nothing can possibly be more fatal than to be told that a subject pressed on the attention of the President of the Local Government Board is "under consideration."

COLONIAL MEDICINE.

AT the forthcoming International Colonial and Export Trade Exhibition to be held in Amsterdam from May to October, 1883, a section is to be devoted to the subject of Colonial Medicine. In founding this section, it is the intention of the Executive Committee to limit it to its scientific aspects, with a view to promote knowledge upon sanitary and medical conditions in the colonies. The section is to be divided into three classes. The first class will deal with hygiene, and will comprise such matters as sanitary commissions, water supply, food adulteration, bathing and sanitary establishments, schools and public buildings, burial-grounds and cremation, sewerage, trade diseases, measures adopted against endemic, epidemic, and contagious diseases, also malarial disease, and diseases attributable to malarial sources; parasitical diseases, and their prevention; prostitution, vaccination, epizootic diseases, and mortality statistics. The second class is devoted to the organisation of the medical services, comprising the direction and administration of the civil and military medical services and the regulations governing medical practice, special medical education of colonial doctors in the mother country, medical education in the colonies, &c. The third class deals with the attendance upon and transport of the sick and wounded, and their treatment by the natives; it includes such subjects as hospitals, transport, medical literature, medical treatment and hygienic customs of the natives. Dr. Stokvis is the president of the section, and in September it is intended to hold an International Congress for Colonial Medicine in connexion with the Exhibition. The Government, having received intimation of this scheme, have communicated with the Royal College of Physicians, and that body has deputed Drs. Barclay, Bristowe, Corfield, Stevenson, and Sir Joseph Fayrer to consider upon the manner in which this country shall be represented in the section. As there is no country in the world that has wider colonial possessions than Great Britain, we may expect that a warm interest will be taken in the Exhibition here, and that no effort will be spared to provide material, upon which the success of the undertaking will largely depend.

DISLOCATIONS OF THE HUMERUS.

THERE are various methods proposed for reducing dislocations of the shoulder, some of which have proved efficacious when the old-fashioned heel-in-the-axilla method has not succeeded. Mr. J. E. Kelly, of Jervis-street Hospital, Dublin, some years since read some notes before the members of the Surgical Society of Ireland, upon certain expedients which he had found useful in reducing various dislocations. He has recently published a new method of reducing a dislocation of the humerus, and his connexion with Jervis-street Hospital, where a very large number of accident cases are annually admitted, and his private practice, have afforded him many opportunities of testing its utility. For the operation a bed firmly fixed is of importance, and should be, if a subglenoid dislocation is to be reduced, about three inches lower than the great trochanter of the operator, while one lower still by a couple of inches for the anterior dislocation, and a little higher for the posterior, allows the force to be applied advantageously in the direction of the glenoid cavity. The patient is placed on his back on the bed, close to the edge, with his head low. Mr. Kelly divides the operation into two stages. In the first, the operator places the injured arm at right angles to the body, and standing against it, with his side to the patient and his hip pressed firmly into the axilla, folds the arm and hand of the patient closely round his pelvis, and fixes the hand firmly, by pressing it against the crest of his ilium. The second stage, during which reduction is effected, consists merely of a rotation, or version, of the operator's body with a force and rapidity which vary with

the nature of the dislocation. For any additional manipulation the surgeon has the hand next the patient's axilla disengaged for such manœuvres as lifting the head of the humerus into its cavity, making traction upon it forwards or pressure backwards, according to the nature of the accident. By this method no assistant is needed, and an anæsthetic does not require to be administered.

#### THE MODERN SWORD OF DAMOCLES.

It would be difficult for a malevolent genius to devise any more dangerous apparatus than a long stout wire stretched from house to house across a public thoroughfare. In some unexpected moment, under extraordinary pressure, perhaps a heavy weight of snow, it is not merely possible, but likely, that it will fall to the ground, and in falling must almost inevitably cut in two all it strikes. Nevertheless, this modern sword of Damocles hangs suspended over the head of the Londoner in nearly every street through which he passes from murky morn to drizzly eve. And, strange to say, the threatened Londoner seems in no way disturbed by the jeopardy in which he is placed. If it were otherwise, if the fear of danger dogged his footsteps, he would simply take measures to have the impending peril removed under the Nuisances Act. It is useless to remonstrate, because, doubtless, the representative Londoner has an interest in the multiplication of telegraph and telephone wires stretched overhead, and if an "interest" be vested in any nuisance or source of danger it is safe. Meanwhile, for the sake of the provincial folk and foreigners who visit the metropolis, if not of the mass of the population, it would be well to take these wires down before some terrible calamity occurs. Mr. W. H. Smith told a deputation which waited upon him a few days ago that it was vain to hope that anything would be done in the session of Parliament which has just ended. He was right. We should like to supplement this extra-Parliamentary utterance with the remark, that it is perfectly useless to expect that in any session of a legislative assembly, or by any official board, anything will be done so long as public opinion betrays no consciousness of the danger that exists. A spice of peril adds piquancy to life, and the reflection that we may "at any moment" fall victims to some hideous catastrophe is rather exhilarating to the human mind, than calculated to disturb its habitual tranquillity. This being so, it is perhaps a pity that anyone should harbour a desire that the modern sword of Damocles may be speedily removed.

#### COMPLETION OF THE IRISH CENSUS.

THE Commissioners charged with taking and reporting upon the Irish Census have just issued their General and Final Report, which bears date September 21st last. The Irish Commissioners have succeeded in anticipating the publication of the corresponding reports for the other divisions of the United Kingdom. The first volume of the Scotch Census Report was issued a month or two since, but no portion of the Report upon the English Census is yet available to the public. The comparatively early appearance of the Irish Report has certainly not been attained by reduction of the statistical tables, which in abundance of detail bid fair to considerably exceed that which will be available either for England or Scotland. In noticing some of the county parts of the Irish Census we expressed a doubt as to the real value of the remarkable elaboration of detail with which the information was published. Now that the report is before us in its entirety we are scarcely inclined to change this opinion. The Irish Census Report consists of four huge folio volumes, averaging more than 1000 pages each, dealing with the four provinces; and supplemental to these the General Report now issued contains 427 pages, uniform in size.

When we consider that Ireland contains but a seventh of the population of the United Kingdom, it is almost alarming to contemplate the possibility of reports at equal length for England and Scotland. This would signify that the aggregate report for the United Kingdom should consist of thirty-five folio volumes, with an average of 900 pages in each. It would be interesting to know whether there is any local demand in Ireland for the fully detailed county parts of the Irish Census, as it is this form of publication which in great measure caused the enormous length of the report. We much doubt the real value of such elaboration of detail and calculation for small populations like those of many of the Irish counties. This opinion, however, notwithstanding the very abundance of information given to the public with unprecedented promptitude, only adds to the well-deserved credit which the Irish Commissioners have earned for their successful completion of this remarkable work. Some of the information dealt with in the General Report just issued will serve for comment on a future occasion.

#### ELECTRIC INTERCOMMUNICATION.

THE possible use which electricity may eventually prove to be in making us less dependent upon personal servants, by affording ready means of communicating with and utilising those whose duty it is to serve the public at large, is foreshadowed in the prospectus of the Electric Fire-alarm and Signals Company. The Company proposes to establish stations throughout the metropolis which shall serve as centres for various districts, having, as near as may be, a circular form, the radius of the circle being about a quarter of a mile. In this way each house in the district will be brought into electric communication with a centre not more than a quarter of a mile off, and it is reckoned that every message sent to a centre will be answered by messenger within three minutes from the time of sending the signal. The signals which may be sent will be, as a rule, four in number—viz., "Messenger," "Cab," "Police," and "Fire." The last two signals may be transmitted automatically from empty houses by means of the automatic burglar-detectors and fire-detectors, the former of which are put in action by the slightest opening of a door or shutter, and the latter by means of a spiral spring which lengthens and establishes an electrical communication on being heated above a certain point. The centres will be established close to cab stands, and a staff of messengers and police will be on duty at the centre night and day. This arrangement seems to be, in theory at least, a very desirable thing; and it is stated that, in America, companies having a similar object have done business at a considerable profit. As far as fire is concerned, the system has already been established to some extent in London; and in his report for the year 1881, Captain Shaw, of the Metropolitan Fire Brigade, states that the fire alarm circuits "have undoubtedly enabled us in some instances to save both lives and property."

#### DISEASE AND CHRISTIANITY IN NORTH CHINA.

THE first annual report of Mr. Harold Schofield, M.B., in connexion with the China Inland Mission, excites a hope that we shall be favoured with many others. Mr. Schofield's place of work is at T'ai-Yuen-fu, Shansi, North China. From a medical point of view the report is most interesting. The total number of cases treated in the year was 40 in-patients and 3488 out-patients. The new cases included 284 opium-smokers. The principal diseases, in a numerical respect, are anæmia, dyspepsia, bronchitis, neuralgia, diarrhoea, syphilis, and gonorrhoea; skin diseases, especially eczema, impetigo, scabies, ulcers, and abscesses. Among surgical cases are two dislocations of the femur and

two of the humerus. The skin group of diseases is the most numerous; next in number is the group of opium-smokers, who, by the way, are the only patients who pay for their medicines; next the diseases of the respiratory organs. Mr. Schofield notices, as others have done before, the commonness of hæmoptysis, and the fact that it is often attended with little impairment of the general health or other indication of lung disease. He has not seen one single case of acute rheumatism, which he attributes largely to the exceeding dryness of the air. Indeed, he remarks on the almost complete absence of all acute disease. The climate differs from that of England in the much greater extremes of heat and cold and in the much greater dryness of both air and soil. Anti-vaccinationists should study his remarks on small-pox and its consequences, especially blindness. 'Small-pox,' he says, "is accountable for the destruction of an immense number of eyes, both among children and adults." We congratulate Mr. Schofield on his report and his work, and wish him every success.

#### SMALL-POX IN BAVARIA.

DR. VON KERCHENSTEINER, one of the leading medical officials in Bavaria, has recently published some details as to the ravages of small-pox in that country during the period from 1871 to 1881. In the first-named year the disease had been introduced from France, and 30,742 persons in Bavaria were attacked, this number representing a proportion of '68 per cent. of the population. Of the vaccinated patients 13·6 per cent died, and of the revaccinated only 8·2 per cent.; while of the unvaccinated, no less than 60·2 per cent. were carried off by the complaint. The following figures illustrate the results of several years in succession at a later time within the period under review.

	Percentage of deaths of vaccinated persons.	Percentage of deaths of re- vaccinated persons.	Percentage of deaths of un- vaccinated persons.
1877 . . . . .	10·8	8·2	53·1
1878 . . . . .	11·8	8·1	39·5
1879 . . . . .	13·6	—	41·1
1880 . . . . .	12·8	12·2	37·0
1881 . . . . .	10·3	8·1	48·3

#### CROWDS AT OPEN WINDOWS.

CROWDS at open windows to see processions are fruitful sources of work for the doctors. After hurried gatherings and exhausting waits, which first overheat and then weaken the body, sight-seers take their places at open windows and expose themselves to draughts which they would not on ordinary occasions dare to face. Children, too, are "put out," as it were, to "catch cold." This is what happens whenever there is anything to be seen in the streets, even in November and December. Already the consequences of the procession on Monday last are beginning to make themselves apparent. Why are parents with an average amount of common sense so careless? Why do they not wrap up and clothe their children sufficiently when this peril is to be incurred?

#### THE NEW CHELMSFORD INFIRMARY.

THERE has been a day of great concord and rejoicing in Chelmsford in spite of a great deal of agricultural distress in the neighbourhood, feelingly alluded to in the speech of the chairman of the proceedings. The occasion was the laying of the foundation stone of a new infirmary and dispensary. According to the local newspapers there was only one omission in the proceedings, that of any allusion to the labours in the past of the honorary medical officers. We willingly believe that this was accidental, but it was not the less conspicuous, and will, we hope, not recur in the greater occasion which is still in the future.

#### THE MEDICAL SOCIETY OF LONDON.

THE large room of the Medical Society of London was filled to overflowing on Monday evening, Dec. 4th, when Dr. Heneage Gibbes exhibited a large number of specimens of bacteria from various sources. The chief interest centred in the specimens of tubercle bacillus, which were shown as occurring in both bovine and human tubercle, and in the sputa of phthisical patients, the slides being prepared according to the method already described by Dr. Gibbes in these pages (Aug. 5th, 1882). Besides tubercle bacilli the collection included the so-called "typhoid bacillus," several specimens of bacillus anthracis and of the same under cultivation, bacilli from diphtheria and septicæmia, from sheep-pox, from the Welbeck poisoning case, and as a concomitant of putrefaction. Dr. Gibbes read a short paper on the methods of staining employed, and on the localisation of the bacilli in the various forms of tubercle. Messrs. R. and T. Beck, of Cornhill, kindly supplied the microscopes for the evening. The buildings of the Society are being pushed forward at a rapid rate; and it is probable that the large new meeting-room, the need for which was very evident on Monday evening, will be ready for the reception of the Society during the present session. At the meeting on the 11th inst., amongst other communications, Dr. C. Theodore Williams will read the notes of a case of bronchiectasis treated by paracentesis.

#### MR. ANTHONY TROLLOPE.

SHORTLY after the publication of our last report a decided change for the worse took place in Mr. Anthony Trollope's condition. He had made great progress towards recovery during the week, and there was every hope of a speedy termination of his illness. On Saturday, however, he became drowsy and apathetic, and it was only too evident that further changes were taking place in the structures of the brain. On Sunday he was quite unconscious, and was unable to take nourishment of any kind; the heart's action was feeble and irregular, and it was with difficulty that the strength was maintained by suppositories of peptones, and other means. On Tuesday there was a sudden rise of temperature, and it was found that there was congestion of both lungs. Mr. Trollope died on Wednesday evening at six o'clock, there being no return of consciousness.

#### EFFECTS OF DIET ON LIABILITY TO INFECTION.

PROFESSOR FESER of Munich has been making experiments on animals with a view to establishing the connexion which exists between diet and liability to infection. In the trials he has made on rats inoculated with the poison of cattle distemper, he demonstrated the fact that the animals which had been fed on vegetable diet were quickly attacked by the disease, while those which had been fed exclusively on meat resisted the effects of the inoculation. In recording this fact a leading journal in connexion with the continental leather trade attributes to the greater amount of vegetable diet in the shape of bread, beer, &c., taken by woolsorters between Saturday and Monday, the greater frequency of cases of outbreak and the aggravation of disease during that period.

#### "LATE HOURS."

IT is a mistake to both rise early and late take rest. The rising early is good as a habit of life, if it does not mean robbing nature of her opportunity to recruit the exhausted strength of brain and body by prolonging sleep when that necessary luxury is at length enjoyed. There would appear to be some need of remonstrance on this score. The fashion of the day favours early rising and the manly "tub"; but those who rise early have, for the most part, sat up pro-

digiously late, and the tub is chiefly appreciated because it rouses the system, and makes it feel—and feelings are very deceptive—strong and vigorous. This is burning the candle at both ends. If we must sit up half the night, it would be better to sleep half the day than to rise betimes and go in for arduous labour after insufficient rest. Early rising is not good, but harmful, without early resting.

#### MR. FAWCETT.

WE have received the following authentic particulars of the illness of Mr. Fawcett. The first signs of ill-health revealed themselves on Nov. 23rd. On the 28th the distinguished invalid was seen by Dr. Andrew Clark, when a diphtheritic exudation was discovered on the left tonsil and uvula. The patches disappeared on Dec. 2nd, but returned next day, and lasted for a few days longer, accompanied with slight erysipelas of the face. There were from the very first symptoms calculated to raise suspicions of the presence of typhoid fever—e.g., looseness of the bowels, with typhoid-looking motions. The medical attendants, however, were not in a position to state positively that typhoid existed until Dec. 2nd. The symptoms of both diseases were modified by their co-existence. The enlargement of the cervical glands usual in diphtheria was absent. Especially noteworthy was the irregular form of the enteric symptoms. The pulse never exceeded 104; the temperature, ranging from 102° to 103·8°, at no period of the disease showed the typical typhoid curve; and the nervous disturbance was excessive in proportion to the vascular excitement. Mr. Fawcett cannot yet be said to be out of danger, but we are glad to state that his condition is, at the time of our going to press, reassuring.

#### M'GILL COLLEGE MEDICAL FACULTY.

AT the commencement of the current session of the above well-known Canadian College, the fiftieth anniversary of its foundation was celebrated. The introductory address was given by Dr. R. P. Howard, Dean of the Faculty, in the course of which he sketched the rise and progress of the university, of which all the medical graduates are Canadians. He gave a history of the first lecturers in the school, and paid a warm tribute of praise to the principal of the university (since 1855), Mr. J. W. Dawson, who had always taken a warm interest in the medical faculty. The main part of his address was, however, devoted to a memoir of the late Dr. G. Campbell, Dean of the Faculty in 1860, who died in Edinburgh when on a visit early in the present year. The brochure which contains the address is illustrated by a portrait of the lamented physician, who was as much esteemed by the Canadian people as by the College with which he had been so closely bound. The pamphlet contains also a full report of the speeches delivered at the banquet to celebrate the opening of the fiftieth session.

#### THE REGISTRATION SYSTEM AND IRREGULAR PRACTICE IN LEEDS.

A JURY, after inquiry into the cause of death of a little girl, aged four years, who had been ill a month and had no other medical attendance than that of an unqualified practitioner named Bowens, found death to have resulted from natural causes, but advised that the facts be brought under the notice of the Registrar-General. The facts which came to light were very serious, and to the effect that Bowens gave a letter about the cause of death which, on being taken to the deputy registrar, was pronounced by him "rather an irregular certificate," but "to save bother" he said he would give a certificate for burial. If registrars and the registration system exist to facilitate funerals and "to save bother,"

the action of the assistant registrar here is proper, but if not, we can only hope that the Registrar-General will take the recommendation of the jury into very serious consideration.

#### OLIVER WENDELL HOLMES.

WE learn with mingled feelings of pleasure and regret that Dr. Holmes has resigned the Chair of Anatomy in Harvard University—regret that he has felt it necessary to sever the connexion which has lasted thirty-five years, and which has been alike honourable to himself and beneficial to the medical profession throughout America, and pleasure when we consider the reasons which have led to his retirement. He has resigned in order that he may have more time to devote to literature, and thus increase the debt which we on this side of "the pond" already owe him for many an hour's entertainment. He has done more perhaps than any other contemporary American writer to amuse and instruct us. His poems possess humour, pathos, and grace; and in his prose, in addition to scholarly lore, he displays a minute knowledge of, and keen interest in, the human nature and stirring life around him. Of his novels (as distinguished from the more properly humorous books as the "Autocrat" and "The Professor at the Breakfast-table"), "Elsie Venner" is the most popular in England. The strangeness of the general conception, the unfamiliar hereditary curse, and the common human life through which the heroine steals, make up a novel unique and powerful in character. Another point on which we may congratulate ourselves is that Dr. Holmes writes English.

#### OBSTETRIC CONTRACTS.

NOTWITHSTANDING some decisions to the contrary, it is very unsafe to assume that where a medical man is engaged to attend an obstetric patient, and is not sent for, he may recover his fee in a County Court. Mr. G. H. Thurston has just failed to do so in the County Court at Barnet. He had been engaged to attend the case, which was expected in the end of August, but did not occur till the 18th of October. This is bad law in our opinion, and worse judgment. It must be supposed that Mr. Thurston's arrangements were restricted for two months by consideration for this patient—a fact which is disregarded in the judgment. We cannot believe that County Court judges who consider what is involved in a medical man making light of obstetric engagements will approve the decision of the judge in Mr. Thurston's case.

#### THE BRADSHAW LECTURE AT THE COLLEGE OF SURGEONS.

SIR JAMES PAGET, Bart., late President of the Royal College of Surgeons, will deliver the Bradshaw Lecture, "On some Rare and New Diseases," to be illustrated by the contents of the Museum, on Wednesday, the 13th inst., at 3 o'clock (not 4 o'clock, the usual lecture hour), in the theatre of the College. This lecture was founded by the widow of the late Dr. William Woods Bradshaw, F.R.C.S., sometime the Mayor of Reading, who bequeathed £1000 for that purpose, and a similar amount to the Royal College of Physicians.

#### SMALL-POX AT THE CAPE.

THE account of the panic at Uitenhage and other places and of an isolated case of an old Kaffir dying, without anyone to "watch" him, creeping out of his hut to die, and then being cremated with his hut by a sanitary deputation, is painful reading. Personal liberty and public business are very lightly regarded. The owners of steamships, especially Messrs. Donald Currie & Co., are coming in for severe censure, and are denounced as the cause of all the cases in the eastern



provinces by acting as carriers of infection from Cape Town. Everything is done, or rather proposed, by vigilance committees. But one thing that would be worth all the rest is very inadequately applied. If half the money that is being spent were applied to the extending and perfecting of vaccination and revaccination the results would be more satisfactory.

#### SIR THOMAS WATSON.

THE report as to the condition of Sir Thomas Watson is that he still survives and retains consciousness, but with gradually falling temperature and failing pulse. Her Majesty the Queen has telegraphed a kind message of inquiry.

#### PORRO'S OPERATION.

WE learn that the patient upon whom Dr. Godson performed this operation on November 27th, as noticed in our last issue, has up to the present time progressed uninterruptedly, and there is now every prospect of her recovery. The child is also quite well.

DR. LOCKHART ROBERTSON and Dr. CRICHTON BROWNE, the Lord Chancellor's Visitors in Lunacy, were officially present at the opening of the Royal Courts of Justice by Her Majesty the Queen on the 4th inst. The following members of the profession were also present:—Sir James and Lady Paget, Sir George Barrows, Sir Henry Thompson, Sir William Muir, Mr. Spencer Wells, President of the Royal College of Surgeons, Professor W. H. and Mrs. Flower, Professor Huxley, Professor J. Marshall, and Mr. Francis Mason, President of the London Medical Society.

DR. SAMUEL WHITE THAYER, Emeritus Professor of Anatomy in the University of Vermont, U.S.A., died on the 14th ult., aged sixty-five. In 1854 Dr. Thayer was elected to the chair of the Theory and Practice of Medicine in the university, and was subsequently transferred to the chair of Anatomy. During the war of the Rebellion he was appointed Surgeon-General of Vermont.

WE understand that the late Dr. Peacock has left a bequest sufficient to establish a scholarship in St. Thomas's Hospital medical school, of the value of forty guineas. The scholarship will be tenable for two years on the same terms as those of the "Musgrove Scholarship," and will bear the title of the "Peacock Scholarship."

THE total number of cases of yellow fever at Pensacola, U.S.A., is stated to have been 2330, with 191 deaths—a remarkably low rate of mortality. The epidemic appears to have entirely ceased.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF INSPECTORS TO THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*St. Helen's*, an urban sanitary district on the south-western limits of the Lancashire coal-fields, and having a population of nearly 60,000, has for many years past exhibited a considerable mortality from fever, the disease in question being almost invariably enteric fever. Locally, this special fatality is in great part attributed to the extent to which the atmosphere is polluted by the chemical works and by heaps of alkali waste, conditions which, it is alleged, cause diseases such as enteric fever to assume a malignant type. Mr. Spear,

who has visited the borough on behalf of the Local Government Board, discusses this question; but it is quite evident that the more recent prevalences of fever do not bear out the contention, a large number of mild attacks having occurred during their course. On the other hand, conditions well known to affect health injuriously, and to be either directly or indirectly associated with the prevalence of enteric fever, prevail to an extent which must be regarded as amply sufficing to explain the mortality which came to be inquired into. The house accommodation of the working classes, who almost exclusively make up the population, is generally unsatisfactory; the older property is badly built on insufficient space, and the newer property has suffered much at the hands of speculative builders. The midden-prives are of the most objectionable sort, and they consist for the most part of deep, wet, and foul pits; scavenging, too, is neglected. The main sewer is a brook, many of the tributary sewers are defective and are admittedly leaky throughout their entire length, the subsoil thus becoming polluted with filth. Cellars and basement rooms are at times provided with sinks communicating directly with the sewers, and although disconnexion is now insisted on, yet the local drainage arrangements admit of the yards being more or less flooded with slop water. Fortunately a good public water service is available and the shallow wells in use are but few in number. In short, it is quite evident that so many ordinary causes of preventable disease obtain in St. Helen's that the corporation has ample work in prospect for many years to come. There are certain local difficulties which have hitherto interfered with the adoption of any proper system of sewage disposal, and the absence of such a system has in its turn hindered the construction of proper sewers in the town. But apart from these works there is much that can be done to improve the health of the district, and it is specially important that the conditions of house-drainage and of excrement and refuse disposal should be dealt with in such a way as to ensure their permanent improvement. This end is specially held in view in the recommendations which are addressed to the sanitary authority at the end of the official report.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Birkenhead*.—According to Mr. Vacher's annual report for 1881 the population of this borough at the last census was 84,006; the birth-rate has been 36.9 and the death-rate 19.7 per 1000. The latter rate, though falling short of that which sanitary administration, even in large boroughs, must aim at, is unquestionably satisfactory, and compares favourably with that of the large towns and cities of England. The infantile mortality of a district has always been regarded as one of the best tests of its local sanitary circumstances, and it is, hence, further satisfactory to note that whereas the mortality under one year of age was 14.0 per cent. for the large towns and cities, it was in the somewhat populous borough of Birkenhead only 12.8—namely, less than that for England and Wales as a whole, the rate for that portion of the United Kingdom being 13.0 per cent. Two outbreaks of typhus are discussed by Mr. Vacher, and, in connexion with these, he adverts, amongst other things, to the need both for notification of infectious diseases and for the power to remove patients to hospitals without the consent of their friends, whenever such isolation as will prevent the spread of infection cannot be carried out. The first want has now been met by the Birkenhead Corporation Act, 1881; the latter can only be fully met by fresh legislation, and it becomes doubtful how far the public are prepared to see Parliament grant such powers, however desirable they may be in the interests of public health. Some magistrates have, in isolated cases, decided that since the Public Health Act, 1875, has reference to the health of the community, rather than to the welfare of the individual, action can be taken under section 124 in the sense desired by Mr. Vacher, and we are not aware that when this has been done any appeal has been made against the decision. The borough fever hospital, one of the earliest provided, continues to do excellent work, and with a view of favouring its further usefulness, the sanitary authority very wisely allow any medical practitioner sending in cases to continue his attendance upon them. Delay, however, still occurs in effecting the removal of the sick, and extension of disease is necessarily the result. The tabular statements appended to the report show that a large amount of sanitary work is steadily in progress in the borough, and that Mr. Vacher's department maintains a

vigilant eye over all that pertains to the health of the inhabitants.

**Hull.**—During the year 1881 the deaths in the borough of Hull amounted to 23 per 1000, and the births to an annual rate of 36 per 1000, the population being estimated at 155,160. The deaths from zymotic diseases were exceptionally numerous, as many as 934 being registered as due to one or other of the seven principal zymotics, or at the high rate of 6 per 1000. This large death-rate was in the main caused by the occurrence of 682 scarlet fever deaths, as opposed to an annual average for the preceding fourteen years of 152 such deaths. The extensive epidemic which prevailed was recently reported on by Dr. Airy of the Local Government Board, and the principal facts concerning it are recapitulated by Dr. Mason in his annual report, special stress being laid on the fact that in the absence of a system of compulsory notification of infectious diseases the sanitary authority of a district like Hull is practically powerless to prevent the extension of such a disease as scarlet fever. In dealing with the subject of infantile diarrhoea Dr. Mason refers, amongst other points, to such questions as high temperature and so-called "atmospheric conditions," but it is perfectly evident that circumstances such as these are not alone responsible for the epidemic prevalence of this disease. We are informed that the frequent removal of night soil, the flushing and ventilation of the sewers and drains, and the cleansing of gullies, have been attended to by the sanitary authority; but other removable conditions of this infantile scourge must certainly exist, and we hope that before long something much more definite may be learnt as to the conditions leading to its causation, both in Hull and elsewhere. Efforts are evidently being made in this direction by Dr. Mason, who has both compiled an important series of tables localising the fatal attacks of this disease as well as other preventable ones, and prepared a map in which the various deaths are recorded by dots, differently coloured, according to the nature of the disease.

**Wolverhampton.**—In presenting his annual report for 1881, Mr. J. H. Love congratulates the town on its rapid progress from one of the most unhealthy districts in the kingdom to a position of average healthiness. Under the operation of the Artisans' Dwellings Improvement Act many fever dens have been swept away, and wide streets have replaced narrow and ill-ventilated alleys; a public mortuary has been provided; deep ash-pits have been filled in; many privies have been converted into pan-closets; improvement in the scavenging of house refuse is in progress; and the erection of a hospital for infectious diseases is about to be carried out. But a beginning has only been made in the removal of dwellings and lanes, which by obstructing light and proper movement of air, are still a grave cause of unhealthiness; typhoid fever is traced to insanitary surroundings; and infantile diarrhoea is an important element in the death-rate. The total death-rate for the borough is 21 per 1000 living, and phthisis, with certain other lung affections, contribute to it in a marked degree, the rate of mortality depending very largely, as is shown in a carefully prepared table, on the prevailing meteorological conditions. In this connexion, it must, however, be noted that Wolverhampton lies on a clay subsoil, and that it is peculiarly exposed to the influence of east winds.

**Presteigne.**—We regret that by error we attributed the report on Presteigne to Dr. Covernton. Presteigne is within that portion of the Knighton rural district for which Dr. R. Harding acts as medical officer of health, and the report was prepared by him.

The enactment contained in the 90th section of the Public Health Act, 1875—that, namely, which deals with houses let in lodgings—is declared by the Local Government Board to be in force within the city of Gloucester.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5729 births and 3615 deaths were registered during the week ending 2nd inst. The annual death-rate in these towns, which had steadily increased in the four preceding weeks, from 21·3 to 24·2 per 1000, fell again last week to 22·3. During the first nine weeks of the current quarter the death-rate in these towns averaged 21·7 per 1000, against 22·0 and 21·2 in

the corresponding quarters of 1880 and 1881. The lowest death-rates in these towns last week were 14·7 in Bolton, 14·9 in Portsmouth, and 17·4 in Leicester. The rates in the other towns ranged upwards to 27·9 in Halifax, 28·1 in Liverpool, and 28·6 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases in the twenty-eight towns declined to 427, and were fewer than in any previous week of this year; 115 resulted from measles, 111 from scarlet fever, 85 from "fever" (principally enteric), 49 from whooping-cough, 35 from diarrhoea, 22 from diphtheria, and 10 from small-pox. The lowest death-rates from these zymotic diseases occurred in Bradford and Norwich, and the highest in Sunderland, Cardiff, and Halifax. Measles caused the highest death-rates in Cardiff and Sunderland; scarlet fever in Oldham, Halifax, and Sheffield; whooping-cough in Halifax and Preston; and "fever" in Portsmouth, Halifax, Newcastle-upon-Tyne, and Liverpool. No fewer than 18 of the 22 deaths from diphtheria in the twenty-eight towns occurred in London. Small-pox caused 5 deaths in London, 4 in Newcastle-upon-Tyne, and 1 in Nottingham. The number of small-pox patients in the metropolitan asylum hospitals, which had been 73 and 68 on the two preceding Saturdays, was 70 at the end of last week; 15 new cases of small-pox were admitted to these hospitals during the week, against 16 and 7 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 330, 345, and 411 in the three preceding weeks, further rose to 424 last week; this number was, however, 69 below the corrected weekly average. The causes of 109, or 3·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Plymouth, Derby, and Blackburn. The proportions of uncertified deaths were largest in Liverpool, Salford, Oldham, Halifax, and Sunderland.

### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 25·8 and 24·3 per 1000 in the two preceding weeks, was 24·8 in the week ending the 2nd inst., and exceeded by 2·0 the mean rate last week in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 98 and 78 in the two previous weeks, rose again to 88 last week, and were equal to an annual rate of 3·8 per 1000—1·2 above the rate from the same diseases in the English towns. The fatal cases of whooping-cough numbered 21 last week, of which 10 occurred in Glasgow, and 3 both in Dundee and Aberdeen. The 19 deaths from diphtheria were within 1 of the number in the previous week, and included 11 in Glasgow and 8 in Dundee. The 16 deaths attributed to diarrhoea were 6 above the number in the corresponding week of last year. The 12 deaths referred to "fever" exceeded those in the previous week by 6; 7 occurred in Glasgow, and 2 in Leith. The fatal cases of scarlet fever, which had been 18 in the previous week, fell to 12 last week, of which 8 were returned in Glasgow, and 2 both in Edinburgh and Paisley. Of the 8 deaths from measles 7 occurred in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 172 and 167 in the two preceding weeks, further declined to 139 last week, but were 36 below the number in the corresponding week of last year. The causes of 118, or 23 per cent., of the deaths registered in the eight towns last week were not certified.

### HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been equal to 26·1 and 29·2 per 1000 in the two preceding weeks, declined to 25·6 in the week ending the 2nd inst. During the first nine weeks, however, of the current quarter the death-rate in the city averaged 24·3 per 1000, against 20·5 in London and 19·3 in Edinburgh. The 171 deaths in Dublin last week showed a decline of 24 from the number in the previous week, and included 14 which were referred to the principal zymotic diseases, against 11 and 14 in the two previous weeks. These 14 deaths included 6 which were referred to "fever," 5 to whooping-cough, 2 to diphtheria, 1 to diarrhoea, and not one either to small-pox, measles, or scarlet fever. The death-rate from these zymotic diseases was equal to 2·1 per 1000, while the rate from the same diseases last week was 2·9 in London and 1·6 in Edinburgh. The 6 deaths referred to "fever," in Dublin last

corresponded with the number in the previous week, were equal to a rate considerably exceeding the mean last week in the principal English and Scotch towns. 5 deaths from whooping-cough showed a further increase upon recent weekly numbers. The 2 fatal cases of thieria raised the number recorded during the past four weeks to 4. The deaths of infants showed a marked decline week, whereas those of elderly persons showed a further decrease.

## HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

### SANITATION AT DETROIT, U.S.A.

The first annual report issued by the Board of Health for the city of Detroit, in the State of Michigan, U.S.A., has been prepared with much care by Dr. O. W. Wright, the health officer. A description is given of the laws creating the health department, and of the organisation for administrative work. The sewerage and the system of house-drainage are discussed and the needed remedial measures pointed out. The slaughterhouses come in for a large share of condemnation, and the necessity for a public abattoir is pointed out. In dealing with the subject of the prevention of zymotic diseases, we note that the inhabitants of the city are likely to meet with much the same difficulties as have been met in our own metropolis since the publication of the report on the Influence of the Fulham Small-pox Hospital. Detroit sends its small-pox patients to Grosse Pointe, 11 miles apart from the fear of a spread of infection during the winter there, it appears that the inhabitants of that suburb are so hostile to the building as to have threatened to destroy it by fire. In view of these circumstances Dr. Wright makes a suggestion as to the construction in the city of a "Flame-Ventilated Small-pox Hospital," in some respects similar to the proposals which we considered in an article last week's issue. We doubt, however, whether, in view of the fact that the windows are to be made to open, Dr. Wright's anticipations as to the whole current of ward-air being carried up a shaft fitted with gas-jets will be realised. The report also contains two interesting chapters on the ice and milk supply of the city, and on the possibility of infection being conveyed by means of these two articles. Indeed, if the first issue may be taken as a sample of those which are to follow, there is every prospect that a new and valuable series of documents relating to questions of public health has been inaugurated.

### THE WATER-SUPPLY OF MELBOURNE.

Works of considerable magnitude are in progress with a view to an improvement in the water-supply of Melbourne. When they are completed the spring waters from the Plenty ranges will be conveyed direct to that city by means of a series of aqueducts and altered watercourses, which will admit of a daily flow of about 100,000,000 gallons. At present much of the water that will become available for domestic purposes becomes seriously polluted whilst passing through a flat, low-lying country, but as soon as labour can be spared from the works in progress at Wallaby creek in the mountains, the water will, on joining the main bed of the Plenty river, be diverted by means of a dam into a clear water-channel over four miles in length, and exhibiting several artificial cascades in its course, and from this the supply to the water-mains will pass. Our colonial brethren are carrying out a work which will largely tend to the future health and prosperity of their city, and in its execution they are availing themselves of the experience which has been obtained in connexion with similar works both in their own and other countries. The possibility of a water famine, such as has been anticipated in the past, will soon be effectually removed, and, judging from a description of the works, the future supply will be one to which, so far as its source is concerned, no suspicion of unwholesomeness can be attached.

### THE ARTISANS' DWELLINGS ACT AT ABERDEEN.

Dr. Beveridge, chairman of the Public Health Committee, has given notice that at the next meeting of the Town Council he will move "That it be remitted to the Public Health Committee to inquire into the expediency of applying the provisions of the Artisans' Dwellings Improvements (Scotland) Act to any portion of the city, and to report.

## THE SERVICES.

**ARMY MEDICAL DEPARTMENT.**—Surgeon-Major William Ashton, M.B., to be Brigade Surgeon, vice G. L. Hinde, retired upon temporary half-pay; Surgeon-Major George Whitla to be Brigade Surgeon, vice N. Ffolliott, granted retired pay; Surgeon-Major Edward Footner, M.B., has been granted retired pay with the honorary rank of Brigade Surgeon; Surgeon-Major Kenneth William Cumming, M.D., has been granted retired pay with the honorary rank of Brigade Surgeon.

**ARTILLERY VOLUNTEERS.**—1st Fife-shire: William Chalmers-Cowan, gent., to be Acting Surgeon.—2nd Middlesex: Surgeon John Wickham Barnes is granted the honorary rank of Surgeon-Major.—1st Norfolk: George Henry Cressey, gent., to be Acting Surgeon.

**RIFLE VOLUNTEERS.**—1st Isle of Wight: Surgeon George Henry Roqué Dabbs, M.D.—22nd Lancashire: Robert Lancelot Sparrow, Gent., to be Acting Surgeon.—2nd Middlesex (Central London Rangers): Acting Surgeon James Hill, M.D., resigns his appointment.—3rd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry): Acting Surgeon Frederick James Brennand resigns his appointment.

**ADMIRALTY.**—The following appointments have been made:—Surgeon Alfred T. Corrie to the *Pembroke* (complement incomplete); Surgeon John O'Callaghan to the *Cambridge*, vice Alfred T. Corrie; John M. Phillips, M.D., has been appointed Surgeon and Agent at St. Dogmael's and Aberforth, vice Mr. Henry C. Noott, deceased; Surgeon Edward H. Williams, to the *Asia*, vice James Bradley (appointment of Surgeon Charles W. Sharples cancelled); Fleet Surgeon William D. Longfield, to the *Himalaya*; Fleet Surgeon Samuel Bamfield, to the *Indus*, vice Longfield; Staff Surgeon Herbert M. Ellis, to the *Pegasus*; Staff Surgeon John Lambert, to the *Lion*, vice Bamfield; Surgeon Edward R. Mulock, to the *Himalaya*; Surgeon Henry A. W. Richardson, to the Devonport Dockyard for service at Keyham, vice Mulock.

## GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.

Six years ago the managers of the Glasgow Royal Infirmary, considering a medical school to be essential to the success and proper utilisation of the institution under their care, obtained from Government a supplementary charter, under which they appointed lecturers in the several subjects of the medical curriculum. The accommodation at first provided for the lecturers was of a temporary nature and far from satisfactory, and as the school increased in numbers the managers felt justified in appealing to the public for funds. Donations were obtained of sufficient amount to render possible the erection of buildings worthy of the infirmary and the city. These are now completed. The buildings are of stone, one in the Italian style of architecture and one situated behind the infirmary proper. The plans were very carefully prepared to meet the requirements of scientific medical teaching. The anatomical department is particularly well arranged. The dissecting-room measures 67 ft. by 25 ft., and is 24 ft. high; it is entirely lighted from the north, the roof being of the form known as the "spinning factory roof," there being also long side windows. The roof has an open ridge, covered with perforated zinc, which secures very free ventilation. Around the room are arranged desks, in which are placed mounted anatomical specimens, in order that students may study them at leisure. Opening out of the dissecting-room is a lavatory, supplied with hot and cold water, and fitted with wash-basins, with marble tops, boxes for appliances, and other conveniences, so as to render the students as comfortable as possible. The anatomical lecture-room is seated for 150 students, the seats being arranged in a semicircle; it is lighted chiefly from the roof, but also from the north and east. The lighting and heating are especially satisfactory in this room. The anatomical museum has also both roof and side light; it is lined with cases with glass fronts, which are well stocked with models and the like, and in the centre of the floor is a large counter case, on which are some fine wax casts. The osteology-room is furnished

with baize-covered tables for the students to sit at and read, and on the tables are fixed glass cases containing bones on which the attachment of muscles is clearly displayed. For the study of physiology an excellent laboratory and convenient lecture-room are provided, and by a simple arrangement of the partition between these they can be thrown into one, so as to make the whole of the side light available for microscopic work. The laboratory is supplied with an excellent collection of physiological apparatus, part of it being purchased by means of a donation from Dr. Henry Muirhead, the rest being the property of the lecturer. The chemistry department consists of a well-lighted and admirably fitted up lecture-room, the table having been specially constructed so as to give the lecturer a free supply of gas and water. Adjoining this is a laboratory capable of accommodating about forty students; it is quite a model of what such an establishment should be, the arrangements for gas, water, light, and test appliances being the best that could be devised. A new feature (as compared with other medical schools in this country) is a toxicological laboratory for teaching the testing of poisons. Much thought has been expended by the lecturer on medical jurisprudence in the arrangement of this department, and there is no doubt it will prove of much use as an aid to the study of an important branch of medical education. Near this is a room, at present unoccupied, but intended for a surgical museum and work-room in connexion with the surgery lectureship. A large and comfortable lecture-room for the other classes is situated on the ground floor, and lighted by an ingenious arrangement of roof and wall light, so as to secure a steady light without glare. Private rooms for the lecturers have been provided, and a private lavatory supplied with hot and cold water. One of the features of the school is a students' room, with lavatory attached; here, in the intervals of the classes, the students may smoke, read, or chat. It will no doubt be much appreciated by those for whose comfort it is intended. These buildings were formally opened and inaugurated on Wednesday evening, Nov. 1st, by a brilliant conversation, which was very well attended by the medical profession in Glasgow and neighbourhood.

## Correspondence.

"Audi alteram partem."

### THE OPPOSITION OF THE SCOTTISH UNIVERSITIES TO MEDICAL LEGISLATION.

To the Editor of THE LANCET.

SIR,—Will you kindly publish the following letter of Dr. Gairdner's, in reference to his attitude towards proposals for legislation for the creation of three conjoint boards, in place of the nineteen existing bodies in Schedule A of the Medical Act.

Yours truly,

Highbury, December, 1892.

J. G. GLOVER.

"Dear Dr. Glover,—In the only detailed report I have seen of the recent deputation from the British Medical Association to Lord Carlingford and Mr. Mundella (*Scotsman*, Nov. 23rd), I find you referring to my name along with that of Professor Turner, and it would almost appear as if our supposed assent to the principle of a joint board was to be made a starting-point for the further assumption that the opinion of Scotland, or of the Scottish universities, might be reckoned upon in future as favourable to some modification of that principle. Were it not for this suggestion, which appears both in your own remarks and in the leading article in THE LANCET of to-day, I might be content to leave Professor Turner's opinion to be read in his separate memorandum (F) subjoined to the report of the Royal Commission, and my own in my evidence, which you will find not at all in accordance with the views you attribute to me, see especially Nos. 4759-62, 4765-68, 4770-86. It is not my object at present to argue the matter; but as Lord Carlingford and Mr. Mundella, as well as others, may have been misled, I will ask you to secure the insertion of this letter, along with any report that may appear in THE LANCET of the proceedings of the deputation.

"I am, Sir, yours, &c.,

"W. T. GAIRDNER.

"Nov. 25th, 1892."

\* \* The subject of Dr. Gairdner's letter is noticed in another column.—ED. L.

### "PICRIC ACID AND SUGAR TESTING."

To the Editor of THE LANCET.

SIR,—It would be a waste of my time and of your space to discuss the question whether my discovery or Dr. Pavy's criticism bears the impress of having been the more "hastily communicated." Upon this comparatively unimportant question the following reply to Dr. Pavy's letter may perhaps assist your readers to form their own judgment.

Dr. Pavy's statement of his belief that it "would be an absolute misfortune for a more sensitive test than the cupric test to be introduced into general use," would have appeared to me quite unintelligible if I had not lately had the benefit of a few minutes' conversation with him, during which he expressed his fear that a test so sensitive as to reveal the presence of sugar in normal urine would cause practitioners to mistake a physiological condition for diabetes. But surely the true way to obviate so serious an error is not to endeavour to keep the profession in ignorance of the easily demonstrated fact that sugar is a normal constituent of the urine; but to make it generally known, and to supply them with the simplest and surest means of verifying it for themselves. But, says Dr. Pavy, the alkaline sulphides cause the same reaction as grape sugar with picric acid and potash. Granted.

The question, then, is, Are alkaline sulphides always, or often, present in normal urine? There is no known test for sugar which may not give a similar reaction with some other material than sugar. Dr. Pavy, in his treatise on Diabetes (p. 16) states that chloroform, uric acid, and cellulose may cause a precipitate of suboxide in Fehling's cupric solution. To be forewarned of these possible fallacies is to be forearmed against them. But Dr. Pavy, in his letter, goes on to state that "sulphides of ammonium and potassium are capable of being generated by boiling urine with potash." This, so far as regards normal urine, I am told by much better chemists than myself, is an improbability, and cannot be accepted on the mere *ipse dixit* even of so great an authority as Dr. Pavy. He further states "that a sulphide is actually produced by the action of potash upon healthy urine is shown by the well-known fallacy that Moore's or the liquor potassæ test is open to from the presence of a little lead." I confess that this statement surprises me not a little. It has often happened to me in boiling albuminous urine with liquor potassæ to find the liquid darkened, and a subsequent precipitate of sulphide of lead, the sulphur being a constituent part of the albumen and the lead an impurity of the potash; but I have never observed this change to occur in healthy urine; and since reading Dr. Pavy's letter I have repeated the experiment on normal urine with a negative result, while adding a solution of lead to the mixture.<sup>1</sup>

I have also repeated Dr. Pavy's experiment, which consists in forming an alkaline sulphide by boiling white wool with caustic potash. The liquid gives the same colour as grape sugar with picric acid. The addition of equal parts of this solution to healthy urine caused no appreciable change in the reaction with picric acid and potash. Then the question arises if a sulphide exists in the urine in a state to cause the reaction with picric acid, and so to interfere with the test for sugar, can the sulphide be detected by any other test? Obviously it can. On adding a few drops of the above-mentioned white wool product to healthy urine, and boiling with the addition of a minute quantity of lead solution, the mixture was soon blackened by the resulting plumbic sulphide. Again, on adding a few drops of Fehling's cupric solution to the mixture of the sulphide from white wool with normal urine, there was an abundant precipitate of cupric sulphide. The conclusion, then, is that normal urine contains no sulphides, nor any material convertible into sulphides by boiling with caustic potash, and that if from any exceptional condition sulphides are present, they may readily be detected and separated by well-known and very simple methods.

In testing for sugar in albuminous urine, the albumen may readily be removed by boiling and subsequent filtration before applying the picric acid and potash test. That this pre-

<sup>1</sup> Dr. Wm. Roberts says: "It was never found that liquor potassæ containing lead produced a dark-brown colouration with non-albuminous urines, provided, of course, that they were sugar free" (*A Practical Treatise on Urinary and Renal Diseases*, 2nd edition, p. 178).

nary treatment is sometimes necessary in testing for in albuminous urine, even by Fehling's solution, is ed by an eminent writer, whose authority will not be stioned by Dr. Pavy.<sup>2</sup> No one who is acquainted with Pavy's ammoniated cupric test can doubt that it is an et and admirable method of quantitative analysis; but it uires a more complicated apparatus and a greater amount manipulative skill than are possessed by the majority of ititioners, who would gladly avail themselves of some pler method, which, even if it were less scientifically rate, might for every-day use be of more practical e. Such a quantitative test, notwithstanding Dr. y's regretfully expressed unfavourable predictions, will abably result from the "happy accident" before red- ed to.

ly son having had his attention directed to the question alkaline sulphides in normal urine, has made some eriments, the results of which are recorded in the owing letter.

I am, Sir, yours faithfully,

ville-row, Dec. 5th, 1882.

GEORGE JOHNSON.

\* Want of space compels us to hold over the letter of . Stillingfleet Johnson, referred to above.—ED. L.

## PHTHISIS, ITS ETIOLOGY AND TREATMENT.

To the Editor of THE LANCET.

SIR,—May I beg you will have the kindness to afford me ficient space in THE LANCET to make a few remarks a form of treatment of phthisis which has suggested itself me from the start-point of the researches of R. Koch of rlin, in whose hands the experimental method has resulted proving that tuberculosis is, in reality, a parasitic disease of e internal animal organs, and that the parasite is a bacillus tinguishable from all other bacilli by its microphytic and er features. In his letter to *The Times* of April 22nd last, e vast importance of this discovery was fully illustrated in , usual felicitous manner by Professor Tyndall; and reflect- g on this discovery, and reasoning from analogy, the thought rurred to me that a means which in my hands had been and of signal advantage in the treatment of leprosy in dia might, assuming the truth of Koch's discovery, be ually useful if applied to that of tubercle; for I had many ars ago ceased to entertain the least doubt that the *foes et igo* of leprosy was a microphytic one, and therefore to be ach by a means having for its object the destruction of at low form of organic life. The space to which I am mitted here will not admit of more than a brief *résumé* of the ews I advanced in my communication to *The Times* June 8th. Speaking of the light thus thrown on the inta- te nature of tuberculosis through Koch's painstaking e researches, and of the "enormous superficial unlikeness," rged by Professor Tyndall, that existed between the eru- ve diseases and tuberculosis, I endeavoured to enforce e view that, although such a dissimilarity did appear eat, it was not in reality nearly so marked as that which xisted between them and leprosy—a disease which I firmed must be included in a like category—dependent, ke them, on the growth within the animal body of a e disease-producing bacillus. Hence I was led to suggest that eans which I had found of signal efficacy in the treat- ment of leprosy should be had recourse to in that of the indred malady tuberculosis, the agent employed being car- bolic acid in intimate union with the vapour of water at a high temperature. Thus employed the acid is, so to speak, atomised, losing thereby much of its irritant prop- erties, and being brought into contact with the body of the patient, confined in a suitable vapour-proof apparatus, cutaneous absorption necessarily follows, thus saturating every tissue of the body with an agent in no way in- jurious to life when thus employed, though destruc- tive of the microphytic life from which the disease has its source. Were the treatment of disease by the cuta- neous absorption of medicinal agents a novel suggestion, or one involving the negation of physiological law, valid objection might well be taken against its application to that of tuberculosis. But it is not so; other forms of dis-

ease of a severe and an intractable type have been, and still are, successfully treated through the medium of cutaneous absorption.

Coming, then, to the subject I had in view in this communication, it occurred to me, as the outcome of the thought I have given to Koch's discovery, that seeing it has now been proved that the bacillus of tubercle is not a mere epi- phenomenon of tubercle, but its *vera causa*, one cannot fail to see in it the true source of those infective materials whose existence has hitherto been assumed by pathologists, and which, disseminated by means of the blood and lymph streams, call into being those structural lesions which characterise tubercle as occurring in man and the lower animals. In the presence therefore of such conclusive evidence, is it unreasonable, I would ask, to anticipate that, should the resources of nature and art, as now known to us, fail to supply us with an agent possessing properties adapted to the object of reaching and destroying the microphytic sources of tuberculosis in the deep-seated tissues of the body, such an agent may not yet be brought to light? That in carbolic acid we possess such an agent in the treatment of leprosy, it has been my endeavour to show, whilst at the same time suggesting its possible applicability to that of tubercle. But are our existing resources really so meagre as to leave us destitute of other therapeutic means fitted to subserve the teaching of pathology? Without presuming to answer such a question in the affirmative, it is yet incumbent on me to submit to the attention of the profession a means which I would suggest is worthy of an extended trial—I mean salicin. Our know- ledge of the action of this medicinal agent on the animal body, and of its reactions in disease, remains much as it was when communicated to the profession through the researches of Senator, Lehmann, and Miller. No doubt, in more recent years, additional light has been let in on the subject by other workers whose conclusions on the *rationale* of the action of salicin are, I presume to think, certainly suggestive of its being made applicable as a curative means to that family of diseases whose intimate nature and dependence on pathogenic germs the experi- mental method has placed beyond the reach of cavil or doubt. It is not in salicin, in its simple state, that such a result can be looked for, but in those changes which it most assuredly undergoes while circulating in the blood and lymph streams, where, subjected to the influences of the animal chemistry, it is transformed into agents whose destructive energy on microphytic life none can question. That the resultant of those changes is an acid body endowed with such qualities, abundant proof is not far to seek, though this is not the place to adduce it. Till very recently it was generally believed that this acid was salicylic—a view which is no longer tenable if it be proved, as very recently affirmed by Dr. Stewart of Edinburgh, and resting on experiments made by himself, that the acid is, in reality, the carbo- lic. Let this be as it may, be it carbo-lic or salicylic acid, both agents really belong to a like category, and are both equally available in the treatment of disease of microphytic origin—the former by the method suggested in my letter to *The Times*, the latter by the internal use of salicin, both agents leading to a like result—the destruction of pathogenic germs. But it is in salicin alone, and not in its compounds, that we must look for the realisation of this object—in its compounds no doubt, but only such as are fashioned in nature's labora- tory; and not in the chemist's. Because—and if space were permitted to me here it would be easy to show that the salicy- lates—comporting themselves as other neutral organic salts, undergo changes in the gastric fluids which involve the destruction of the specific properties of the acid base, while, at the same time, often reacting injuriously on the system by calling into existence symptoms which at times have led to fatal consequences. And, further, it is to be remembered that the success of the treatment is contingent alone on the persistent and the uninter- rupted use of the salicin; conditions which will be the more easily fulfilled since experiments have shown, notably those of Dr. Sydney Ringer, that, other things being equal, this substance can be taken in indefinite quantities and without inconvenience, which would be impossible in the case of the salicylates, even were they much less irritating than experience has shown them to be. The use of salicin must therefore be persistent and continuous in order to balance, so to speak, the equally constant elimination by the kidneys of the compound acids which it forms in the blood and lymph streams; and this, not for the purpose of

<sup>2</sup> The Nature and Treatment of Diabetes, by F. W. Pavy, M.D., F.R.S., 2nd edition, p. 17.



effecting tissue changes, but for that of destroying the organisms which are the source of those changes.

Let me conclude with the following brief record of a case of tubercular phthisis which has been subjected to the salicin treatment, that of a young man twenty-two years of age, in whom the disease had passed into its second stage when I first saw him a little over two months ago. Then the upper third of the left lung was involved in tubercular disorganisation, while in the apex of the right and subclavian region disease was present and seen in the dulness, increased vocal resonance, prolonged expiratory murmurs, and the compound râles never absent in like cases. For upwards of six weeks the salicin has been persistently used in association with phosphate of lime, with the result that now all disease has quite disappeared from the right lung, while the improvement in the left has been most gratifying. The cough, dyspnoea, and expectoration of mucopus have lost much of their former force, and he can now take exercise without being troubled with his former distressing dyspnoea. He sleeps well, there are no night-sweats, and his appetite is good. A week after commencing the salicin he increased 5 lb. in weight, and he is now stouter, stronger, and looking better than before he became the subject of disease. I need scarcely add that the usual auxiliary means were employed—cod-liver oil, medicated inhalations, &c.

I am, Sir, yours truly,

WILLIAM JOHNSTON, M.D.,

Northwich, Cheshire, Nov. 10th, 1882. Surgeon-General.

### BORACIC ACID IN DIPHTHERIA.

*To the Editor of THE LANCET.*

SIR,—I find in the report of the Clinical Society, published in THE LANCET of November 18th, a record by Dr. Goodhart, of six cases of diphtheria treated by the local application of borax or boracic acid, with an amount of success which had not as yet been established, as far as he knew. Dr. Goodhart says "both borax and boric acid have been occasionally in use as a topical application in diphtheria, doubtless, for a long time, but not, so far as is known, with any decided success." I regret to have to challenge Dr. Goodhart's statement as to the success of the remedy, and must refer him to my communication which appeared in THE LANCET of February 15th in this year, where I advocated the use of boracic acid as a specific in diphtheria, when resorted to in the early stages of the disease. During the past ten years I had exceptional opportunities of watching its effects in over a hundred cases of diphtheria, and more especially during the epidemic which occurred some few years ago in this district, and which the Editor of THE LANCET must well remember from the controversy we then had as to the number of deaths which occurred within the district. Upon that occasion I treated seventeen cases during one week with the boracic acid application—all recovered; and throughout the epidemic I lost one only—namely, a child four years old, who dropped dead whilst playing with its toys in bed some few days after all the symptoms of the disease had disappeared. During the same epidemic ten children of various ages died in the district, none of whom had been treated upon my plan. So great has been the success of the boracic acid treatment in diphtheria in this neighbourhood, that it is as well known as Fowler's solution is for ague; and I can safely state that there is more boracic acid used medicinally in this part of the country than in any county in England. Not that we have been troubled for some long time past with diphtheria, but the remedy is so well known that upon the advent of throat affection, irrespective of its nature, the public immediately resort to it.

Dr. Goodhart speaks of the application "loosening, dissolving, and preventing the reformation of membrane." From repeated experiments with the membrane placed in solutions of various strengths of boracic acid and glycerine at 100° F., I have not found any sign of its being dissolved after exposure to its action for twenty-four hours, therefore I venture to substitute the term detach for dissolve, used by Dr. Goodhart.

I am, Sir, yours, &c.,

T. D. HARRIES, F.R.C.S. Eng. (Exam.)

Aberystwith, Nov. 28th, 1882.

### "DEATHS AFTER ABDOMINAL OPERATIONS FROM HEART-CLOT."

*To the Editor of THE LANCET.*

SIR,—I have to thank a number of correspondents for suggestions and references, particularly Dr. Neale (author of the valuable "Digest"), for the only one which seems at present likely to be of practical use. I cannot, in the compass of a letter, enter into the question raised by Mr. Knowsley Thornton, nor do I think it necessary, for my recently published statistics show that abdominal operations do far better without Listerism than with it. Mr. Thornton's statements that the deaths of my cases were septic has no foundation whatever, and even if it had, when I turn to Mr. Wells's recently published books, as I was asked to do by Mr. Thornton, I find this remarkable contradiction of Mr. Thornton's assertion (at p. 224): "They [Lister's anti-septic plans] certainly have not brought me to the point of seeing no deaths from septicæmia, as promised by some of their enthusiastic promoters, nor have they advanced my success in operating beyond what was attained without it." With this sentence I entirely agree (save in its grammatical inaccuracy), and I think Mr. Thornton now stands alone in opposition to it. The experience of everyone, operators as well as patients, is that carbolic acid, even in very small doses, is very dangerous for feeble kidneys. I have heard that Mr. Thornton's own experience has been unfortunate in this direction. The form of death I see in these kidney cases is altogether different from the deaths hitherto recognised as occurring from septic poisoning, and I am not in the least prepared to accept Mr. Thornton's new device of "septic intoxication"; and his statement that I am afraid to admit a death from septicæmia is not correct, for, most unfortunately, I am undergoing this distressing experience as I write.

In conclusion, let me ask Mr. Thornton one question: Why is it that, with all the blessings of Listerism, operations are shirked in London? The patients come here, and are operated upon successfully without it. He is already in possession of the identification of a case of a huge and rapidly growing uterine myoma, which was under his own care in the Samaritan Hospital, the risk of operating upon which he declined. The patient came here and had the operation performed successfully, just nine weeks ago, and has gone home perfectly well; and this is by no means a solitary instance. If Listerism is such a royal road to surgical success, surely such incidents ought to occur in the converse way; it should be that I should refuse to do them, not using Listerism, and that Mr. Thornton should succeed with it.

I am, Sir, yours truly,

Birmingham, December, 1882.

LAWSON TAIT.

*To the Editor of THE LANCET.*

SIR,—Mr. Lawson Tait's note on this subject in THE LANCET of November 25th, calls attention to a subject of special importance to the surgeon. It is one to which my attention has been painfully attracted for several years, as Mr. Tait's has been now, ever since Mr. Doran demonstrated by a series of post-mortem examinations at the Samaritan Hospital that disease of the kidneys, unrecognised during life, had been at least a predisposing cause of death, in some cases the only cause. Two years ago, at one of the meetings of the Royal Medical and Chirurgical Society, I adverted to obscure disease of the kidney in these words:—"Now the importance of the matter consists in this—viz., that a patient with disease of the kidneys—say cirrhosis, as my patients had—is in a very unfavourable condition for any surgical procedure, and especially for such an operation as ovariectomy, and for the reason that she possesses very little power of elimination, so that the presence of effete matter in the blood in greater or less quantity is sure to provoke, sooner or later, serious symptoms, under which the patient too surely succumbs. And the worst part of the matter is this, that this condition is not indicated by sufficiently positive signs . . . I should be glad if any one would furnish us with an unfailing sign of the existence of this condition. For my part I should hesitate, if I did not actually refuse, to operate in such a case." Mr. Tait's

ards are a singularly close, though unconscious, repetition of these views, in which further experience has tended to affirm me.

A few months ago I removed a large fibroid (56 lb.) by dominal section, and the patient died in forty-eight hours, the rapid rise of pulse and temperature (this was as quickly lulced by the ice-cap), gradual suppression of urine, and progressive coma. The kidneys were in exactly the condition described by Mr. Tait. As in his case also, "the tails of the operation were quite satisfactory." Yet the examination of the urine, both before and after the operation, failed to appraise of this condition. A few weeks ago I performed another hysterectomy, and the patient died in twenty-five hours with the most complete suppression of urine. Within six hours the temperature had risen to 104°, and the pulse to 144 (closely resembling my use of hyperpyrexia from carbolic poisoning with suppression of urine). In this case the kidneys were large, pale, and fatty. Before operation the urine measured two pints and a half in twenty-four hours; there was no albumen; specific gravity 1032, and no sugar. Though not satisfied with the state of the urine, yet I did not suspect the kidney disease.

I could mention other cases, chiefly cirrhosis, in which the examination of the urine failed; but these will suffice as examples of two different forms of disease.

On the other hand, I have operated successfully where the urine has contained an abundance of albumen. The last case is the most striking. A single woman, aged thirty, was the subject of a large fibroid, which produced severe menorrhagia and profound anæmia, and exerted such pressure that the lower extremities were very oedematous; the urine contained as much as one-third of albumen, but was otherwise healthy. Within twelve hours after hysterectomy there was a mere trace of albumen, and in three days the oedema had disappeared. A similar series of events occurred in two cases of ovariectomy.

When Mr. Tait tells us that he has operated successfully in cases of Bright's disease, I feel inclined to look upon the statement as not sufficiently precise and to believe that there is an error somewhere, for my experience is so positively opposed to it. It is a remarkable fact that all my cases of true Bright's disease have occurred between the ages of forty and fifty-five, a period of life marked by singular fatality—so often attributed to "change of life"—in the female subject. If a woman lives to the age of sixty and presents a healthy appearance, her kidneys may be assumed to be healthy, unless there be direct evidence to the contrary; and I always give a favourable prognosis. With one exception all my cases of this age—nine in number—have done well.

It has been long known that "Bright's disease" and "albuminuria" are no longer necessarily synonymous, and the above-mentioned cases demonstrate this view. In the cases of albuminuria there was no Bright's disease, and in those of Bright's disease there was no albuminuria. It appears to me that Mr. Tait has laid too much stress on the existence of heart-clot and too little on the kidney disease, which is the true *fons et origo mali*.

I am, Sir, yours obediently,

GEO. GRANVILLE BANTOCK.

Granville-place, Dec. 1st, 1882.

## "A PAINFUL CASE AT MELBOURNE."

To the Editor of THE LANCET.

SIR,—As a Melbourne practitioner I read with pain your article with the above heading, and I think, with the aid of information received by the last mail, I can put a very different complexion on the affair. I am writing, however, without any authority, and trusting simply to the sworn depositions and the statement of the Chief Secretary in the Victorian Parliament.

The implication that the woman Stentt died under an operation for criminal abortion rests entirely on three facts:—1. That before leaving home she told a female friend that she was going to Dr. Barker's to get him to do it,—and she also told her to put her dinner into the oven to keep it hot, as she would quickly return. 2. That she died in the consulting-room. 3. That Dr. Barker rendered himself responsible for the funeral expenses.

1. In regard to the first point it is sufficient to say, as to her mental condition, that she drank freely; her friend and

intimate, Mrs. Moore, swearing that she would often take a bottle of brandy a day.

2. It is true that she died in the consulting-room, but how long was she there? When she entered the waiting-room Dr. Barker was absent, and a Miss Gatenby was there before her. At 12.30 P.M. Dr. Barker returned and saw Miss Gatenby first, and she left (fortunately there was a clock in the room) at seventeen minutes to one. Between fifteen and ten minutes to one a Mr. Cherry came in, and saw, as he swears, the door open between the two rooms. He had not been there more than two minutes before Dr. Barker, jun., came in the waiting-room for the ammonia-bottle, and remarked to Mr. Cherry that a lady had fainted. So that seven minutes had sufficed for all arrangements, and for carrying them on so far as to cause death, and this, with the door wide open into the waiting-room for any impatient or stupid patient to walk in and see the whole affair! Dr. Barker's account is that on her entry she began to hint at what she wanted, that he put the proposal aside rather sharply, and she then complained of sensations in her abdomen, and slid off the chair on to the floor, fainting, as he thought, but dead as it proved. He then called his son, who was by chance in the house, to aid him, and it was at this period that Dr. Barker, jun., was seen by Mr. Cherry.

But as to the real cause of death. Of this absolute proof is wanting, but her friend, Mrs. Moore, who lived with her in the early part of the year, swears that she used to "go off into fits," and this condition was not likely to be improved by heavy drinking and adultery, with an additional strain from her husband's being constantly expected home from his work up the country. In the post-mortem mention is made of a rupture of the vaginal mucous membrane, up which a probe could pass "for an eighth of an inch." It seems to me very probable that the rupture was post mortem, especially as the examination was made six or seven weeks after death.

It would seem strange that so much could have been made of so little; but certainly Dr. Barker acted rather imprudently. If the body had been simply handed over to the police all this trouble would have been avoided; but he was too sensitive, and suffered for it. In fact, as the Premier said, if the facts now known had appeared at the inquest, public opinion on this subject would have been very different. The Chief Secretary has withdrawn his letter calling on Dr. Barker to resign, and he holds still his high professional offices.—I am, Sir, your obedient servant,

London, Nov. 27th, 1882.

AN AUSTRALIAN F.R.C.S.

\* \* We gladly insert the above letter. Our correspondent does not materially differ from us, except in thinking that Dr. Barker acted "rather" imprudently. We still think that he acted very imprudently, and that the coroner was equally at fault in the matter of prudence. We congratulate Dr. Barker on the fact that his character and the additional facts brought to light by the Government, and mentioned by the Premier, and alluded to in the above letter, have induced the Government to withdraw their request for Dr. Barker's resignation—action on the part of the Government of which we entirely approve.—ED. L.

## THE VACCINATION PROSECUTIONS AT BRIGHTON.

To the Editor of THE LANCET.

SIR,—In your journal of last week there is an annotation on vaccination prosecutions at Brighton, in which reference is made to an article in an evening paper, charging one of the public vaccinators of Brighton with having made the extraordinary statement "that he had no pure vaccine lymph, and if he had he would not use it," and that in consequence, Henry Holman and others, who had brought their children to the public vaccination station, had taken them away unvaccinated. I am the public vaccinator alluded to, and shall feel much obliged if you will kindly allow me to state, most emphatically, that there is no truth whatever in the accusation. I was asked if the vaccine I was using was direct from the calf or cow, and if I could produce the calf for inspection. I replied in the negative, but promised to obtain lymph direct from the calf in a few days if it were

really preferred. This, however, did not satisfy the objectors.

I believe most people would consider that the charge against me refutes itself; it is most certainly of the same reckless character as others which have been from time to time made by the anti-vaccinationists of Brighton, and which hitherto I have thought it quite unnecessary to notice.

I am, Sir, yours faithfully,

LEWIS C. BADCOCK,

Public Vaccinator of the Western District of Brighton.  
Brighton, Dec. 5th, 1882.

\* \* We think it ought to be clearly understood that public vaccinators will be acting wisely in declining to use stored calf lymph if frequent demand is made for it. If animal lymph is to be used for any other purpose than the renewal of stock, it is absolutely necessary that the vaccination should be done directly from the calf.—ED. L.

#### NOTE ON THE DURABILITY OF KOCH'S BACILLI OF TUBERCULOSIS.

To the Editor of THE LANCET.

SIR,—In October last a specimen of phthisical sputum, containing swarms of Koch's bacilli, was kept for thirty-six hours at a temperature above 100° F. At the end of that time it had the characteristic odour of decomposing albuminous substances, and showed under the microscope great numbers of putrefactive organisms; the bacilli of tuberculosis, recognised by their staining reaction, were found quite unchanged. The same specimen was then spread out in a watch-glass, covered to exclude dust, and left to dry partially at the ordinary temperature of the room, usually between 50° and 60° F. This was on October 28th. On December 2nd, a portion was moistened with distilled water, and stained by Gibbs' method; the bacilli were readily found, and showed no appreciable alteration. Desiccation is known to be an excellent method for the preservation of different bacteria, but in this experiment there was no desiccation; the sputum was still moist at the end of the five weeks. The result shows that these organisms are capable of resisting putrefactive changes for a very long time, so far, at least, as their form and staining reaction are concerned; whether under these circumstances they retain the power of growth and reproduction is a different question. I made an attempt to cultivate bacilli from this specimen by Koch's method, but failed; the apparatus used was, however, imperfect.

I am, Sir, yours obediently,

H. S. GABBETT, M.D.,

Assistant Physician and Pathologist to the Royal Chest Hospital.  
December, 1882.

#### "UNQUALIFIED ASSISTANTS."

To the Editor of THE LANCET.

SIR,—As the above-mentioned subject has been under notice in your columns frequently of late, I am anxious through your valuable journal to gather some information on the subject. First, is it right that an unqualified assistant should perform the duties connected with parochial work or other Government appointments? Second, is a medical man justified in leaving such appointments and his practice generally, each probably for a few days, in the hands of such a substitute? Third, as far as I know, it is against certain laws affecting the medical profession that an unqualified man (one who does not even possess an apothecary's certificate) should compound and dispense drugs in an open surgery; is not this the case? Fourth, and lastly, ought medical men to sign death certificates of patients attended by their unqualified assistants, but who during their illness they have not seen personally? If the condition of matters specified by these questions exists, is it not high time attention was directed to this subject?

In these days of "medical reform," when the present system of examinations and qualifications for practice is under review, is it not essential to such a reformation that all "unqualified practice" should henceforth cease, even in the case of "assistants"? It is neither just to the public nor to the younger members of the profession that such men should be permitted to practise medicine, some of whom are

dubbed "doctor," and assume the position of legally qualified practitioners. The fact that a man is not duly qualified should be enough to exclude him from practice. Non-qualification is generally the result of repeated and fruitless efforts to qualify. A man, therefore, who cannot come up to the minimum standard of knowledge necessary to obtain a diploma to practise his art is surely a person who ought not to be trusted with the responsibilities and dangers of actual practice.

I am, Sir, yours faithfully,

December, 1882.

M.B., C.M., &c.

#### THE RECENT EPIDEMIC AT BANGOR.

At a meeting of the medical practitioners of Bangor, held on Tuesday, November 28th, it was resolved that the following letter be forwarded to the press for publication.

Bangor, North Wales, Nov. 28th, 1882.

SIR,—We, the undersigned medical practitioners of Bangor, have much pleasure in stating that the epidemic of typhoid, which has prevailed in this city for some time past, has now subsided, and that the town and neighbourhood are in a remarkably healthy state.

As reports relating to this epidemic have from time to time appeared in your columns, we trust that you will kindly insert this letter.

HUGH B. HUGHES, Surg. C. & A. Infirmary.  
H. R. GREIG HUGHES, Surg. C. & A. Infirmary.  
R. ROWLAND JONES.  
R. LANGFORD JONES, M.R.C.S.  
E. OWEN PRICE, Dep. Med. Officer of Health.  
J. RICHARDS, Phys. C. & A. Infirmary.  
W. WILLIAMS.  
RICHARD JONES.  
EDWARD J. LLOYD, M.D.  
H. GREY EDWARDS, M.B., B.Ch.

#### EDINBURGH.

(From our own Correspondent.)

THE weather here for some time past has been extremely inclement, and several of the University professors have been unable to meet their classes. Professor Grainger Stewart, who has been confined to his room for the past fortnight, is, we are glad to hear, now convalescent; Professor Simpson, who was also confined to the house for some days, is also better; and it is hoped that Professor Greenfield, who has also been unwell, will soon be able to resume his duties.

The total number of students who have matriculated at the University this session is, I understand, 2909, being an increase of 94 on the winter session of 1881-82. The increase is mainly due to the medical faculty, in which there is an increase of 76. The increase in first year's medical students is 59; and the total number of medical students attending the University classes is 1388.

Since I last wrote there has also been a considerable improvement in many of the extra-academical classes. The dissecting-rooms at Minto House are quite full. Dr. John Duncan and Dr. Affleck have large classes, while the numbers attending those of the extra-academical lecturers have also increased.

The Health Committee of the Town Council have decided, after mature consideration, to retain the whole of the old surgical hospital as an infectious hospital. It is intended to admit those classes of cases which are not received into the fever hospital belonging to the Royal Infirmary. In the plans provision is made for securing entire isolation of small-pox patients, for affording accommodation for the better class of citizens who may desire, for payment, isolation and treatment in a well-conducted hospital; for observation wards, in which patients, the exact nature of whose cases has not been determined, will be placed; and, lastly, for quarantine or reception wards, which will be used for families of infected houses until the houses in which they reside are properly disinfected. The latter wards are intended to be used in such a case as an epidemic breaking out in a tenement, when, if necessary, the whole of the inhabitants might be removed to the quarantine wards and

there, if thought desirable, for several days, till the  
es are thoroughly disinfected.  
nburgh, Dec. 6th, 1882.

**GLASGOW.**

*(From our own Correspondent.)*

THE Glasgow Police Bill, of the sanitary clauses of which  
THE LANCET published a summary a few weeks ago, has  
been withdrawn. It will not be presented to Par-  
liament during this session at least, on account of the  
motion announced by the Lord Advocate to prepare a  
Police Bill applicable to all the large Scotch towns gene-  
rally. We are in the meantime, therefore, saved from the  
action of what nearly all the medical men of this city  
to be an injustice—namely, the enforcement of the  
notification of infectious diseases by the medical attendant,  
well as by the householder. This principle of "dual  
responsibility" was specially objected to, and strongly  
voiced here. The deputations which waited on the Town  
Council, however, found that body quite enamoured of  
the powers these compulsory notification clauses conferred  
their officers; and it is not at all improbable that had  
the Lord Advocate not upset the Council's calculation we  
could ere long have been saddled with dual responsibility,  
der penalties both severe and cumulative. Not only the  
profession, but the public at large, are pleased that this  
tempt at what has been frequently and well described as  
grandmotherly legislation has fallen through.

The committee in charge of the Southern Hospital scheme  
will soon be able to appeal to the public for funds, with  
finite proposals as to size and style of buildings, &c., on  
which to base their appeal. No fewer than forty-five sets  
of architects' plans have been lodged with the secretary, and  
these are very varied, some time must elapse before a final  
decision is come to regarding them.

Dr. Francis Henderson, whose health compels him to  
move from Helensburgh, and who has for eighteen years  
acted in Helensburgh and the Gareloch district, was, on  
last Saturday afternoon, presented with a drawing-room  
niece and ornaments, £500, and a diamond ring for  
Mrs. Henderson, on the occasion of his removal to Glasgow.  
These gifts were subscribed by 102 patients and friends, in  
grateful acknowledgment of professional skill and in token  
of esteem and affection on the part of the community.

The "annual meeting" season is once more upon us.  
Apparently the influence of Christmas is supposed to have a  
stimulating effect in the liberality of subscribers. That most  
reserving institution the Glasgow Maternity Hospital held  
its annual meeting a few days ago. The report showed that  
56 cases had been treated in hospital, and 1254 at home;  
total 1510, or an increase of 260 over last year. No fewer  
than 154 students attended at the hospital and benefited by  
its practice last year.

**SCOTTISH NOTES.**

*(From our own Correspondent.)*

THE sanitary condition of the Aberdeen Royal Infirmary  
has frequently been the subject of adverse criticism by  
members of the directorate and others, while the remedies  
to be applied were not so obvious. It has been recognised  
by well-wishers of the institution that when drainage and  
closet arrangements came to be overhauled changes of a  
more considerable kind would also be necessary; and the  
recent discussions as to a proposed new wing, &c., make  
the present a suitable opportunity for giving anxious thought  
to the very complete scheme now propounded by Dr. Angus  
Fraser. Should this or any similar plan be followed, the  
extensions and improvements will be alike great. At  
present there is deficient accommodation for patients, a want  
of special wards, insufficient provision for the resident staff,  
nurses, and servants, and defective watercloset and bath  
accommodation. Dr. Fraser proposes that four pavilions of  
three floors each, wholly devoted to the reception of patients,  
should be formed by extending the present wings; that  
each of these twelve wards should measure sixty feet by  
twenty-three feet; that the central part of the present  
building should be reserved as the administrative part of the

institution, and provision made, on a line with the central  
block, for the various special wards. By these means the  
number of beds available would be largely increased, and  
clinical teaching much facilitated. Now that the matter  
is ripe for discussion and action, it is to be hoped that the  
directors will institute structural changes on a sufficient  
scale; and the profession will be further interested in  
knowing how the proposals for the increase of the staff, as  
well as that most needful of reforms, the provision of better  
means for gynecological teaching, shall be met.

Typhus fever has again made its appearance in Aberdeen,  
and apparently in a virulent form. The medical officer of  
health has taken vigorous action, which it is hoped may be  
successful; but, looking to the less immediate future, there  
is, perhaps, more hope in the proposed inquiry as to the  
desirability of dealing with certain parts of the city under  
the Artisans' Dwellings Improvement Act. Dr. Beveridge  
may be trusted for energetic action as chairman of the Health  
Committee, and if he determine that the Act should be  
put in force, it is just possible that the hard-headed citizens  
may agree with him that it is better to begin the improve-  
ment of the town by efforts at eradicating such preventable  
diseases as now so frequently make their appearance. In  
the meantime the Council has determined to proceed with the  
City Improvements Bill. It would seem that the Board of  
Supervision can occasionally be peremptory enough in their  
demands upon local authorities, and the Inverkeithing Town  
Council has this week come under the lash. The inspecting  
officer of the Board has had grave reason to complain of the  
neglect of drainage in their small town, and a demand is  
now made that within fourteen days a report on its sanitary  
condition be transmitted. The Council, at their meeting  
a few days ago, determined to place the matter in the hands  
of an engineer, with a view to the immediate carrying out  
of a proper drainage system.

The Dundee authorities have now received Dr. Stevenson  
Macadam's analysis and report upon the Monikie water,  
the admission of which to the town is causing some interest.  
The question in dispute is whether the water should be  
filtered or unfiltered, as preparation for this process will cost  
£15,000; and samples of both qualities were sent for  
analysis. Dr. Macadam shows that the amount of organic  
and volatile matter is less in the filtered water, but that  
such matter in either or both waters is of a harmless and  
innocuous character. Some of the Commissioners, in view  
of the latter statement, object to the proposed outlay, and  
further discussion of the subject has been delayed.

Previous to last session, graduates of Scotch universities  
had it in their option whether to become members of the  
general council; but an Act was then passed which made  
this one of the conditions of graduation. Formerly either  
political party was willing to pay the necessary fee and so  
to secure the future vote; but it appears that there were  
many men who refused even this easy method and declined  
to register. This is brought out by the now published  
returns referring to Edinburgh and St. Andrews, as more  
than double the usual number is this year added to the  
parliamentary roll. Of the 353 members, Edinburgh claims  
318, and St. Andrews 35.

An epidemic of typhoid fever, causing the local authorities  
much anxiety, has occurred in the neighbouring towns of  
Dumfries and Maxwelltown. It appears that cases were,  
so far as space allowed, admitted to the Dumfries Infirmary,  
but that the accommodation there was of the most meagre  
kind. There is no special hospital for infectious diseases in  
the place; and Professor MacLagan, of Edinburgh, has been  
invited to advise the authorities in the circumstances.  
Though a good deal has been done in Scotland since the  
passing of the Public Health Act towards providing adequate  
hospital accommodation, much remains to be effected; and  
it seems only in response to local scares, such as is now  
affecting Dumfries, that any advance is made.

**IRELAND.**

*(From our own Correspondent.)*

THE first meeting of the Academy of Medicine took place  
last week, when the Pathological Section was inaugurated  
by an address from Dr. J. M'Purser. There was a large  
attendance of members present.

Complaints have recently been made by the guardians of

the South Dublin Union, to the effect that the medical staff belonging to the workhouse do not attend as regularly as they should; and that upon numerous occasions lately, when their services were required for urgent cases arising at night, they were not available when sent for. It was also suggested that resident medical officers should be appointed in place of the visiting staff. Drs. Jennings, Burne, and Owens, in addressing the Board on this subject, stated that it would inevitably tend to the disadvantage of the sick poor if the staff were now to be reduced, when the number of sick and infirm have so largely increased. The staff have the advantage of immediate consultation with each other in complicated or difficult cases, so that the inmates of the workhouse are, as regards skill and attention, placed on a level with the wealthy classes of society. As regards the charge of inattention, they remarked that the statement is as unworthy of notice as incapable of proof. The consideration of the matter has been deferred for a few days.

The new scheme which has been adopted for providing special departments in the Belfast Royal Hospital has not met with general satisfaction, and it is thought by a good number that the hospital does not possess the requisite space nor the necessary funds for carrying out these additions to the institution. It has been stated that the greatest difficulty has been experienced in finding room for the majority of patients seeking admission, and that recently when application was made by one of the staff for a ward to isolate certain cases it could not be obtained from want of room. It has been estimated that the twelve beds for diseases of the eye and ear, and diseases of women, will not cost more than £40 a year; but a more probable estimate may be fixed at fully ten times that amount, more especially if the cost of the extern departments is included in this sum. For a populous town like Belfast, rapidly increasing in wealth and the number of its inhabitants, it appears strange that but one general hospital should be considered sufficient, and it seems desirable that another institution similar to the Belfast Royal Hospital should be established, which would permit additional space in both hospitals for special departments.

Mr. Rawdon Macnamara, of the Meath Hospital, has had a very serious attack of erysipelas, but I am happy to state that he is now progressing favourably.

Dr. A. Spencer, whose death from typhus fever took place some time ago, has left his widow in bad circumstances, and a subscription has been started on her behalf.

A well-trained nurse, to carry out efficiently the orders of the medical attendant, occupies a very important position in the treatment of the sick. Consequently the Belfast Nurses' Home and Training School may be regarded as a valuable institution, for during the past ten years it has sent out eighty-six nurses, trained in the Home, for hospital and private nursing; it has also supplied matrons to several infirmaries in Ireland, and nurses to various parts of the colonies. It is satisfactory to learn that the institution is prospering, and that it is now entirely free from debt.

Mr. J. G. Chidley, A.B., late resident pupil of the Hardwicke Fever Hospital, recently died from an attack of typhus fever, which he contracted in the discharge of his duty. The esteem in which the deceased young gentleman was held was shown at his funeral, when a large number of his friends and comrades assembled to pay the last tribute of respect to his memory. The remains, on reaching the churchyard, were borne by the students to the grave, and on the coffin were placed some handsome wreaths presented by those present.

In an annotation at p. 956 of last week's LANCET, on the recent outrages in Dublin, by a printer's error it was made to appear that the gentleman who had been stabbed by assassins near his residence had died. This was not the case; but his condition at the time was critical. It is satisfactory to state that he is now progressing fairly towards recovery. Dooley, or Dowling, the man who shot Cox, has improved so much since his admission into the hospital, that it is expected he will be able this week to be transferred to Kilmainham prison.

During the past month nearly 200 deaths from diseases of the lungs took place in Belfast, principally owing to variations of temperature and the excessive amount of moisture present in the atmosphere. Scarlatina prevailed to a considerable extent, some of the cases being of a very malignant character.

## PARIS.

(From our Paris Correspondent.)

THE horrible event which took place in Paris about the middle of October, when, as will be recollected, a young lady, aged about twenty, committed suicide by throwing herself off one of the towers of Notre Dame, her body being found on the railings of the cathedral literally severed in two across the lower part of the trunk, has led to a very interesting discussion from a scientific point of view. The question was raised as to the manner in which death took place in this case. Professor Brouardel, the medical jurist of Paris, stated in his report, that owing to the rapidity of the fall, death was caused by asphyxia, and not by the section of the body. He founded his argument on the fact that the velocity of a body falling from a height passes through five metres of space in the first second, fifteen metres in the second, twenty-five metres in the third, and thirty-five in the fourth second; consequently, the fall of the body in this case would occupy four seconds, the distance traversed being eighty metres, which is the height of the tower; but as the unfortunate victim fell on the balustrade, which is ten metres above the ground, this would make the duration of the fall rather less than four seconds. M. G. Bontemps, of Amboise, writing in *Nature*, the homonym of the English publication, endeavours to refute M. Brouardel's conclusions by observing that the velocity above mentioned is less than that of the rapidity of the mail train to India, which he considers to be even less than the physiological limit of speed a man could go through with impunity, as is verified every day by the engine-drivers and stokers of these trains. In response to this, another writer remarks that the argument of the correspondent in *Nature* is equally erroneous, as the engines of all rapid trains are in all seasons, and some of the other trains in winter, provided with a screen, in which are fitted with two discs of glass, which shelters the engine-driver against the enormous pressure of the air, without which arrangement the driver would not be able to support it for two minutes, particularly when to the rapidity of the course is added a cold wind blowing towards the train at the rate of ten metres per second. The latter author concludes that the young lady in question could not have been completely asphyxiated when her body reached the balustrade, but she must have been insensible, and thus relieved of the consciousness of the horrible mutilation her body was subjected to.

The application of the actual cautery to the neck of the womb in certain affections of that organ may be a useful means of treatment in able hands, but when employed indiscriminately the temporary benefit which a few patients may derive from it will not counterbalance the dangers attending it; for in many cases the mischief inflicted by the use of the red-hot iron has been so great, almost irreparable, that many gynecologists have rejected it altogether in their practice. Certain practitioners employ the actual cautery in uterine affections under the conviction that it is perfectly harmless, and that nothing but advantage could be derived from it. To these may be applied the well-known adage of Morgagni: "Sunt plures medici qui agros ob id interimunt quia nesciunt ipsi quiescere." Dr. Sireday, Physician to the Lariboisiere Hospital, has given the following illustration, to show that such a practice is not devoid of danger. A patient who had been treated at her home for metritis, and to whom the actual cautery had been applied for some months, entered M. Sireday's ward for severe dysmenorrhoea with almost complete retention of the menses. On examination Dr. Sireday discovered that owing to the influence of the repeated application of the red-hot iron the neck of the womb was all but completely destroyed; its orifice was so narrow that it was impossible to introduce into it an ordinary pocket-case probe. After prolonged treatment by gradual dilatation of the canal, the latter was rendered permeable, but the cure was not complete; the patient was obliged to return to the hospital as all her sufferings recurred, and she went through the same treatment for some time. Dr. Sireday remarks that this is only one among many such cases that have come under his observation, and he could cite others where the application of the actual cautery to the neck of the womb was attended with fatal results owing to consecutive metro-peritonitis.

An unsuspected source of public poisoning has been brought



notice of the police authorities, arising from the use of kerosene and confectioners, for the purpose of heating ovens, of old beams, &c., procured from the demolition of houses. This timber is generally painted with preparations of lead, copper, and arsenic, and it is often found that the ashes left after combustion contain or less of these poisonous substances, which adhere to the sides of the ovens and to the bread and confectionery and after baking. The timber employed for telegraph poles, railway sleepers, &c., present the same dangers, as it is generally painted over, or impregnated, with different mineral solutions, such as the sulphate of copper, arsenic sublimated, &c., for the purpose of preserving the timber. The Prefect of Police has, therefore, forbidden the use of the timber obtained from the above sources by bakers and confectioners.

Those coming over to the continent will be repaid by a visit to the aquarium at Havre, which has just been opened by an interesting fish rarely met with in these latitudes. This fish, which was caught by the crew of a pilot boat, is known under the name of moon-fish, from its resemblance to the earth's satellite, and belongs to the family of "gymnodontes." The body of the fish is raised and arched, the skin shines like highly-polished silver, and it is said that when the fish floats on the surface of the water its body is quite phosphorescent. It measures one metre in length by one metre forty centimetres from the superior fin to the dorsal fins to those of the anal extremity.

In my last communication, on M. Gambetta's wound, I gave a 954, for "Ville d'Arzay," read *Ville d'Avray*.] Paris, December 5th, 1882.

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THE UNITED STATES NATIONAL BOARD OF HEALTH AND VACCINATION OF IMMIGRANTS.

(From a Correspondent.)

ONE of the most useful branches of service of the National Board of Health (United States) is a system of inspection and vaccination of immigrants. Four years ago there was a death by small-pox reported in the United States. Since then began a remarkable increase of immigration from the continent of Europe, and especially of Polish and Russian Jews, who are generally unvaccinated. As they generally remained in the foreign seaport towns several days before embarking, and usually occupied low lodging-houses where contagious diseases were prevalent, small-pox began to appear among them. As ocean transit now occupies but ten days, an infected emigrant could reach our ports in apparent health, and pass quarantine unsuspected. More than that, he can take cars on arrival, and reach a distant western settlement within the period of incubation. It very naturally appeared that with this rising tide of immigration small-pox outbreaks began to be more and more frequent in the Western States, until at length the pestilence was regarded as epidemic. To meet the emergency the National Board of Health organised a system of inspection and vaccination of immigrants, which has now been in operation about five months, and has given the most satisfactory results. The work begins with the embarkation of the emigrant in the foreign port, and he is followed to his destination in his western home. The shipsurgeon is required to examine every emigrant with reference to the evidences of protection by vaccination. If they are not present, or are unsatisfactory, the surgeon proceeds to vaccinate. To all protected persons he issues a card bearing the following information, as an example, printed upon it:—

CUNARD LINE.

VACCINATED.

S.S. SCYTHIA.

(Signed)

W. J. KING, Surgeon.

when required. It is first presented to the port physician, and then to the sanitary inspectors on the railroads, at the various inspection stations. The railroad inspections are comparatively easy, for the immigrant trains are made up like freight trains, and run at regular intervals, conveying only immigrants. Usually the inspectors board the train at some convenient station, and carry on the inspection and vaccination while the trains are moving, thus causing no delay. I have before me the monthly statement of the Supervising Inspector of one district—viz., the Western district. It shows a total of 14,924 inspections, and 2918 vaccinations; 234 had never been vaccinated. During the four months ending September 30th the total number of inspections in that district was 78,366, and of vaccinations 13,842. The result of this service, the first of the kind ever established, I believe, has been most useful. Not only have small-pox outbreaks ceased, but the inspectors have intercepted other contagious diseases, as scarlet fever, measles, and diphtheria. They have also greatly improved the sanitary condition of the immigrant trains. Inspector Ranch remarks:—"Evidence of the growing interest in this protective measure is found in the increasing numbers of immigrants vaccinated or revaccinated just before sailing. This is especially true of the English and Scotch, and in a great measure offsets the occasional opposition to the inspection met with from individuals of the same nationalities, and which seems to be due to the anti-vaccinationists of Great Britain."

New York, October 15th, 1882.

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TENEMENT HOUSES IN AMERICA.

(From a Roving Correspondent.)

It is popularly supposed that in the large towns of America there are no poor, in the English meaning of that term. This is, however, a great mistake, and as a matter of fact some American cities contain as degraded specimens of the class of people to be found in tenement houses in Great Britain as will be met with anywhere in the world. It may be interesting to inquire how it is that in the New World, where labour is at a premium, and where there is more work to be done than hands to do it, no improvement has taken place in that class of persons who inhabit tenement houses. In a town like Chicago, which has been nearly rebuilt during the last ten years, the cause of the existence of the worst class of tenement house is due to the fact that the enormous number of emigrants who annually enter the capital of the West far exceeds the capacity of builders and capitalists. Hundreds of new houses are erected annually, but an influx of 60,000 or 80,000 emigrants renders it impossible to provide suitable house-room for all. In spite of many difficulties, however, it must be confessed that the health authorities, under the energetic superintendence of Dr. De Wolf, the able Commissioner of Health, have done great public service. Mainly at their instigation, and in spite of considerable opposition from various quarters, powers have been conferred upon the health authorities which, as they are vigorously exercised, have proved the greatest boon to the inhabitants of Chicago. The following are the chief sections of an Act for the regulation and inspection of tenements and lodging-houses and other places of habitation, which was approved and put in force on and from May 30th, 1881. The Act applies to all incorporated cities of 50,000 inhabitants within the State of Illinois.

1. Architects, builders, or other persons interested in any projected tenement, lodging-house, or other place of habitation, must submit plans and specifications of any such building to the Health Commissioners, to enable them to examine, approve, or reject the same unless or until adequate provision is made for the ventilation of rooms, light, and air-shafts, windows, ventilation of waterclosets, drainage, and plumbing.
2. Every plumber interested in the plumbing work of such buildings must receive from, and proceed according to the specifications and written instructions of, the Health Commissioners before commencing work.
3. The plumber is compelled, after the completion of his work, and before any portion of it is covered up, to notify the Commissioners in writing that the buildings are ready for inspection, and it is unlawful for any person interested to cover up or in any way conceal such plumbing work in or

about any such buildings until the Health Commissioners have approved it.

4. Provision is made to impose a penalty for every such offence of from £20 to £40 upon any architect or builder who fails to comply with the foregoing regulations.

5. A similar penalty is imposed upon plumbers in case they fail to comply with the law, together with a further penalty of "£2 for each and every day such plumbers shall after first conviction neglect or refuse to obey the Act or the written instructions of the Health Commissioners," with a forfeiture of his licence to do business in the said city for one year after conviction for a second offence.

With the view of facilitating the application of the above Act various printed forms have been prepared by the Health Department, which provide (a) plans for ventilation, light, plumbing, and drainage; (b) permit signed by Health Commissioner sanctioning the erection of buildings on the following or some special conditions in certain cases.

(1) Every habitable room must have at least one window opening directly upon the street or yard, or upon a court or light shaft. (2) Every light and air shaft for habitable rooms must be at least twelve square feet in area for a three storey house, sixteen square feet for a four storey house, and twenty square feet in area for a five storey house; and in every case not less than two feet wide in the clear. Shafts between two houses and common to both must be double this area. (3) All windows which open on shafts shall be hung with weights so as to slide vertically, each window being not less than twelve square feet in area. (4) Water-closets shall not be ventilated by a shaft which ventilates habitable rooms where they do not open otherwise to the external air. Waterclosets must be ventilated by means of a separate shaft, not less than three square feet in area, to extend above the roof, and to be arranged for the admission of light and air at the top. (5) No alteration in the light and ventilation of the premises (for which a permit is granted) shall be made except upon the express written approval of the Commissioner of Health; nor shall any additional structure be erected upon the lot without such approval, and a special permit. Printed upon the face of the permit are details of the plan of plumbing, which will be insisted upon by the Commissioner of Health. This plan provides that all materials used must be of good quality and free from defects, and all work must be executed in a thorough and proper manner. All plumbing must be so placed as to be readily inspected. Every soil- and waste-pipe, iron or lead, must extend through and at least four feet above the roof, be of undiminished size, and provided with suitable top or cap. The house-drain, if of iron—a material much used for these pipes in America—shall have a fall of at least half an inch to the foot, and be provided with a proper trap near the street, and with an inlet for fresh air inside the trap. It should run along the cellar walls—a favourite plan in America—and never be hidden underground. All iron soil-pipes must be sound, free from holes, of a uniform thickness, of not less than  $\frac{1}{4}$  in. for a diameter of two, three, or four inches, or  $\frac{3}{8}$  in. for a diameter of five or six inches. Before connexion they must be thoroughly coated with coal tar pitch, inside and outside, which must be applied hot. All joints in the soil- and waste-pipes must be so caulked with lead, or cement made of iron filings and sal ammoniac, as to make them impermeable to gases. When the house-drains are not of iron they must have twice the above given internal diameter and half the grade, unless in special cases specially sanctioned. Every sink, drain, water-closet, and tub, or set of tubs, must be separately and properly trapped. When a lead pipe or trap is connected with an iron pipe the joint must be made through a metallic sleeve or ferrule, and be caulked with lead. All traps must be ventilated by a special pipe entering above the roof. Every "safe" under a basin, bath, or other fixture, must be drained by a special pipe, not directly connected with any waste-pipe, drain, or sewer. Every water-closet must be supplied with water from a special cistern, and not direct from the main. No overflow-pipe from the cistern to be directly communicated with any soil- or waste-pipe or drain. No cistern for drinking water to be lined with lead. It is stated that wrought iron, steam-fitted, glazed pipes are the best for house drains, and their use is recommended. When the work is completed, and before it is covered up and the house occupied, the Health Department must be notified, to enable the authorities to send an inspector, upon whose report the Commissioner will act before its final approval. Equally stringent regulations are enforced in respect to the

existing or old tenement houses, which are regularly inspected by a staff of trained officials, and it may be said with truth of Chicago that there, if anywhere in the world, the life of a jerry builder, or plumber, or owner is not a happy one. For this reason, and as a guide to those who are striving for improvement in these matters in England, the above regulations and information cannot fail to be of interest. The whole plan of administering the Health Department of Chicago has been admirably conceived, and is being ably administered by Dr. De Woolf, the present Commissioner of Health. I would advise anyone who desires to have a model set of forms and regulations for controlling the health arrangements of a large town, to write to Dr. De Woolf for those in use at Chicago. It is not a little surprising to find that whereas wages are exceedingly high throughout America, salaries, and especially the remuneration of the health officers, are unusually small and inadequate.

(To be concluded.)

## Obituary.

EDWARDS CRISP, M.D.

WITH the death of the subject of this memoir a striking if not an imposing figure disappears from the stage of medicine. A man of indomitable courage, self-reliance, and energy, of unimpeachable integrity and utter unselfishness, of unwearied industry, of high attainments, and (at any rate as far as his profession was concerned) of much practical sagacity, Dr. Crisp ought to have attained a much higher eminence among the medical men of his time than he actually did attain, or than an impartial posterity will accord him. He commenced his professional career as a general practitioner, and rapidly rose into large and lucrative practice; and there is no doubt that, had he remained in general practice, he would have been one of the foremost general practitioners of his time. Had he been fortunate enough in early life to have been appointed physician or surgeon to a London hospital we have every reason to believe that he would have achieved high eminence as a consulting practitioner and teacher. Or had his early scientific training been more exact and more complete than it was, and had he consecrated his life from the first to scientific pursuits, he would probably have made a distinguished name for himself as an anatomist, a physiologist, or a pathologist. But, unfortunately for him, he seceded from general practice at the time when success in it was assured; and he entered upon consulting practice and the pursuit of scientific medicine under unfavourable conditions, which warped his judgment and led him to waste many of his best years in controversy and warfare. But with all his failings Dr. Crisp was a man who commands our sympathy and respect, and especially was one whom general practitioners may feel proud to regard as one of themselves; for he ended his life as he commenced it—in general practice; and the works by which he will be best remembered are those which he gave to the world while he was a general practitioner. We refer to his important observations on the relation between Chlorosis and Ulcer of the Stomach in young women, and his Jacksonian Prize Essay on the Structure, Diseases, and Injuries of the Bloodvessels.

Dr. Crisp was the son of Mr. Edwards Crisp, a gentleman farmer, and of Mary his wife. He was born at Rendlesham, Suffolk, on Dec. 10th, 1806, and was educated at the Grammar School at Ipswich. In 1823 he was apprenticed to Dr. Cream of Long Melford, and in 1826 entered as a pupil at the combined schools of St. Thomas and Guy's, and pursued his studies there for two years. He became a licentiate of the Apothecaries' Hall in 1828, and a member of the College of Surgeons in 1829. During the years 1829 and 1830 he studied in Paris, mainly at the *Hôtel Dieu* and *La Pitié*, and thus not only acquired a good knowledge of French medicine and surgery, but became an accomplished French scholar.

After the completion of his education he resided for a short time with the late Mr. Bristowe of Camberwell, and in 1830 commenced practice in Brixton. The following year he removed to the Walworth-road, where he conducted a large and increasing general practice for the next fifteen or sixteen years.

It was probably the success of his work on the Arteries

tend during this period), and the credit it brought him, that rmined him to become a physician. He disposed of his tice in Walworth and went over to Dublin to study there; to Scotland, where, in 1848, he obtained the M.D. degree of University of St. Andrews. Then, returning to London, resented himself before the censors of the Royal College Physicians as a candidate for the membership. Un- nately he was rejected; and, still more unfortunately, ead of bearing his disappointment, and offering himself in on a future occasion, he made a violent attack on the miners and published his own version of the examination had undergone. His thorough honesty and truthfulness re manifested in this ill-judged production, for no as- tions of their own could have justified his examiners in eyes of the profession so strongly as they were justified Dr. Crisp's own testimony. We need not pursue this oject further than to say that this incident gave a polemical us to most of his work and writings during the next few ars; and that for some time he conducted, almost unaided, th much vigour and no inconsiderable literary ability, a onthly journal called the *Medical Examiner*, in which he posed, with some virulence, the shortcomings and errors the various examining bodies, but in which, also, strenuously advocated many reforms, of which some ve been already carried out, and others will doubtless llow.

It was about this time that he started practice as a ysician in Parliament-street, where he resided until ie year 1857. He then removed to the King's-parade, helsea, where he remained five years. During the whole f this time he was engaged in consulting practice and in cientific pursuits. He had married, however, about the year 846, and the expenses and responsibilities attendant on n increasing family at length determined him to resume eneral practice. This he did twenty years ago, and emoved to Beaufort-street, Chelsea, where he resided henceforth.

This was probably the happiest period of his life. He ad ceased to be systematically aggressive in medical politics. He conducted a large general practice among patients whom he made his friends. He was a constant attendant at the Pathological and Medical Societies, and took an active share in their proceedings. He spent much of his time in patho- logical investigations, mainly in reference to the lower animals and to parasites. And he found happiness and peace in the society of his wife and in the education of his children; for he was pre-eminently a domestic man, and a loving and unselfish husband and father.

The amount of work which Dr. Crisp accomplished in his life-time was amazing. He published innumerable papers on Medicine, Surgery, Zoology, Physiology, and Pathology in the medical and zoological journals, and in the Trans- actions of the Pathological Society. He obtained the Jacksonian Prize for his work on the "Structure and Diseases of the Large Vessels"; the Astley Cooper Prize for the essay "On the Structure and Use of the Thyroid Gland"; the Astley Cooper Prize, again, for his essay "On the Pancreas"; the Jacksonian Prize a second time for his treatise on "Intestinal Obstructions within the Abdomen"; the Fothergillian Prize for an essay on "Croup and Diph- theria"; and a prize from the Bath and West of England Society for a paper on "Lamb Disease." It may be added that he first demonstrated the existence of valves in the splenic vein.

For some years he habitually dissected the animals dying at the Zoological Gardens; he was always a zealous student of comparative anatomy; and he gradually accumulated (besides a very large collection of parasites) a museum of comparative and pathological anatomy, comprising over 5000 specimens.

Amongst the many honours Dr. Crisp obtained were those of a vice-presidency of the Pathological Society and a coun- cillorship of the Pathological Section of the International Medical Congress when it met in London in 1881.

Dr. Crisp was a short, strongly-built, active man, with a massive bald head, a handsome face, a genial smile, and a pleasant musical voice. He was a ready, self-reliant speaker, always prompt to attack, but ever ready to ac- knowledge his own mistakes. He was a warm friend and (excepting towards the Colleges) a generous enemy. He had much literary and artistic taste.

His health during a long life had been singularly good; and he died without warning, probably of spasm of the heart, on the morning of November 15th.

RICHARD CROSS, M.D., F.R.C.S., J.P.

We regret to record the death on Nov. 19th of Dr. Cross, who for forty-two years had occupied a prominent position as a medical practitioner in Scarborough. He was at the time of his decease Surgeon-Major on the staff of the North and East Riding Brigade of Artillery Volunteers, a Justice of the Peace for the Borough, Fellow of the Royal College of Surgeons, and of the Royal Medico-Chirurgical and Obstetrical Societies. He was Mayor of Scarborough in 186 and occupied the position of alderman for many years. His qualifications were M.D. (1852), M.R.C.S. (1840), L.S.A. (1839). He was held in high honour and esteem not only for his professional qualities, but also for the courtesy and geniality which he manifested to everyone with whom he came in contact. The mayor and corporation, the magis- trates, the artillery, and the rifle volunteers attended his funeral, and the whole route from his house to the cemetery was thronged by thousands of spectators. His son, Mr. T. B. Cross, M.A. of Caius College, Cambridge, succeeds to his practice.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed the examination in the Science and Practice of Medi- cine, and received certificates to practise, on Nov. 30th:—

- Holton, Richard, Lincoln.
- Masters, Alfred Thomas, Westbury-road, Westbourne-square.
- Osborn, Frank Charles, Keppel-street.
- South, George, Peckham.

The following gentlemen also on the same day passed the Primary Professional Examination:—

- Albert Bowhay, Walter Horncastle Burrows, and Charles Langford Josling, Charing-cross Hospital; Walter Wise, Middlesex Hospital.

THE Stoke-upon-Trent Board of Guardians have decided to expend £13,000 on the erection of a new hospital at the workhouse.

ROYAL INSTITUTION OF GREAT BRITAIN.—Acheson George Bartley, M.D., M.A., David Edward Hughes, Esq., F.R.S., and George Law, Esq., F.R.G.S., F.Z.S., have been elected members of the Institution.

THE EASTBOURNE NEW MEMORIAL HOSPITAL will, it is expected, be opened by the Prince of Wales in the spring. The collections and proceeds of a concert amount to £2280, but much more is required to enable the institution to start free from debt.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for efficient vaccina- tion in their respective districts:—Mr. William Dobson, Holbeck Union, Leeds; Mr. J. Hamilton, Gresley district, Burton-on-Trent Union (third time); Mr. Roberts, Barnolds- wick (third time).

REMARKABLE FECUNDITY.—A woman aged fifty- seven, living at Aberdare, is stated to have borne no fewer than thirty-two children. The prolific mother had had twins on three occasions, triplets twice, and once four at a birth. The father was in receipt of parish relief, which, perhaps, is hardly surprising.

At a meeting last week in the parlour of the Mayor of Manchester resolutions were carried to the effect that it is desirable that a museum be erected in connexion with Owens College, and that a fund of not less than £50,000 be raised for the purpose. The buildings are to be constructed from a design by Mr. Alfred Waterhouse, under instructions from the Court of Governors of the College. Promises of sums to the amount of £20,000 have been re- ceived, and for the remainder of the cost a canvass will be made.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A special general meeting of the Society was held on Friday, November 24th, at 5 P.M., to confirm certain alterations of the by-laws that had been approved at a special general meeting held on November 3rd. The Pre- sident, Sir George Burrows, Bart., took the chair. The chief

alterations made in the by-laws were as follows:—The sum required to qualify as an honorary member was reduced by ten guineas; the proposals for membership and the declarations of widows and orphans may now be signed by two registered medical practitioners, instead of by two members of the Society; the admission fee was abolished; the income of the widow eligible for relief was raised from £50 to £80, and certain powers were given to the directors to make extra grants under special circumstances; the age of the orphans eligible for relief was raised to sixteen years, and in the case of complete orphans to eighteen, and the amount of income of orphans was also increased; in the case of a widow of a member marrying she now ceases under the new by-laws to have any claim on the Society.

**CONSUMPTION HOSPITAL, BROMPTON.**—At a quarterly court of the governors of this charity held at the hospital last week, it was announced that since the last court necessary and extensive repairs to the east wing had been effected, the inmates having been temporarily removed to the new building opposite, in order the more thoroughly to carry out the work. The repairs to the west wing were now in progress, and when completed the patients would re-occupy the vacant wards in the older building. Should the state of the funds admit of it, a further portion of the extension building would then be filled with new patients.

**COLLEGE OF PRECEPTORS' EXAMINATIONS.**—The entries of candidates for the half-yearly examinations of the College of Preceptors, which began on Tuesday last, and were carried on simultaneously in London and at fifty-five local centres in various parts of the country, exceeded 8300, making, with those examined at Midsummer, close upon 13,000 for the year. A supplementary examination, for the preliminary literary subjects required for students of medicine, law, the Royal Veterinary College, the Pharmaceutical Society, and other bodies by whom the certificates of the College are recognised, will be held in March next in London and at four provincial centres—viz., University College, Liverpool; the Leeds Medical School; Queen's College, Birmingham; and University College, Bristol.

**LONDON HOSPITAL MEDICAL CLUB.**—On the evening of Nov. 30th a convivial meeting of the above Club was held at the Holborn Restaurant. Mr. James E. Adams presided, and was supported by a large number of members and their friends. The Club was founded in 1838, but an anniversary meeting of the gentlemen educated at the London Hospital was held as long ago as 1792, and very likely before that time, as the London Hospital Medical School was the first complete Medical School in the metropolis. Special interest attended the present meeting from the fact that the chairman's father, Mr. John Adams, was for twenty-four years the popular secretary to the Club. The toast of the chairman, proposed by Mr. Hutchinson, and of the secretary, given by Dr. Christie, were drunk with more than ordinary cordiality and with all honours. Allusion was made by the secretary to the loss sustained by the Club in the lamented death of Mr. George Critchett, and to the increasing prosperity of the Club, as shown by the constant augmentation in the number of members and of the balance in hand—more than £200.

## Medical Appointments.

*Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.*

**ADAMS, MATHEW ALGERNON, F.R.C.S.Eng., L.S.A.Lond.,** has been reappointed Public Analyst for the County of Kent.  
**BERNARD, GEO. PETERSON, L.R.C.P. Ed., L.F.P.S. Glas.,** has been reappointed Medical Officer and Public Vaccinator for the Flanshead District of the Hemel Hempstead Union.  
**BUTLER-SMYTHE, A. C., M.R.C.S., M.R.C.P. Ed.,** has been appointed Surgeon to the Hospital for Women, Vincent-square, S.W.  
**FINN, EUGENE, M.B., L.K.Q.C.P.I., L.R.C.S. Ed.,** has been appointed Consulting Physician to the North Infirmary, Cork.  
**GETTINGS, J. S., M.R.C.S.,** has been appointed Medical Officer for the Ogley Hay District of the Lichfield Union.  
**GORDON-JONES, W. G., L.D.S.,** has been appointed Honorary Dental Surgeon to the Princess Mary Village Homes.  
**GUEST, ALEX. H., L.R.C.P. Ed., L.F.P.S. Glas.,** has been appointed Medical Officer for the Second District of the Chorlton Union.

**IRELAND, W. WOTHERSPOON, M.D. Ed.,** has been appointed Medical Officer to Miss Mary Murray's Hospital for Girls, near Preston-pans.  
**JACKSON, PAUL, L.S.A.Lond.,** has been appointed Resident Obstetric Assistant at Westminster Hospital, vice C. H. Wise, M.D.  
**JESSETT, FREDERICK B., F.R.C.S. Eng.,** has been appointed Surgeon to the General Dispensary, Bartholomew-close, vice Morrant Baker, resigned.  
**LE QUESNE, EDWIN JOSEPH, L.R.C.P. Lond., M.R.C.S., L.S.A.Lond.,** has been appointed Medical Officer and Public Vaccinator for the Tring District of the Great Berkhamstead Union, vice Lipscombe, resigned.  
**LLOYD, JAS. HELLINGS, L.R.C.P. Ed., M.R.C.S.,** has been appointed Medical Officer for the Callompton District of the Tiverton Union.  
**OSBORN, CHARLES, L.R.C.P. Ed., M.R.C.S., L.S.A.Lond.,** has been reappointed Medical Officer of Health for the Bognor Urban Sanitary District.  
**ROBERTS, ALFRED, M.R.C.S., L.S.A.Lond.,** has been appointed Consulting Surgeon to Prince Alfred Hospital, Sydney, New South Wales.  
**ROUNDTREE, THOMAS W., M.D.,** has been appointed Resident Surgeon and Apothecary to the South Infirmary, Cork, vice Cummins, resigned.  
**SPENCE, WILLIAM JAMES, L.R.C.P. Ed., L.R.C.S. Ed.,** has been appointed House-Surgeon to the Bradford Infirmary, vice Hollis, resigned.  
**STRETTON, Mr. J. LIONEL,** has been appointed Honorary Surgeon to the Kidderminster Infirmary, vice Samuel Stretton, resigned. Also Deputy Medical Officer to the Kidderminster Union.  
**STRETTON, SAMUEL, M.R.C.S., L.S.A.Lond.,** has been appointed Honorary Consulting Surgeon to the Kidderminster Infirmary.  
**WEBBER, WILLIAM W., M.R.C.S., L.R.C.P. Ed.,** has been appointed Medical Officer to the Nos. 1 and 2 Crewkerne Districts of Chard Union.

## Births, Marriages, and Deaths.

### BIRTHS.

**BOWEN.**—On the 25th ult., at Kirkley, South Lowestoft, the wife of Edward Bowen, M.R.C.S., of a son.  
**BRUCE.**—On the 25th ult., at Alva-street, Edinburgh, the wife of Alexander Bruce, M.B., of a son.  
**CURGENVEN.**—On the 1st inst., at Friar Gate, Derby, the wife of Dr. W. G. Curgenven, of a son.  
**SWAINE.**—On September 25th, 1892, at Ranches, Chota, Nagpore, Bengal, the wife of Surgeon F. R. Swaine, M.B., Bengal Medical Service, of a daughter.

### MARRIAGES.

**BIGGS-HOPKINSON.**—On the 28th ult., at the Church of the Holy Trinity, Taunton, John Maundy Biggs, L.R.C.P., of Child's-hill, N.W., son of J. G. Biggs, Esq., of Dailington, Sussex, to Florence Elizabeth, second daughter of the late T. B. Hopkinson, Esq., of Newaden, Middlesex.  
**FIELD-BURT.**—On the 2nd inst., at St. Stephen's Church, Hampstead, by the Rev. J. Kirkman, Vicar, assisted by the Rev. J. P. Flood, Chaplain of Guy's Hospital, Alfred Field, Esq., of Leam, Leamington, to Margaret Elizabeth Burt (of Guy's Hospital), eldest daughter of the Rev. J. T. Burt, Rector of Stoke Doyle, Oundle, Northamptonshire.  
**GRIFFITH-ROBERTS.**—On the 21st ult., at St. Marylebone Church, J. T. Griffith, L.R.C.P., L.F.P.S. Glas., of Llwyn-onn, Penygroes, North Wales, to Harriet Annie, youngest daughter of the late John Roberts, of Marylebone.

### DEATHS.

**BURROWS.**—On September 27th, at Rangiora, New Zealand, W. A. Burrows, M.R.C.S., eldest son of the late William Burrows, M.R.C.S., of Ilington, from injuries received in a carriage accident, having survived his wife twenty months.  
**CROSS.**—On the 3rd inst., at Nile Cottage, Gillingham, Chatham, Alexander Cross, Deputy Inspector-General of Hospitals and Fleets, aged 77.  
**DEAZLEY.**—On the 22nd ult., at Skelga, co. Tyrone, Charles Deazley, M.R.C.S., of Milford Haven, aged 64.  
**HANKS.**—On the 3rd inst., at Mile-end-road, E., Henry Hanks, L.R.C.P., M.R.C.S., L.S.A.Lond., aged 54.  
**LAWRENCE.**—On the 30th ult., at Claverton-street, Bath, Geo. Edgar Lawrence, L.R.C.P. Lond., M.R.C.S., aged 82.  
**O'FARRELL.**—On the 25th ult., at Tangier, Boyle, Ireland, Harvard O'Farrell, M.D., F.R.C.S.I., J. P., aged 71.  
**SARJEANT.**—On the 28th ult., at Eardley-crescent, West Brompton, Arthur Sarjeant, F.R.C.S., aged 68.  
**SMITH.**—On the 30th ult., at Retford, Frederic Smith, M.R.C.S.E., L.S.A., late of 730, Old Kent-road, London, aged 43 years.  
**WILSON.**—On the 30th ult., at Percy Lodge, Sandown, I. of W., William Samuel Wilson, L.R.C.P. Lond., M.R.C.S., son of the late Frederick John Wilson, aged 43.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

# ETEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Dec. 7th, 1882.

Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
30.01	S.E.	34	34	..	36	27	..	Foggy
30.11	S.E.	30	..	..	46	24	..	Foggy
29.74	S.W.	45	44	..	52	27	..	Overcast
29.05	W.	43	41	..	47	39	.09	Cloudy
29.04	N.W.	38	35	..	41	34	..	Overcast
29.19	N.W.	36	35	..	37	33	..	Overcast
29.14	E.	33	32	..	36	26	..	Overcast

## Medical Diary for the ensuing Week.

Monday, Dec. 11.

LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 1 A.M. each day, and at the same hour.  
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.  
OPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
ARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.  
CAL SOCIETY OF LONDON.—8.30 P.M. Mr. Richard Davy will exhibit his Invalid Carriage.—Mr. Walter Pys will show the Subject "A Hairy Mole treated by Transplantation of Skin.—Mr. Rose will show a Case of Talipes treated by Excision of Tarsal Arch.—Dr. C. Theodore Williams, "On a Case of Bronchiectasis treated by tapping."

Tuesday, Dec. 12.

HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.  
MINSTER HOSPITAL.—Operations, 2 P.M.  
LONDON HOSPITAL.—Operations, 3 P.M.  
PROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Dr. A. L. Lewis, "On some Flint Implements and Flakes from Cape Blanc Nez (near Calais)."—Mr. A. W. Howitt, "On the Australian Glass Systems."  
J. MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Ballot. 8.30 P.M. Dr. Frederick Treves, "On Resection of Portions of Intestine." The paper will be illustrated by diagrams and pathological specimens.

Wednesday, Dec 13.

ONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
DLESEX HOSPITAL.—Operations, 1 P.M.  
ARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
HOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
MARY'S HOSPITAL.—Operations, 1½ P.M.  
DON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.  
AT NORTHERN HOSPITAL.—Operations, 2 P.M.  
ARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.  
VERSTY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.  
NTERIAN SOCIETY.—7.30 P.M. Council Meeting.—8 P.M. Dr. Ormerod, "On Two Cases of Locomotor Ataxy, with Joint Disease."—Mr. R. Clement Lucas, "On Cases of Wounds of Large Vessels."  
CAL MICROSCOPICAL SOCIETY.—8 P.M. Ordinary Meeting.

Thursday, Dec. 14.

GEORGE'S HOSPITAL.—Operations, 1 P.M.  
BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.  
ARING-CROSS HOSPITAL.—Operations, 2 P.M.  
UTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.  
HSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.  
RTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.  
RTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8½ P.M. Mr. Mules: (1) "On a Case of Hydatid Cyst in Orbit." (2) "On a Case of Panophthalmitis from Purulent Ophthalmia."—Mr. Lediard, "On a Case of Ivory Exostosis of Orbit."—Mr. Snell, "On a Case of Hard Chancre at Inner Canthus."—Cases of Central Amblyopia in Diabetes, by Mr. Lang, Mr. Lawford, Mr. Stanford Morton, Dr. Edmunds, and Mr. Nettleship.—Living and Card Specimens at 8 o'clock.—Dr. Samuel West, Sequel to a Case of Optic Neuritis; Mr. Gunn, Case showing Peculiar Appearance in the Retina; Drs. Edmunds and Lawford, Optic Nerve from a Case of Diabetes; Dr. Stephen Mackenzie, Drawings showing Extreme Tortuosity of Retinal Vessels.

Friday, Dec. 15.

GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.  
THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.  
OTAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
ING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, Dec. 16.

ING'S COLLEGE HOSPITAL.—Operations, 1 P.M.  
OTAL FREE HOSPITAL.—Operations, 2 P.M.

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

### PAYMENT FOR MEDICAL CERTIFICATES OF THE CAUSE OF DEATH.

*H. D.*—In the 20th Section of the Births and Deaths Registration Act, 1874, it is enacted "In case of the death of any person who has been attended during his last illness by a registered medical practitioner, that practitioner shall sign and give to some person required by this Act to give information concerning the death a certificate stating to the best of his knowledge and belief the cause of death." This Act, therefore, declares that the certificate shall be signed and given, but makes no provision for any payment to the certifying practitioner. It may, moreover, be inferred that the Act contemplated no such payment being made. At the same time there appears to be nothing in the Act to make such a charge distinctly illegal, although, inasmuch as the certificate must, in accordance with the above-mentioned section, be signed and given, it would be clearly illegal to make the giving of such certificate conditional on payment of such charge.

*Surgeon.*—First by the largest number of votes, or, in the event of the numbers being equal, by priority of registration.

### VICARIOUS MENSTRUATION.

*To the Editor of THE LANCET.*

SIR,—The following particulars may suffice to convince your readers that my case is sufficiently proven as to diagnosis. Mr. E. J. Collins has asked some pertinent questions which might have been inferred by the reader of my previous letter; and being already aware of your limited space, I did not give special details. Curiously enough, just as THE LANCET reached me my case "turned up" again. She says—"It was four months before the bleeding came on out of the eyes that I had seen anything. I have never been regular. What I have seen previously was scanty, but very high coloured. I have never had the same (symptoms) before, but always great pain in the head and very bilious" (pointing to forehead over frontal sinuses); "when I am going to be so I have great pain in the body and legs, and my head is dreadful, and my eyes are very painful, so that I could (implied from her way of expressing herself) bear them to pieces." These are her own words, taken down at the time I now write, and they only serve to confirm my perhaps too hasty diagnosis, according to Mr. Collins. The only difference in her statement appears to be that the menstrual flow, instead of being colourless, as I understood her at first, is high coloured and scanty. Now I asked her this time to state as clearly as possible her symptoms, and she said—"I have a dreadful pain in my head and I am afraid the bleeding will come on again." There is no congestion of the cornea this time, so I asked—"Are you expecting the usual flow?" and she replied—"I am now unwell, but very slight; your medicine did me good last time, and I have come to you for some more." I prescribed some compound decoction of aloes in the same mixture, as she was constipated; and I do not think I shall venture to try hazeline for this affection; it is a remedy, in my opinion, still *sub judice*, and the information Mr. Collins appears to give consists of dubious remarks. A correspondent of a less dubious character informs me that Professor Paget of Cambridge reported a case to the Cambridge Medical Society of a similar character, where a young woman had hemorrhage into the anterior chamber of the eye at each menstrual period, and in addition from the nipples. If your correspondent has any further doubts he had better refer back to your columns, as I have had the misfortune to forget the date when inserted. The watching of this case has rather tended to confirm my diagnosis; and I am perfectly well aware that hemorrhage from the eyes, nose, and mouth may occur from other conditions; but coming on just before, or during the time of, menstruation, without evident cause, would always excite my suspicion in an otherwise healthy subject, especially if the flow were scanty and irregular and the patient virtuous. The bleeding from the eye has not recurred, and I attribute this to timely interference.—I am, Sir, your obedient servant,  
York, December 4th, 1882. G. DE COURCY MORRIS, M.D.



## CEYLON MEDICAL COLLEGE.

A SYNOPSIS of the curriculum in force at the above College for 1882-83 has reached us. Five years of medical study are prescribed, the first three comprising the junior, and the last two the senior, course. In the first year, the subjects include anatomy, elementary chemistry, elements of zoology, practical vaccination, practical pharmacy, clinical medicine and clinical surgery, dissections, physics, botany, and biology. At the end of this year an examination is held in elementary anatomy, botany, physics, pharmacy, and biology for the first professional. The subjects for the second year are anatomy, physiology, chemistry, materia medica, clinical medicine and surgery, hospital practice, and dissections, in all of which subjects a compulsory examination is held. The third year embraces the same subjects as those of the second year, with the addition of surgery and practical chemistry, and at the end thereof the students are examined in anatomy, physiology, chemistry, and materia medica for the junior pass or second professional examination. For the fourth year the subjects are medicine, surgery, operative surgery and surgical anatomy, clinical medicine and surgery, hospital practice, medical jurisprudence, midwifery, and pathology, in all of which a compulsory examination is held. In the fifth year the same subjects are prescribed, with the addition of hygiene, diseases of women and children, practical midwifery, and ophthalmic medicine and surgery. At the end of this year the final examination is held in all the subjects with the exception of pathology, ophthalmology, chemistry, botany, and physiology. Dr. J. L. Vanderstraeten is the principal of the College.

A. M. D.—Our correspondent is thanked for his letter, but we cannot publish it, as he will see that events have turned out very different from his anticipations.

Mr. Robert Hugh Hodgson.—The practitioner referred to has a very honourable degree, though not registrable in England.

## BOLINGBROKE HOUSE PAY HOSPITAL.

To the Editor of THE LANCET.

SIR,—Will you allow me to correct an error of figures in your notice of the second year's report of the work done at the Bolingbroke House Pay Hospital, which appears in this week's LANCET. A critical reader of the notice would ask the question—How is it that with double the number of patients in 1882 as compared with 1881, the cost of each patient has increased? The average weekly cost of each patient for 1881 is wrongly quoted in your notice. It should be £3 5s., not £2 0s. 5d., and as in 1882 the cost has decreased to £2 0s. 11d. the institution has made a decided advance nearer self-supporting point. In fact, the increase of self support by the payments of the patients has been 6½ per cent. This improvement is not the result of increased average payments, for actually there is a slight decrease—£1 10s. 6d. in 1881, £1 10s. 1d. in 1882—but is accounted for by the increased number of cases admitted. This tends to confirm me in the opinion expressed in my first report to the committee in 1881, that "if in the future the patients sufficiently increased in numbers and maintained their weekly average payment of £1 10s. 6d., they will pay their cost." It is desirable therefore that all who are interested in the experiment of providing pay hospitals for the lower middle and artisan classes should help to make the institution known. Its success depends much upon publicity, for treatment in a hospital is not a daily requirement like food and clothing, and people must be taught to remember where to go when sickness comes upon them. The fact that they have so often resorted to charitable hospitals makes the task of teaching them that they should pay for medical treatment according to their means all the more difficult and slow to accomplish. But this reform will be gradually worked out and the "father" of the pay hospital movement, Mr. Burdett, takes much encouragement, I believe, from the results achieved at Bolingbroke House in the second year of its existence.

There is an important element in the scheme for providing pay hospitals and departments which remains undealt with. The small paying power of many patients is the seemingly insuperable difficulty. A large proportion of the applications I receive is from persons who state their willingness to pay seven or eight shillings weekly and plead their inability to pay more. Although I believe that, as a rule, the most people can pay is the least you will take, yet there must be very many who are able only to pay a sixth part of their cost, and the question is whether to admit five-sixths of the charitable element into the scheme. On the other hand, it may be contended that a patient cannot live in the ordinary way outside on seven or eight shillings weekly, and if he can pay no more he is a fit case for a charitable hospital. With sickness wages often stop, and if a patient presents himself saying "I have sufficient laid by to give me a few weeks' treatment in a pay hospital, if you will receive me for seven or eight shillings, and I prefer to pay to being cured on charity," it seems a wrong thing to decline him. Where shall the "charitable" end and the "pay" begin, or shall the two elements combine in one scheme?

I desire to thank you on behalf of Canon Erskine Clarke and the committee for the kind notice you have given of the second year's report of Bolingbroke House, and I shall be pleased to send a copy of it to anyone interested in this important subject.

I am, Sir, your obedient servant,

J. S. WOOD, Honorary Secretary.

Woodville, Upper Tooting, S.W., Dec. 4th, 1882.

## CLOAK ROOMS FOR LADIES.

ON this subject *A Victim* writes to us:—

"The inconvenience, not to say positive suffering, from there being no cloak rooms for ladies in the main thoroughfares and principal streets, is very great. The facilities of getting from place to place in the metropolis, and the vast extent of London, not infrequently take ladies and women of the artisan and working classes away from their homes, either on visits or business of one kind or another. The railway stations are few and far between. In Paris, cloak rooms are to be met with in all the main streets. Birmingham is similarly favoured. But here in London such places are positively unknown. Affections of the bladder or kidneys make the want of these places almost an agony, and impossibility of getting relief when needed must induce disease. Can nothing be done in this matter? It is truly a great need."

Mr. A. Aitken.—Where the widows and orphans of medical men are not easily able to pay for medical services, it is customary for medical men to attend them gratuitously.

Dr. J. A. Campbell.—In an early number.

## IMPERFORATE ANUS.

To the Editor of THE LANCET.

SIR,—The above being by no means rare, I forward particulars of the case on account of what was revealed at the post-mortem, and would be glad to know if any of your readers have heard of or seen a similar case.

I was called to attend Mrs. P—, in her third confinement, about 12 A.M., on Oct. 7th, 1882, but was unable to be present until 1.30 P.M. When I arrived the birth of the child (male) was just terminating. This was followed by a rush of liquor amnii, a great quantity of which the child received into its lungs, almost completely suspending respiration. Artificial respiration was kept up for some time, and breathing established, which was however a good deal embarrassed by the quantity of fluid still remaining in the lungs. On examining the child, the anus was imperforate. Immediate interference not being demanded, the case was left till next day, instructions having been given to keep up respiration. However, during the night the child died.

By permission of the father, Dr. Shirliff (my principal, who was interested in the case) and I held a post-mortem. The rectum was found very much distended, lying deeply in the perineum, but no opening could be made out. A probe was introduced into the urethra, and, passing through a slight constriction, was found in that portion of the bowel which had been dissected out. Not being able to introduce the probe into the bladder, the abdomen was opened, without however finding that organ. The ureters were dissected out, and a bristle passed down was found in the rectum close to its junction with the urethra, clearly proving the absence of a bladder. All the other organs appeared normal. The nurse informed me the child had passed a very dark-coloured fluid which stained the napkins.

The immediate cause of death was no doubt due to the presence of such a large quantity of liquor amnii in the lungs, every effort having been made by the nurse to keep up respiration.

I am, Sir, yours truly,  
JNO. P. TOPPING, M.B., C.M. Glasgow.

Kingston-on-Thames, Nov. 1882.

Mr. Geo. Wm. Ayres.—The circular has been mislaid. We should be glad of another copy.

Surgeon-General Cockburn.—Next week.

## SUCCESSFUL GASTROTOMY IN JAPAN.

To the Editor of THE LANCET.

SIR,—I found the following remarkable account of a unique and scarcely credible surgical feat in a copy of the Hongkong *Overland China Mail* sent to me the other day. Considering the great interest and importance of the operation of gastrotomy, and the prominence it has recently assumed, I thought it might not be uninteresting to your readers to bring before them this tale of operative triumph from the Land of the Rising Sun. Albeit there is a smack of the fabulous about it, there is no reason to deny its authenticity.

I am, Sir, yours faithfully,

D. BEATTIE BAIN, M.B., C.M.

Tay-street, Dundee, November 27th, 1882.

"The *Choya Shinbun* tells an extraordinary story of skill and courage on the part of a Japanese doctor. It runs to the effect that one morning, as a certain man named Ito was cleaning his teeth, by some means or other he let his tooth-brush slip down his throat. Medical assistance was at once procured, and the unfortunate man, who was suffering the acutest agony, drenched with purgatives, but all to no avail. It was not till the fifth day that a certain Dr. Hashimoto, principal of the highest medical college in Tokio, was called in. Dr. Hashimoto said there was just one chance to save the man, and as the case was desperate it might as well be tried, for the patient would certainly die, and that almost immediately, if nothing was done. The friends consenting, chloroform was administered and two deep incisions were made cross-wise in the man's body. The stomach being laid bare, it was discovered that the tooth-brush was deeply embedded in it, and that, one edge of the handle being sharp, it had worked its way half through. The thing was speedily extracted, and the two wounds, inner and outer, deftly sewn up by the operator, who is said to have won immense renown by the success which crowned his efforts. The *Choya Shinbun* adds that the man to whom the accident occurred is now in a fair way of recovery."

## JOURNALISTIC ECONOMICS.

WE have to congratulate our military contemporary, the *United Service Gazette*, upon its discovery of the important principle of how to carry on a journal on truly thrifty principles! The week before last it copied one article, and last week two articles, from THE LANCET *verbatim et literatim* from beginning to end without the slightest acknowledgment of the source from which they were taken. *Proh pudor!*

N. E. R.—Bones are undoubtedly of value as a food, and their comparative cheapness is overlooked; but we doubt whether the plan suggested of utilising them for dietetic purposes would answer commercially. The nitrogenous material of bone being ossein, a gelatine, it would have to be supplemented largely with some albumen before it could be available as a constant food supply.

## GAS FIRES.

To the Editor of THE LANCET.

SIR,—In my practice as an architect I have from time to time recommended the use of open gas fires, not only from their convenience and cleanness, but because, when more universal, their use will at least assist in abating the intolerable smoke nuisance arising from the ordinary open grate. I have three or four open gas fires in my own house. I am now informed, upon high medical authority, that these fires are most harmful. In a case which has recently come under my notice the gas fire (one of Verity's) has been instantly ordered out of the room, and in the same grate is now burning a coal fire.

The question I would ask is as follows:—Given a good grate and free updraught, is the heat radiated from burning coal harmless, and the heat radiated from asbestos, warmed by an atmospheric burner, dangerous? I write as a layman, not understanding these things, but feeling that a qualified opinion in the matter must be of great value, and I know not how to obtain this except through your columns.

Dean's-yard, S.W., Dec. 1st, 1882.

I am, Sir, yours obediently,  
SOMERS CLARKE.

\*\* Provided that there are efficient arrangements for the escape of the products of combustion, there is no objection on the score of health to the use of gas fires. We have known instances of these fires being fixed in ordinary grates, and in order to increase the amount of heat given off from them the register has been closed. This, of course, is inadmissible.—ED. L.

Mr. A. F. Blagg.—A medical man is not bound to attend unless summoned or ordered to do so by the coroner. A house-surgeon is not entitled to a fee in respect of cases dying in the infirmary.

Surgeon.—The coroner has a discretionary power. But, alas! he has not always discretion, and so the office is brought into serious disrespect.

J. H. (Newington).—1. No.—2. Yes.

## ASSISTANT MEDICAL AND SURGICAL OFFICERS AT HOSPITALS.

To the Editor of THE LANCET.

SIR,—Allow me, as an old subscriber to and correspondent of THE LANCET for above forty years, to endorse your remarks of Nov. 18th as to the propriety and necessity of appointing assistant medical and surgical officers to all large hospitals, metropolitan or provincial. The proposal was made by me to the Board, staff, and subscribers to the Leeds General Infirmary above thirty years ago, but the suggestion was declined and ignored, though I proved by numerous statistics published at the time from the history of the largest hospitals at home and abroad that the appointment of assistant medical and surgical officers to do the work and take the place of worn-out seniors, when too much occupied with private practice, would be a benefit to the charities, the poor, the public, and the profession.

I am, Sir, your obedient servant,  
J. INGHAM IKIN, F.R.C.S.

Park-place, Leeds, November 23rd, 1882.

Mr. H. B. Gilmour might with advantage consult the series of articles on Hospitals, written by Dr. Mounat, and published in THE LANCET, vols. I. and II., 1881.

Enesia.—The continuous galvanic current is the only one likely to be of service in such a case.

## PUERPERAL SEPTICÆMIA.

To the Editor of THE LANCET.

SIR,—In your last issue you referred to a letter you had received from a correspondent on the prevalence of puerperal septicæmia in the practice of provincial hospital surgeons practising midwifery and the rarity of such cases in the practice of those unconnected with a hospital. I have repeatedly noticed the same thing, and have asked many practitioners unconnected with a hospital, both in my neighbourhood and elsewhere, whether they have had any cases of puerperal septicæmia. Their reply in every case has been in the negative. I should like to see the subject ventilated in your columns, as I think, with many others, that it is a very important one, and no party feeling, which you seem to think actuates the motives of your correspondent, should be mixed up in the matter.

November 8th, 1882.

I am, Sir, yours respectfully,  
FIDMS.

## MEDICAL ADVERTISING IN CEYLON.

An advertisement has reached us showing that the art of advertising one's self by advertising one's book is not confined to a few members of the profession at home, but has a strong illustration in Colombo in the case of a long advertisement of a book on Diseases of Children, the contents of which are stated in a fashion the most likely to attract the eye and strike the mind of that "herd confused," the people. Such practices will be duly judged by the profession of Ceylon.

Dr. P. O'Connell (Sioux City, Iowa, U.S.A.).—Written memoirs for the Prix St. Paul may be signed by the author or not, as he may please. If not signed, they must bear an epigraph, and be accompanied by a sealed envelope, enclosing the author's name, and with the same epigraph written outside.

## DISLOCATION OF THE SHOULDER.

To the Editor of THE LANCET.

SIR,—The daily routine of duties devolving on medical men in large general practices prevent, to some extent, their keeping themselves as thoroughly acquainted as could be wished with all the recent additions and improvements to surgical and medical literature; so that one's LANCET, or some other weekly periodical, comes to be looked forward to to keep us up to the current opinions, &c., of the day.

In this way THE LANCET for Nov. 4th last gave me a "wrinkle" for reducing a dislocation of the shoulder in the manner explained by M. Kocher, and on Wednesday last, Nov. 29th, I had an opportunity of testing, if I may say so, its value. A married man of about twenty-six years of age, of slight build, but fairly muscular, called on me, having had a fall off a tricycle, injuring his right shoulder. There was no great difficulty in diagnosing sub-coracoid dislocation. I sent him home and followed him there, and, after removing his clothes, I attempted the reduction by means of the heel in the axilla. He did not bear the pain of this at all well, so without further delay I proceeded to try M. Kocher's method, and, following his instructions, in less than two minutes we each felt and heard the head of the bone slip back into its place, and I must say I was highly gratified with the ease and simplicity with which it was reduced; and I should certainly recommend it to any of my fellow practitioners in a like case.

I am, Sir, yours very truly,

Queen's-park, Harrow-road, Dec. 4th, 1882. A. L. GRIFFITH.

Dr. Andrew Wilson (Edinburgh) is thanked, and his offer shall be borne in mind.

General Practitioner.—Certainly not.

## CASE OF STRAMONIUM POISONING.

To the Editor of THE LANCET.

SIR,—With reference to Dr. Wigg's remarks on the case of poisoning by stramonium, reported by me in THE LANCET for Nov. 4th, will you allow me, in the interests of toxicology, to point out that where the term "berries" was used it was obviously as a quotation from the history supplied by the friends, the ordinary name, "thorn apple," occurring later on; and, in the second place, that it was the absence of the symptom of dryness of the throat which was commented upon. With regard to the identification of the poison, I may suggest that the seeds of stramonium are quite easily recognised. I must apologise for troubling you with these remarks, which would have been unnecessary had the communication been more carefully read.

I am, Sir, yours faithfully,  
ALFRED LONDON, M.D.

Bristol Royal Infirmary, December 2nd, 1882.

A Subscriber to The Lancet.—We have no means of preventing the printing of extracts by local newspapers.

## CLINICAL THERMOMETERS.

To the Editor of THE LANCET.

SIR,—Within the last month I have burnt the bulb of two clinical thermometers. I presume it is caused by sitting too near the fire and exposing it to a heat of more than 115°. I carry my thermometer in the usual metal case in my waistcoat pocket. I have no doubt but the same accident will have occurred to other professional brethren. Can any of your readers offer any suggestions by which this mishap may be prevented?

December 6th, 1882.

I am, Sir, yours, &c.,  
M.D.

## DUTIES OF SHIP SURGEONS.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to ask, through your columns, the kind of life led by a ship's surgeon on the Royal Mail Steam Packet Company's boats going to Jamaica and the neighbouring islands, giving an idea of how the day is spent, the duties of the surgeon, the accommodation, places where the ship touches, and the time away.

I am Sir, yours truly,

T. R. ALLINSON, L.R.C.P. Ed.  
Kingland-road, E., December 4th, 1882.

## SPANISH MEDICINE AND SURGERY.

To the Editor of THE LANCET.

SIR,—Will someone inform me where in London I can obtain books on Medicine or Surgery in the Spanish language?—I am, Sir, yours, &c.,  
December 6th, 1882. ESPANOLA.



THE  
"Bradshawe" Lecture  
ON

## SOME RARE AND NEW DISEASES.

*Delivered at the Royal College of Surgeons of England  
on December 13th, 1882,*

By SIR JAMES PAGET, F.R.S.

MR. PRESIDENT AND GENTLEMEN,—It is my first duty, delivering the first Bradshawe Lecture in our College, to offer a tribute of respectful thanks to the generous lady by whom it was founded, the widow of Mr. William Wood Bradshawe, a Fellow of this College, who practised at Dover and at Reading, and died in 1866. He was a me-loving and studious man, who diligently cultivated his mind in both literature and science, and his widow, who revived him fourteen years, being desirous to testify her attitude for the happiness which she owed to him, bequeathed a thousand pounds to this College, and as much to the Royal College of Physicians, on the condition that each should institute a lecture, to be given annually and to bear his name. She desired that the lecture should be on some subject connected with medicine or surgery, and that the choice of the lecturer should rest with the President of each College for the time being. She made no stringent regulations, and seems to have wished only to maintain her husband's name in good repute by associating it with the advancement of the science which he loved.

In my endeavour to fulfil her exemplary wish, I have chosen the subject of Some Rare and New Diseases. I hope to be able, in speaking of them, to illustrate a part of the natural history of disease which I think is too little studied—that part, namely, which relates to the variations and the combinations of diseases in hereditary transmission. Besides, both in the choice of its subject and in the whole enterprise of giving this lecture, I have looked for an opportunity of promoting pathology by promoting pathological museums, a motive which I am sure will be pardoned, though I am conscious of its being in some measure personal, for I have spent so much time and thought in museums, that I feel as, in their greater utility, I should myself become more useful.

Now, first, respecting rare diseases, there may seem no want of opportunities of studying them. Our journals and the proceedings of our societies are full of the records of rare cases; many collections of such cases have been published, and here are many rare specimens in every museum. All these have that kind of attraction which belongs to everything that excites our wonder, but we too seldom let the wonder have its proper consequence; we too seldom let it provoke our curiosity so far as to make us search for the meaning and reason of the rarity. There is a question which we should often ask ourselves, Why is any disease rare? at least, why is any rare which does not depend on some accident or some rarely occurring external cause? I shall try to suggest answers which may be, in some instances, efficient; but I fear that, in more instances, if I can be useful at all, it can only be by suggesting how answers may be found.

First, there is a difference, though it may often seem only verbal one, between rare cases and rare diseases. A case may be called rare when, though it is evidently one of a common disease, it differs from the usual type or standard of that disease in some one or two features. Thus it is a rare case when a common disease is found in an unusual place; as an epithelial cancer on the upper lip, or this fatty tumour on a finger; or in unusual quantity, as in this large articular tumour on a femur; or, again, a case may be rare in respect of the time of its occurrence. For instance, I have lately seen cancer of the rectum ending fatally in a child of eight years, and scrofulous abscess in a man of eighty; and many of us must have seen instances, though they are rare (and these are very important in the history of diseases), in which manifestations of syphilitic inheritance, usually

evident in infancy, have not appeared till the time of youth or even of adult age; or cases may be very rare in respect of accidental complications or of the absence of some usual symptom. But of all these and other rare cases the number and variety are so great that it would be impossible to deal generally with them, except as with mere story-telling. It would be very useful if someone would collect hundreds or thousands of them, and arrange them, even though it were only under such headings as I have just indicated. But even as they are singly and in disorder, let me say that we ought not to set them aside with idle thoughts or idle words about "curiosities" or "chances." Not one of them is without a meaning; not one but might be the beginning of excellent knowledge, if only we could answer the question, Why is this rare? or, being rare, why did it in this instance happen?

But, because of their number and variety, I must pass by rare cases and will speak only of some rare diseases—that is, of some diseases which are rarely seen and yet occur in a sufficient number of cases, and with sufficient uniformity, and sufficient difference from other diseases, to permit of their being described in general terms, and to justify their being called by distinctive names. And of these again, for they are numerous and various, I shall select only that group which seems most attractive; the group of those, namely, of which there seems reason enough for believing: First, that they were, lately, new diseases and have become more frequent; and, secondly, that they are due mainly to morbid conditions changing and combining in transmission from parents to offspring. I say due mainly. It is certain that changes in the external conditions of our life have influence on even those morbid conditions which are most personal; but this influence is very hard or impossible to trace in the cases which I have in mind, and it may to-day be neglected though not forgotten. For, in all these cases, the personal factors and those of which alone I have to speak are more potent than the conditional, the inner than the outer. We call these diseases constitutional, diathetic, or by similar names; but the chief fact in them is that they, or the necessary previous states or predispositions to them, are inborn and inbred.

Let me first show that there is reason enough for believing that some rare diseases of this kind were recently—say within the last century—new; and that more recently, though still rare, they have become more frequent. There is, I know, a general unwillingness among pathologists to admit that there are new diseases of this kind; and this unwillingness is often just, for many diseases that may seem new have probably existed long and been overlooked; they may be new to knowledge, but not new in fact. Bright's disease and Addison's disease were new in the sense of having first been well observed and described by those whose names they bear; but no one would venture to say of diseases so difficult to detect, as these used to be, that they did not exist long before they were well observed. We could as well believe that embolism never occurred till just before it was found out, or that right-side hemiplegia used not to be associated with aphasia. These things were old before they seemed to be new; but how long they had existed neither records nor museums can tell. It would be, indeed, very interesting if we could tell the time and manner of first appearing in the case of many diseases which are now common; but it is scarcely ever possible. And yet, if you will allow me a digression, let me show what in some instances museums may supply, and what I hope they will in the future supply much more largely. Here are specimens of typhoid ulcers of the intestines preserved by Hunter. Few things have been more important in the knowledge of fevers than the clear proofs of the distinction between typhus and typhoid given by Sir William Jenner in 1850. It was one of the best life-saving discoveries of this century; before it both diseases were at least partially misunderstood, and neither was so well treated as now. Since the distinction between them was discovered it has been possible to trace in old recorded cases probable instances of both; but there is nowhere so clear evidence of the occurrence of typhoid a century or more ago as is given in these specimens of Hunter's preserved without name or history; not unobserved, and yet not in any fair sense understood. Now in this, as in many things, Hunter set us a good example. He did not think those things unimportant which he did not understand. He was a thorough naturalist, and kept specimens of everything in his field of study which, though not yet, might become useful.

But, however much of what seems to be new we may justly ascribe to our previous oversight of what was old,

there yet seems to be evidence enough that new diseases are in progress of evolution, and that, as I have said, some of the rare diseases of which I have to speak are the earliest instances of the new. Good evidence of this kind is to be found, I believe, in the peculiar joint-disease discovered by M. Charcot in association with locomotor ataxy, and in the disease of bones to which I have given the name of osteitis deformans. Neither of these, I believe, was described till within the last few years. They may have been overlooked, but to believe this we must believe what is very improbable. We must believe that all the most acute and observant practitioners before our time overlooked, not merely obscure and transient diseases, difficult to study, but cases which lasted many years and gave constant great distress, and were manifested in signs so plain that they could be recognised in the shape and gait, in the posture and whole aspect of the patients, in strangely large heads and curved limbs. And, further, we must believe that the morbid anatomists before ourselves overlooked changes of structure of the largest, most obvious, and most striking kind. It is, surely, very unlikely that they who studied and recorded such cases as those of extreme rickets and mollities ossium, and even called it rachitis adulatorum, should have left unnoticed the cases of these two equally and somewhat similarly disfiguring and damaging diseases. This great improbability is strengthened by that which I believe to be a fact—that we have none but recently collected specimens of either of these diseases in our museums; not even among the crowds of bones and joints collected by our predecessors.

In twenty-six years I have seen twelve well-marked cases of the osteitis deformans, and about as many in which it was only partially evident. In the last six of these years I have seen seven of these cases, and others have been published, and yet I cannot find evidence that the disease was ever seen by any of those who had practice like my own; Brodie and Stanley, who saw as many cases of diseased bones as any surgeons of the last generation, had seen no case but that which I showed them more than twenty-five years ago in the patient from whom these specimens were taken. Moreover, I cannot find an old specimen in our museums, or a representation of one in any book of plates, or a description of one in any catalogue. This might not seem very strange in the case of specimens troublesome or expensive to keep, or in such as are said to "show nothing." But these are very striking deviations from health, very plainly to be seen, and dry bones are neither costly nor troublesome to keep. We have large numbers of them collected by Hunter, Howship, Langstaff, Liston, Cooper, Stanley, and others, who collected not merely illustrations of diseases well known to them, but whatever was curious, whether it were understood or not. They would have looked on these bones as gems.

I might repeat this statement in nearly every particular concerning M. Charcot's disease. I believe there is not an old specimen in our museums. There is not one in the Musée Dupuytren; I cannot find a notice or an illustration of one. And yet this disease is now so far from being very rare that Dr. Buzzard has had nine cases under his eye at one time, and several have in recent years been shown in our societies.

Let me adduce one more instance of what I believe to have been new diseases within this century, though the museum evidence is not so strong as in those of which I have been speaking. Many believe, and, I think, quite rightly, that instances of typical gout, such as gained for it the name "podagra," have lately become comparatively rare, and that a large number of less acute diseases, regarded as forms of incomplete or suppressed gout, are much more frequent. It may be that some or many of these lesser forms were always as common as they are now, but were overlooked or were not distinguished from other similar ailments. But here is a specimen of the effects of phlebitis of the femoral and external iliac veins, which, with its history, may tell that gouty inflammation of the veins was, fifty years ago, if not a new disease, yet a much rarer one than it is now. Sir Henry Hallford saw as much of gout, I suppose, as any man that ever lived; for he was for many years, during a very luxurious period, in the largest practice among the richest people in this town. He gave an account in 1832 of what he called phlegmasi dolens in the male. The disease so-called was common and well-known in women after parturition; so that, to justify his essay as a record of cases hitherto unobserved, it was enough for him to speak of phlegmasi dolens as occurring in men. He speaks of it as having been not long before regarded as "immediately occasioned by a

deposit of milk"; but that "being tested by a more exact pathology," it was now attributed to "an inflammation of the veins of the pelvis." And he says, "he was much mistaken if he had not seen three instances of it" in men "within the last few years." He then relates the case of the nobleman from whom, several years afterwards, this specimen was taken by Sir Astley Cooper—an admirable example of phlebitis, which we may be nearly sure was gouty, showing the changes in the blood-clots and in the walls of the veins during many years.

At the present time, phlebitis of this kind in the male can scarcely be called a very rare disease. There are few, I imagine, in large practice who have not seen many more than three cases within the last few years. So, we may believe, I think, that the disease has become more frequent in the last fifty years; and may suspect that not long before Sir Henry Hallford's time it may have been a really new disease. It is hard to believe that it could have been overlooked. Its characters are strongly marked and evident to both eye and touch; it is a very painful, disabling, long enduring disease, often recurring, sometimes observed in several members of the same family, and commonly leaving the affected limb large, heavy, and clumsy for many years. Could this have been overlooked when similar limbs, in consequence of an allied, though not the same disease, were known and described in women, and while, as it happened, the subject of phlebitis, in its traumatic and pyæmic forms, was being very carefully studied? For there was a form of phlebitis much more common in the last century than in this; the phlebitis that occurred after bleeding. Hunter had studied this very carefully, had written on it, and shown it in these specimens; and after him, both this and the phlebitis after amputation were well known. Especially after the beginning of this century the phlebitis after amputation was thoroughly worked at. It was only three years before the publication of Sir Henry Hallford's essay that Mr. Arnott's renowned paper on inflammation of the veins was published in the *Medico-Chirurgical Transactions*. In the same volume are the chief papers by Dr. Robert Lee on phlegmasi dolens; and he describes cases of phlebitis associated with pelvic cancer; but not one spontaneous phlebitis is mentioned by either of them.

Now, I think that in all these facts there is enough, not, indeed, to prove, but to justify the belief that we have here examples of diseases which have appeared in this country for the first time within the last century, and which have since become sufficiently frequent, and acquired sufficiently constant and distinctive characters to be described in general terms and called by new names. Let me repeat; these are not diseases hard to be discerned. They are so well-marked, so distressing, so long enduring, and both during life and after death so large and distinct in all their characters that it seems impossible that, unless they were very much rarer than they are now, they could have been overlooked.

I think it probable that there are other examples of the like kind; but I do not know them, and would rather go on to the second part of my subject—namely, to show the probability, or, at least, to justify the hypothesis, that these diseases are among the instances of the results of morbid conditions, changing and combining in transmission from parents to offspring.

It should hardly be necessary to argue that changes of type in inherited diseases—changes which may be compared with the variations of species or of varieties in natural history—do take place. Yet I venture to think that many of us are prone to think too little of these variations; to regard them as rather unmeaning exceptions, or as the results of some unusual external conditions diverting diseases from their customary course.

It will be better for us if we study, in pathology as in natural history, varieties as much as species; changes as well as more stable forms. Types of disease there are, standard forms, and the tenacity with which they are maintained—some, even, from pre-historic times—in all the varieties of the conditions of our lives is one of the most remarkable facts in all pathology. But they are not unalterable. Types vary in diseases, as in species; even in the diseases which depend least upon external conditions, and most on the qualities which are transmitted by inheritance.

Let me give some reasons why this must be.

1st. An exact likeness is never transmitted by inheritance; neither an exact likeness of either parent, nor an exact composite of both. This is evident enough in features, size, weight, and all that we can observe in external things.



we could be exactly endoscopic we should observe equal variation within; the same want of exact likeness in liver and lung, and, I venture to say, in blood and lymph and plasma, and whatever goes to make up the whole person, healthy or diseased. The inheritance of likeness in disease, or liability to disease, is, indeed, clear evidence of the transmission of likeness in the very minutest structure and composition. If the likeness is never perfect, it may in different persons vary in this way or that; it may vary towards disease or away again towards the healthy type; but it is never perfect, and in successive generations its degree of unlikeness may increase to a great width of difference.

2nd. The certainty and probable extent of this variation must seem the greater if we consider the mingling of diseases, and of all dispositions and liabilities to diseases in transmission from and through both parents. Consider the difficulty of maintaining the "breed" in any of the varieties of the species domesticated or cultivated by us, in horses or dogs, in pigeons or in seedling plants; the care that both parents should be of the same blood, or the same race, and at their produce should be raised in all due conditions; and then consider how numerous and wide, in spite of all this care, are the deflections from the type. With these facts before us we cannot imagine that diseased conditions should not be transmitted singly and unchanged; it is, surely, not likely that disease should be transmitted with more perfect conformity to type than normal compositions are. Hybrids and mongrels must be even more common among diseases than among species and varieties.

3rd. And, in thinking of the variation of diseases by combining or convergence of inherited qualities, we may not limit our thoughts to a single generation. It is reasonable to believe that instances occur of reversion, in which diseases or tendencies to disease may appear after a lapse of many generations. Such, I expect, are some of the cases in which prosy has been seen, even of late years, in this country in persons never exposed to any of its external causes; and to be like of this we may refer, I think, some of the rare cases which defy all efforts to refer them to any combination of types of disease now prevalent.

Now, I half wish that I could escape from the necessity of stating my doctrine by my facts; but as I have often asked myself, so others may ask, how can the cases of rare diseases which I have been speaking, be explained as the results of morbid conditions changing and combining in transmission from parents to offspring. In the phlebitis we may often trace a variation from the customary type or standard of the very old and heritable disease, gout. In many cases its relations to typical gout are clear. The patients are members of gouty families, and in many of them other signs of gout are evident, either coincidentally with the phlebitis or at other times; it has, in short, all the evidences of being one of the many forms of what is called "incomplete gout." But, for a reason why this variety of gout settles (if I may so speak) in veins, especially in those of the lower extremities, I can only guess at a convergence of inherited dispositions both to a modified form of gout, and to some condition of veins rendering them, among all the structures, the most sensitive to the gouty process. Certainly it is not accident which determines the disease to the veins, for this disease "runs in families." I know of its occurrence in two brothers and three of their cousins; and I have heard Sir Charles Locock tell of four sisters who had phlegmasia dolens and whose father had crural phlebitis.

I am conscious that this is little more than guessing, and for the osteitis I must guess still further; or, rather, let me say that, to the furthest bounds of propriety, I must exercise that use of the imagination which may happily discern a way towards the truth. I imagine, then, that a likeness of the osteitis deformans to several other diseases may indicate a combination, in definite proportions, of transmitted dispositions to those diseases; a combination which has become possible by changes of the type of one or more of them. First, it shows some relationship to mollities ossium and rickets, for, though it is an inflammatory disease, which they are not, yet the softening which permits of the curving of the bones is distinctive, and hardly occurs in any other form of inflammation of bone in middle or later life. And, again, the relation of the osteitis to rickets and mollities ossium is notably indicated in the porous thickening of the skull, which is found in some instances of them all, and which is well marked in our specimens of genuine rickets from erroneous diet in young lions and young monkeys. Further, there appears some relation to gout, for some

of the cases have known inheritance of gout, and instances are sometimes seen, in typically gouty persons, of a single bone having all the characters of the osteitis, though all the other bones appear healthy. Such a one is this femur, for the opportunity of showing which I am indebted to Mr. Bowlby of St. Bartholomew's. There is a likeness, also, it may be said, to the osteo-arthritis and other forms of rheumatic gout in the remarkable maintenance of good general health during even many years of a painful and crippling inflammatory disease; and, further, there appears some relationship to cancer in the singular frequency with which cancer or sarcoma occurs in the healthy bones or other parts of those who have suffered for many previous years with osteitis deformans.

Thus, I imagine, by inherited dispositions, accumulating and combining or converging in definite proportions, this disease may be produced. I would try to imagine the genealogy of M. Charcot's disease, but that I have too little clinical knowledge of it. I can only suggest a combination of osteo-arthritis with syphilis chiefly localised in some spinal nerve centre; but I believe far better suggestions may be made by those who, suspecting a combination of diseases rather than many radiating from one source, will carefully study the essays of Professor Charcot and Dr. Buzzard's admirable clinical lectures on Diseases of the Nervous System. Besides, I may seem to have guessed already more than enough. Let me, therefore, say that even if my guesses are wrong, my error cannot weaken the probability of the belief that these and other rare diseases of like kind are instances of settled varieties of diseases, severally due to variations and convergence of morbid conditions in hereditary transmission. And if this be in any measure true, or even not more than a reasonable hypothesis, then it must be of great importance that we should know much more than we yet do of the variations which, in progress of time, diseases, or certain examples of them, may undergo; of their deviations in a gradually increasing number of instances from typical or standard forms; their acquirement in those instances of other comparatively fixed and long-abiding characters; of the occasional disappearance of old forms of disease, and the evolution of new ones. Such variations in diseases should be studied as Darwin studied the variations of species. Let me be clear in saying, as Darwin studied; for in the pursuit of new knowledge he may be a model to all, as he has been to me so far as I could imitate him. He, as I know, would have studied these things, not by deduction, as from a law exactly formulated and from which he could trace the course of every change, but by a most careful collection of facts, facts to be seen in specimens and read in full records, and stored in museums, and by a study as complete for every case as if no law of evolution had ever been discovered.

Let me add that the study of these variations of diseases is not one of mere pathological curiosities. It may be of great practical utility; let me show how, if only that I may provoke some to pursue it vigorously to whom mere pathology is not attractive. We hear much, and often, of the uncertainty of medicines; of disappointments in the use of this or that supposed remedy; and substances which have long been in good repute for the treatment of this or that disease are spoken of with disrespect. It need not be questioned that in many cases the belief in the utility of a medicine has been maintained by completely erroneous observations. Such was the belief in the utility of infinitesimally small doses of anything ever yet swallowed. And other beliefs less evidently absurd may have been nearly as ill-founded. But there are many of which this is not to be said. It cannot be doubted that bromide of potassium is often very useful in epilepsy; yet sometimes, as we say, it fails; or that guaiacum is useful in some cases of chronic rheumatic arthritis, and is in others very disappointing; or that arsenic sometimes does and sometimes does not do good in cases of lymphadenoma. I suppose there is not a medicine in the pharmacopœia which does not sometimes disappoint him who gives it hopefully; not one which is not, therefore, spoken of with contempt or blame, as if it were a responsible agent convicted of default. But here is an unfair imputation. It is not these medicines which are in fault but ourselves. That which some call the fallacy of therapeutics is generally the fallacy of diagnosis. To state the facts roughly, we suppose cases to be alike which are really different; and, very naturally, the medicine that does good in some of them is useless in others. For example, in the group of cases which I chiefly have in view, we do not

always discern when a disease has varied so far from its usual type that it is no longer amenable to its usual remedies. A better diagnosis must precede a better therapeutics. We need not only the diagnosis between diseases essentially different, but that between the different and varying forms of each of those which we call by a generic name; and beyond this, we need a more exact power of what may be called analytic diagnosis; for there are few simple cases, and in those which are not simple we need to be able to discern all the components, and the proportions in which they are mingled or combined. Better treatment will follow better diagnosis, and better diagnosis will certainly follow a more exact pathology.

Let me illustrate this with an instance which is besides of some interest in the study of the variations of transmissible diseases and of the utility of museums. Questions are often asked as to changes which syphilis may, in course of time, have undergone; and, especially, whether internal organs were always, as they are now, liable to its attacks. It is hard to answer such questions on the evidence of any existing records; indeed, I might cite the whole history of syphilis as an instance of the insufficiency of records for the tracing of the natural history of diseases. But here is something suggesting what museums may do: a portion of muscle preserved by Hunter, and at least a century old, in which are morbid changes which may be safely referred to syphilitic gumma. Probably similar evidence may be found in other museums; and there are other facts significant of the existence long ago of these internal syphilitic diseases, as well as of the improved treatment following better diagnosis. Fifty years ago, at the beginning of my professional studies, it was the custom, as it long had been, to give mercury not only in all recognised syphilitic cases and in most acute inflammations, but in a large number of cases of which one could scarcely say more than that they were all chronic and all obscure. Especially there were many such cases of what were considered chronic inflammation of the eyes, and of the brain and spinal marrow, the liver, and the testicle. To all of these cases it was customary to give mercury till, as one said, "the mouth was touched," and thus some were cured, and some uncured, and some harmed. The cures were enough to keep the mercury in such good repute that it was given more and more generally; and then the disappointments, as they were called, became too many, and the mercury was blamed, and was almost disused for chronic inflammations. But, meantime, a more exact pathology, a pathology more exact both in its morbid anatomy and in its clinical studies, was discovering the previously unsuspected syphilitic diseases of internal organs; and with this better pathology there came a better diagnosis, and with the better diagnosis a more judicious use of mercury, and good reason to believe that the chronic and obscure cases which mercury used to cure were those of syphilis overlooked. The case is an exemplary one of the relations between the true pathology and the right treatment of diseases, exemplary not only for encouragement, but for method of study; for the study was both clinical and anatomical, in the living and in the dead, with records and with specimens. Such must be our study of all the cases which I have chosen to speak of—the cases in which diseases deviate from their usual type, or combine in various proportions, after the manner of hybrids and mongrels or new chemical compounds. But there are some rules in study which are especially applicable to these cases.

1. We should very carefully study all cases which are not according to an admitted type. We should study all exceptions to rules; never thinking of them as unmeaning or accidental. Especially, we should never use, in its popular, but wrong translation, the expression "exceptio probat regulam"; as if an exception to a rule could be evidence that the rule is right. If we use it, let this be in its real meaning; translating it, as surgeons should, that an exception proves a rule, tests it, searches it—as the Bible says we should "prove all things"—to its very boundary. In this true meaning the words may be an excellent motto for the study of all diseases that deviate from types.

2. We should look out for indications of the existence in the same person of two or more morbid conditions or dispositions such as may be derived from both parents or from several ancestors. For, as in plants and animals there are hybrids and mongrels, or, as in chemistry, many compounds and mixtures, so are there in diseases. We see them in the multifarious varieties of what we have to call rheumatic gout; in gout crossed with scrofula, and syphilis crossed or

mingled with scrofula or with gout. It is often not easy to discern some of these combinations among our cases, to know few things in practice more useful than to be able even in some instances, to adjust our treatment to the proportion of each disease in the compound. But we may be sure that there is much more to be learned in this direction, and it is best to believe that we rarely have to do with a simple and unmixed morbid constitution. There are worse habits in practice than that of commonly saying our case "It is all gout," and of another it is all scrofula, or all syphilis. We might as well say of any Englishman he is all Norman, or all Anglo-Saxon, or all Celt. We are indeed, sometimes see persons who appear to be as types, races unchanged in many centuries, but in practice we have a better study every man as, for better or worse, a compound of many ancestors.

3. We should have for all these cases a much more complete and exact study of all the personal causes of disease than is now usual. Of course this should include all that can be learned of each patient's history; though there are few parts of medical history more fallacious than this often is; and at the best will need, besides, the exactest study of the patient himself. Perhaps the brilliant success which has been achieved by the recent studies of disease-producing organisms or other materials acting on us from without, success not equalled in any other field of medical investigation, has made some think too little of those changes within ourselves which occur in such ordinary conditions of life that they may be called spontaneous. Yet these are the most important in the production of diseases, and therefore the most to be studied; just as in agriculture soils must be studied in their seeds. This is true even in respect of those diseases whose essential causes are most evidently external, even of those which are due to specific contagia; their germs or seeds may so speak, will not germinate in an unfit soil. Now there is not a day in which most of us do not inhale or come in contact with the germs of some frequent or common disease; but they do not germinate in us any more than the seeds of tropical flowers in our streets or in the soil in which the wind scatters them; we do not offer the right soil. And even among those in whom they do germinate the product varies according to the soil. And the soil of this soil, this living soil, is yet more necessary to be studied: diseases which come, in part or wholly, by inheritance, or it is in each as personal and distinct as any other disease of personal character, and the study of it must be minutely personal, with an exact analysis of every condition leading to disease. The aim of pathologists in this direction should be for knowledge like that of the keen family physician who, as he says, knows the constitution of every member of a family.

All this is equivalent to saying that these various diseases must be studied both in practice and in exact pathology. It is hopeless that either a practitioner or a student thinks lightly of pathology, or a pathologist who thinks lightly of observant practice, should do more in these questions than attain to that measure of partial knowledge which is often as deceptive as error. Each must be studied by the other. The living and the dead must be studied equally studied; and the dead must be studied by the observations, with accurate records, and especially in the museums.

I need not dwell on the value of good records, of descriptions, and good photographs, or other representations of diseases; but they never have been and probably never will be, enough. We need, with them, museums in which changes of structure may be preserved for repeated revising study and comparison. For instance, in the group of diseases of which I have been speaking, we ought to have in our museums specimens in which we study all the gradations of change of structure from the type, all the changes due to mingling of forms, all the changes of diseases, all hybrid forms. We need to be able to study all these things, as the naturalist or the comparative anatomist needs his specimens; not only for teaching, which is already known, but for continued re-examination and addition to his own knowledge.

And for complete study we must have large museums showing the coarse naked-eye characters of the gross structures. I am sure no one will think me likely to depreciate the microscope; it has added, and will continue to add, more than can be told to our knowledge; but it is not diminished the value of other evidence; and is

gical anatomy, as in all our sciences, there are many instances in which the naked eye sees facts with more accuracy than the microscopic one can.

This is, especially, true in the case of morbid structures resulting from nearly allied diseases, and, therefore, especially true for those of which I wish to urge the study. Morbid structures as in species the nearer the alliance the less are the differences to be found in minute structures, and the more must we depend for distinctions on the study of visible shapes, and sizes, and constructions. I suppose that we could not with the microscope distinguish the human skeleton from that of the monkey; certainly, we could not distinguish one skull from another in all those varieties of cranial form which are collected in our museum. And it is in many instances of morbid bone formation. I doubt whether microscopic examination could detect characteristic differences in each of this group of specimens. With the naked eye it is sure that this is a syphilitic node on a tibia, and this a growth beneath a chronic ulcer over the shin, and this a pedicled exostosis, or ossified cartilaginous outgrowth from the shaft of a long bone, and this an instance of osteo-arthritis, and this a portion of the skeleton of an osteo-sarcoma or osteoid cancer.

Moreover, it is to be observed that in morbid structures, as in those that are natural, in the same proportion as the aggregated elements of embryonic structures acquire their complete and final form, so do the bodies composed of them acquire distinctive shapes and methods of construction plain to the unaided senses. The ova of many species may seem alike both in outer shape and in their component elemental structures. But in proportion as these structures are differentiated, and developed into their higher and biding forms, as into nerve fibre, and muscular fibre, and so rest, so the larger characters of even the nearly allied species—the characters of shape, and size, and appropriate construction of the whole body, and of each part of it—become more and more different; and these constitute the real distinctive characters of each species.

And so it is in morbid products. The acquirement of distinctive shapes and methods of construction coincides with the development of elemental forms. For example, in these sarcomata are only the lowest elemental structures, round cells, spindle cells, and shapeless plasma; and the masses thus combined are shapeless, featureless, decisive by negation. But in these fatty and fibrous and cartilaginous and bony tumours, in which the elemental structures have advanced to higher forms, the masses which they everally compose are almost as characteristic and distinct in visible shape and construction as are the several normal organs of the body.

In every case, then, both the largest and the smallest characters should be studied. The naked eye can discern one set of facts, the aided eye another; both are essential to complete knowledge; no one should be content with either, or neither is alone sufficient. So we must have large specimens as well as small ones, and certainly large ones for the study of the gradual variations of diseases as they deviate from typical forms, and become variously mingled.

And now, as I come near to my term of time, let me, as is customary in certain other places, conclude with an earnest appeal to your liberality. We want liberal contributions, not of money, but of specimens to our museum. We want specimens of many kinds; of course we want whatever is rare, but not these alone; we want some to complete our series of typical specimens; and, to keep to the chief subject of my lecture, we want the opportunity of choosing among many of what are called "bad specimens." We are all too ready to collect what are called good specimens as being well-marked instances of the standard characters of diseases, and to put aside as "bad" those which deviate from those characters, just as, clinically, we speak of good and bad cases of a disease. Of course, good specimens, typical specimens, must be at hand for the teaching of pupils who have to study illustrations of the accepted descriptions of diseases; but it is among bad specimens, even as it may be among exceptional cases, that those who are past pupillage, though they have not ceased to be students, may study the variations of disease. I ask the more boldly for contributions to the pathological collection because of its present satisfactory condition and the activity of work in it. You will soon see it in the repaired and renovated building. Looking at the number and value of the specimens and the wide range of pathology which they illustrate; looking at

the interest of the history of our science which is told in many of them; at the memorials of Hunter and Matthew Baillie, of Astley Cooper, Liston, Howship, Lawrence, Hammick, Fergusson, Hilton and many more; looking forward to what the museum will tell of the researches and skill of those who are still with us, and among whose names I venture to feel sure, Mr. President, that none will take precedence of your own, while men study the specimens with which your skill and just audacity in operating have enriched the series of diseases of the ovaries and uterus: looking at all these things, and then at the perfect order and condition in which the specimens are preserved, I feel that the collection is one which all we members of the College may feel personal pride in calling our own, and should feel a personal duty to enrich. And its utility is being constantly more appreciated. I have been often made happy by the contrast which I have seen while working at the new edition of the catalogue. While I was writing the last edition, between thirty and forty years ago, scarcely a student ever entered the museum. Hour after hour I sat alone; I seemed to be working for no one but myself, or for nothing but the general propriety that a museum ought to have a catalogue, though no one might ever care to study with it. Now, and for some years past, a day rarely passes without many pupils and others being at work in every part of the museum.

All this is good; but much more is to be done. Our museum should be, even more than it is, the centre in which all pathologists may find help in searches after that which is not yet known; in such searches, for example, as may lead to a complete knowledge of the variations of diseases. For many years, even from the beginning, the anatomical and physiological departments of our museum have been not only a noble collection of specimens, but, through the renown and learning of its conservators, a great centre of teaching. Scientific men, especially comparative anatomists and anthropologists, have known that here, if anywhere, they could find whatever help a museum and a master in those sciences could give. A fortnight ago the President of the Royal Society, presenting one of the royal medals to Prof. Flower, said: "Professor Flower has been for more than twenty years conservator of the museum of the Royal College of Surgeons; and it is very largely due to his incessant and well-directed labours that the museum at present contains the most complete, the best ordered, and the most accessible collection of materials for the study of vertebrate structures extant."

It is not for me to praise the pathological collection with similar words. But great as may have been its utility hitherto, we may be confident that it will henceforth be more useful than ever. In the vast increase of the biological sciences it became impossible that one man should be nearly complete in the knowledge of both natural and pathological anatomy. I say impossible. I believe there is not such a one living; if there could have been one it might have been Mr. Flower. Now, we may hope that labours as "incessant and well-directed" as his will be devoted especially to the pathological collection.

It is known to many of you that Sir Erasmus Wilson, in his usual liberality, gave the College £5000, of which the interest should be spent in the promotion of pathology; and he agreed that this would best be done by helping to the appointment of a curator of the pathological department of the museum; and we have an admirable one. Mr. Eve is a worthy colleague and helper of Mr. Flower, excellent like him not only in knowledge, but in that which is even more rare, the love of museums, and of all that belongs to their maintenance and illustration, even to the making of catalogues. In all these good qualities he has distinguished himself at St. Bartholomew's. I believe that we may rely on him for making so good use of the museum, and of all that can be brought to it, that the College shall be the chief centre for the study of pathology, even to the furthest point at which it can be studied in specimens of diseased structure. I beg your help that he may be so; and if I shall have helped to-day to this good result, the first Bradshawe lecture in our College will have well fulfilled the purpose of its founder.

A FIRE, fortunately unattended with loss of life, broke out a few days ago in the Rochefort Hospital, France. A portion of the left wing and much valuable property were destroyed.

# Lectures

ON

## P H T H I S I S.

Delivered at Charing Cross Hospital,

By T. HENRY GREEN, M.D., F.R.C.P.,

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### LECTURE III.

*Question of distinct varieties of Phthisis. — Clinical varieties due to differences in the pathological tendencies of the pulmonary consolidation. — Consideration of the lung lesion, and of the symptoms which accompany it. — The characters of the pulmonary consolidation; the extent and distribution of the consolidation; the quiescent or progressive nature of the consolidation; the predominating characters of the consolidation, and the physical signs which accompany them. — Secondary changes. — Resolution. — How far is the complete cure of phthisis possible? — Difference between resolution and arrest of disease. — Those cases in which resolution can take place. — Softening and excavation. — Fibroid overgrowth and bronchial dilatation.*

GENTLEMEN,—In our consideration of the diagnosis of Phthisis, we have thus far been concerned only with the simple recognition of the existence of this disease. This, as we have seen, is for the most part easy, and only in exceptional cases presents real difficulty. The simple recognition of phthisis, however, is but a preliminary and comparatively small part of our inquiry. In a disease which presents such manifold clinical features—some cases terminating fatally in a few weeks, whilst others, which perhaps at the first appear much more grave, last for years, the patient enjoying comparative health—some attempt must be made at the onset to form an opinion as to its probable course. Here we are met by the question:—"Are there distinct varieties of phthisis which we can so clinically distinguish as to be able to say in any given case that the disease will be accompanied by certain symptoms, exhibit certain pathological tendencies, and run a certain course? To this, I think, we must answer, No; the answer which our previous consideration of the pathology of the disease will have led you to anticipate. Our opinion as to the probable course of phthisis must be based upon a careful consideration of each individual case; and we are not likely, I believe, to be aided in our prognosis by attempts to make artificial divisions of the disease.

The clinical varieties of phthisis depend for the most part upon the pathological tendencies of the pulmonary consolidation, and having ascertained the existence of the disease, we must endeavour to form an opinion as to what these tendencies are. In order to do this, we consider both the lung lesion and the symptoms which accompany it.

#### THE LUNG LESION.

A careful consideration of the pulmonary lesion as it is revealed to us by a physical examination of the chest will naturally be made in all cases. We must take into account here:—(1) The characters of the consolidation; (2) the extent and distribution of the consolidation; and (3) the quiescent or progressive nature of the consolidation.

I. *The Characters of the Pulmonary Consolidation.*—The characters of the pulmonary consolidation must be considered with reference to the kind of change which predominates, and to the secondary alterations—resolution, softening, and fibroid induration, which the consolidation undergoes. Here I must ask you to bear in mind some of the histological facts which engaged our attention in a preceding lecture. Remember, firstly, that phthisical consolidation of the lung consists of three kinds of change, which tend to be associated, although in very different degrees; secondly, that which of these changes predominates and the secondary alterations which the consolidation undergoes, depend mainly upon the intensity and duration of the phthisical process; and, thirdly, that there is no necessary

relation between intensity and tendency to spread, some of the most intense processes being often the most localised, and *vice versa*.

The kind of change which predominates can usually be only approximately determined, inasmuch as intra- and extra-alveolar changes are, as we have already stated, so constantly associated. At the same time the consolidation is in many cases so markedly either intra- or extra-alveolar, that we are able to speak with tolerable certainty on this head; and as the outcome of the disease in the two cases is often very different, this differential diagnosis is important.

Our opinion as to the predominating characters of the pulmonary consolidation will be based upon the abnormal physical signs, and inasmuch as these characters are so largely influenced by the intensity and persistence of the phthisical process, these signs will at the same time be valuable indications of the mode of onset and duration of the disease. The diagnostic value of physical signs in this twofold direction I have endeavoured to tabulate for your guidance. Understand, however, that owing to the association of the several changes, the following statements must be accepted as only approximately true.

#### A. CONSOLIDATION INTRA-ALVEOLAR.

##### Physical Signs.

1. Dulness without retraction, the dulness varying according to the extent and situation of the consolidation.
2. Respiration impaired, deficient, slightly harsh or bronchial in character, according to the degree of the consolidation.
3. Dry or moist small crepitant râles, heard especially at the end of deep inspiration, and often only after cough.

##### Clinical History.

As contrasted with *B* and *C*, onset of disease often less insidious, and lung symptoms more pronounced. Physical signs of intra-alveolar consolidation without those of the retraction met with in *B* and *C* always indicate that the disease is in an early stage.

#### B. CONSOLIDATION INVOLVING MAINLY ALVEOLAR WALLS.

##### Physical Signs.

1. Dulness usually less pronounced than in *A*. Often slight retraction in the earliest stages, most commonly indicated by some diminution in the area of supra-clavicular resonance.
2. Respiration slightly deficient, but less so than in *A*; harsh and slightly bronchial in character.
3. Dry and moist small crepitant râles often entirely absent; and if present, obscure, scanty, and only occasionally audible.

##### Clinical History.

As contrasted with *A* the onset of the disease is usually more gradual, and the lung symptoms less pronounced. There is often more marked failure of the general health. The progressive tendency of the consolidation is greater, and the prognosis generally less favourable.

#### C. CONSOLIDATION CONSISTING LARGELY OF INTER-LOBULAR CONNECTIVE TISSUE.

##### Physical Signs.

1. Dulness with marked retraction. Percussion note often tubular in quality. Retraction frequently sufficient to cause encroachment of opposite lung across the middle line anteriorly, displacement of heart, &c. (These signs present without the existence of excavation.)
2. Respiration markedly bronchial, or even cavernous.
3. Dry and moist crepitant râles absent, unless, as is often the case, associated with alveolar changes.

##### Clinical History.

Fibroid overgrowth is in the great majority of cases secondary to *A* and *B*, and its existence indicates that the disease is in a more or less advanced stage.

The secondary changes which take place in the pulmonary consolidation—resolution, softening with excavation, and fibroid overgrowth—are obviously of the greatest importance as influencing the clinical history of the disease. In most cases of phthisis all these three changes take place, although in very different degrees; some portions of the consolidation undergoing complete resolution, whilst in others the lung

ed, and in others again the softening process by a fibroid growth. These several changes or separately, and the physical signs which we may again indicate in a tabular form.

**Resolution.**—Here we are met by the question:—How far resolution of the pulmonary consolidation, in complete cure of phthisis, possible? That in the consolidation undergoes resolution doubt; but unfortunately the resolution is so much residual lesion is left, that the disease is not materially influenced by it. At the same time, the most of those who have had much experience of phthisis will, I believe, admit that cases are occasionally met with in which resolution is practically complete, the lung being left almost as little damaged as after an attack of acute pneumonia. Understand that we are speaking now of resolution of the consolidation, and not of arrest of the phthisical process. These two modes of favourable termination it is important to distinguish.

**Arrest of the phthisical process with residual lesions is sufficiently common;** but such residual lesions, consisting usually of some fibrosis with slight bronchial dilatation or encapsuled caseous products, although they may remain permanently quiescent, constitute elements of danger which do not obtain where the resolution is more complete. In considering the question of resolution, the predominating characters of the pulmonary consolidation become of the utmost importance, inasmuch as of the threefold lesion of phthisis it is the intra-alveolar products which are alone capable of absorption, and it is therefore those cases of phthisis only in which the consolidation is mainly intra-alveolar that resolution is possible. Intra-alveolar changes are, as we have seen, often most prominent in those cases of phthisis the onset of which is the least insidious, those cases in which the consolidation is the most rapidly induced, and the lung symptoms are the most pronounced; and it is just these cases which often have the most favourable termination, the consolidation disappearing with little or no residual lesion. Such cases, however, bear in mind, can only terminate in resolution, provided (1) the intensity of the phthisical process is not too great, and (2) the duration of the process is not too long. Any marked intensity or prolongation of the process must invariably lead, as our previous considerations will have led you to understand, to more or less cellular infiltration of the alveolar walls, and consequent destruction of lung tissue. In speaking of resolution, you will remember that though in some few cases the lung appears to be completely restored, much more commonly resolution is so far incomplete that some slight shrinking and alveolar thickening are left.

The physical signs met with in those cases in which the consolidation is invariably intra-alveolar we have already indicated. It remains to consider here those signs which in a case of intra-alveolar consolidation accompany the process of resolution. These signs may be thus tabulated:—

#### INTRA-ALVEOLAR CONSOLIDATION—RESOLUTION.

1. Gradual disappearance of dry and moist small crepitant râles. Diminution in the percussion dulness, and in the deficiency of the respiration.

2. In some cases the above-named signs of improvement are soon followed by the disappearance of all abnormal physical signs; but more commonly, owing to slight shrinking and induration of the lung, there remains slight diminution in the area of supra-clavicular resonance, with perhaps slight deficiency and harshness of inspiration. These signs may also ultimately disappear owing to the development of some compensatory emphysema.

**Softening and Excavation.**—This is the most characteristic secondary change of phthisis, constituting the so-called second and third stages of the disease. It is hardly necessary for me here to remind you that these stages of phthisis have reference only to the condition of the pulmonary consolidation, and have little if any prognostic import, the life of a patient in the third being often infinitely more valuable than that of one in the first stage of the disease. The process of softening is most marked in those cases in which the lesion is mainly intra-alveolar, those cases in which, as we have seen, the consolidation is often the most rapidly induced. The physical sign which is the most characteristic of this process is that liquid, high-pitched, crepitant râle known as moist crackling. Where the consolidation is more slowly developed, and the changes are rather extra- than intra-alveolar, the process of softening is

more gradual and consists in a slow molecular disintegration. In such cases moist crackling may be absent, and there may be nothing to indicate the destructive process until signs of excavation declare themselves. It is during this period that elastic tissue may be discovered in the sputa, and its presence is valuable corroborative evidence of the destruction of the lung. The outcome of the softening process is cavity formation. This is effected by a communication being established between the softened portions and a bronchus through which some of the softened matters are expelled. In most cases the softening commences at several separate centres, which increase and gradually coalesce. The physical signs of excavation now become apparent, provided the cavity be of sufficient dimensions. It is probable that a cavity must be at least half an inch in diameter to give diagnostic physical signs. These signs will vary considerably according to the size and situation of the cavity, the amount of secretion it contains, and the size of the bronchus with which it communicates. They comprise gurgling râle, cavernous respiration, pectoriloquy, &c. A cavity once formed may continue to extend, or the destructive process may become arrested. In the latter case the cavity may gradually dry up and contract, or it may continue to secrete purulent liquid. It may also become the seat of secondary ulceration. These several changes give to the disease important clinical features which must engage our attention on a future occasion.

**Fibroid Overgrowth.**—This we have already described as invariably present in all cases of phthisis the duration of which is sufficiently prolonged, and in these it may constitute the predominating constituent of the pulmonary consolidation. As it appears, however, to be always preceded by other inflammatory lesions, we must allude to it here amongst the secondary changes. The physical signs which accompany it we have just considered. They are in the main those indicating consolidation with diminution in the size of the lung, and more or less bronchial dilatation. This dilatation of the bronchi, a most important result of pulmonary fibrosis, has not yet engaged our attention. It occurs to a greater or less extent in all fibroid lungs, and from the great liability of the dilated bronchi to catarrhal processes, and the difficulty of expelling the secretion from the enlarged and rigid tubes, its existence gives marked features to the disease. The importance of fibrosis in encapsulating and limiting the more localised phthisical lesions we shall have to consider when speaking of the quiescent and progressive character of the consolidation.

#### THREE CASES OF DEPRESSED FRACTURE OF THE SKULL, IN WHICH THE TREPHINE WAS SUCCESSFULLY APPLIED.

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**CASE 1. Depressed Fracture of the Skull; Slight Compression of the Brain; Localised Inflammation of the Brain and its Membranes; Progressive Paralysis of the Face; Application of the Trephine; Recovery.**—Appa Nartha, a Syce, aged thirty, a Hindoo of the Maratha caste, was admitted into the clinical surgical wards of the Jajmsetjee Jejeebhoy Hospital on December 15th, 1880, suffering from a fracture of the skull. It appears that the horse Appa was leading suddenly reared and struck him on the forehead with its hoof. The patient fell to the ground insensible, and remained in that condition for a short time. Considerable hæmorrhage is said to have taken place. After a while, when he had recovered consciousness, he was unable to walk, even when assisted; he felt confused, his sight was dim, he did not recognise his friends for a time, and he had entirely forgotten how the accident occurred.

On admission, two hours after the accident, his condition was as follows. The face was pale and anxious; the pupils slightly dilated; the skin was hot and dry; the pulse slow (60), regular; he was conscious, and answered questions rationally; he complained only of feeling giddy and great weakness. On the forehead there was a contused wound, beginning just above the left frontal eminence, and running obliquely downwards



towards the right side. The bone was exposed and fractured; a depressed fragment being distinctly felt with the probe; the parts around were swollen and painful; the right upper eyelid was ecchymosed. He progressed favourably for the following six days, but on the morning of the seventh day (Dec. 22nd) he complained for the first time of pain in the head. His sleep during the preceding night had been disturbed. There was some dyspnoea present, with increased frequency of respiration, and at the base of the right lung some dullness on percussion and increased vocal resonance were detected. Temperature 100°; pulse 60. The wound was dry-looking and of a dusky colour. The following day he was better. The dullness at the base of the right lung had given way to treatment.—Dec. 26th: The pain in the head has been increasing gradually, and is now very severe; for the first time this morning some ptosis of the left eyelid is noticed. The breathing is shallow and hurried, although no physical sign of disease of the lung can be detected. Temperature normal; pulse 60, equal, somewhat compressible. On Dec. 27th the attendant reported that the patient had passed a very bad night. The left angle of the mouth was depressed, and there was marked flattening of the whole of left side of the face. The wound on the forehead looked unhealthy, discharging sanious pus. Temperature normal; pulse 60. The progress of the case being decidedly unfavourable and localised, inflammation having been diagnosed, I decided on applying the trephine and removing the depressed fragments. The patient being placed under chloroform, a crucial incision was made, and the flaps, which included the pericranium, were dissected back. A depressed fracture was then found situated at the line of union of the frontal bones, but involving more the right bone. The fracture measured half an inch in breadth and one inch in length. All bleeding having ceased, and the parts having been thoroughly cleaned, a small trephine was applied, resting partly on the healthy and partly on the fractured bone. A portion of the bone having been thus removed, the depressed fracture was found to consist of several fragments which were easily removed, but around the fracture several detached fragments were also found, these latter belonging to the inner table of the bone, and some of them had penetrated through the dura mater into the brain. All of these were removed. A careful examination was then made to ascertain that no pieces had been left, when a little above the upper angle of the fracture a large fragment about half an inch in length was detected penetrating into the longitudinal sinus. It was very carefully removed; nevertheless a terrible gush of blood followed. I at once introduced my index finger into the wound and placed it on the spot whence the blood was flowing, and did not remove it until the hæmorrhage had entirely ceased. The parts were then cleaned and the flaps brought together by sutures, a fine drainage-tube having been previously introduced. The wound was dressed antiseptically. On the following morning (Dec. 28th) a great improvement was found to have taken place in the case. The temperature was normal; the pulse 72, of fair volume and regular; the respiration regular, 22; the ptosis of the left eye was much less marked, and the paralysis of the face had disappeared. He appeared cheerful, and answered questions rationally; he had quite lost the pain in his head.

For a while he progressed very favourably, but on Jan. 9th, 1881, he complained of difficulty in swallowing; there was some rigidity in the muscles of the jaw and neck; he vomited several times during the day; his tongue was foul at the base and red at the tip; his look vacant and stupid, and he did not answer questions readily; there was some return of ptosis of the left eyelid. He complained of no pain, and the wound looked healthy. On the 11th his condition was somewhat worse, and during the night he had an epileptiform convulsion. On the 12th he appeared somewhat better at the morning visit, but in the afternoon his condition became very critical; he was comatose; breathing hurried; pulse thready, 118; temperature 102.4°. During the following day (January 13th) he seemed several times on the point of death. Incontinence of fæces and of urine; in deep coma, from which he could hardly be roused; the pulse at times imperceptible. On the 14th some slight improvement, but still very bad. On the 15th the improvement was more marked; he was again conscious; pupils still dilated, but less so; he could open his mouth better. Vomiting, which had been more or less persistent since the 9th inst., now ceased. Pulse 108, more full and regular; temperature 98.8°. The wound on the forehead, which had

nearly healed, was found to be raised and pulsating, and the dressing was covered with a considerable amount of healthy pus. On the 20th he had made great progress towards recovery; the ptosis of the left eyelid had again disappeared. Temperature normal; pulse 86. He was quite conscious; answered questions rationally, slept at night, and asked for more food. Day by day he gradually improved, gained strength and flesh. His nights were good, and he seemed to enjoy his food; he was in good spirits and cheerful. A small pulsating tumour that had formed at the seat of the injury gradually increased in size, distending and partially separating the recently united skin flaps.

On the 1st of March the hernia cerebri was smaller, the granulation on its surface had healed, but it was still the seat of marked pulsations. He was soon able to take exercise about the wards and verandahs. By the 20th of March the wound on the forehead had partially cicatrised, and pulsations were no longer visible. He was discharged perfectly well on the 1st of April.

Some weeks ago I made inquiries regarding him, as I wanted to see him. His brother called at the hospital and told me that our patient had gone to his village on leaving the hospital, where he was still residing in the enjoyment of good health. He complains only of not being able to carry burdens on his head as he had formerly been able to do.

**CASE 2. Depressed Fracture of the Skull; Compression of the Brain on its Convex Surface; Partial Paralysis and Contractions; Application of the Trephine; Recovery.**—Pourbai Souther, a Mussulman woman of the Khoja caste, aged twenty-three, was admitted into the clinical and surgical wards of the Jamsetjee Jejeebhoy Hospital on Dec. 15th, 1881, suffering from a depressed fracture of the skull, caused by a box falling on her head from the third storey of a house as she was walking in the street. She was taken to the hospital immediately after the accident. On admission her condition was the following:—There was a lacerated wound, some two inches in length, situated on the right parietal bone, near its centre, and extending backwards towards the occipital bone. The bone was fractured in the same direction as the external wound. The pupils were dilated, the left more than the right. Pulse 102; respiration 24; temperature 98°. There was no loss of consciousness, and no paralysis; but she was somewhat hysterical, and still under the influence of shock.

On the following day there was slight reaction. The temperature rose to 101.4°, and the pulse to 110. She was somewhat restless and delirious. There was retention of urine and constipation. On the 18th her condition was much the same, but some paralysis of the left lower extremity was noticed. On the 20th she experienced a rather severe epileptiform convulsion. On the 21st she was somewhat delirious, and during the night had another severe epileptiform fit. When conscious she complained of a severe pain in the head. There was increased paralysis of the left lower extremity, and some loss of power in the left arm. On Jan. 11th her condition was still worse, the loss of power in the lower extremity was more marked, and for the first time attended by muscular contraction. The arm was quite powerless. During the night she was very excited, but at the morning visit she was drowsy and listless.

In presence of the progressive and increasing paralysis of the left arm and leg, to which contraction was now superadded, the application of a trephine to the fractured bone was decided upon, and the patient being placed under the influence of chloroform, a crucial incision was made over the scalp wound. The flaps having been dissected, a small trephine was applied partly on the healthy and partly on the fractured bone, and on removing the circle of trephined bone a large fragment was found to have been pushed and firmly wedged beneath the sound parietal bone. This piece was removed by forceps. The dura mater at the spot appeared rough and congested, but it was not lacerated. The wound was united by suture, a fine drainage-tube being introduced. The wound was dressed antiseptically.

Jan. 12th.—The patient passed a good night. Moderate reaction present; pulse 104, temperature 101°. All symptoms of paralysis have entirely disappeared; she is able to empty her bladder without assistance. During the next forty-eight hours moderate reaction persisted, and she suffered also from chloroform vomiting; otherwise progress was most favourable. On the 18th the report of the case is the following: Temperature normal, pulse 76, of good volume; bowels regular, sleeps well, and asks for food. She can move her arm and leg freely. The wound looks very

hy, and is uniting. The further progress of the case steady and good. She gradually regained her strength, she was soon able to walk about the wards and in the pens. When she left, on Feb. 2nd, the wound on the head was firmly united, and she was altogether in perfect health.

**CASE 3. Depressed Fracture of the Skull; Concussion of the Brain; Contusion and Laceration of the Meninges; Meningitis; Application of the Trephine; Recovery.**—**ETABA**, a Hindoo girl aged twelve, was admitted to the clinical surgical wards of the Jamsetjee Jejeebhoy Hospital on March 31st, 1882, suffering from fracture of the skull and other contused wounds, the result of a fall. Of somewhat weak intellect, and subject to epileptic fits, she was standing on the summit of a steep hillock (Belvidere, Mazagon) when she fell to the ground, seized with an epileptic fit. Under the influence of the fit she rolled along steep and rough incline of the hillock, some sixty feet. She was picked up insensible and at once carried to the hospital. On admission her condition was as follows:—There was a lacerated wound situated above the left eyebrow, and which extends directly upwards and backwards for about one and a half; the bone is exposed, fractured, and depressed at the centre of the fracture. Some deep lacerated contused wounds are found in the following positions:—over the left malar bone, one some three inches in length over the left side of the thorax, another over the hip-joint, and many smaller abrasions and contusions seen on different parts of the body. Both ankles are much swollen and tense. She is still unconscious; pulse small; respiration shallow, 80. She now and then starts and moans, and frequently carries her hand to the head on her head.—April 1st: She is drowsy, but can be roused somewhat. She is unable to answer questions put to her. Bladder distended; ten ounces of urine withdrawn by catheter; specific gravity 1016. Towards evening the temperature, which had been normal until then, began to rise and acute delirium set in. Pulse 114; respiration 32.

April 2nd.—She passed a very bad night; great restlessness and delirium. This morning temperature 104°; pulse 114; respiration 32. All day she remained in the same condition, the pulse losing strength and becoming very rapid. The prognosis being very unfavourable, an attempt to relieve her condition by applying the trephine was decided upon, and at 6 P.M. she was placed under the influence of chloroform. A crucial incision having been made at the seat of the fracture and the flaps dissected back, a small trephine was applied over the centre of the fracture. This having been removed, a few loose small fragments were found lying on the dura mater. One sharp-pointed fragment had lacerated the membranes and wounded the brain. From around and beneath the fracture some clots of blood were removed. The dura mater at the seat of the injury was much injected and of a violet colour. A slight oozing allowed the removal of the penetrating fragment. The flaps were brought together by wire sutures, a small drainage-tube being introduced. The wound was dressed antiseptically.—April 3rd: Still delirious, but less violent than the day before; urine withdrawn by catheter. Temperature 102°; pulse 104. She became more excited towards evening, and the temperature rose slightly.—4th: Passed a pretty fair night, neither noisy nor restless; she is still unconscious; passes urine in bed. The right ankle is much swollen and painful. Temperature 103°; pulse 100; respiration 24. Towards evening the temperature fell to 100°. The following days she remained in about the same condition, at times quiet, at times noisy and violent. She took nourishment badly. An abscess formed near the right ankle-joint, and after it had been opened (April 9th) the temperature fell to normal.—17th: Passed a fair night; answers questions when pressed to do so; generally lies quiet or moans; no longer passes water in bed, but calls for the nurse; takes nourishment fairly well; the wound on the head discharges slightly. Temperature 99°. For a while she again became somewhat violent and restless at night; several abscesses formed at the seat of the contusions, and much of the uneasiness she experienced about that time was doubtless due to these inflammatory abscesses. In the beginning of May the improvement in her condition was more marked; she understood what was said to her, but was unwilling to answer, and when she did so it was in a cross, angry tone, as if annoyed at being disturbed; she now slept well at night, her bowels were regular, she took her food better, her temperature was generally

normal; the pulse averaged about 80, and was weak and compressible; the wound on the forehead was nearly healed, a few drops of sero-purulent discharge alone soiling the dressing; all the other abscesses were completely healed.

May 14th.—She is in a fair way towards recovery; is able to sit up in bed, takes her food well, is gaining a little strength; she is sulky and cross generally, and is still unwilling to speak when questioned. According to her parents she is intellectually very much the same as she was previous to the accident. Discharged at her parents' request.

The first case is one of a depressed fracture of the frontal bone, attended by slight concussion of the brain. On the seventh day after the injury the individual, who until then was doing well, was suddenly seized with progressive facial paralysis, dyspnoea, &c. These symptoms (taking into consideration the date of their appearance) indicated localised inflammation of the brain due to the presence of depressed and penetrating fragments of bone acting as a foreign body. That this was the case was amply proved by the result of the operation. The relapse which followed a few days afterwards was due to the contused brain undergoing suppuration, and owing to a free exit having been made by the trephine, the abscess was evacuated externally, and rapid recovery ensued.

In the second case we have to deal with a well-marked instance of functional disturbance of the brain. There was compression of the brain on its convex surface (a piece of bone being firmly wedged in), but unaccompanied by symptoms of compression. The paralysis and contraction which afterwards developed were due to disturbed cerebral circulation, and to localised congestion, rather than to inflammation. This is implied by the rapid improvement that followed the operation.

In the third case there was severe concussion of the brain, with laceration and contusion of the meninges. The very rapid and unfavourable progress of the case made the prognosis a most serious one. Nevertheless, after the penetrating fragments had been removed the further progress of the cerebral inflammation was considerably lessened.

Apart from their diagnostic value, I think that these cases will assist in rehabilitating the operation of trephining the skull in appropriate cases. These three individuals would, in all probability, have succumbed to cerebral inflammation had not operative surgery interfered on their behalf.

Bombay.

#### NOTES OF

### THREE ABDOMINAL CASES OF INTEREST.

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**CASE 1.**—**M. C.**, a female aged at death fifty-four years, had been admitted into the Carlisle Asylum in the year 1862, and at that time was described as labouring under mania and being in weak bodily health. My knowledge of her included the latter fifteen of the twenty years she lived in this asylum. She laboured under many delusions, talked much to herself, enjoyed good bodily health until shortly before her death, and was industrious and useful. From the many entries in her case I find that little or no ostensible change in mental or bodily state was noticed up to January, 1879, when she had an attack of vertigo, and for some days felt out of sorts. She, however, continued in her usual bodily state during 1880. In the latter half of 1881 she became thinner, her skin became yellower than it used to be. On more than one occasion she was examined, but no active disease or indication of organic disease could be found. It was noted, however, that she had a cancerous look.

On Jan. 22nd, 1882, the patient complained of feeling ill, but owing to her incoherent expressions it was impossible to get her to say more than that she felt ill. She vomited, her tongue was moist and clean, her temperature normal; pulse 78, small. An examination of the chest showed a normal condition of the thoracic viscera, and nothing abnormal could be detected as regards the abdominal organs; as there seemed a tendency to constipation of the bowels and

enema of tepid water was administered, which produced two alvine evacuations. On the 23rd there was little change in the patient; she took food, but looked ill. On the 24th the morning temperature was 99°; pulse 96. She looked worse. Abdomen tympanitic and tender to the touch; no fluid in the abdominal cavity. Ordered half a grain of opium in a pill each hour. In the evening she complained of acute pain, referable to the region of the stomach, was sick, and retched much. A hot fomentation was applied and retained for some hours over the abdomen, but as relief from pain was not at once caused by hot application a subcutaneous injection of morphia was administered above the region of the stomach. Cessation both of pain and sickness immediately followed this treatment. Pain and sickness, however, recurred later in the day, but disappeared on a repetition of the injection. On the 25th the morning temperature was 98°; pulse 96. Tongue furred and dry, pulse small, tenderness over abdomen, but nothing abnormal could otherwise be discovered. Decubitus on the back, with a tendency to draw up the legs. On the 26th the morning temperature was 97°; pulse 74. Tongue furred; during the night the bowels had been three times moved, fæces normal in colour but unformed. Abdomen tympanitic, tense, and tender. On the 27th the morning temperature was 97°; pulse 80. Was weaker and looked worse. Abdomen less tympanitic and tense; has taken a fair amount of liquid food. On the 28th she was worse, pulse more feeble, skin cold. On the 29th she became worse and died.

*Autopsy, forty-two hours after death.*—The body was thin, and the skin tinged yellow. The brain was examined, but no abnormalities detectable by the naked eye were observed. Chest: The lungs were slightly adherent to the parietes by old adhesions; the bases of the lungs posteriorly were passively congested, and the structure of the lungs, on section, was normal. Heart: Muscular substance fatty; valves competent. Abdomen: The liver was light-coloured, friable, and fatty. Gall-bladder contained twelve small dark-coloured calculi (a large biliary calculus was subsequently found in the small intestine). The spleen was dark and soft, and the kidneys congested; otherwise normal. There was evidence of peritonitis of the outer coat of the intestine, more especially of the large intestine. There was no fluid in the abdominal cavity, and the peritoneum lining the abdominal parietes was in a normal state. The intestine was taken out and examined; nothing unusual, except the already mentioned biliary calculus, was noted about the small intestine; but the large intestine, down to the sigmoid flexure, was much distended, and contained flatus. There was a ring of hard cancer about an inch above the sigmoid flexure, which formed a constriction, only admitting one finger; and about three inches above this there was an ulcer, about the size of a penny, with irregular and indurated edges. There were no other abnormalities in the large intestine.

CASE 2.—J. M.—, a female, aged sixty years at death, was admitted in June, 1871, labouring under melancholia, and in very weak health; pale, thin, cachectic-looking, and to all appearances very aged for years. I always suspected internal cancer from her appearance. All forms of treatment to improve her bodily health and to increase her weight (which on admission was 106 lb., height 5 ft. 2 in., and which diminished to 88 lb. within the first ten months), proved unavailing. She resented the slightest interference, never spoke, but bit, struck, kicked, or scratched if any attempt at examination was made. She had a habit of rubbing her hands, and did so so continuously that an abscess formed connected with the first finger of the right hand, and also another abscess connected with the fourth finger of the left hand. In spite of treatment disease of the cartilage and bone set in in both fingers, and they had to be removed. Healing took place extremely slowly, in fact for a long time little or no change seemed to take place in the severed tissues. On March 1st, 1882, it was noted that she was becoming gradually thinner and weaker, and on more than one occasion, but at considerable intervals previous to this date, she had had a loose stool followed by great pallor, faintness, and coldness. She resisted all attempts at examination with extreme viciousness. On several occasions she has been examined while being forcibly held. The result of these necessarily imperfect examinations may shortly be stated—viz., that percussion over the chest was clear, that some mucous râles were heard over both lungs, that the heart sounds were feeble but distinct, and that nothing abnormal was detected by percussion or touch; as regards

abdomen, her temperature was subnormal, her bowels were moved regularly, she took a fair amount of food, but she became gradually paler, thinner, more cachectic-looking if possible, and died on March 7th, 1882.

*Autopsy, forty-nine hours after death.*—The body was thin, and free from marks of injury. The brain was examined, but no marked lesions were noticed, and it is, therefore, unnecessary to enter into a detailed account of the appearances. The left lung was closely adherent by old adhesions to parietes, especially at apex; its upper lobe was congested, both lungs contained some deposit of grey tubercle at apex. The pericardium contained two ounces of fluid; the heart was yellowish in colour, its muscular substance was fatty, its valves competent. Liver light coloured and friable. Spleen and kidneys normal. Stomach and intestines removed and examined; both were found in a normal state, with the following exception. At the caput cæcum there was a thickening and appearance of tumour, as if the caput cæcum were crammed full of contents of a firm nature; on removing and laying it open the whole of the inner surface of the caput cæcum was found covered over with irregular masses of hard cancer, but the cavity of the viscus was patent, the external surface presenting a smooth and normal appearance.

CASE 3.—E. H.—, aged thirty-four at death, was admitted in November, 1866. She was entered as a congenital imbecile in weak health, unable to answer questions though able to speak a few words, was dirty in habits, ill-tempered, passionate, and at times violent. By dint of careful attention she improved in habits and conduct, and her bodily health improved. In 1873 she had an attack of excitement which lasted nearly six months, and during which, in spite of careful feeding, she lost weight. From this date till March, 1882, she remained in her usual mental condition. During the period of more than fifteen years that she had been an inmate of this asylum she had been free of physical ailment.—March 25th: Patient had taken food the day previously as well as usual, and seemed in her ordinary state of health when she went to bed. During the night her bowels were moved. The motion was reported as natural in colour, size, shape, and consistence, by the night attendant. After this she was rather talkative, and appeared as if pained. As she looked ill she was kept in bed. She refused breakfast. I saw and examined her with all the care I could shortly after 9 A.M. There were no marks on the body. Temperature 97°; pulse 80, very weak. The tongue was slightly furred, with a tendency to dryness. The heart's sounds were feeble. There was comparative dulness over the left lung, both anteriorly and posteriorly, and respiration was harsh; but no crepitation, mucous râles, or other abnormal sounds heard. The abdomen was examined, and nothing abnormal was detected. There was no increase in size, and no abnormality noticed by touch or percussion; the patient exhibited no fear of being examined; no tenderness on pressure. The patient seemed to have a tendency to sickness, though she did not vomit. I was at a loss to know what was wrong, but thought it probable that she was going to have an attack of acute chest disease. I ordered a mustard poultice to be applied to the left side, and liquid nourishment to be given to the patient. At noon, while sitting up taking some beef-tea, which she was doing with avidity, she suddenly fell back in bed, and had a slight epileptiform convulsion, her eyes turning round. She became sick, vomited the beef-tea she had taken, passed urine in bed, and died in a state of collapse within forty minutes.

*Autopsy, twenty-eight hours after death.*—Body free of marks; rigor mortis present; face and lips pale; pupils equal, rather dilated; thumbs inverted. Head: Brain examined, no abnormality noticed. Chest: Right lung free in cavity, very slightly congested; left lung very slightly adherent at apex by an old adhesion; left lung was slightly congested, principally posteriorly; structure of both lungs normal. Heart: Muscular substance normal, valves competent. Abdomen: There was a considerable amount of blood-tinged fluid in the abdominal cavity, and on the contents of the abdominal cavity being fully exposed, a large portion of the ileum and of the large intestine were seen to be quite black; there was, in fact, a twist of a large mass of intestine. Ligatures were applied to the lower ends of the duodenum and colon and the mass removed. Eight feet (measured) of the small intestine were found to be black and strangulated, and a foot of the descending colon was similarly affected. The intestine, though black, was found strong and fresh on traction, showing recent strangulation. There was no ulceration of intestine, and no abnormality of parietal

pneum. The liver, spleen, kidneys, uterus, and ovaries normal; the stomach and urinary bladder empty.

*marks*—I have endeavoured to eliminate extraneous and to condense the account both of the cases and autopsy from the reports in my possession so as to save the reader from needless mental exertion. In an asylum containing 400 to 450 patients, with an averaged death-rate of only 1 per cent. per annum, calculated on the average numbers sent, to have within two months three deaths from causes as are narrated above is a remarkable coincidence. Abdominal cases are about the most obscure, the most uncertain, and the most difficult to deal satisfactorily with most an axiom. The difficulty in diagnosing and treating physical disease in the vast majority of the insane is as it is, and in many cases even greater than, in dealing with children; no indication of the seat or nature of the affady can be communicated by the patient. In the three cases reported no aid of this sort was really available; in the first case, pain was complained of, but during most of the illness many vague complaints were made, and they were made only in a semi-coherent manner. In the second case active resistance to examination complicated matters; and in the third and last case real mental defect prevented the power of communicating symptoms. In the first two cases I suspected internal cancer from the general appearances, but was unable to localise it. In the last case, that of M. C.—, the yellowish tinge of the skin, sickness, and pain in the region of the epigastrium might be, and probably were, the result of the gall-stone complication. The great prevalence of gall-stones in the insane has been noted in other asylums as well as in this. Considering the gravity of the intestinal lesion, it seems rather astonishing that signs of bowel complication should not have set in earlier, and have been of a more intense character. The unformed character of the stools was noted; it this means really nothing, for I have seen in a case of very narrow stricture of the large intestine large solid and firm faeces passed, which must have solidified and formed in the lower part of the gut. In the second case the position of the cancer and its not in any way affecting the outer surface of the caecum are noteworthy points. I find that out of 539 deaths in this asylum (and the cause of death is not conjectured, but is ascertained by post-mortem examination) twenty-nine, or nearly 5 per cent., have been caused by cancer; of this number eleven have been due to cancer of the stomach or intestinal canal. I have not data to enable me to comment on the proportional death-rate in other similar institutions from this disease. Were a uniform system of recording, tabulating, and publishing the causes of death in asylums and hospitals in force, clearly stating where the result was ascertained by post-mortem examination, a comparison of such fatal diseases would help in forwarding our knowledge of their history and habitat. In the third and last case, the symptoms and post-mortem appearances clearly point to a very recent strangulation. I believe the effusion found in the abdominal cavity took place within three hours, between the time I examined her and her death. That the strangulation should have affected the parts it did seems strange to me. The largeness of the portion of intestine strangulated undoubtedly caused the rapidity of death; death in this case really resulted from shock.

## SALICYLATE OF SODA IN ACUTE ORCHITIS COMPLICATING GONORRHOEA.

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THE marked and speedy relief of pain which follows the administration of salicylate of soda in rheumatic inflammation of the joints has been for some time past a matter of common clinical observation. The success which I have myself had with this drug in treating these affections led me in the autumn of 1880, while in charge of the Shanghai General Hospital, to give it a trial in a case of acute epididymitis occurring as a complication of gonorrhoea. Since then I have had but two satisfactory opportunities of repeating the experiment; I regard, however, the results obtained in these three cases as sufficiently good to warrant further trial of the remedy, and, indeed, entertain the hope of finding by

more extended experience that we possess in salicylate of soda a drug which exercises something very like a specific influence over the disease.

CASE 1 was admitted to the General Hospital on September 13th, 1880. The patient contracted gonorrhoea about three weeks previously. For a week the left testicle had been somewhat swollen and painful. On the 11th the swelling increased considerably, and the pain became severe and constant. On the 12th he suffered a good deal, and was unable to leave his bed; that night the pain prevented him from sleeping, and he had fever. On admission, at 10 A.M., his temperature was 102°. The left testicle was about four times larger than the right, and the scrotum covering it was red, being stretched and glossy in front, and somewhat oedematous below. There was great tenderness. The urethral discharge had disappeared. I thought the tunica vaginalis implicated, and regarded the case as probably a suitable one for treatment by puncture, as recommended by Mr. Smith and others. Salicylate of soda was ordered in twenty-grain doses hourly until the pain should be relieved. At 4.30 P.M. four doses had been taken—namely, at 11.10, 12.10, 1.10, and 4. He had sweated profusely, and the pain had greatly diminished. At 8 P.M. his temperature had fallen to 100°, and the medicine was ordered to be continued at intervals of four or six hours. He slept well that night without an opiate. On the following morning (the 14th) his temperature was 98.4°, and he felt quite easy while lying down. Pain had altogether left him on the 15th, and the urethral discharge returned on that day. There was no relapse.

CASE 2.—A police constable, seen by me for the first time on the morning of April 8th, 1881. Patient contracted gonorrhoea about a fortnight before that date. One of his testicles had been swollen and painful for five days, but, until the morning of the 8th, he had been able to do patrol duty; being then no longer able to walk, he was compelled to go on the sick list as suffering from venereal disease. The inflammation was confined to one testicle, which was between two and three times larger than the other; it was hard and very tender. The scrotal skin was red, but not glossy. The body of the testicle was perhaps affected in this case along with the epididymis. There was apparently no discharge from the urethra. The patient's skin was hot to the touch, and his tongue was coated. He was ordered salicylate of soda in twenty-grain doses every two or three hours according to the effect produced. The testicle was to be suspended in hot water from time to time during the day. By evening six doses of the medicine had been taken, and the pain was greatly relieved. The pain diminished, he said, after the first dose, when he began to perspire. In the afternoon he sweated profusely. On the following morning (the 9th) he was quite easy when lying down, and could bear the testicle to be handled freely. On the 10th he declared that all pain had left him, and asked to resume duty. The testicle was then distinctly less swollen, though still enlarged and indurated. Convalescence was uninterrupted. The urethral discharge returned, but I have not noted the date of its reappearance.

CASE 3 was first seen on June 15th, 1882. The patient contracted gonorrhoea a month before that date. For about eight days the right testicle had been somewhat swollen and painful, and at the same time the urethral discharge began to diminish, and finally disappeared. On the 13th the inflammation seemed to be subsiding; but on the 14th the patient walked a good deal, and by the evening of that day the testicle was much more swollen than it had yet been, and the pain was severe and constant. On the morning of my visit he was forced to remain in bed. He said he had had an "awful" night from pain, and had been quite unable to sleep. His temperature was 101.8° F.; pulse 90; tongue clean and dry. His bowels were confined, one small hard motion on the morning of the 14th, and the same on the morning of my visit (15th). The inflamed testicle was at least four times larger than the other, hard, and very tender. The scrotal skin covering it was dull red, stretched and somewhat glossy in front. I ordered twenty grains of salicylate of soda every two hours, avoiding any other treatment, local or by astringents. The medicine was taken at 11.30 A.M., 1.30, 2.30, 4.30, and 7 P.M. After the second dose he had some ringing in the ears and began to perspire. After the third dose sweating was profuse (the weather was warm). At 4.30 P.M., after the fifth dose, the pain was relieved. At seven o'clock I saw him again; his temperature was then 101.6°, and his pulse 84; the pain was

much less, and he could bear the testicle to be handled with tolerable freedom. On the following morning (16th) his temperature was 99.4°; pulse 88. He had taken two doses of the medicine during the night. He had slept well, and now complained only of slight pain confined to the upper part of the testicle. The testicle was much diminished in size, and fluctuation could be distinctly felt in front. His bowels were not moved till the evening of that day. Convalescence was uninterrupted and satisfactory.

In further trials of this plan of treatment I would advise that only acute cases be selected, the evidence of that condition being a distinct rise of temperature as ascertained by the thermometer. The dose of the salt should be not less than twenty grains, and should be repeated hourly until at least three doses are taken; afterwards the same dose may be continued at longer intervals.

Shanghai.

### THE CLINICAL CLASSIFICATION OF BACKWARD DISPLACEMENTS OF THE UTERUS.

By G. ERNEST HERMAN, M.B. & M.R.C.P. LOND.,  
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(Concluded from p. 981.)

LEAVING these cases, we come to those in which the displacement produces or modifies symptoms.

2. The second class I would make comprises those cases in which the retroversion or retroflexion is associated only with symptoms caused by slight yielding of the pelvic floor. It is in these cases that mechanical treatment is most successful. When backward displacement of the uterus is the cause of symptoms, in the majority of cases they are of this kind, and treatment is successful in proportion as they are of this kind only. The uterus may be either retroverted or retroflexed. It may be so retroverted that it is literally upside down, the cervix being above and the fundus below: a case has been recorded<sup>1</sup> in which the fundus protruded at the anus when the patient defecated. Or it may be retroflexed, being so bent that the posterior surface of the body forms an acute angle with that of the cervix. But so long as the uterus is free to move, and its walls of natural thickness, it makes no difference whether it be bent or straight, or, if bent, whether little or much. Although at the posterior surface the bend may form an angle, there is no angle in the canal. When we examine a case of this class we find the uterus displaced in either of the ways just mentioned; but it is quite movable, neither body nor cervix is enlarged, and there is no tenderness. The only symptoms the patient complains of will be a pain in the sacral region, and also more diffused pain, referred to the loins, lower abdomen, and thighs, and described as a dragging, bearing-down pain, a feeling as if something were falling from her. All these uncomfortable sensations disappear when the patient lies down—that is, when the intra-abdominal pressure is taken off; a point upon which I would lay particular stress. Generally the patient will complain of having to micturate with undue frequency. The menstrual function will be unaltered. There will often be leucorrhœal discharge, because the conditions (subinvolution, &c.), which weaken the pelvic floor, also favour the occurrence, and retard the disappearance, of vaginal catarrh. It is also very common to hear of constipation and dyspeptic symptoms, dating back to a time when the patient was free from uterine trouble. This is because the straining to pass scybala, which results from constipation, is a frequent cause (generally co-operating with others, sometimes perhaps alone) of these displacements. It is in these cases, in which the symptoms are those, and those only, which slight prolapsus produces, and in which the only morbid condition present is the displacement (including under that term not only the alteration in the position and shape of the uterus, but the changes giving rise to it), that mechanical treatment is most brilliantly successful. A pessary which pushes up the uterus relieves the symptoms at once. It matters nothing, in this class of cases, what the effect of the pessary upon the shape of the uterus may be. It may straighten the uterus or leave

it bent; but if it pushes the uterus up, and remains in its position without injuring any part by its pressure, it will relieve.

3. The next class of cases includes those in which there is not only displacement, but congestion of the uterus. This congestion may be either (a) a result, (b) a cause, or (c) an accidental accompaniment, of the displacement. (a) When the body of the uterus sinks down between well-developed utero-sacral ligaments, its veins, which run in the broad ligaments, will, if the uterus be forced down strongly enough, be compressed against the utero-sacral ligaments, and the return of blood from the uterus thus be impeded.<sup>2</sup> In such cases the displacement causes the congestion. (b) There is also reason to think that by congestion of the uterus and the other structures having the same vascular supply, the pelvic floor may become so relaxed and weakened as to allow the uterus to fall backwards. In these cases the displacement is the result, not the cause, of the congestion, the relation being shown by the fact that when the parts have returned to a normal condition the displacement disappears. Thirdly (c) we have no ground for supposing that retroflexion of the uterus confers any immunity from uterine congestion, and, knowing that retroversion or retroflexion exists in a certain proportion of healthy women, it is obviously possible that they, as well as those whose uteri lie more nearly in the axis of the pelvic brim, may become the subjects of uterine congestion, which yet has nothing to do with the displacement, either as cause or as effect, the relation between the two being simply that of coincidence.

It is extremely difficult to estimate in what proportion of cases congestion accompanying backward displacement is either its effect or its cause. Recovery while mechanical treatment is being used, or relief following its application, does not prove that the congestion is the result of the displacement; for the symptoms of prolapse may be relieved by mechanical support, in cases in which the congestion is quite independent of the displacement.

In these cases the symptoms are those of prolapse *plus* those of congestion. The pain is greater and is not immediately relieved by lying down. There is hæmorrhage, the menstrual flow is increased in quantity, prolonged, or recurs with undue frequency; and is attended with more than usual pain. The body of the uterus is swollen, tender to the touch, and there is pain on defecation. Micturition is attended with cutting or burning pains, and there is irritability of the bladder. It has seemed to me that pain and hæmorrhage in these cases (as, indeed, in some other kinds of uterine disease) stand to some extent in antagonism to one another. When there are abundant losses of blood, the congestion is thereby diminished, and the pain is less. When uterine hæmorrhage is not more than is customary for the patient, pain and tenderness are often very pronounced symptoms.

In cases in which congestion is the result of the displacement, it can be cured by raising the uterus, so as to relieve the broad ligaments from pressure. This is most efficiently done by a pessary which anteverts the uterus, or at least keeps it in the axis of the pelvic brim. A Hodge's pessary will often do this, and when it does, it removes the symptoms with striking rapidity and completeness. But the Hodge's pessary is formed of a thin and hard bar. If it fail to antevert the uterus—if, as it is represented in some books as doing, it presses directly on the tender congested uterus—it will aggravate instead of relieve the symptoms. This is an essential and practical difference between this class of cases and the one last mentioned: in the former, anything that pushes up the uterus will relieve, whether it does so by directly pressing on it or not, and it matters nothing whether that organ is straightened or remains bent. In the latter a thin hard pessary, if it presses directly on the tender uterus, will do harm; to do good it must antevert it; and if a retroflexed uterus be anteverted, the flexion will be removed. Hence relief often coincides with the removal of flexion, although that condition has nothing to do with the production of the symptoms. But often it is difficult, and sometimes impossible, to get a Hodge's pessary to antevert the uterus, and we find the best fitting instrument that we can adjust only raises the body of the uterus by pressing directly upon it, and consequently causes discomfort. In such cases I have found the best instrument to be a thick indiarubber

<sup>1</sup> Edinburgh Medical and Surgical Journal, 1854, p. 336.

<sup>2</sup> I would ask permission again to refer to my paper read before the Obstetrical Society of London, and which will be published in the forthcoming volume of its Transactions, for fuller exposition of the reasons which induce me to attach importance to this condition.



z, which, it is true, presses on the uterus, but, being thick & soft, its pressure is bearable, and as it raises the uterus, relieves, although not so thoroughly as an instrument which keeps the organ anteverted.

Lastly, we have cases in which the displacement is combined with other morbid conditions of which it is neither the cause nor effect. Backward displacements of the uterus are, I have already stated, more commonly associated with morbid phenomena than is antelexion, because the injuries consequent on childbirth which predispose to inflammatory disorders of the uterus and its adnexa, also predispose to prolapse and backward displacement. In such cases the symptoms may or may not be modified by the displacement. There may be any degree of prolapse, or if there be congestion, the symptoms so caused will add to the patient's suffering. Prolapse implies increased mobility of the uterus; movement of the body of the uterus involves movement of the uterine tubes and ovarian ligaments, and movement of these parts will be communicated to the ovary. Movement of the inflamed parts produces pain, and, therefore, if ovaritis, peritonitis, or perimetritis be present, abnormal mobility of the uterus, by producing movement of the inflamed parts, will aggravate the pain. Treatment which keeps the uterus in its normal position, and so limits its range of movement will lessen the pain. It may thus happen that mechanical support in a case of backward displacement of the uterus will relieve symptoms not produced by the displacement. These form a group of cases that must be recognised. In them we cannot promise the immediate and complete relief which mechanical treatment gives to symptoms entirely dependent upon a mechanical cause, although sometimes the patient's discomfort may be lessened by a pessary. This group of cases, it will be obvious, comprises diverse combinations of morbid conditions. It can only be defined as including those cases of backward displacement of the uterus which do not come under either of the three former categories.

To sum up the purport of this paper. Its object is to classify cases of backward displacements of the uterus in a manner which shall assist us in their treatment, to divide them into groups the differences between which are real and practical. The classification suggested is the following, its application to practice being at the same time epitomised:—

1. *Retroversion and Retroflexion without symptoms.*—In probably the majority of cases of retroversion and retroflexion there are no symptoms arising from the peculiarity in the shape or position of the uterus. Therefore, in order that this displacement shall call for treatment, it is not enough that the patient shall complain of something, but the symptoms must be such as the displacement is known to produce—i.e., symptoms of which we can predict relief by mechanical treatment.

2. *Retroversion and Retroflexion without Congestion.*—In most of the cases in which backward displacement of the uterus is the result of morbid changes the symptoms are only those of a slight degree of prolapse. Such cases are at once relieved by an instrument which pushes up the uterus. It matters nothing what is the shape of the uterus, or what the effect of the pessary in altering its shape. In proportion as cases approach this simple type, so is the certainty of relief from mechanical treatment.

3. *Retroversion and Retroflexion with Congestion.*—In a smaller number of cases of backward displacement of the uterus there is also congestion of that organ; the symptoms of which condition are then added to those of simple prolapse. In such the pressure of a hard pessary upon the body of the uterus will aggravate the patient's discomfort, and the maximum of relief will only be gained by a pessary which anteverts the uterus. In some few cases the congestion is the direct result of the displacement, and in such immediate and complete relief will follow anteversion of the uterus.

4. *Retroversion and Retroflexion complicated with other Morbid Conditions.*—Many cases are complex, the displacement coexisting with other morbid conditions. It is only in the simple cases that benefit from mechanical treatment can with certainty be predicted.

West-street, Finsbury-square, E.C.

ROYAL MEDICAL BENEVOLENT COLLEGE.—At an extraordinary general meeting of the governors of the College to be held at 37, Soho-square on the 20th inst., at 3 o'clock, the Council will propose certain alterations in By-laws 2, 23, 24, and 25, to meet the determination of the Council to establish a system of "House Masters."

## EUCALYPTUS ROSTRATA AS A REMEDY FOR DIARRHŒA.

BY T. J. HUDSON, M.B., L.R.C.P. LOND.,  
RESIDENT MEDICAL OFFICER, LEEDS PUBLIC DISPENSARY.

I AM induced to bring the above drug more prominently before the notice of the profession owing to the very marked success its administration has met with in my hands in over two hundred cases of various forms of diarrhœa during the past summer. Not that it is by any means a new remedy, though noticed cursorily in the text-books. Eucalyptus rostrata (Australian red gum) was first brought into Europe by Sir Ranald Martin, and occurs as imported in dark-red hardish masses, its essential principle being tannic acid. It is supplied in a pure form by Messrs. Harvey and Reynolds, of Leeds. The preparations found most useful have been a concentrated decoction (strength 1 in 20), and a dilute (strength 1 in 40) made by boiling the powdered gum in distilled water for ten minutes, and filtering while hot, and a syrup (strength 1 in 3). For a moderately severe attack in the adult I commence with half an ounce of the dilute decoction every two hours. If after four doses no improvement results, the same quantity should be given every hour for four times, and if still little effect is apparent, I order half an ounce of the strong decoction every two or three hours. In the vast majority of suitable cases an abatement of the attack now occurs, going on rapidly to a cure, when the same dose should be ordered every five or six hours, only gradually discontinuing the remedy. In an acute case it is best to commence with the strong decoction at the first, half an ounce every two hours, and at times every hour, increasing the time as above. The syrup may be given to children in doses of five to twenty or more drops three or four times a day, but, mindful of the tendency of sugar or mucilage to run into fermentation, seldom prescribe it, preferring small doses of the dilute decoction (thirty to sixty drops) guarded with spirits of camphor or some simple carminative every few hours, pushing it if needful. In many of the worst cases occurring in children, when all other remedies have failed, this alone has effectually stopped the alvine flux. The forms of diarrhœa alone benefited by this drug are as follows—viz.:

1. That arising from want of proper assimilation, the unaltered food causing irritation, chiefly of use after this or other harmful substance has been removed from the alimentary canal. 2. The bilious. 3. The congestive, an inflammatory state of mucous membrane existing, most useful in the latest stages, that the result of sewer gas also coming under this head. 4. Summer or sporadic cholera. 5. That the result of amyloid degeneration of the intestines, usually the small. 6. The chronic or white flux; of great service in this variety.

The above applies equally to children. In cases of intermittent diarrhœa, the patient having an attack every two or three days for some time, while well in the interval, the drug is very effectual, given as above twice or thrice daily. It is also of service in those cases which, when first seen, present great depression, where the offending cause must be allowed to take its course, and where opium is contra-indicated. The good results obtained are not simply owing to the tannic acid contained therein, as many cases unaffected by the latter are soon cured by the red gum, partly, no doubt, owing to the far less irritant properties of the decoction. It is contra-indicated where there exists much acidity or flatulence, and if the griping pains are very severe a few drops of laudanum may at first be added with advantage, but omitted so soon as this symptom is in abeyance. It adheres firmly to mucous surfaces, diminishing their secretion, coagulating the albumen, the uncombined portion serving to constrict and contract the vessels of the gut, and to give the latter tone.

As tannic acid diminishes the solvent power of gastric juice, the gum should not be given too near food. Its taste is rarely objected to, and can be improved by the addition of spirit of chloroform. Lastly, its cheapness is a desideratum, more especially in dispensary and hospital practice.

Leeds.

# A Mirror

OF

## HOSPITAL PRACTICE,

### BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORSEANI *De Sed. et Caus. Morb.*, lib. iv. Proculum.

#### ST. THOMAS'S HOSPITAL.

POPLITEAL ANEURISM CURED BY THE USE OF ESMARCH'S BANDAGE, FOLLOWED BY DIGITAL PRESSURE.

(Under the care of Mr. SYDNEY JONES.)

W. H. E—, aged thirty, a clerk (formerly a farmer), was admitted under the care of Mr. Sydney Jones on June 19th, and discharged cured on July 19th, 1882. Three years ago he was under Mr. Sydney Jones' care for disease of the right elbow joint, which was excised. Ten weeks before admission, after straining himself whilst running, he noticed stiffness in the left leg, increased by walking. Two or three weeks later he began to notice considerable throbbing pain behind the left knee, shooting down into the calf of the leg; this was very violent at times. About a week later he noticed a throbbing swelling behind the same knee. He went to a medical man and was treated for a fortnight by flexion of the knee joint and rest in bed, but for the last fortnight has only been resting without special treatment; there has been no improvement in the swelling. The patient, a tall, strong man, with reddish hair and beard, complained only of the swelling behind his left knee and the pain caused by it. On examination this swelling presented the characteristics of aneurism of the popliteal artery, and was about the size of a large hen's egg, and similar in shape. There was marked expansile pulsation, arrested by pressure on the artery, above, and a loud bruit. Its long axis corresponded with that of the artery, and it occupied chiefly the lower part of the space. The circulation was irritable, the pulse being full, quick, and rather hard. No evidence of arterial degeneration in other parts of the body. Examination of urine showed absence of albumen. The right elbow was ankylosed, but in a good position, and patient was able to feed himself comfortably, easily reaching his mouth with the hand. The morning after admission he was given three minims of tincture of aconite in an ounce of water, and this was repeated three times daily until the 23rd, when his pulse was quieter and more compressible. At a quarter before 3 P.M. on the 24th Esmarch's elastic bandage was applied, the patient standing up to allow the sac to fill. The bandage was applied gradually from the toes upwards; the aneurism, however, not being included. The bandage was fastened round the upper part of the thigh. The elastic ligature was not used. This was kept on for one hour and a quarter, and during the last half of the time it was necessary to keep patient partially under chloroform. When the bandage was removed pulsation recommenced, so digital pressure was at once started, and kept up for eleven hours, when all pulsation had ceased; at the end of nine hours the pulsation had much diminished, but did not stop until two hours later. During the last three hours patient vomited considerably.

June 27th: No return of pulsation. The aneurism much smaller. Several branches of collateral circulation detected. The general condition of patient good.

July 4th: Left foot still a little colder than the right. Pulsation of the posterior tibial artery indistinct. Is still kept in bed with his left leg semi-flexed and placed on its outer side. An elastic stocking was ordered, reaching from the toe to above the middle of the thigh. A few days later the patient was allowed to get up, and left with the aneurism cured on July 19th. As regards internal treatment, tincture of aconite, given on the 19th, was stopped on the 23rd, and from that date until July 1st he took ten grains of iodide of potassium three times a day. On July 1st the aconite was repeated, and the patient took a similar dose for a few days.

INJURY TO THE HEAD; IN WHICH RECOVERY OF CONSCIOUSNESS WAS FOLLOWED BY RELAPSE AND DEATH TWELVE DAYS LATER, AND IN WHICH NO CEREBRAL LESION COULD BE FOUND POST MORTEM.

F. S—, aged seven, was admitted, under the care of Mr. Sydney Jones, on Jan. 6th, 1882, with the following history:—At 4.30 P.M., on the 5th he fell over the balustrade at home, striking the nape of his neck on the stair. Before the fall he had been in his usual health. Immediately afterwards he lost consciousness, and remained unconscious for about three hours. He is then stated to have recovered, and recognised his parents. He complained of pain at the back of his head, and vomited two or three times. Later in the evening he again became unconscious, and was stated to have had fits, which continued at intervals during the night. During these attacks he struggled violently, screamed out, and ground his teeth; he also vomited frequently.

When brought to the hospital next morning he was in one of these attacks, and was restrained with difficulty, screaming out loudly and grinding his teeth. There was a slight bruise at the back of the neck, and on pressing over or near this the convulsive movements were set up. There was no sign of fracture of the skull. The pupils were very large, equal, not acting to light, but varying in size at times. Temperature 101°.

Jan. 7th: During the night he had occasionally tossed himself about in bed, and screamed out. He had only taken a few teaspoonfuls of milk and a purge. In the morning he was still unconscious, with a dry tongue and mouth. He was rather irritable, lying on his side, with his limbs flexed, and resisting any attempt to examine him. Pulse 100, weak. The temperature, which last night was 100°, was now 101.6°.—8th: The patient still lies in an unconscious condition, making only slight movements occasionally, and these principally on the left side. The left hand appeared the colder, but when tested by the surface thermometer showed little difference: right, 97.6°; left, 97.4°. His breath was foul. There were sordes on the teeth. The pulse was 108, almost imperceptible, and intermitting: temperature of body 102.6°.—10th: He slept quietly during a good part of the night, and in the afternoon showed some signs of returning consciousness, making an attempt to put out his tongue when told to do so. He slept a good deal during the day, but was very restless, tossing about from side to side when awake; the mouth was cleaner, he drank milk in fair quantities, but his pulse was extremely feeble and his hands cold: the temperature, morning and evening, was 97.8°.—11th: No further improvement. He had taken beef-tea, jelly, milk, and a little brandy. In the afternoon the pulse was 148, almost imperceptible, and he was very restless, whilst the pupils were still equal, and there was no evidence of optic neuritis. Later in the day he became more restless and violent, throwing himself about, and knocking his head against the head of the bed; morning temperature 97°. Two nutrient enemata were given.—12th: Passed a fairly quiet night, and this morning appeared to recognise his parents, but did not speak. Morning temperature, 96.8°; evening, 96.8°.—13th: Appeared to understand, and protruded tongue when told to do so. Morning temperature, 97.2°; evening, 98.4°. Took more fluid nourishment and a little custard pudding. A blister was applied to the nape of the neck; and dressed with mercurial ointment.—14th: Temperature still subnormal.—15th, 11 P.M.: Extremities cold. Pulse running, at times almost imperceptible. The respiration, which had been slow and sighing, was then rapid and difficult. Had taken food well. Morning temperature, 97.2°; evening, 98.4°. During the 17th he appeared somewhat better and more conscious, taking a fair amount of food. About 12 o'clock at night he became worse, and his extremities very cold. A nutrient enema which was given was not retained, but he took some brandy, milk, and egg by the mouth; after this there was an action of the bowels, but no general improvement; and he died quietly at 4.45 A.M. on the 18th.

The post-mortem examination did not throw any light upon the case. The brain appeared in every respect natural, excepting that the organ contained rather more blood than usual, the puncta vasculosa being well marked. No hæmorrhage; no meningitis; no tubercle; no sign of softening. Skull and vertebrae without sign of injury; and cervical portion of cord apparently healthy. In the anterior border of left lung there were a few patches of broncho-pneumonia; lungs and internal organs otherwise normal. It is regretted that no microscopical examination was made of the nerve structures.

## LIVERPOOL ROYAL INFIRMARY.

NO CASES WHERE BOTH BREASTS WERE REMOVED FOR CARCINOMA; REMARKS.

(Under the care of Mr. REGINALD HARRISON).

CASE 1.—Mrs. M'C—, aged fifty-one, was admitted on Oct. 27th, 1881, with the following history:—About twelve months previously patient noticed a slight hardness in the left breast, which was followed in six weeks by retraction of the nipple. Shortly afterwards a similar hardness commenced in the right breast. The patient was a healthy looking woman, married, with one child. In each breast there was a well-marked scirrhous carcinoma, with retraction of the nipples, but no extension into the axilla. On Nov. 1st Mr. Harrison removed the right breast, and on Dec. 7th, when the patient had completely recovered from the first operation, the second breast was removed. On Jan. 5th, 1882, she was able to leave the infirmary, the wounds having completely healed. In the October following the patient reported herself as being quite well, and without any sign of a return of the disease.

CASE 2.—Mrs. R—, aged fifty-two, was admitted in November, 1881, suffering from a scirrhous carcinoma of the right breast with retraction of the nipple. The hardness had been noticed for eight months previously. She had a very healthy appearance. There were no enlarged axillary glands. On the 25th the breast was removed, and in nine weeks the patient was able to leave the infirmary. She seemed very intolerant to the carbolic applications. In June, 1882, she noticed some hardness in the other breast, but nothing was done, as she thought it was inflammatory and would disappear. In September she returned to the infirmary, when the left breast was found extensively infiltrated with cancer. The axilla was free. On September 13th, 1882, the breast was removed by Mr. Harrison. She made a good recovery, and was able to leave the infirmary on October 27th.

Mr. Harrison remarked that these were the only two instances in his practice where he had removed both breasts for scirrhus. In both cases the patients presented a singularly healthy and robust appearance, in fact, to look at them before making an examination of the breasts he should have selected them as typical examples of what healthy-looking middle-aged women should be. Still, there could be no doubt, either on clinical or histological grounds, that they were seriously infected with cancer. So far as the operations were concerned, no patients could have done better. Antiseptics were employed, and no untoward symptoms were met with. The second patient on each occasion showed an intolerance to carbolic acid, which rendered its abandonment necessary before repair had sufficiently advanced; still, she made an excellent recovery. Cases of this kind were interesting, not only as illustrating what operative surgery is capable of doing in the case of rapidly growing tumours, but as bearing upon the whole subject of infection by malignant growths.

## Medical Societies.

### ROYAL MEDICAL & CHIRURGICAL SOCIETY.

#### *Resection of Portions of Intestine.*

THE ordinary meeting of this Society was held on the 12th inst., Professor Marshall, F.R.S., President, in the chair. The paper of the evening, by Mr. Treves, of the London Hospital, was a careful and clear exposition of the subject of resection of the intestine, and its reading was followed by a debate that was prolonged beyond the usual hour of adjournment. Several pathological preparations in illustration of the subject were exhibited from St. Thomas's Hospital and University College, and a large collection of the instruments employed in abdominal operations were also shown by Mr. Lund and Mr. Meredith.

The following is an abstract of the paper on Resection of Portions of Intestine, by Mr. FREDERICK TREVES, F.R.C.S. Portions of gut have been excised for various diseased conditions from all parts of the tube, from the pylorus to the

rectum. Among the illustrative cases given of the various operations is Kœberlé's, who excised two metres of the small intestine for multiple stricture with perfect success. In properly selected cases, resection would appear to be indicated in some forms of intussusception when all other means have failed, and when on opening the abdomen, the invagination is found to be irreducible; in gangrene of gut after strangulated herniæ, in gangrene after some forms of internal strangulation, in non-malignant strictures of the small and large intestine, and in malignant strictures that are yet local. Other things being equal, the mortality after resection would appear to depend more upon faults in the details of the operation than upon any other single cause. There are two procedures: in one an artificial anus is established after resection; in the other, the two ends of the divided gut are united by sutures, and the mass returned into the abdomen. The former method has been the more successful. There are many objections, however, to an artificial anus, especially of the small intestine, and there appears to be no reason why the latter method should not prove the less fatal if the technical defects of the procedure be remedied. The operation of uniting the bowel after resection presents these difficulties. It is not easy to maintain the two ends of the gut in accurate apposition while the sutures are being introduced. The sutures are apt to be irregular. The gut above the obstruction is usually much dilated, while that below is shrunken, and it has been found almost impossible to unite well these unequal parts. One of the most common causes of death, therefore, after the operation is due to escape of intestinal contents at the suture line. There is no reason, however, why the escape should not be as surely prevented as it is in cases of pyloric resection. "To meet some of the difficulties of the operation I have ventured to introduce the following appliance:—The gut above the part to be resected is secured by a special clamp lined with indiarubber, to avoid undue compression of the bowel. The gut below is secured in like manner, and the obstructed or gangrenous part is excised. The corresponding ends of the two clamps are then united by transverse bars, so that they form with the clamps a rigid square frame. By means of this frame the two divided ends can be very accurately approximated, and can be firmly retained in position while the sutures are being applied. As it is difficult to apply sutures to collapsed gut a sausage-shaped indiarubber bag about three inches long is used, that can be distended to four or five times its natural size through a small tube inserted in the centre of its long axis. This bag is sufficiently distended to make it firm, and one end is introduced into the upper segment of the divided gut, while the other is introduced into the lower segment. The tube through which the bag is dilated thus occupies the suture line. After being introduced the bag is dilated to a good size. By this means a firm plug is introduced into the gut so as to form a substantial basis over which to apply the sutures. Moreover, by increasing the degree of distension of the bag, all inequalities in calibre between the two segments of the bowel can be overcome. Before the last sutures are applied the bag is emptied of air and is withdrawn, it being capable in its shrunken state of being drawn through a hole of the dimensions of a No. 12 catheter. If the sutures are properly applied—i.e., if the mucus membrane be not included in the stitch—there should be no danger of wounding the bag. At least fifteen or twenty sutures should be used. By means of this appliance it is possible to excise portions of the colon through an incision in the middle line." In cases of stricture of the colon it is often impossible to diagnose the exact seat of the obstruction, and under such circumstances the abdomen has been several times opened in the middle line, and the obstruction having been found, a second operation has been performed in one or other loin. Resection of the gut from the loin presents many difficulties, and can scarcely be performed without establishing an artificial anus. If colectomy were always performed through the middle line it would, in cases of doubtful diagnosis at least, render one operation only necessary. The greatest fatality has been found in those cases of resection of the colon where the abdomen was first opened in the middle line, and the gut subsequently removed from the loin through another incision. The author lately resected some two inches of gut from the middle of the descending colon for epitheliomatous stricture through an incision in the middle line. The divided ends of the bowel were united by means of the appliance described, and the gut returned into the abdomen. The man had had symptoms of obstruction for some months, and was in

*extremis* when the operation was performed. He died in twelve hours. At the post-mortem the gut at the suture line was found fully distended with fluid fecal matter, yet not the least trace of that matter had escaped from the intestine. The case serves to demonstrate that portions of the colon can be resected through the middle line, and that the gut may be so united as to prevent all escape of contents.—The PRESIDENT, in inviting discussion upon the paper, drew attention to a series of preparations on the table of various morbid conditions of the intestines from the museums of St. Thomas's Hospital and University College; and also to a large selection of instruments used in abdominal operations, exhibited by Mr. W. A. Meredith of London, and Mr. Lund of Manchester.—Mr. BRYANT, in congratulating Mr. Treves upon his case and contribution to the subject, proposed, in the first place, to offer a little friendly criticism upon it. He regretted that Mr. Treves in dealing with the case had not performed lumbar colectomy, for the case was one of chronic obstruction, and clinically the probabilities were in favour of the disease being in the descending colon, so that if the lumbar incision had been made he would have come upon it and readily removed it. Of the two procedures, abdominal and lumbar, the latter was to be preferred as an exploratory operation, and even for colectomy, for at least six inches of the colon can be readily dealt with through the lumbar incision—i.e., if the bowel be not over-distended, as it was not in Mr. Treves' case. He praised the instrument invented by Mr. Treves as an admirable device; but it must not be forgotten that in cases of intussusception or internal hernia great lengths of bowel have to be dealt with, whilst the distended and inflamed condition of the bowel above the obstruction would be very difficult to unite with the distal collapsed segment. In cases of stricture, unless the diagnosis can be made very early—i.e., before there is obstruction—the same difficulty in uniting the two segments would be met with. In Mr. Treves' case the cæcum (as is usually the case) was more distended than the colon immediately above the stricture, and this being so the clamp could be applied more readily. He also urged that in most cases of internal strangulation the inflamed condition of the gut would render it far more liable for stricture to ultimately follow upon its successful suture from contraction of the wound, just as stricture ensues in those cases of intussusception where the invaginated segment separates by sloughing. It was for this reason that in his own case of colectomy he (Mr. Bryant) preferred making an artificial anus to attempting to suture the severed ends of the bowel; although he admitted that Billroth's experience of pylorus resection showed that in cases of limited annular stricture such suture might be safe. Again, how would the mesentery be dealt with when a large piece of small intestine had to be excised? Although not prepared at present to adopt the measure, he trusted that his objections might be overcome and his opinion changed. Mr. Bryant added, that in the three cases (including Mr. Marshall's) where abdominal section had been first done and then lumbar colectomy, he had felt that a better result might have followed had the lumbar operation been chosen for exploration in the first instance.—Mr. BARKER pointed out that wounds under aseptic conditions showed no tendency to contract, union taking place by first intention. That was true of wounds in the skin and serous membranes, and was quite as applicable to the intestine. Nor did he think many cases of intussusception when separation took place with recovery were followed by stricture; and he referred to one case where Dr. Peacock said that no symptom of obstruction followed, although the patient survived the intussusception many years. Nor does stricture occur after attacks of typhlitis and ileus. He did not think that Mr. Bryant's inference was justified.—Mr. HOWARD MARSH alluded to the continued advances in abdominal surgery, and pointed out that in Mr. Treves' case inference came, as in so many cases, too late. The patient was so exhausted that colotomy even might have been fatal. He looked forward to the time when an early recognition of these cases would lead to very different results. But no surgeon hesitates to operate on strangulated hernia because it is too late to afford relief; and such a contingency must often occur. The case of cancerous stricture of the colon in which he (Mr. Marsh) had performed abdominal section, was that of a woman, aged forty, who was suddenly taken with intestinal obstruction when at work. An accurate diagnosis was impossible, and looking to the age of the patient alone colotomy might have been preferred. The

case proved to be annular stricture of the sigmoid, and made an artificial anus in the gut above it. Mr. Marsh narrated cases which had recently come before him, to show how little reliance could be placed on the numerical method for diagnosing the site of a stricture in a subject beyond middle age. (1) A man, aged fifty, suddenly seized with symptoms of obstruction whilst walking in the street. Colotomy performed without relief. Post-mortem: abscess in connexion with appendix vermiformis, which had burst into the peritoneal cavity. (2) Obstruction in an elderly lunatic, presumed to be in sigmoid; no operation. Post-mortem: two gall-stones impacted at ileo-cæcal valve. (3) Case with history of increasing constipation; from age of patient stricture thought to be in colon, but as its precise seat was uncertain right colotomy was done. There proved to be ulceration of the lower six inches of the ileum. Such cases showed that the numerical method might be carried too far in diagnosing the seat of a stricture in the large bowel; and, further, they demonstrated the advantage of the median incision over a colotomy which is done without certain knowledge of the position of disease. The difficulty raised by Mr. Bryant might not prove to be well grounded, and he thought that eventually the abdominal operation would come to be preferred.—Mr. HARRISON CRIFFS said that although Mr. Treves had demonstrated its possibility, it would have to show a fair probability of success in the operation before it could be generally adopted; and in the case he related death occurred before the separation of the sutures, or inflammatory softening might have led to fecal extravasation. He himself had practised excision of the rectum in cases of cylindrical epithelioma, in which case it is right not only to relieve the obstruction but to remove the diseased mass, which can be done without fear of recurrence. He would prefer making an artificial anus after resection of the bowel to the attempt at suture of divided ends on account of the risk of the latter, with the possibility of subsequent stricture. Stricture follows removal of the lower end of the bowel, and can only be obviated by continued use of bougies—a measure, of course, inapplicable to the intestine within the abdomen. In Mr. Marshall's case an artificial anus was made, but it would have been better still had the diseased part been excised.—Mr. MCKAY observed that abdominal surgery was undergoing a great change, and now that we know abdominal section can be done without much risk, operations on the intestine will be more frequent. Sutures of wounded intestine did well; he had three cases in which recovery took place, and no stricture followed; this being so, he thought Mr. Treves was right in saying that success mainly depended on the manner in which the details of the operation were done; fecal extravasation need not be feared if care be taken. Nor did he agree with Mr. Bryant as to the frequency of secondary strictures; for if it were so could the immunity from stricture after dysentery, where large sloughs separate, be explained? Apart from this, he believed with Mr. Barker that the operation of suture could be done with very little risk of subsequent inflammation. After hearing the paper and seeing Mr. Treves' instrument, he should be inclined to adopt his suggestion.—The PRESIDENT said that as regards this operation of resection of the bowel, they were on the verge of improvements, and that Mr. Treves' contribution was valuable as an effort to advance the subject. He thought with Mr. Bryant that there would be considerable difficulty sometimes in getting the dilated bowel into apposition with the collapsed part—a difficulty which he feared would not be wholly met by Mr. Treves' instrument, for he could not see how the dilated part could be made to contract. It was just possible in future that electricity might be called in to cause such contraction of the upper segment and dilatation of the lower, so as to approximate the calibre of the two portions. In his own cases he was perfectly sure that no instrument could have made them equal. Mr. Treves' clamp was a great improvement on Martigny's, which did not bring the divided ends together. He agreed with Mr. Treves as to the use of a large number of stitches, and suggested that the packings following the union of the two unequal-sized ends of the bowel might be met by putting the sutures in each end at unequal distances apart. Although the formation of an artificial anus was simpler and safer, they must not be content with that, but seek a better method, nor be deterred by some failures; and there was sufficient to encourage these endeavours. He agreed with Mr. Barker as to the slight fear of stricture following on suture, especially as constriction

to granulations. He was still of opinion that in a case of chronic obstruction (and Mr. Marsh's cases were a ones) the lumbar operation was preferable; but this was only his view, and he might come to prefer the median incision. In his own cases he failed to withdraw the diseased stomach through the median incision; it was at the lower part of the colon, and he did not think of dividing the peritoneum.—Mr. TREVES, in reply, said that the case he had alluded to was an obscure one, there being no symptoms pointing to obstruction of the descending colon; and it was under the impression that the disease was in the ileum that he opened the abdomen. Had he felt sure of its actual seat he would have done the lumbar operation. In reply to Mr. Marsh's objections, he referred to Koberlé's case, where two thirds of intestine were successfully removed, the mesentery being sutured with twenty-four ligatures. The dilating bag, which he had used in his own case, considerably aided in reducing the collapsed bowel to the size of the distended stomach. Again, the most successful cases of resection had been those of gangrene after strangulated hernia, for which there had been six successes out of eight operations. Subsequent stricture was very rare in intussusception. Leichstein, who collected upwards of 900 cases, says that fatal outcome followed in only 3 to 4 per cent. of the cases of spontaneous separation of the invaginated bowels. He agreed with Mr. Marsh's remarks about too great reliance being placed on statistics; and it must be remembered that in many cases of chronic obstruction the onset of symptoms is often acute. The risk of extravasation could not be so great in the case of the intestine as in that of the pylorus, when it had been quite prevented. In cases of great disparity in calibre between the two portions it would be well to make an oblique section of the lesser segment, as in pylorus operations. Lastly, in strictures of the small intestine no treatment was available except that afforded by resection.

#### PATHOLOGICAL SOCIETY OF LONDON.

*Acute Dilatation of Stomach.*—*Osteitis Deformans.*—*Malformed Heart.*—*Rachitic Osteomalacia.*—*Stricture of the Intestine.*—*Malformation of Auricle.*—*Symmetrical Gangrene.*—*Cancer of Esophagus.*—*Noisy Respiration.*

THE ordinary meeting of this Society was held on Tuesday, December 5th, the President, Dr. Wilks, in the chair. Several specimens, and a case of special interest were shown, namely, a case of extreme rachitic osteomalacia by Mr. Arnwell, which, at the suggestion of Mr. R. W. Parker, was referred to the Rickets Committee. The body of a child who had died with symmetrical gangrene of the extremities was exhibited by Dr. Southey, and the larynx of a child with swelling of the epiglottis producing a peculiar form of dyspnoea by Dr. Lees.

Mr. HENRY MORRIS showed the Stomach of a man which was in a condition of acute dilatation, and gave the following account of the case:—The patient, aged thirty-seven, was admitted into the Middlesex Hospital on suppurative of the ankle-joint. An operation having been determined on, on November 11th ether was given for about half a dozen respirations, and afterwards chloroform or about a quarter of an hour. For the following two days he vomited excessively a thin greenish fluid; the longest interval between the acts of vomiting was never more than one hour. He had taken a mixture of chloroform and ether on a former occasion without ill results. He had been prepared for the anæsthetic by being given a dose of house mixture, and an enema; a light breakfast was taken early. After the anæsthetic, orthopnoea became marked, the temperature fell below normal, the quantity of urine decreased, until towards the end none was passed; the pulse was weak and rapid, and the skin was cold. Death was due to exhaustion. At the necropsy, the stomach measured 7 × 12 × 4 inches, and reached almost to the symphysis pubis; it contained twenty-eight ounces of fluid. The coats of the stomach were thin, and contracted when cut; the kidneys were contracted and scarred on the surface, and one contained a cyst. In the upper lobe of each lung was a cavity, and the lungs contained miliary tubercle. The vomiting was unlike that seen after chloroform, and there was no intestinal obstruction. Mr. Morris referred to a few other cases of a similar kind on record, where excessive vomiting occurred in patients with a

similar condition of the kidneys; but all the other cases were much more chronic in their course, with the exception of three reported by Dr. Hilton Fagge. Mr. Morris was inclined to attribute the dilatation of the stomach to the large quantity of gastric fluid secreted, this over-secretion being brought about by nervous influence. He, therefore, thought that the term acute dilatation of the stomach was not a good one to describe the condition, and suggested the word *gastrorrhœa*. Cohnheim had suggested that in cholera there might be such an influx into the intestines from some nervous influences.—Dr. GOODHART gave a few notes of the post-mortems of five cases of acute dilatation of the stomach, which had occurred at Guy's Hospital since 1875, and which to some extent corroborated Mr. Morris's theory of the nerve origin. Of these cases, four out of the five involved the peritoneum, and the remaining one the sympathetic. Case 1 was a man, aged twenty-two, with strangulated inguinal hernia and suppurative peritonitis. Case 2. A female, aged forty-eight, with a growth in the neck pressing upon the veins, left vagus, and sympathetic. Case 3. A female, aged forty-nine, with ulcerating colon, acute enteritis, and thrombus of the superior mesenteric artery. Case 4. A female, aged twenty-four; amputation at hip-joint, suppuration in other joints, and caseous glands in the lumbar region. Case 5. A female, aged thirty-four; death nine days after ovariectomy; stomach symptoms began two days after operation. There was great flatulent distension on the fourth day; constant vomiting ensued on the sixth day. Post mortem there was very little peritonitis and thrombus in the iliac veins.—Dr. PYE-SMITH said that Dr. Lauder Brunton had preceded Cohnheim in the enunciation of the theory of the relation of nerve paralysis to the profuse evacuations in cholera; and Dr. Pye-Smith had read a paper on the subject, in conjunction with Dr. Brunton, at one of the meetings of the British Medical Association; he would be glad to know from Mr. Morris whether there had been any analysis of the vomited fluid.—Dr. MAHOMED wished to know the condition of the kidneys, as he had met with two cases of lardaceous disease of the kidneys, in which there was a large amount of fluid ejected from the stomach.—Dr. PAYNE alluded to two specimens in St. Thomas's Hospital Museum, where during life a diagnosis of intestinal obstruction had been made; but post mortem there was great distension of the intestine, but no obstruction; they seemed analogous to these cases of dilatation of the stomach. With regard to the influence of chloroform, while he thought that it might account for the symptoms by inducing paralysis of the muscular walls, it appeared to him very doubtful whether the distension could be produced by the quantity of fluid in the viscous.—Dr. WILKS remarked that while they had only a few fatal cases on record it was not improbable that there were less severe cases which recovered due to similar causes, and that the severe gastric symptoms which sometimes occurred in gouty people were possibly of this nature.—Mr. MORRIS, in reply to Dr. Mahomed, said that the kidneys were indurated and scarred, and one had a cyst, but that there was no lardaceous disease. He regretted that there had been no analysis of the fluid, but the true nature of the case had not been diagnosed. Alluding to the remarks of Dr. Payne, he did not suppose that the dilatation occurred until the stomach was worn out with the incessant vomiting, and so allowed of accumulation of the fluid.

Mr. MORRIS then showed photographs of a case of *Osteitis Deformans*. The disease had been present for about twelve years, and had begun in the left leg. The legs and thighs, the patella, the ribs, the vertebrae, the clavicles, and, to a slight extent, the cranial bones were affected. The lower extremities of the tibiae, the fibulae, the feet, and the lower jaw were not affected in this case. His general health was good, but he had a mitral murmur, and the urine contained less than the normal quantity of urea.—Mr. TREVES said that the case was a further illustration of two facts:—1. That the bones of the arms were usually free. 2. That all cases where the bones of the upper extremity, except the clavicle, were involved, occurred in women. The loss of stature might be accounted for partly by the curves of the spine, and partly by its subsidence in a vertical direction. Finally, Sir James Paget has ascribed the condition to an inflammatory affection of the bone, and, comparing it with other inflammations of bone, Mr. Treves said that in the case of a girl aged fifteen years, under his care with chronic periostitis from congenital syphilis, the deformity in the leg presented precisely similar



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characters.—Mr. NOBLE SMITH asked if any treatment had been attempted; in all Sir James Paget's cases iodide of potassium had been given with either no effect, or a bad one; he had, therefore, in a case now under his care, attributed the disease to some defect of nutrition, and treatment in accordance with that view had benefited the patient. The deformities were exactly like Sir James Paget's description, and were largely due, he thought, to the weight of the body. There was a family history of gout, cancer, and phthisis; but the general health of the patient was good.—Dr. WILKS said that one of the first cases ever shown was a man under his own care, who had previously been under a great number of medical men, and had a pile of prescriptions from them, and the main ingredient was the same in all—namely, iodide of potassium. He thought it was a common error to suppose that iodide of potassium had any influence on fully-formed bone.

Dr. TURNER then showed a Congenitally Malformed Heart. The organ consisted of an auricle with two appendices, the left being small, and a ventricle with an auriculo-ventricular valve of tricuspid form. The auricle received the inferior vena cava, and a right and a left superior vena cava. The pulmonary veins communicated with the left superior vena cava. The opening of the coronary sinus was close to that of the inferior vena cava. There was a well-marked Eustachian valve, and a narrow crescentic membranous fold over the entrance to the left auricular appendix, the rudiment of an inter-auricular septum. The aorta arose from the front of the ventricle, and gave off the coronary arteries and the three vessels from the arch in the usual order, and supplied the pulmonary circulation through an open ductus arteriosus. The arch of the aorta was directed to the right over the root of the right lung. Behind the aorta was a fibrous cord passing to the pulmonary arterial vessels representing the closed pulmonary artery. There was what appeared to be a rudimentary left ventricle without any trace of a left auriculo-ventricular opening. The specimen was obtained from a male infant, aged fifteen months, who was brought to the out-patient department at the North-Eastern Hospital for Children for bronchitis. Only a slight degree of cyanosis was observed until shortly before it died. The child had been born at full time, and was well nourished, and seemed healthy then, but had not thrived. The cyanosis had not been observed by the friends. The mother had no illness during the pregnancy, and gave no history of rheumatism beyond slight rheumatic pains occasionally.

Mr. BARWELL then read an account of his case of so-called Rachitic Osteomalacia, with extreme Deformity. The patient was a female, aged seventeen years, who had been under Mr. Barwell's care for the last three years, and the deformity had improved very slightly. The patient comes from the potteries in Staffordshire, is of healthy parentage, and the brother is a tall, well-built man. Mentally she is juvenile rather than weak-minded, and is as yet non-pubic. Nearly every bone presents extreme deformity, but the humeri, right tibia, and left ulna are bent to most acute angles; in the ulna the olecranon is elongated and bent at a right angle to the shaft. She is quite unable to stand. The bones are remarkably brittle, though rather less so than they were, consequently she has fractured the bones of both upper and lower extremities several times. There is no beading of the ribs nor enlargement of the epiphyses. Mr. Barwell's experience led him to consider the bones to be of normal thickness, but soft from deficiency of lime salts, and he questioned whether these extreme deformities were ever produced by true rickets. Some years ago, in attempting to improve the deformity of the femur of a boy in a similar condition to this patient the chisel went through the bone with very slight resistance, and about five ounces of pure oil flowed out. Both these cases suffered from pains at the convex parts of the bones. Mr. Barwell thought that these extreme distortions arose from increase of the medulla, at the expense of the bone substance, the so-called excentric atrophy, while there was very little bone-earth deposited in the thin shell of bone round the medulla.

Dr. NORMAN MOORE described his specimen of Stricture of the Intestine at the Ileo-caecal Valve, from a man in whom colotomy had been performed in the right lumbar region. The wound showed no unhealthy suppuration. The intestines above and below contained a considerable quantity of soft fluid faeces, but were not greatly distended. The stomach was normal. The small intestine was dilated, oedematous, and reddened; three and a half inches above

the valve it showed extensive irregular ulceration, which extended all round; some of the ulcers seemed healing, and there were puckering as of healed ulcers. The ridge of the ileo-caecal valve was very low, and the orifice was so contracted as but just to admit a large probe. Below the valve, for three inches, there was a less degree of ulceration. The colotomy wound was two inches below the valve.

large intestine. No tubercle was discovered. The glands normal. Externally the intestine except that the lowest part of the iliac colon was adherent to the abdominal wall. The thickened above and below the stricture were found; the rectum and bones were normal. Microscopic examination of the stricture is associated with a new abundant round cells penetrating all intestinal wall. The patient was a man, years, who died under the care of St. Bartholomew's Hospital. An attack, of the bowels, began on October 1st, not having acted up to November 1st. Relief was done by Mr. Marsh. At the relief, but the next day a large quantity of stool passed through the wound. The patient died. A microscopic section of the tissue was exhibited.—Dr. NORMAN MOORE also showed a specimen of Malformation of the Right Auricle. It was from a woman aged thirty-three years. All the valves were hypertrophied and dilated. The mitral valve was thickened, and the aortic valve was slightly thickened. There was some thickening of the tricuspid valve. The edge of the tricuspid valve is slightly thickened. There was some thickening of the mitral orifice and a slight degree of the mitral orifice.

The left auricle is very capacious, and much thickened and puckered in several places. The fossa ovalis is complete, and the fossa ovalis stretches one inch into the auricle; it is a fossa ovalis and stretches from the septum near the orifice of the inferior vena cava to the posterior wall of the auricle. The valvula is of the usual form, and may be quite free from this projection. In the edge of the projection is a thickening one long, and the free edge is rounded and slightly the main part. The origin from the auricle is still. He had seen one other example of this probably developed in connexion with the Eustachian valve. Another specimen shown by him, with microscopical examination of the liver, belonging to a man, who died in St. Bartholomew's, under the care of Dr. Andrew, of tubercular pulmonary phthisis with of the larynx. The liver is studded throughout with numerous whitish growths, most of them a large pin-head. Microscopic sections show tubercles. Giant cells may be found in most of the cellular elements are not at all degenerated. Others caseation has taken place; all show a large amount of connective tissue. Virchow, Cornil and Rindfleisch describe tubercle as often found in the general tuberculosis of children; and Virchow that it more often occurs in the liver than in the lung; but cases in which the whole liver is affected at so late an age as forty-nine in phthisis, with tubercles in the lungs, are certainly rare in London. The fourth specimen was the Elbow Joint from a case of Scarlet Fever. The joint shows thickening of the synovial membrane, with roughness in two places and some adhesion. When opened it was full of pus. The joint of the right index-finger and the right elbow were similarly affected. No abscesses were found in the head. There was some pericarditis and general peritonitis. There were some minute growths on the mitral valve, and in the lower lobe of the left lung there was a small abscess. In each kidney was an infarction, and down so as to form a small abscess. The patient, a man, aged six years, who died in St. Bartholomew's Hospital, under the care of Dr. Gee. Another child of the family died of scarlet fever. This one was taken ill on Sept. 25th, and died on Oct. 10th she had rheumatic symptoms, which rapidly



ew worse. On admission, on Oct. 19th, both elbows were found to be much swollen. The temperature was 100° on admission, and twice rose to 104·9°. The child grew weaker, and died on Oct. 23rd. The case

of interest in its bearing on the question of the pyæmic or non-pyæmic nature of scarlatinal rheumatism. This case, in its anatomical features, was clearly pyæmic. Dr. MAHOMED protested against a case like this of pyæmic inflammation of a joint, after scarlet fever, being regarded as in any way of the same nature, or throwing light upon scarlatinal rheumatism. These pyæmic cases were very rare, while scarlatinal rheumatism was very common. In their clinical aspects they resembled acute rheumatism and yielded to salicylates; but, as a rule, they were of a milder type than ordinary acute rheumatism. There were some septicæmic cases, but they also were rare, and had no joint troubles; he thought that it was very misleading to represent scarlatinal rheumatism as not amenable to treatment.—Dr. WILKS asked if the pyæmia could be traced to any local cause, such as an abrasion of the throat. Dr. MOORE had examined carefully, but found no local abrasion, he had shown the case from a morbid anatomy point of view, and he had experienced some difficulty in drawing a line at the point where rheumatic affections end and pyæmic symptoms begin.—Dr. BARWELL said he had always assumed that absorption of morbid products, analogous to what occurs in gonorrhœal rheumatism, was the cause of the joint inflammation, and had always entertained the idea that scarlatinal rheumatism was not true rheumatism.

Dr. SOUTHEY brought the body of a child two and a half years old who had died with Symmetrical Gangrene. She was of healthy parentage, and had been previously quite healthy, except that two or three months ago she had a severe attack with some purpuric spots. On Friday, December 1st, she had a pain in the head; on the following morning she seemed quite well again, but in the afternoon complained that she had hurt her leg, but when her father asked her she said that it pained her, and he then noticed some lividity over the calf. Soon after, she was sick, febrile, and complained of headache; at six P.M. she was worse, and the lividity of the calves had extended both upwards and downwards; in the night the backs of the arms were observed to be affected, and at about six A.M. patches formed on the buttocks. She was admitted into St. Bartholomew's Hospital at noon of the 3rd inst., looking moribund; the pulse was rapid and feeble. The tibial arteries could not be felt; the lungs and heart were normal; at six p.m. she had taken some nourishment; she was ordered a warm bath and some nitro-glycerine; the cheeks were beginning to show a slightly livid redness. At seven P.M. convulsions came on and continued until she died at midnight, thirty-two hours after the first symptoms. Renaud had described similar cases, and Dr. Southey had met with two or three others; Dr. Moore had cut up the left femoral and tibial arteries, but no embolus or other obstruction could be found. The theory advanced has been that there is spasm of the arteries, and then migration of blood elements into the skin, or the gangrene was quite superficial.—Dr. NORMAN MOORE said that he had examined the blood microscopically, and that it was whitish comparatively, containing many fat globules, something like the so-called "raspberry-juice blood" found in some cases of diabetes.—Dr. WILKS mentioned a case of this kind in which hæmatinuria was present.—Dr. SOUTHEY had also observed intermittent hæmatinuria in a case with symmetrical gangrene of the fingers. In his present case only an ounce of urine could be obtained, and it contained some albumen.

Mr. EVE brought a recent specimen of Cancer of the Esophagus; leading from it were two fistulous passages into a cavity of the right lung, which had no definite wall. The patient had suffered from dysphagia for six months, and was in the hospital for only two days before death. Bougies were passed, and gave relief, but no attempt was made to administer food by the mouth. In the same patient an abnormal condition of the colon was found; from the cæcum the ascending colon passed down almost to the pubes, and then curved upwards towards the right kidney. He also showed the calvaria of a man who had died an hour and a half after a blow on the head; the skull was fractured, the fissure extending across the course of the middle meningeal artery, which lay in a very deep groove in the bone; the dura mater beneath this was separated from the bone by a large blood-clot.

Dr. LEES exhibited the Larynx of an infant, aged twelve

months, which had, during its whole life, manifested a peculiar noisy respiration. The condition found threw light upon a set of cases of rare occurrence, but of considerable interest. An infant, almost invariably of the female sex, suffers from the moment of its birth from a noisy inspiration, expiration being much less affected or entirely free, and the cry-sound being quite clear. The noise made during inspiration is often loud and harsh; it is of lower pitch than the crow of laryngismus. It continues, though it is not so loud, during sleep and after the administration of chloroform. There is usually some recession above the sternum, and slightly at the base of the thorax, but not much, and generally sufficient air enters the lungs. In some cases exacerbations have been brought on by exposure of the surface to cold (when the chest was stripped), by flatulence, and other causes; but as a rule the condition is fairly constant. Perfect recovery ordinarily occurs after the lapse of a year or more. In this case the child died of insidious diphtheria. About a month ago a laryngoscopic examination was made, and it was then seen that the epiglottis was folded on itself like a leaf on its mid-rib, the ary-epiglottic folds being thus brought close together, and the superior orifice of the larynx converted into a linear median slit of very small diameter. This condition was found post-mortem to be actually present, the ary-epiglottic folds being almost in contact. Above them, below the centre of the folded epiglottis, was an opening of the size of a pinhole, and between the arytoids a second opening a little larger. The trachea was lined with diphtheritic membrane. The peculiar breathing thus appears to be due to a congenital abnormality in the epiglottis. This was the fourth case which Dr. Lees had seen. Similar cases have been observed by Dr. Gee and by Dr. Barlow, but they have not yet been published, and Dr. Lees believed that this was the first post-mortem examination which had been obtained, and also the first time that the cause of the obstruction had been ascertained during life.

Dr. Finlay and Mr. Barker were then appointed auditors for the year, and the meeting adjourned.

## CLINICAL SOCIETY OF LONDON.

### *Cases of Intussusception treated by Abdominal Section.*

THE ordinary meeting of this Society was held on the 8th inst., J. Lister, Esq., F.R.S., President, in the chair. The evening was occupied by an interesting debate upon the subject of abdominal section for intussusception, introduced by Mr. Godlee in a paper on three cases in which that procedure was followed, one case being successful. The other papers on the agenda had in consequence to be postponed, but Dr. Coxwell exhibited his case of a child with symptoms resembling those of myxœdema. Dr. T. H. Green exhibited a well-marked case of pseudo-hypertrophic paralysis, the patient being a man twenty-four years of age, and the symptoms of the disease only having appeared one year previously.

Mr. GODLEE read a paper on three cases of Intussusception in Infants treated by Abdominal Section.—Case 1, an infant of nine months, was admitted into University College Hospital with well-marked symptoms of intussusception, from which it had been suffering for four days. The bowel protruded at the anus. The child was very ill and weak, and it was doubted whether it was justifiable to perform any operation. It was not thought wise to spend much time on attempts at inflation, and accordingly abdominal section was performed without much delay. Antiseptic precautions were adopted throughout, the child being as far as possible protected from the chilling influence of the spray by using as small a volume as possible, and wrapping up the greater part of the trunk and legs in cotton-wool. No great difficulty was experienced in finding the point of involution, nor in reducing the intussuscepted part. The wound was secured as in an ovariectomy, and a dressing of iodoform wool was applied and secured by a flannel roller. The temperature rose the day after the operation to 105°, but soon fell to about 100°. It was necessary to give small quantities of brandy after the operation, and for some few days minim doses of laudanum were given to check restlessness and a slight diarrhœa which ensued. A little suppuration occurred along the course of the sutures, but the wound healed well,

it is unjustifiable. So in intussusception, temporising measures, such as inflation, the longer such interference is postponed the success are lessened, and operation save life. And this must be the course pursued in spite of a few cases being spontaneously cured by sloughing of the intussuscepted gut; just as in hernia, operation has been refused, spontaneous place by a turn in bed or under the influence of a cathartic, and is believed if this principle were more of successes would be recorded. He was a facility with which Mr. Godlee effected withdrawing the bowel without requiring kneading. His failure in the third case, for the fact of the appearance of the caeci would generally imply that the had been fully reduced. — Mr. Howe congratulated Mr. Godlee on the success a success which taught two lessons — of infants for such an operation, mechanical treatment early applied, by degrees that children bore abdominal pressure. Mr. Bryant had pointed out that the operations for intussusception were pure had rightly compared the condition Opponents of the operation might argue few successes, the fact being that the which operation could be expected to succeed showed in how short a time inflammation could occur so as to prevent reduction; cases the strangulation did not seem to although in each case blood was passed, a very fact of hæmorrhage occurring showed Fagge had pointed out, that the circling going on in the partially strangulated period at which strangulation comes on. It is not the time that the intussusception period during which symptoms of strangulation present that is of importance. Thus he had of a child who had had intussusception strangulation for only twelve hours. In fatal cases the operation had been delayed, seeing the good results of abdominal operation with Mr. Bryant in urging early interference do not succeed, the operation should be performed. The severity of an operation is no good objection, if it be the only means likely to succeed, is extremely fatal, for, setting aside a few spontaneous cures, almost all die, and therefore he to be on the alert in such cases. Mr. Marshall advocating the procedure of reduction, Mr. Hutchinson as preferable to simple traction, agreed with Mr. Marshall on the minor duration of the intussusception itself as an interference; for during the past year he had his care three cases, in two of which recovery after inflation. In these cases symptoms had for from three to five days. The symptoms of, however, were not severe, there being very little of the abdomen, the patients suffering from little from twinging pains. In the two successful cases, reduction yielded to insufflation under chloroform; there were five and eight years of age respectively. The case was a younger child, who was in a more collapsed state, inflation reduced the size of the tumour considerably, passed from the left side of the abdomen to the right was given, but in a few hours the tumour returned to its size and position. Mr. Golding Bird saw the case after performed inflation, with the same result as before collapse ensued. After death examination showed incomplete reduction, which was completely effected by injecting water into the bowel, but not without effecting rent in the peritoneal coat. — Dr. MAHOMED mentioned a case of chronic intussusception lasting nine months, the nature of which was not clear, notwithstanding the nature of ing and passage of a portion of intestine. It occurred to him in that case whether it would not be justifiable to lay down on the bowel and remove it. He therefore suggested that excision of the intussuscepted bowel might be of value in cases which could not be reduced by other means. Mr. HOWSE said that the results of abdominal intussusception were not very encouraging. Since the case recorded by himself and Dr. Fagge, in the Trans. he had had four cases, in two of which the

the fact that the Commission has not yet received any information from the Government of the United Kingdom regarding the proposed changes to the law.

reption had protruded from the anus. In two of the cases operation was tried, but owing to their severity operation was to be performed. On each of the four cases he failed to effect the intussusception. In two he excised the ilio-cæcal valve, which remained unreduced. But the excision of a piece of intestine with the abdomen laid open was not easy, there being great risk of tearing the softened gut; and he suggested the use of a thin elastic sheeting to shut off the bottom of the cavity whilst excising. Another difficulty he met with was in bringing the divided ends of the bowel together, it being very difficult to draw them sufficiently tight. It might be well in cases where the intestine protrudes through the anus to adopt another measure, similar to that followed by an Italian surgeon, who, mistaking the condition of one of simple prolapse, drew down the tumour and cut it off easily away; the case did well. Some such procedure as this might succeed, for it would be comparatively easy to cut off the intestinal mass, and yet the peritoneal cavity would be shut off by the adhesions in the intussusception.—Dr. AHOMED added that he should have referred to Mr. Bryant's successful cases of excision of portions of diseased intestine.—Dr. ANDREW CLARK commended Mr. Godlee for his modest record, and wished to ask whether the effects of such operations on young children had been noted, especially as regards variations in the temperature. If observations on temperature were made during such operations, we might the better understand the various factors engaged in the production of temperature.—Mr. HAWARD said that no doubt it was very desirable to make the distinction, if possible, between those cases in which the bowel is merely invaginated and those in which it is strangulated. The acuteness of the symptoms was some guide, but it cannot be altogether depended on. There was lately under the care of Dr. Cavafy and himself a child, seventeen months old, whose attack had commenced with vomiting five days before; the bowels were twice opened after the first symptoms, and blood had been passed for two days. On admission the invaginated bowel could be felt per rectum. Ether was given, and injection with inversion failing to effect reduction, the abdomen was opened. Although acute symptoms had been present for five days there was no difficulty in withdrawing the invagination (consisting of ileo-cæcal valve and ileum) by slight traction and support from above. The main difficulties now arose. The bowels, being greatly distended with gas, could not be prevented from protruding through the abdominal wound. Inversion and gentle manipulation failed to replace them; nor did simple punctures to let out the gas suffice. Finally, the distended coils had to be tapped with a trocar, liberating gas and fluid faeces, before the intestines could be got back. This same difficulty has occurred to others in abdominal section for intestinal obstruction. The child died a few hours after the operation, with commencing peritonitis, which Mr. Haward thought was due to the above protracted difficulty.—Mr. BECK had done this operation six years ago, in a child under one year old, who survived it for thirty-six hours. There was some difficulty in reducing the intestine, which he had to draw out on to the abdominal wall; and he tried to reduce it by both pushing and pulling on the intussusception. During these measures fissures appeared on the surface of the vulvulus, and the child ceased to breathe, but was restored by artificial respiration.—Mr. PEPPER remembered the case referred to by Mr. Beck, which raised in his mind doubts as to the propriety of such operations. Since then he had seen one operated on by Mr. Pye, in which the peritoneal coats also split. He pointed out that Mr. Pollock, writing in "Holmes' System of Surgery," says that a very considerable number got well spontaneously, and, if so, it became a question whether it is wise to operate at all.—Dr. BUZZARD pointed out that a case of intussusception was not to be placed in the same category as ovarian disease, where there is no natural attempt at recovery; for in intussusception from the time inflammation (and therefore obstruction) sets in the natural process towards recovery is commenced, ulceration ultimately succeeding in cutting off the intussuscepted part. In every case there is this natural tendency to recovery, but in the majority the patient dies in the process. At the same time he did not wish to discourage the operation, which was often the only chance.—Dr. GLOVER asked whether belladonna might not do good, and related the case of a child who had obstruction for ten days (not, however, due to intussusception), in which no relief had been obtained under opium and enemata, and abdominal section was on the point of being performed, when

belladonna was given—the extract in quarter of a grain dose, every four hours; and after the fifth dose the bowels were freely relieved.—The PRESIDENT said that the Society was to be congratulated upon the valuable discussion and the paper that had given rise to it. Mr. Howse's suggestion, although startling in its novelty, deserved careful consideration, for it was an imitation of the natural process of cure referred to by Dr. Buzzard. The peritonitis in Mr. Godlee's second case was, he felt no doubt, due to the state of the bowel, just as in peritonitis following strangulated hernia, and he did not think it attributable to the spray. In abdominal surgery it would seem that antiseptic precautions are less important than in surgery generally; but it must be remembered that those who say they operate without such precautions do really follow the practice, in scrupulously observing cleanliness in boiling or steeping sponges and instruments, &c., although they do not use the spray. Mr. Godlee took antiseptic precautions, but it was very unlikely that the spray was the cause of the peritonitis, and nothing more likely than that the condition of the bowel determined it.—Mr. GODLEE, in reply, said that no doubt in that case of peritonitis the strangulation had lasted longer than in the others. He believed there were very few cases on record where the bowel had separated by sloughing under the age of one year, and inflation was less likely to be successful in such young children; besides, it produced very great exhaustion. Dr. Taylor's cases were older, and the youngest died. He was encouraged by Mr. Bryant's and Mr. Marsh's remarks, and concurred as to the importance of diagnosing the fact of strangulation. It was difficult to know when strangulation occurs, for bloody mucus was passed without there being strangulation, and griping pains might even occur without it. The plan he adopted in the reduction was unrolling the ensheathing portion from the ensheathed, using very little traction; but these cases proved exceptionally easy to reduce. The temperature rose rapidly in the second case to 103° or 104° after the operation. There was a difficulty in returning the intestine into the abdomen, especially in the second case. He added that, in 1877, Dr. Sands, of New York, published a table giving seven successful cases of this operation out of twenty-one cases.

## MEDICAL SOCIETY OF LONDON.

### *The Treatment of Syphilis.—The Difficulty of Diagnosing true Syphilis in Females.*

A MEETING of this Society was held on the 27th ult., Mr. F. Mason, President, in the chair.

Dr. DRYSDALE read a paper on the Treatment of Syphilis. He first alluded to the growing belief in a specific germ in syphilis, and exhibited a specimen sent him by Dr. Ebland of Stockholm, showing the fungus from gonorrhœal discharge. The treatment of syphilis was still undetermined. Dr. Fournier advises the use of interrupted courses of mercury for two years and ten months, in daily doses of about one grain and a half of the proto-iodide; Dr. Keyes of New York recommends a daily dose of about half a grain of the same salt, given continuously, perhaps for three or four years; whilst in London there was scarcely any regular treatment of the disease by prolonged courses of mercury, and in Edinburgh some practitioners give no mercury at all. Syphilis was introduced into Europe in 1492, and first treated by inunction in 1497. Paracelsus first gave mercury internally in 1570; and until 1812, in this country, there could be little doubt that mercury had poisoned fatally perhaps as many patients as had been killed by syphilis, which until 1836, when Wallace of Dublin published in THE LANCET his account of the treatment of tertiary syphilis by iodide of potassium, must have been a terrible disease. It was now known that syphilis varied very much in intensity, a certain number of cases getting well without any local measures. He himself had treated syphilis with iodide of potassium only; but Fournier and Hutchinson were so positive as to the power of mercury to prevent tertiary symptoms that he had begun to regard mercury as a possible germicide, and for some years past had given it continuously for months to all patients with well-marked sore or with secondary symptoms. He gives one-sixth of a grain of the proto-iodide or one grain of mercury with chalk, and since he has used this treatment he has not met with any salivation, whilst at the same time, so far as he knew, the patients have had a

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complete immunity from tertiary symptoms. When iritis supervened or severe rheumatic pains with headache, he increased the dose and prescribed inunction. He advocated the early commencement of mercurial treatment and its prolonged use on the ground of its antagonism to the syphilitic virus.

Dr. ROUTH read a paper on the Difficulty of Diagnosing True Syphilis in Women, and the Nature of its Contagion, with the especial view of combating the Contagious Diseases Acts. He particularly dwelt upon the insignificance of the initial lesions in women leading to their being overlooked on examination, and spoke of the extreme virulence of the syphilitic poison. He then remarked that it was proved (1) that a female could contaminate by her secretions alone, quoting several French and English authorities, and that Fournier extended this contagious power to three or four years; (2) or by mediate contagion owing to promiscuous intercourse; (3) by women who had been cured of syphilis so as to be incapable of re-inoculation and yet fertile sources of infection. He maintained that the contagion of syphilis was intensified in virulence wherever brothels were tolerated, as illustrated by reference to reports from France and Brussels; and that the danger of licensed houses was increased by the inadequacy of examinations. He also showed from the English data of the Contagious Diseases Acts that true syphilis was more severe in the protected than in the unprotected districts, the number of constantly sick being greater, and that even Mr. Lawson admitted the chance of a soldier contracting syphilis in the former as compared to the latter is as 36 to 33; and that for the last two years from the Army Reports syphilis had increased in the former 57 per cent., in the latter 45 per cent.—Dr. DRYSDALE confirmed the statement as to the increase in the prevalence of soft sores in London and Paris of late years; and also that syphilis had increased in Paris, which he attributed to the clandestinity caused by the police regulations.—Dr. F. SIMMS agreed with Dr. Drysdale's remark, and added that the presence of a soft sore was an unsafe reason for inferring the absence of syphilis. It was hard to diagnose a primary sore with certainty.—Mr. H. LEE suggested that the Society should undertake the preparation of a scientific digest of the evidence respecting the working of the Acts. Before the passing of the Acts syphilis and gonorrhœa were decreasing, but now both are on the increase. He corroborated Dr. Routh on the extreme difficulty of diagnosing primary syphilis in the female, and the same with respect to gonorrhœa. He had produced the characteristic pustule by inoculating the discharge from the healthy vaginal membrane of a syphilitic woman. The army returns were defective in not giving the cases of secondary syphilis or in distinguishing soft and hard chancres. In women the diagnosis was more difficult by the absence of the characteristic symptom found in men—the enlargement of the inguinal glands. As women only were examined under the Acts, the difficulty in diagnosis seemed to cut at the root of the scientific value of the statistics. It was a question whether one-tenth of the money that these Acts cost to execute, spent on sanitary objects in barracks, would not do far more than the execution of the Acts.—Mr. ST. GEORGE MIVART drew a distinction between the French system, which had broken down from the brutality of the police, and the English; and Dr. Routh's arguments were mainly drawn from the former. The most common source of infection he believed to be mucous tubercle, and not primary sore.—Mr. EDMUND OWEN had found that soft sores were apt to become indurated, and to be followed by secondaries, whilst infection not uncommonly was the sequel to a sore which never bore typical induration, and he believed beyond doubt in the unity of syphilitic virus. He protested against Dr. Routh's conclusion that the working of the Contagious Diseases Acts increased vice and propagated disease. The evidence given before the Select Committee had led its members to form the opposite conclusion.—Dr. DRYSDALE and Dr. ROUTH briefly replied.

#### ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Surgical Section took place on the 8th inst., Mr. J. K. Barton, President, in the chair. In the library a man who had been trephined for abscess on the brain was exhibited by Mr. Kilgariff, and various specimens by card by Messrs. Franks, Croly, A. Benson, Stokes,

Wheeler, and Abraham. Mr. Wheeler's included an interesting cast of dislocation of the wrist, caused by the contracting cicatrix of a burn, and Mr. Abraham showed the sputum of bronchitis and phthisis, contrasted in reference to the bacilli. Mr. Barton then gave the inaugural address as president of the section, and referred to the Surgical Society which had lasted for the past fifty years, and which had become merged in the Academy of Medicine. He compared the surgical clinical instruction in the Dublin with the continental system, and mentioned some of the most difficult problems of surgery which he thought would be of advantage to read a paper on the case of trephining of Trim, on a case of nephrectomy by Mr. K. The patient, a girl, was admitted into and died in forty hours after the operation. On removal the kidney weighed ounces and contained an abscess from which pus exuded. The case was evidently a tubercular disease of the organ. Mr. K. dissecting aneurism of the aorta, which was considered should have been kept in the Section, and the proceedings terminated.

#### Reviews and Notices

*Animal Plagues; their History, Nature, and Prevention.*  
By GEORGE FLEMING, F.R.C.V.  
Vol. 2. London: Baillière, Tindall,

PREVIOUSLY to the outbreak of cattle plague in this country, the history of animal plagues had attracted much attention, and when the ravages of the disease were so extensive, and the attention of veterinarians and stock-owners into a state of activity, it did not seem to occur to the public that the disease was not a new one, and that it was lying ready to be presented to the world. It was a new one, and for some time England presented a spectacle of a people seeking with much anxiety for circuitous paths information which was lying at least to eye, in the veterinary literature of Austria. Had the history of the disease been familiar to English stock-owners in 1800, agriculture would have been immense, and there was no accessible English work which contained useful information on the subject, and our authors who could have enlightened them, and who could have depreciated the benefits of foreign impost.

It is difficult to convey an adequate idea of the objects of the work on Animal Plagues without further into details than our space will permit, but there is no hesitation in asserting that the two volumes on Plagues, added to the companion volumes on Sanitary Science and Police, and Rabies and Hygiene, are evidence of the remarkable industry by which their author has surmounted difficulties of no ordinary character.

The volume now before us is, we are told, the writer's labours in this direction. In the first volume, which was published in 1871, the history of epizootics incidentally of epidemics, included the period from B.C. to A.D. 1800. In the present volume the history is continued from 1800 to 1844, after which date the writer is not his present intention to carry on the record, as from that time "Veterinary literature became largely developed, and there is no difficulty in tracing the origin and extension of the more remarkable at least of the animal plagues which visited the civilised world." Nevertheless to present in one view a record of the principal epizootics which have appeared since 1844 would be a satisfactory conclusion to the work, and although it might present no difficulty to Mr. Fleming, we question if any of his professional brethren are likely to attempt it.



carrying out his self-imposed task, the author has adopted the system of chronological reference, instead of attempting a complete history of each form of disease. Commencing in the first volume with the murrains of Egypt, in the first chapter he gives an account, necessarily a concise one, of the plagues which the earliest historians have alluded to between 1490 B.C. and 400 A.D. Then, in the next chapter, in the space of some ninety pages, is compressed the history of eleven hundred years—from A.D. 400 to A.D. 1500—an unprofitable period, as the writer describes it. Coming gradually to more modern times the accounts of zootics in various parts of the world become the more interesting, for the reason that it is possible to connect the animal plagues of a former period with those which are familiar to this generation of stock-owners. As a concise record of the rise and progress of animal plagues from the earliest times, the value of the work to the veterinarian cannot be over-stated, and it may not be out of place to suggest that the agriculturist will find in it matter well worthy of his attention. In the last twenty years the stern logic of facts has convinced farmers that the ravages of the most deadly diseases of the lower animals are not, in their estimate, to be lightly estimated; and they are not now supposed to laugh, as they did in 1862, at the idea of legislating for the movement of animals merely because they had few blisters on their tongues and feet. Mr. Fleming's work is likely to find readers among a class to whom a few years ago its teachings would have seemed to possess no meaning.

*The Practical Working of Direct Vaccination from the Calf.*  
By BENJAMIN BROWNING, M.D. Reprinted from the Transactions of the Society of Medical Officers of Health.

IF Dr. Browning had contented himself with giving some account of the methods to which he had resorted for the vaccination of calves, his pamphlet would have merited more approval than we are now able to accord to it. The earlier pages are devoted to an attempt to show that calf lymph should be employed to the exclusion of humanised lymph. A few words will suffice to demonstrate the error into which he has fallen. He begins by showing that absolute immunity from small-pox is not always to be procured by the use of humanised lymph, and he then makes the bold assertion, that animal lymph "never fails in preventing small-pox." This last statement appears to be based upon the fact that 150 persons vaccinated by him with calf lymph, though living in infected localities, had not subsequently suffered from small-pox. As matter of fact, there is no definite evidence of the amount of protection relatively afforded by humanised and animal lymph, but the history of small-pox hospitals gives ample proof that those exposed to the disease can be efficiently protected by the use of humanised lymph. Again, Dr. Browning states that the success attained in the use of the lymph which he cultivated was 97·13 per cent., but no information is given whether he refers to the number of individuals vaccinated, or to the number of insertions made; probably the former is intended, but there is again no evidence to show what he means by success, or whether he applies this word to cases in which vesicles are developed on only a proportion of the places of insertion. That good results are attained by direct vaccination from the calf there is no doubt, and the report which we recently published on the Animal Vaccine Establishment of the Local Government Board is sufficient evidence on this point; but Dr. Browning's pamphlet is calculated to give rise to the erroneous impression that the use of stored animal lymph is to be entirely trusted to, a belief which should not be encouraged.

We feel, however, with Dr. Browning, that there is ample room for the development of calf vaccination, and although

we cannot agree with all the observations which he makes, with reference to the methods to be adopted, some are deserving of attention.

## ORCHITIS IN TYPHOID FEVER.

*To the Editor of THE LANCET.*

SIR,—With reference to the sub-leader on this head in your issue of the 9th inst., perhaps the following notes may prove interesting.

A young officer in the Dublin garrison contracted enteric fever in the Linen Hall Barracks, and went through a well-marked and severe attack in the infectious diseases hospital under my charge. The temperature was high, at one time rising to 105°, and from first to last the duration of the fever was twenty-eight days before the normal point was reached. After about ten days' convalescence the patient was moved into lodgings, and kept in the recumbent position. Particular instructions were given regarding the food, and close attention was paid to the state of the bowels, which for the latter part of the attack had been constipated. After a few days he began to sit up in an arm-chair, and was rapidly recovering, when suddenly he experienced an attack of severe pain in the right iliac fossa, and on being sent for I found him with a coated tongue, a temperature (evening) of 102°, a pulse of 120, and a decided tenderness over a considerable portion of the abdomen. On inquiry I found his bowels had become constipated, having had no motion for thirty-six hours, and it further transpired that he had been sucking grapes and had swallowed some of the seeds. He complained also of pain in the right testicle, but there was no orchitis. I ordered hot fomentations to the abdomen, half an ounce of castor oil in warm milk, and a large enema of warm water. Next day he was worse. Morning temperature 103°, evening 104°; tongue very foul; pulse 120; severe pain and tenderness over abdomen, with orchitis of right testicle. Some relief had followed the oil and enema, but there was evidently more to come away. Another large enema was given, which acted well on the bowels. Hot fomentations were kept to the abdomen and scrotum, and one grain of calomel and half a grain of opium were given every fourth hour. On the following day the temperature fell to 99°, the pain and tenderness in the abdomen had disappeared, but the testicle remained swollen and tender. The scrotum was not inflamed. The epididymis was not involved, but the right cord was painful on pressure. From this time the case did well, and the young man is now quite convalescent.

I am, Sir, yours truly,

J. B. HAMILTON, M.D.,  
Surgeon-Major.

Dublin, Dec. 9th, 1882.

## DEATH IN PRISON.

*To the Editor of THE LANCET.*

SIR,—On reading your remarks upon a recent death in Huntingdon goal in THE LANCET of December 2nd, the evidence of the governor of the prison, that "there are no arrangements under which, in the event of any sudden illness or other emergency, and the surgeon or assistant-surgeon being absent from the town, I can call in another medical man to attend a prisoner," struck me as very surprising, and as proving to how great an extent red-tape may fetter and cramp the official mind. The medical officer of a local prison can, with the approval of the commissioners, appoint a substitute, who, in cases of emergency, and in the absence of the medical officer, may visit the prison. In the event of the medical officer and his substitute being both of them engaged or absent, it is still possible for the governor of a prison to call in the nearest available medical man. In proof of this I may state that, three or four years ago, one of the warders of Her Majesty's prison at Deverges was murderously assaulted, and severely wounded by a prisoner with a knife, which he used for mat-making. The governor of the prison, very properly seeing the urgent nature of the case, at once despatched a messenger for the nearest surgeon, as well as for me who lived at a greater distance. We arrived together, but I was only too glad to have the assistance of my friend in attending to the wounded man. In this case the commissioners at once allowed my friend a fee for his services, thereby sanctioning the action of the governor in sending for the nearest help.—Yours, &c.,

EDWARD CLAPHAM,

Wimbledon, Dec. 11th, 1882. Late Med. Officer H.M. Prison, Deverges.

# THE LANCET.

LONDON: SATURDAY, DECEMBER 16, 1882.

## Sir Thomas Watson, Bart.

FULL of years and of honours, the greatest English physician of the present century has at length gone to his rest. We have elsewhere given some details of Sir THOMAS WATSON'S distinguished career, and we have traced his progress from the Grammar School at Bury St. Edmunds to the unquestioned headship of the medical profession, a position which for many years he occupied with singular honour and dignity. As he was honoured by being so highly placed amongst his professional brethren, so his exaltation may be said to have reflected honour upon the profession, whose members so highly and so universally appreciated the high qualities of their revered head.

The last occasion on which Sir THOMAS WATSON attended a meeting of the Fellows of the College of Physicians was in the spring of the present year, when Sir WILLIAM JENNER was for the second time elected President. In the absence of the senior censor, the senior Fellow present was called upon, in the usual form, to deliver to the re-elected President the insignia of his office and to administer the formal oath. When Sir THOMAS WATSON got up to walk towards the President's chair, the whole of the assembled Fellows rose as one man to show their respect and affection for their venerable ex-President. The respectful feeling which was then so touchingly and spontaneously displayed by the assembled Fellows of the College of Physicians is shared by the entire profession, who will feel as a personal loss and sorrow the removal of one whom they have so long been accustomed to regard as their most distinguished member. What, then, are the qualities which have gained for this great physician the respect and affection of all who have had the privilege and the happiness of knowing him? It is the rare and happy combination and balance of great intellect with the highest moral qualities which constitute the truly wise and good man. In this sense an eminent living physician has spoken of Sir THOMAS WATSON as the wisest man whom he had ever known; and a near relative describes him to have been the most unselfish of men. His own lectures and public addresses may be looked upon as giving the best and fullest illustration of the illustrious physician's mind and character. What student or practitioner of medicine can read thoughtfully that well-known and often-quoted introductory lecture in which, in terms of solemn and lofty eloquence, are set forth the privileges and responsibilities of those who enter the profession of medicine, without being led to form a higher estimate of his calling? without being inspired by the desire to act up to those lofty principles which the earnest teacher endeavours to infuse into his pupils? And that he taught no less by example than by precept is known and gratefully acknowledged by thousands who have had the privilege of his acquaintance. He was himself a living impersonation of the principles which he so eloquently expounded in his lectures. And, withal, he was modest and unassuming, as becomes a truly great and wise man.

THE theatre of the Royal College of Surgeons was crowded literally to overflowing, on Wednesday afternoon, when Sir JAMES PAGET delivered the first Bradshawe Lecture. It was mentioned last week that this lecture had been instituted by the widow of the late Mr. WILLIAM WOOD BRADSHAW, of Reading and Andover, who bequeathed £1000 to both the Royal Colleges with a similar object—namely, that a lecture might be delivered annually at each of these institutions to perpetuate the memory of her husband, it being stipulated that the subject should bear upon some question of medicine or surgery, but beyond this a very wide latitude being left to the lecturer. It is needless to say that the audience was not disappointed. It is impossible for Sir JAMES PAGET to treat of any subject without adding to it an interest and grace which are all his own, while his fluency and elegance of diction effectually prevent that irksome feeling of somnolence that afternoon lectures at the College of Surgeons are apt to induce in the most attentive.

The lecture was "On some Rare and New Diseases." Sir JAMES PAGET did not, however, enter into a description of the natural history of any one of the diseases to which he alluded, but after enumerating a few of those to which attention had been particularly directed, such as exostosis, deformans, the joint disease of locomotor ataxia, and others, he launched into the broader questions of whether or not these are actually new diseases? and, if so, how do they come into existence? Not only is this subject of the greatest possible interest in itself, but it supplies the lecturer with an excellent text on which to point to the methods of observation both of the common and of the rarer forms of disease. Let us take as examples some of the epigrammatic sentences, many of which will remain in the lecture, and which will doubtless remain in the recollection of those who heard those who may read his words. "Why are things new?" is a question we are told we should be in the habit of asking ourselves when brought face to face with cases presenting any unusual or interesting anomalies; we are not to treat such cases aside simply as anomalies or peculiarities, but therefore of but little interest, but to endeavour, if possible, the cause of their occurrence, to find the clue to the development of such new morbid conditions as those to which reference has been made. In the case, for example, with diseases as with family likenesses, the exact likeness is never transmitted from parent to child, so the tendency to disease is never inherited in precisely the same way, and thus modifications are introduced which gradually become solidified into a type? And if this be the case, in what manner does hereditary transmission modify the type of diseases? For instance, are the new forms which we occasionally observe hybrids, which have no power of transmitting themselves as such; or mongrels which breed more or less true; or are they, again, simply more morbid conditions existing as it were side by side with the type? On the other hand, should they be looked upon more as the result of combinations? "Collect bad specimens," says Sir JAMES PAGET, speaking from the point of view of research, has all his life had the interest and utility of morbid anatomy at heart. It is not by multiplying typical examples that a advance in discovery is to be made, but rather by the careful record and preservation of those which we do not understand.

as JOHN HUNTER's specimens of gumma in the gæmæus, and typhoid ulcers in the intestines. Speaking of the specimens, Sir JAMES PAGET says, "It would be very odd if some one would collect hundreds or even thousands of them and arrange them, even though it were only under headings as I have just indicated. But even as they singly and in disorder, let me say that we ought not to throw them aside with idle thoughts about 'curiosities' and 'trifles.' Not one of them is without a meaning; not one might be the beginning of excellent knowledge if only it could answer the question, Why is this rare? or, being rare, why did it in this instance happen?"

Sir JAMES PAGET expressed the belief that some diseases are really been developed in comparatively recent times, and are becoming more common as the result of hereditary transmission; for, as he pertinently observed, it is scarcely conceivable that marked and chronic deformities like those produced by osteitis deformans or Charcot's joint disease could have escaped the observation of such careful observers and indefatigable collectors as "HUNTER, HOWSHIP, LANGKAF, COOPER, STANLEY, and others, who collected not merely illustrations of disease well known to them, but whatever was curious whether it was known to them or not;" and yet there are no examples except of ancient date in any of our museums. At the same time he pointed out that many so-called new diseases, such as Bright's or Addison's, are really old at the time of their discovery, and are only recognised by the light of increasing pathological knowledge. And it was also shown that the study of the varieties of well-marked species of disease is not merely of pathological but of the greatest practical interest. Many drugs which are of undoubted value in certain examples of a particular malady, such as bromide of potassium in epilepsy or salicatum in chronic rheumatic arthritis, fall into disrepute, because in a certain other number of cases they appear to be absolutely useless; but "that which some call the fallacy of therapeutics is generally the fallacy of diagnosis. We need not only the diagnosis between diseases essentially different, but that between the different and varying forms of each of those which we call by a generic name; and, beyond this, we need a more exact power of what may be called analytic diagnosis; for there are few simple cases, and in those which are not simple we need to be able to discern all the components, and the proportions in which they are mingled or combined. Better treatment will follow better diagnosis, and better diagnosis will certainly follow a more exact pathology."

Everyone will agree with Sir JAMES PAGET in the praise he bestowed on those who have devoted so much time and labour on the perfecting of the Hunterian Museum, amongst whom none perhaps is more deserving than himself; and all will join with him in urging surgeons, wherever they may be, to do their part in helping to make this national collection perfect by sending up their rare specimens when occasion offers.

We have only to add that this the first "Bradshawe Lecture" has thus proved a most interesting and instructive occasion, and one not soon to be forgotten; and if succeeding lectures should even rival the first in interest, we may fairly assert that the name of this "home-loving and studious man, who diligently cultivated his mind in both literature

and science," as well as that of his "generous widow," will not only be handed down in good repute to posterity, but will be remembered from year to year as marking one of the red-letter days in the surgical calendar.

MANY of our readers must have been amused and somewhat puzzled by the lecture on Fever published in our last two numbers by the able and accomplished lecturer on Medicine at an important metropolitan medical school. That the lecturer abounded in witty sayings and in original exposition is to be taken for granted when one knows its source, and that it was unsparing and sarcastic in its criticisms is to be expected also, for Dr. MOXON is nothing if not critical. No doubt it is a good thing to get students to think for themselves, but subtle reasonings and semi-serious digressions are apt to bewilder them. In spite of such redeeming features as the urgent advice upon personal clinical observation and the value of first-hand knowledge, as well as its clear discrimination of the varieties of fever, the lecture as a whole seems to us somewhat out of place. No doubt Dr. MOXON's great dread lest we should be led away by mere words from the recognition of actual facts made him use his opportunity to demonstrate the fallacies of attempts to define fever, and a like sense of truth impelled him to confess that of the real nature of fever we know nothing, but know only our false mental conception of it; whilst it led also to his onslaught upon the rapidly growing tendency to find in the germ theory a sufficient explanation of the febrile process. That is why, probably, his lecture was so iconoclastic, and unsparing too in its iconoclasm, with but little proffered in exchange beyond an hypothesis as to the nature of fever, which was quite as chimerical as he believes the alternative theory to be.

Although one may disapprove of this lecture as a model of instruction, and dissent from its conclusions, yet one is not the less compelled to admire the freedom with which the lecturer spoke, or to admit the truth of many of his strictures. It seemed a little unfair of him at the outset to make so much of a single sentence as embracing a definition of fever, but doubtless he could not resist the temptation of demonstrating the logical fallacy involved in that statement; still he might have quoted the context where the writer in question guards himself against too "abstract" an idea of fever by enunciating its essential phenomena. Everyone will admit that a definition is one of the most difficult things in medicine, because of the imperfection of our present knowledge, and of all subjects that of "fever" is perhaps the most difficult to define. Even Dr. MOXON attempts a definition later on in his lecture, and exception might be taken to his statement that fever consists in a body temperature above 100°, since many would be satisfied with a lower criterion, which should yet be above the limit of normal variation in health. Dr. MOXON is very severe upon scientific teaching, or perhaps we should say upon the supremacy of all science in education to the detriment of facts of practical utility, and he charges the physiologists with the error of extending their sphere of knowledge in directions which promise but few practical results. The passages in which he touches on these subjects have a vein of truth running through them, so that one may pardon the digression which they involve from his proper theme.

The word "principle" started this digression, and Dr. MOXON seems to think aloud as he passes away from his subject down this and that bypath in a manner which must have been, at least, most entertaining to his hearers.

At length he returns to his main thesis, and, discussing the meaning of the word "kind" as applied to fever, he no doubt truly says that by "kind" we mean simply the existence of differences we are unable to explain; although in the case of living beings we are able to base distinctions upon the surer ground of the power of reproduction "after their kind." This power of reproduction is exemplified also in the specific fevers, and is considered a more reliable basis of distinction than the anatomical lesions, which Dr. MOXON regards almost as coincident rather than essential parts of the fever. His table of classification of fevers was intended to show the other and wider relations than those of species among fevers, and was drawn up much on the plan of the zoologist in dealing with groups of animals. In all this Dr. MOXON is easily followed, and is in the main right, but the statements which are the most original, and which are probably intended to excite opposition, are those which conclude the lecture—we mean his attack upon the germ theory of fevers.

Here, however, he is not content with mere iconoclasm, but by a series of ingenious arguments erects what one may call a sperm theory or a sperm and germ theory, as distinct from the fermentation or parasitic germ theory of fevers. Comparing the course of a fever in its varying episodes and inevitable termination to the life of the body itself, Dr. MOXON imagines that the micro-organisms of which we hear so much, and of which he takes the spirillum of relapsing fever as the type, are really portions of texture (we use his own phrases) cast off from one human body which can fertilise germ tissue in the infected body and start the process. Somewhat fancifully, it seems to us, he speaks of life itself being a protracted infection of the germ by the sperm, the living body remaining during its life germinal to other infections when suitable spermatogenic elements come into contact. In other words, there are textures in our bodies ready prepared for infection by fever-sperm cast off from other bodies, a notion not a whit less fanciful than the idea of a special pabulum for germs that come from without and are strictly parasitic. Moreover, clever at detecting fallacies in others, he seems to occasionally fall into error himself, since it was at least very unguarded of him to speak so contemptuously of the "bits of protoplasm" called bacteria, as if those believed to be characteristic of disease were identical with those which are met with in the presence of decay and putrefaction, and required similar nutriment and conditions for their development; and he does not mention that some hold it proved that these organisms are carriers of contagion, and are not the contagion itself; whilst he is actually inaccurate in the analogy he draws from the *filaria sanguinis hominis*. In the first place, as Dr. MANSON showed, the periodical entrance of that parasite into the blood-stream is associated with a rise in temperature, and, secondly, there is nothing in common, either as to origin, nature, or (probably) effect, between a nematoid larva and the protophytic or protozoic organisms which occur in the blood and tissues of certain specific diseases. Dr. MOXON does not hesitate,

moreover, to question the inferences derived from what are known as cultivation experiments and inoculations, and in a sentence ruthlessly dismisses the results of the patient and laborious research of PASTEUR, KOCH, and their followers, as being not proved, because the actual process of development of any single organism is not made manifest. Were the lecture not addressed to students, we should have thought Dr. MOXON was really not serious in making such objections; but if we must take him seriously, we would equally claim to discard his "alternative" unless he shows us in actual process the impregnation of assumed "virgin" tissue by the spermatogenic element, and until his theory receives so substantial a support as we see no reason to impugn the value of cultivation experiments, or to regard them as other than one of the supports in favour of the germ theory.

THE Criminal Lunacy (Departmental) Commission reported adversely to the almost universal protest of the medical superintendents against the practice of removing lunatics direct from prisons to county asylums. This, indeed, might have been anticipated, looking to the constitution of the Commission, and the manner in which it was about the business in hand. The Report opens with a characteristic exercise in hair-splitting as to the meaning of the term "criminal lunatic"; highly interesting, decidedly in the departmental, forensic, and statistical mind, but having nothing whatever to do with the practical question with which a considerable section of the medical profession has been for a long time past deeply concerned. Dr. EDGAR SPEAR, who, as our readers are aware, recently retired from the medical superintendency of the male division at Colney Hatch Asylum, after twenty years' distinguished service, put the main issue before the Commission thus—

"It is a grievance that the man or the woman known to be of a criminal type and class should be admitted into a county asylum, where there are, as I said before, a large number of very well educated people—people whose antecedents have been those of great respectability, and who are naturally very sensitive on a point of that kind. There is no doubt that they do feel it. A criminal is known to be a criminal, and is spotted as such, and he exercises a very baneful and prejudicial influence upon all in the room in which he is located. He is generally of low habits, as a rule, certainly very low habits; all his tastes and tendencies are of a bad and unsatisfactory character. He is also given to be very seditious as a rule (that is one of the great objections to him); to subvert discipline; to be disrespectful to the staff, notably to the superior officers; to defy them; and altogether I may say he is an element of discord."

Further on, speaking of the difference between a criminal and a non-criminal lunatic in relation to treatment, Dr. SHEPPARD gave evidence as follows:—

"I have no doubt myself that many of these criminals have proclivities to insanity; they come of a bad type of humanity altogether; they inherit a very strong tendency to commit crime, very many of them. You have only to look into their faces to see that, but taking the vice and the insanity together, and mixing them up, they become very nice compounds; and in many cases there is what I may term a maximum of crime and a minimum of insanity. They exercise a most prejudicial influence upon the other inmates, in whose case, as a rule, the insanity is the maximum and the crime is the minimum."

the Commission, evidently, did not realise the force of this meaning; indeed, there is nothing to lead any impartial reader of the Report to suppose that the main subject of the sentence was understood at all! The Commission is of opinion that when medical superintendents complain of "criminal lunatics" they mean *ex-criminal lunatics*—that is to say, persons who having been criminals have become sane, but have now in some way expiated their crimes, or at least written off the rolls of the criminal classes. Having arrived at the conclusion "that opinions (medical opinions) as to the offensiveness of criminal lunatics to ordinary pauper lunatics, rest chiefly on experiences relating to criminal lunatics, who are really ordinary pauper lunatics," and on experiences "of other lunatics in whose history none had presented itself," the Commission proposes to amend matters by so modifying the warrants issued by the Secretary of State that when a criminal is sent to an asylum he shall become an *ex-criminal*—in short, a person of the very class on the observation and experience of which the adverse opinions of medical superintendents are based! This *reductio ad absurdum* of the question at issue is worthy of the Commission and of the Report. In short, the whole inquiry has from first to last been farcical as regards the main issue in which the medical profession is interested. It may be expedient to report on the mental condition of "Queen's pleasure lunatics" at the end of each year, and that the Secretary of State should issue a fresh order of detention every third year. It may be well to give the wards set apart for lunatics at Woking prison the status of a criminal asylum; and it may conduce to the general convenience if Broadmoor asylum is reserved for specially bad cases. It is even possible that the pressure of the main "grievance" may be mitigated if an agreement be entered into by the Prison Commissioners with conveniently situated county and borough asylums to receive from local prisons those insane prisoners who would not be willingly received until after the expiration of their sentences by the asylums of their own counties; and, finally, that alleged insane prisoners from local prisons should be sent to a criminal lunatic asylum. These reforms, we say, may do some good; but what the Commission was asked and expected to recommend was a distinct and final severance of the two classes of lunatics. It is no answer to the protest almost unanimously urged against sending criminals or *ex-criminal lunatics* to ordinary asylums to say, as the Commissioners say, that a large proportion of the ordinary pauper inmates of asylums are of a low type, and may have been criminal. These are not sent to the asylum stained with crime, or with recent prison associations upon them! If there had only been on the Commission one or two men possessing any experience in the actual management of county and borough asylums, the result might have been different. As it is, we can only regret that the commission was ever issued. The Report will only tend to confirm a practice which is most pernicious in its effect on the ordinary insane, and which helps to keep up the most mischievous impression that asylums are prisons and workhouses rather than hospitals—an impression which it is, above all things, desirable to remove.

It is premature to announce, as if on authority, that the Government has determined to bring in a Medical Bill. The Report of the Commissioners is, we believe, still under

the grave consideration of the Privy Council, and the practicability of devising machinery for carrying out the recommendations of the Commissioners is being considered. Moreover, the earnest efforts of the Lord President and of Mr. MUNDELLA are on the side of those who wish to end the miserable chaos and competition of licensing authorities. It would be strange indeed if a Liberal Government could be indifferent to suggestions for improving medical education, and making the tests of it fairer for the medical student and more satisfactory for the public—suggestions emanating from a Royal Commission of the highest authority, of its own appointment, and which coincide in the main with similar proposals from previous Governments, and with a large mass of public and professional opinion. It would indeed be remarkable if the Government declined to put such suggestions into the form of practical and effective legislation. No doubt such legislation may involve the disappearance of a few small medical corporations. Yet what is this but that happy "timely death"—as Sir JAMES PAGET puts it—which should be provided for institutions for individuals. It is not conceivable that a Government which is ready to reform the Corporation of London will shrink from a reform that may be unacceptable to a few medical corporations, which, as Professor TURNER says, are "an anachronism." That the great Universities, or even the Royal Colleges of the profession, will suffer materially we do not believe. But even if they should, they are not entitled to demand exemption from legislation that will make medical education better, medical examinations fairer, and the Medical Council something more than a clique of medical corporations. Though, then, we repeat, it is premature to announce that the Government has determined to bring in a Bill, there are ample grounds for believing that it will do so; and that if the Bill be worthy of the Government and of the questions to be legislated on, it will have the effective support of a large proportion of medical men and the gratitude of future generations of medical students, who are too little considered in this matter.

## Annotations.

"Ne quid nimis."

### HEALTH OF THE ARMY IN EGYPT.

THE reports which reach this country of the state of health of the troops now remaining in Egypt appear to confirm the opinion we have repeatedly expressed that the high ratio of sickness and the mortality from typhoid fever were the results of the hardships the men had undergone in the brief but very trying campaign, and especially of the quality of the water they were unavoidably compelled to drink after the destruction of the canal, and that they would speedily disappear under improved sanitary conditions. It may be remembered that General Sir A. Clarke, R.E., was sent out to inquire into the nature and extent of the barrack accommodation available for the force which is to be left in temporary occupation. He has performed this duty, in conjunction with the Principal Medical Officer, and arrived in England on Wednesday. It is stated that he speaks confidently of the improved condition of the troops, chiefly as shown in the reduction of the number of sick, the milder type of disease, and the great decrease in the deaths. He is reported to have expressed his opinion that as soon as the



[Dec. 16, 1882.]

troops have been moved into the barracks and palaces which have been provided for their use and have undergone the very necessary process of cleaning, they will rapidly be restored to health and efficiency.

### MORTALITY IN SUNDERLAND.

RECENT mortality statistics for the borough of Sunderland present some remarkable features, indicating a sanitary condition which calls for energetic action on the part of the local public health authority. During the past eighteen weeks—that is, since the early part of August—the annual death-rate in the borough has averaged 32·9 per 1000, and in the week ending the 25th ult. it was equal to 47·8. That this excess in the rate of mortality was mainly due to exceptional zymotic fatality is evident from the fact that during the period under notice the death-rate from the principal diseases of this class averaged 9·8 per 1000, or more than three times the mean rate from these diseases in the same period in the other large English towns. Measles, scarlet fever, and “fever” have all recently shown epidemic fatality within the borough. Measles, from which but one death was recorded in the first six months of this year, caused 46 deaths in the three months ending September, and no fewer than 123 in the first ten weeks of the current quarter. Scarlet fever fatality has also recently assumed excessive proportions, resulting in 60 deaths since the beginning of August. The deaths referred to “fever,” which were 5, 14, and 27 respectively in the first three quarters of this year, rose to 28 in the first ten weeks of the current quarter. Such an aggregate of zymotic fatality affords conclusive evidence of an exceptionally unsatisfactory sanitary condition. The four months under notice embrace a great portion of the period of summer diarrhoea fatality, and it may be noticed that the annual death-rate from this cause during last summer quarter was 3·2 in Sunderland, against 2·4, the mean rate in the twenty-eight great towns. With regard to the mortality statistics of Sunderland since 1870, when the Registrar-General first published uniform statistics of disease mortality for some of the largest English towns, it should also be borne in mind that this town suffered more severely than any other from the remarkable small-pox epidemic of 1870-71; also that the average death-rate from scarlet fever and “fever,” as well as the rate of infant mortality, during the twelve years 1870-1881, showed a marked excess compared with the mean rates in the largest English towns. The death-rate from scarlet fever in Sunderland during the six years 1876-81 averaged 1·70 per 1000 (more than double the mean death-rate in the large towns),—a fact which, taken alone, should prompt a rigid investigation of the health-condition of the town.

### THE COMPOSITION OF CERTAIN ORGANIC LIQUIDS.

THE *Strongylocentrotus lividus* (Brandt), belonging to the class of echinoderms, contains in its interior a liquid which is taken by the inhabitants of certain districts in the South of France under the impression that it is a digestive tonic, and it seems to have such an action when taken in the dose of half a wineglass daily. It thus constitutes a sort of animal mineral water. Its composition has been ascertained by MM. Mourson and Schlagdenhauffen. When fresh it is neutral in reaction, but in a few days it becomes turbid, acquires a fetid odour, and deposits brownish flocculi. Its reaction is then alkaline, and it contains ammoniacal and sulphuretted compounds; 1000 parts of it contain 959 of water, and 41 of solid matters, of which 37 are fixed salts, consisting chiefly of chloride of sodium, with some chloride of magnesium, small quantities of the sulphates of calcium and magnesium, and traces of chloride of potassium, and carbonate of calcium. There are also three parts of organic

matters containing fatty matters and a little albuminoid matter.

liquid apparently consists of sea-water, with an excess of carbonic acid and nitrogen (as if of respiration), excrementitious matters, which are probably derived from the organs of the animal.

The ptomaine seemed to have an active effect was not fatal, because the obtained was insufficient to produce

It is conjectured that the ptomaine is present in some bivalve mollusca, certain time of the year causes poison. The same investigators also analysed the hydatid cysts and cysticerci. The hydatids must be effected by passage of the serum of the blood, according to the Analysis showed that clear hydatid small quantity of albumen, although to by the ordinary method of testing with

Moreover, all hydatid liquids contain a ptomaine, which it is conjectured may produce toxic effects (urticaria, peritonitis) which have been observed to follow the irruption

one of the serous cavities of the human experiments on frogs yielded only a negative result. The period of the incubation of the cysts seems to be most abundant at the period of echinococci, and scanty during the incubation

which may explain why the rupture of followed by serious consequences, and All these liquids are extremely putrescent

contained in the large vesicle of cysts contains a relatively considerable amount of ptomaine

possesses very marked poisonous properties produced by its inoculation are close

produced by the inoculation of the poison animals. Injected into the peritoneal cavity causes their death with all the signs of decomposition

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puncture of the membranes. Its quantity but they conjecture that if it is ever present in amount it may furnish an explanation of

accidents of gestation.

### VENTILATION OF THE UNDERGROUND RAILWAY.

SOME years ago a great stir was made about the tunnels of the Underground Railway, and the reason, as the unfortunate deaths which then occurred to show.

Since that day the outer circle has completed, and impelled partly by a wholesome sense of need for ventilation, and partly by an equally natural

not wholly disinterested yearning for “more light” the Metropolitan District Railway Company is now

vouching to persuade the Board of Works that it ought to be allowed to discharge its foul accumulations of steam and smoke and impure air into the atmosphere of the

recreation gardens along the Thames Embankment. This plea is based on the assumption that the Metropolitan District Railway must needs discharge its aerial abominations somewhere. The obvious reply to this demand

on the lines of the memorable rejoinder to the plea “must live”—namely, “I fail to see the necessity.” A man

doubtless much to be desired by the Company and its patrons that there should be abundant ventilation, and that insignificant portion of the community which does not

either hold shares in the Railway Company or travel on its

ptomaine, a little urea, from this analysis the water, with an excess of carbonic acid and nitrogen (as if modified by the products of respiration), excrementitious matters, and some products which are probably derived from the organs of the animal.

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not wholly disinterested yearning for “more light” the Metropolitan District Railway Company is now

vouching to persuade the Board of Works that it ought to be allowed to discharge its foul accumulations of steam and smoke and impure air into the atmosphere of the

recreation gardens along the Thames Embankment. This plea is based on the assumption that the Metropolitan District Railway must needs discharge its aerial abominations somewhere. The obvious reply to this demand

on the lines of the memorable rejoinder to the plea “must live”—namely, “I fail to see the necessity.” A man

doubtless much to be desired by the Company and its patrons that there should be abundant ventilation, and that insignificant portion of the community which does not

either hold shares in the Railway Company or travel on its

has a right to be considered. In plain truth the way Company has not any valid claim to be allowed to be a nuisance to the frequenters of the gardens on the bankment. We cordially endorse the argument of a temporary, that the Railway Company should be enjoined to consume its own smoke or to employ compressed air as a live force. It is enough to have the Embankment embowered with railway stations. The Board of Works is simply doing its duty to the great majority of the public in giving permission to the Company to break the ground and make the gardens useless by poisoning their atmosphere.

#### THE CONTAGIOUS DISEASES ACTS AT DEVONPORT.

AT the annual meeting of the subscribers to the Royal Albert Hospital at Devonport, which has been recently held, many statements were made in regard to the working and efficiency of the Contagious Diseases Acts, of sufficient weight and importance to give them more than a local interest. The report of the Select Committee of the House of Commons has materially strengthened the hands of the supporters of these Acts, and that this is recognised by their antagonists is immediately apparent. Tracts and addresses have been circulated in Plymouth, Devonport, and Stonehouse, urging that the report is one-sided and not in strict accord with the evidence laid before the Committee. It is therefore of the most importance that we should have laid before us the views of those inhabitants in the Three Towns who subscribe and support the local hospital in which the patients are detained who are under these Acts, as well as the views of the chief naval authorities in charge of the Government establishment at Devonport. These are most explicitly stated in the report of the Hospital Committee and the speeches of Mr. Edward St. Aubyn, its chairman, Mr. J. May, a former mayor of Devonport, Admiral Sir Houston Stewart, K.C.B., and the other admirals and civilians who were present at the annual meeting, and are fully reported in the *Western Morning News* of the 23rd ult. The opponents of the Acts now endeavour to show in a most characteristic and ingenious manner that they are unnecessary in that district. Before the Select Committee Inspector Anniss had given perhaps the strongest and most convincing proofs of their efficiency that had been laid before the committee. He showed the value of these Acts not only directly so far as the diminution of venereal disease is concerned, but also in their deterrent and reclamatory effects, which Mr. Stansfeld and his supporters so persistently urge as being beyond the scope of, and altogether apart from, their necessary operation. The Watch Committee of the Devonport Council, evidently jealous of the activity of the special inspector, claim that sufficient importance has not been given to the labours of their own superintendent. So that instead of allowing that at any rate much good had been done, the supporters of the opposition to the Contagious Diseases Acts are actually trying to make capital out of petty local rivalries, in which the only dispute is as to whom the credit of the present condition of the Three Towns is due. If the only object and effect of the Acts is to perpetuate, extend, and render safe the immorality of the districts under the Acts, why should they not at once confess that their estimate of their value in the Plymouth district is at direct variance with the local one? We should then have no difficulty in forming our own conclusions as to which is the more likely to be the correct estimate? During the past year the number of patients in the lock wards has greatly diminished, and at the end of last month there were only twenty-eight patients in the hospital. This is the smallest number since the introduction of the Acts, and can it be seriously urged that this does not show that they have been most effectual in dealing

with the disease, against whose spread they were especially introduced? Sir Houston Stewart's remarks on the efficiency of similar measures at Malta are very important, for it is continually stated and restated that such restrictions have always been found, in the foreign ports in which they are in operation, ineffectual against the spread of syphilis; and evidence on this point is rarely of such cogency and force as the statement we quote from the worthy admiral's speech:—

"The President, after having thanked the meeting for the compliment paid him, said: 'With regard to the Contagious Diseases Acts I should like to say a few more words. Some years ago I commanded a vessel in the Mediterranean which had a crew of 1350 men. It is the custom on that station for the fleet to winter for six months at Malta, and then be ready to go to sea. I am now speaking of my own vessel, not others of the squadron. During the six months we lay in Malta harbour the Acts were in force, and when the cruising season came round my ship was able to go to sea without any venereal cases. During the absence of the fleet from Malta some influence prevailed with the then Governor, and the Acts were suspended. Well, the ships returned to Malta and wintered there under the altered circumstances, and in my ship alone when the cruising season came round again we were obliged to leave thirty men behind suffering from disease. You know what that means—three or four guns unmanned, besides other things which had to be neglected. The then Commander-in-Chief in the Mediterranean, and who has since been Commander-in-Chief at Devonport—I mean Sir W. F. Martin—took the subject up. The Governor was a man of sense and judgment, the Acts were put in force again, and with what result? The following winter we again went to Malta, and were able to go to sea in my ship at the end of six months without any cases of disease.'"

#### HEALTH OF INDIAN CIVIL SERVANTS.

A PANIC has arisen with regard to the physical and mental deterioration which, it is alleged, has set in among the "competition wallahs" during the last few years. It is stated that out of one hundred and odd civilians appointed to the Bombay Presidency since the institution of the competition system, nine have died, two have been forced to retire on account of physical debility, ten more were considered quite unfit for their work on account of bodily weakness, two have been dismissed from inability to ride and uncouth manners, and eight have become positively insane. Although it is probable that this statement is somewhat exaggerated, still for some time it has been well known that a very considerable proportion of the civil servants in all three Presidencies appointed under the competition system have been invalided, and that they compare very unfavourably both in physical and mental stamina with those who were appointed in the days of the old East India Company. It is sought to refer the collapse to the over-strain caused by the "mad fad of cramming" induced by the competition system, and we think that a great portion of the evil may in truth be fairly laid at the door of this system. But it must not be forgotten that during the last twenty years the conditions of life in India have considerably changed. The introduction of railways and telegraphs has quickened the pulse of Oriental life in a wonderful degree, and the strain on the nervous energies has enormously increased; nor has the supply of civil servants at all kept pace with the rapid development of the country, so that the demands made on all members of the administration have increased proportionately. Such a strain, which might be borne with impunity in Europe, certainly cannot be long maintained in India without serious consequences being entailed; and when it is considered that the majority of the civil servants come to the task with their nervous systems already overtaxed, and all the "go" taken out of them by years of cramming, it is not to be wondered at that a breakdown occurs. Another factor at work is, undoubtedly, that though the "competition wallah" is supposed to be a

perfect prodigy of learning, yet his practical knowledge of the world is limited, so that when placed in situations which require tact, diplomacy, and common sense, he suddenly finds that his books can no longer help him. We know nothing so trying, or more likely to lead to mental breakdown, as to be placed in positions of responsibility without having the requisite gift. It is not long since we had the pleasure of reading some letters of William Augustus Brooke, who at the commencement of the century was judge of the Court of Appeal, and lived to become the father of the Indian Civil Service. These letters show that in those days it was possible for civil servants to perform their duties with vigour, energy, and efficiency, without the sacrifice of health. Few ever thought of leaving India till their fortunes were made and their period of service completed; those who were invalided home may have brought back "livers" impaired with curry and brandy pawnee, but not shattered nervous systems.

### VASCULAR DILATATION.

THE mechanism of dilatation of the vessels has for a long time occupied the attention of MM. Dastre and Morat. Previous researches have led them to conclude that the sympathetic is a mixed system of nerves, containing fibres which dilate as well as those which constrict the vessels. The investigators have shown that this is true of the vaso-motor fibres for the neck, face, ear, and limbs. This principal point having been established, it becomes easy to follow the course of the nervous excitations, which, proceeding from certain parts of the sensory apparatus, provoke reflex dilatation of the vessels in various parts of the organism—a course which includes, necessarily, centripetal fibres, a centre, and the efferent fibres contained in the sympathetic. As a type of the reflex, they have recently studied that which is known as the auricular reflex, or Snellen's reflex; and their results have been communicated to the Académie des Sciences. The principal sensory nerve of the ear is the great auricular, a branch of the cervical plexus. Sensory impressions on the external ear are by this nerve conducted to the spinal cord by the second or third cervical roots. If the nerve is divided and its central end stimulated, reflex congestion of the ear is produced, which is some times enormous in amount. This vascular dilatation is preceded by a slight constriction if the exciting current is of moderate intensity; but if the current is strong the dilatation occurs at once. The effect is produced by the mechanism of the vaso-dilator nerves which come from the spinal cord by the eighth cervical and first two dorsal pairs, and which pass thence into the sympathetic. In order to ascertain the whole of the course traversed by the excitation, it is only necessary to find its path in the spinal cord. For this purpose MM. Dastre and Morat have made the following experiments. In a white rabbit the spinal cord was divided unilaterally, somewhere between the third and seventh cervical pairs. The operation was followed by a bright congestion of the whole head, especially of the ear, on the corresponding side. The congestion disappeared at the end of a few hours; it must therefore be ascribed to an excitation, and not to a paralysis. When the circulation had become normal the two auriculo-cervical nerves were divided and then the central extremities were stimulated. On the normal side reflex congestion at once resulted; but on the side operated on no effect was produced. The operation was also performed in another manner. Instead of a hemisection, the cord was divided entirely, artificial respiration being maintained. After one or two hours, when the congestion from the operation had disappeared, the auriculo-cervical nerve on each side was stimulated, but no effect was produced. The conclusion is, that the interruption to the continuity of the cervical cord between the second and eighth cervical pairs abolishes the

vaso-dilator reflex of the ear. The integrity of this segment is therefore a necessary condition for the phenomenon. A division of the cord below the sixth dorsal has no effect on the reflex.

### THE COLD WEATHER AND PARISH RELIEF.

THE inclement weather of the past ten days has again thrown many labourers and others out of their employment, and a considerable amount of distress has been the consequence. Should the cold still continue to be the strain on the resources of the poor will become very great, and much will depend on the action of the various local guardians throughout the kingdom, whether this period of distress can be tidied over without adding materially to the pauper roll. Liberal out-door assistance will enable many to struggle on till more genial weather returns, but if not given with a niggard hand then many a respectable man will be driven to seek refuge in the workhouse, and become for ever pauperised. This caution we repeat is needed since the illiberal and in the end expensive policy of refusing adequate out-door relief has been already demonstrated. We notice that a death is reported from Leeds Green which, according to the verdict at the inquest, was accelerated by the unfeeling treatment and cruelty of a part of the parish officials." In this case it was shown that had adequate out-door relief been afforded the period of distress might have been tidied over. We would urge upon medical men who visit among the poor, district nurses and the clergy, the importance of seeing that the local authorities do their duty. We need hardly remind our readers how heavily the inclemency of the present winter has taxed the resources of the hospitals whose wards are now full to overflowing, but whilst urging the public to support them liberally, we would also impress upon the propriety of only giving their letters of recommendation to the absolutely necessitous.

### HYDROPHOBIA.

A CASE of death from hydrophobia has been reported from Rochdale. According to the report of the inquest contained in the *Leeds Mercury*, it appears that in June last a man went into a shoemaker's shop in Rochdale, and lay down; the owner of the shop went to stroke it, on which the man bit him in the hand. On Nov. 24th the man presented the symptoms of hydrophobia—some spasm on an attempt to drink. By the advice of a medical man, he took a cup of bath, and seemed to be better. Apparently growing worse he was taken, on Nov. 27th, to the workhouse, and there was "seized, and his arms strapped," treatment which a son declared was "barbarous." The chief attendant is a "imbecile ward," states that on admission the patient was very violent, and became insensible at times. Dr. Fox, the surgeon, ordered him to be put into a padded room. He was accordingly put to bed, and some medicine was administered, and two inmates were directed to attend to him. He died at eight o'clock the following morning. The coroner expressed the opinion that the patient's arms ought not to have been strapped. It is not easy to form a just opinion of the treatment of such a case without further details than the report affords, but it certainly does not seem to have been very satisfactory, although we are scarcely inclined to apportion the blame in the same way as the coroner. In the later stages of hydrophobia there is often considerable maniacal violence, rendering some mechanical restraint inevitable; and if a patient in such a state is taken to a workhouse in the absence of the medical officer, it is natural that the officials, recognising the necessity of restraint, should apply it in the way they are accustomed to adopt in violent cases of insanity. But why, we would ask, was the patient taken to the workhouse at all? What could be done

culated to aggravate his excitement than forced removal to such a place, during the stage of the disease in which the mental state is most disturbed? Surely a master shoemaker, living apparently in his own house, could have been treated here during the brief duration of such a disease. The only chance of recovery, infinitesimally small though it be, is afforded by the maintenance of absolute tranquillity of mind and body, and its furtherance by sedative treatment. If a case of hydrophobia is removed at all, it should be in the early stage of the disease, before excitement sets in. But removed, why was such a patient taken to the workhouse? Bichdale, according to the Medical Directory, contains an infirmary and dispensary, with nine beds, four surgeons, and resident medical officer. What is the use of such an institution if a case of hydrophobia has to be taken to the workhouse?

#### ILLNESS OF THE POSTMASTER-GENERAL.

WE regret to learn that Mr. Fawcett's condition during the week has been rather perilous. On Saturday, Dec. 9th, while the fever was favourably pursuing its course, he had repeated attacks of hæmorrhage proceeding from the upper part of the air-passages, and accompanied with spasmodic cough and a sensation of choking. There have been several slight returns of the hæmorrhage since, and they cause alarm not only from the amount of blood lost, but also from the danger of the blocking of the bronchial tubes with blood. The clots and fibrinous casts lodged in the smaller bronchial tubes, chiefly by the hæmorrhage of Saturday last, prevent the ingress of air, and create irritation which may account for the continued elevation of the pulse and temperature. As long as these clots and casts remain they are able to excite still greater mischief in the lungs; but we are glad to learn that the process of expulsion has been going on favourably during the last few days, and if this continues satisfactorily, and there is no recurrence of serious hæmorrhage, the medical attendants think they may entertain the hope that this valuable life may be spared. The anomalous character of the symptoms presented in Mr. Fawcett's case renders it difficult to give any satisfactory explanation of their origin. This, however, will probably be carefully investigated at a future time, and the sanitary conditions of his own house and of his rooms at the Post-office will receive due attention.

#### A NEW DEODORISER.

A STATEMENT was recently made at a meeting of the Burslem Town Council by Dr. Oldham that smoke is really a guardian angel, and instead of a nuisance is really a blessing in disguise. Dr. Oldham contended that the smoke from the factories of his district, blending with the atmosphere, acts as a deodoriser, and thus counteracts the evil effects of bad drainage. The theory that there is virtue in smoke possesses, perhaps, the proverbial two grains of truth hidden in the bushel of chaff. The deodorising properties of charcoal are well known. It has a wonderful affinity for, and destructive power over, noxious gases. A small handful enclosed in a respirator and placed across the nostrils makes imperceptible to the most delicate olfactory nerve the strongest of odours. The question is, To what extent does coal, smoke, or soot possess the deodorising and air-purifying properties of charcoal? The healthiness of London, compared with other large towns, is well known, and the fact that it is one of the smokiest inhabited spots on the earth's surface is admitted by all; and the question again arises, Is there any connexion between these two facts? If the smoke nuisance has to be tolerated to cure the effluvia of drains, we should, however, prefer attention being paid to the old motto that "prevention is better than cure."

#### FASTING IN ACUTE RHEUMATISM.

DR. CAREY E. WOOD, professor of chemistry in the medical department of Bishop's College, Montreal, in an article in the *Canada Medical Record*, recommends starvation as the treatment of acute rheumatism. He gives a history of seven cases restored to health by simply abstaining from food for from four to eight days. Amongst other advantages of the treatment cardiac complications are almost entirely averted. And he says he could give the history of forty more from his own practice. His patients were allowed to drink freely of lemonade or of cold water. In no case did the treatment fail! He is inclined to think from these cases that rheumatism is only a phase of indigestion, and that by giving complete and continued rest to all the viscera that take part in digestion the disease is attacked *in ipsa radice*. If we mistake not, Dr. Gill of Canterbury has anticipated the author as regards his theory of the origin of the disease in disorders of the viscera concerned in digestion. We are quite disposed to think that the rôle of starvation or fasting in therapeutics is far more considerable than has yet been described. It is an old Scripture that "fasting" is half the battle in expelling some devils. But we confess to being not a little sceptical in regard to Dr. Wood's remedy for rheumatic fever—a disease occurring often in subjects of delicate constitution. Besides the disease itself is most exhausting, being compounded of pain, sweating, and high temperature, and these extending over a long time. While it is our duty to record such statements as Dr. Wood's, it is equally our duty to say that they do not commend themselves to us as embodying the truth either as regards the pathology or the treatment of this remarkable disease, which, till Dr. MacLagan's discovery of the power of salicin over it, was an opprobrium to medical science, and which even now in some cases taxes all the resources of the physician.

#### THE PARIS FACULTY OF MEDICINE.

AT the last meeting of the Academical Council the Deans of the Faculties of Medicine, of Science, and of Literature, and the Directors of the Higher School of Pharmacy, and of the Preparatory School of Medicine read their annual reports. The Faculty of Medicine now comprises four separate departments: the ancient Faculty, the Practical School (which is temporarily lodged in the buildings of the former College Rollin), the Botanical Garden of the Rue Cuvier, and the Clinical Hospitals. The number of students who followed the course of lectures for the last year (Oct. 16th, 1882, to 1883) was 4209, this being exclusive of fifty foreigners and thirty-nine women, the latter being thirteen fewer than last year. The number of examinations at the Faculty of Medicine was 6076, nearly a third of whom were "plucked."

#### ISOLATION HOSPITAL AT TAUNTON.

WE learn from a report issued by Dr. Henry J. Alford, that considerable success has attended the establishment of the Taunton Sanitary Hospital. As the value of the institution has become known, its use for the purposes of isolation has steadily increased, and the total admissions during the past twelve months have amounted to seventy-six. And not only so, but the social status of the patients is also improving. When the hospital was first opened, hardly any but paupers were received, but now the cases isolated come to a very important extent from those classes amongst whom infectious diseases become so grave a source of danger to the public. Thus, cases were admitted from the houses of tradesmen whose wares might otherwise have become vehicles of infection; from dairymen's premises; from the homes of postmen, labourers, and artisans, persons who, if they had continued their employment at the same time as

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infection prevailed in their families, could hardly have failed to have spread disease. It also appears that in no single instance during the year had there been any need of compulsion in order to secure isolation. Dr. Alford's report fully bears out the conclusions arrived at by Dr. Thorne Thorne, who, in his Report on the Influence of Hospitals for Infectious Diseases, shows that in nearly every case where a suitable hospital has been provided by a sanitary authority, the usefulness of the building for the purposes of the very classes for whom it was most wanted has steadily increased, and this, with only the rarest exceptions, without any need for resort to the compulsory powers of the Public Health Act, 1875.

#### THE FULL QUALIFICATION FOR POOR-LAW APPOINTMENTS.

THE guardians of Walton-on-Thames would appear to consider the requirements of "full qualification" in applicants for medical officerships as a piece of "red tape." On this view they have given an appointment to Dr. Macdonald, a graduate of the University of Edinburgh, but without a surgical qualification, though two other gentlemen were in the field with the double qualification. The Local Government Board have sanctioned the appointment of Dr. Macdonald up to Christmas, but Dr. Macdonald does not undertake to get a surgical qualification till June; and on the "red tape" view the guardians have appointed him, in excess of the sanction of the Local Government Board. We certainly think that while the present absurd system of partial qualifications exists it should be applied impartially by guardians of the poor. It is hard for those who, in obedience to the system and the law based on it, have taken two qualifications to see the law voted "red tape." We are equally sorry for Dr. Macdonald, who, too, is a sufferer by the state of the law. The sooner the law of qualification is simplified and made equal the better for all.

#### PASTEUR'S RESEARCHES.

A LETTER was read at a recent meeting of the Académie des Sciences from M. Pasteur, giving an account of his progress in some researches in which he is at present engaged in the district of Vacluse. He has gone there to investigate a disease of pigs, which, in one valley of the Rhone, has recently been fatal to 20,000. The disease is called "le rouge des porcs;" and M. Pasteur announces that he has discovered its cause to be a very minute organism, which in point of size resembles that of chicken cholera. It differs, however, in its physiological properties, since it has no action on fowls, but it is fatal to rabbits and pigs, especially to white pigs. M. Pasteur has convinced himself, by experiments, that one attack affords protection against another, and he has succeeded in inoculating pigs with organisms which have been weakened by culture, and in thus rendering these animals insusceptible.

#### HOMŒOPATHY AT THE ANTIPODES.

THE Tasmanian papers contain interesting accounts of the fate of a petition to the Board of the Hospital of Hobart Town, said to be signed by 1700 people, to set apart a ward for the treatment of cases under the homœopathic system. It should be stated that the Board consists of thirteen laymen and four medical officers. Mr. Dodwell asked the chairman for a return of the number of persons admitted into the hospital who had wished to be treated homœopathically. The chairman said that no such application had ever been made. In the discussion of this question Lord Beaconsfield's case naturally turned up, with disastrous results to the homœopathic argument. The usual statistics showing almost the entire abolition of mortality from fatal

diseases under homœopathy were trotted out, but without effect. The medical officers of the Brompton Hospital, and the Board unanimously negative the proposal. Even the gentleman who voted heartily with the majority. When he saw the necessity to abolish their shabby statistics they deceive no one, and homœopathy with an old system of practice. Nobody with a grain of sense would be persuaded by such statistics to forego the use of good doses of well-recorded cases of pneumonia without a death, exceeds all the statistics even if the question were one of statistics.

#### CHRISTMAS FESTIVITIES.

FEW people of middle age view with indifference the present season brings with it makes them unjust to those who at the same time are able to enjoy the good things if only in moderation. Middle-aged prejudices are against plum-pudding; yet this article of food, yielding a force equivalent to 250 horse-power, is an admirable vehicle for the administration of diet as a rule usually objected to by children in reasonable quantity, is certainly to be called "wholesome" cakes, which have a good composition. A good wedge of cold plum-pudding is an unwholesome lunch for young and growing people, too, are often able to compete with members of the family in the enjoyment in a manner that amazes and discourages relations. The fact is, as has been happily preserved, so that a man who in the prime of life is a martyr to dyspepsia, by reason of the gastric nerves, in his later years, when blunted, and when therefore his peptic powers pursue their chemical work undisturbed by eating and drinking with the courage and success

#### HOSPITAL SUNDAY FUND.

ON Wednesday the annual meeting of the Hospital Sunday Fund, being the clerical representatives of the various contributing congregations, held in the Egyptian Hall of the Mansion House, in the presidency of the Lord Mayor. The annual report of the past year disclosed a steady increase in the number of congregations contributing, and the total amount by £2289 the largest collection previously made. The amount collected was £27,700, from 1072 congregations. Last year it was £34,146, from 1338 congregations. The amount had been divided among ninety-three hospitals, fifty-two dispensaries, and £1380, or 4 per cent of the total, had been expended in buying surgical appliances for the sick poor. The working expenses amounted to £1132.

#### THE NEW MATRON AT GUY'S HOSPITAL.

THE success of the new matron at Guy's Hospital will depend entirely on the temper and purpose with which she enters upon her duties. If she be willing and intends to subordinate the nursing to the medical services of the institution—in short, to carry out the instructions of the medical staff—everything will go smoothly, and the hospital will regain its old prestige. We should have greater hopes of this result but for the appearance in certain lay papers of



raphs repeating the ridiculous fallacy of asking the al staff to co-operate with the matron. It would be s reasonable, and no more so, to ask a housewife to rate with her servants. Nursing is simply sick- ing, and the sick must be tended as the doctors direct. spital is solely intended for the purpose of "cure," i is a medical function. Nursing is an integral part of ork of cure, and it must, therefore, obviously be per- ed under medical direction. Unless this be once for all inally understood at Guy's Hospital, there can be no of peace or prosperity for this medical charity.

#### MARKABLE PISTOL SHOT WOUND OF THE BRAIN.

R Birkenhead correspondent writes:—Early last rday morning a sad event took place at Exmouth- t. A fishmonger and registered milk-seller named oh Teece got up at five o'clock, telling his wife eard burglars. He then went to the apartment of domestic servant, Jane Wainwright, aged nineteen, was in bed, and shot her through the head with volver, after which he shot himself and then swallowed contents of a bottle containing an aconite liniment. e afterwards gave himself in charge, and the police ved him and the servant to the Borough Hospital. e is not so much hurt; the bullet having been de- ed by the frontal bone, was found flattened between scalp and the bone at the top of the head, the most distressing symptoms of the dose of ite have now subsided. Wainwright is still in an edingly critical condition, a bullet having penetrated skull. The wound of entrance is just above the left row, through which brain substance has protruded. pistol must have been held very close as the girl's hair orched. Though there is no exit wound, and the bullet t therefore be lodged in the brain, the patient has done from the first. On visiting her on Monday evening, und she was able to tell her name and answer mple question. Her temperature did not exceed 102°, her pulse was regular, and but 64. Since then her dition is somewhat improved.

#### MR. GLADSTONE'S JUBILEE.

THOUGH, as medical journalists, we live in regions remote m the atmosphere of political strife, we are not the less irected in the character and history of our public men. e qualities and the capacity of a man like Mr. Gladstone constitute not only a national possession, but a physiological enomenon. It is in the highest degree gratifying to see r. Gladstone with no appreciable abatement of his energy d his power of serving the State. Whenever his own nsciousness may apprise him of such abatement, we have wish him a long and quiet evening of life, sweetened by e gratitude of his countrymen, the society of his friends, and the enjoyment of his own rich and endless resources.

#### THE METROPOLITAN FIRE BRIGADE.

THE Metropolitan Fire Brigade is overworked—that is to y, it is under-manned and insufficiently provided. The medy—the only remedy—for this evil is to make it a eparate organisation on the same footing as the Metro- olitan Police. Since the brigade has been under the etropolitan Board of Works it has simply been crippled in s action. The Board taxes the fire fund heavily for anaging the brigade, and the advantages of a responsible ersonal management, such as would be carried out by aptain Shaw, are sacrificed. Let the Brigade stand alone.

#### NETLEY HOSPITAL.

OUR contemporary, the *Builder*, under the head of "A Want at Netley Hospital," makes some very pertinent remarks on the unsuitable construction of the staircases for the carriage of patients up to the wards, and on the want of a lift for that purpose and for the service of the house. He asks "How is it that a building of this magnitude, dating, if we remember rightly, only so far back as 1857, should be unprovided with mechanical lifts?" Our contemporary does not appear to be aware that lifts do exist in each wing of the building, but his ignorance on this point is very excusable, as we believe they are never used. Whether they are so constructed as to be available for the transport of invalids, we are unable to say; but if not it may be fairly assumed that they could easily be made so. Certainly an inquiry should be instituted by the authorities at head-quarters as to the cause of their use being discontinued, and should this depend on their antiquated or defective construction, steps should be at once taken to have them made efficient. We understand there are large water-tanks on the roof of the building, which would render the application of the hydraulic principle to working the lifts a matter of very moderate expense.

#### GLASGOW ROYAL INFIRMARY.

THE new buildings and elaborate accessories provided by the Glasgow Royal Infirmary School of Medicine do not seem to have lessened the prosperity of its rival, the dingy old Andersonian School; which, indeed, has astonished friends and enemies alike by showing more signs than ever of vitality. It is understood that the managers of the Royal Infirmary have come to some conclusions regarding the rules they wish enforced to regulate the administration of chloroform in the Infirmary. What these rules are I cannot yet say, but the wisdom of framing any such code is very doubtful. Hitherto the surgeon administering the chloroform has borne the full responsibility of his action in this, as in any other professional matter. It is to be hoped that the managers, in removing chloroform from the ordinary list of drugs and hedging about its use with various conditions and rules, are prepared to share this responsibility with the surgeon.

#### MYOSITIS OSSIFICANS.

AT a recent meeting of the Vienna Medical Society Professor Podrazki exhibited a soldier affected with the rare condition which has been termed myositis ossificans. Four weeks previously the man had applied for treatment, on account of an intense inflammation of the muscles on the front of the right upper arm, apparently set up by severe gymnastic exercise. The muscles were large, hard, and uneven, and the elbow-joint was fixed in flexion. The hardness was removed, and some increased mobility was obtained, by massage and the application of cold. At the end of two weeks a hard, round, movable tumour developed in the flexor of the elbow, which was evidently due to an ossification of the brachialis anticus. At first it was movable, the upper part appeared to be cartilaginous, and it was evidently not connected with the periosteum. Podrazki has seen, in the course of nineteen years, two cases in the practice of Pitha quite similar to this in their characters. In those two cases neither iodide of potassium, nor any other treatment adopted, had any influence. In a discussion which followed, Professor Weinlechner stated that he had twice seen similar small spots of ossification in the muscles on the front of the leg, due, in each case, to a traumatic cause. Kundrat expressed the opinion that some supposed exostoses on the thigh proceed from muscles. Their form and seat correspond to certain muscles. Their greater frequency in

men, and especially in muscular individuals, suggest that their origin is traumatic. They constantly become adherent to bone in the course of their growth, and hence are commonly thought to be primary exostoses.

### THE ROYAL BARRACKS, DUBLIN.

VARIOUS paragraphs have recently appeared in the daily press in reference to the alleged insanitary condition of these barracks, and it has been stated that they are most unhealthy, and that numerous deaths have taken place from typhoid fever owing to the bad sewerage. We have made inquiries into the matter, and are in a position to state that during the past seven months there have been either five or six cases of enteric fever, which in a strength of 1134 men can hardly be regarded as an epidemic. Of these three died, one being Mr. Richmond of the Hussars. The drainage undoubtedly has been bad, but it is believed that it is now in an efficient condition, as an extensive system of main drainage has been carried out, more particularly at the cavalry portion of the barracks, while the floors of the infantry portion have been thoroughly cemented.

### SCARCITY OF SUBJECTS IN AMERICA.

A REPORT which has reached us from America shows that the scarcity of subjects in our metropolitan and provincial dissecting-rooms, to which we alluded at the beginning of the winter session, has prevailed there too. Philadelphia is just now excited over the capture of a band of grave-robbers, or, as they are better known in this country, resurrectionists, who were caught with six bodies, intended for the medical college in that town, in their possession. An investigation shows that the robbers had almost cleared one of the cemeteries. The recovered corpses have been identified, and the men are now in gaol waiting their trial. The dearth of material for dissecting is a subject that will shortly have to be dealt with, and some alteration be made respecting the present limited supply.

### THE HOSPITAL SATURDAY FUND.

THE Board of Delegates report that the sum collected this year amounts to £8872, being £500 in excess of the sum raised last year. Of this sum £6318 were the proceeds of collecting-cards in workshops, and £2160 from the street collection, superintended by 900 ladies. We cannot too highly praise the kindness of these ladies; but the result as a whole disappoints us, and is disproportioned alike to the means of the workmen of London, and the sacrifices of the fair co-operators. The fund is not yet worked in a satisfactory way. The collection needs to be taken differently.

### THE ETIOLOGY OF DIPHTHERIA.

FOR some time past diphtheria has been prevalent in and about Pilbriht, in the Guildford rural sanitary district; and certain peculiarities as to its development have received much attention from Dr. J. Smith, the medical officer of health. Mr. W. H. Power, medical inspector of the Local Government Board, is now engaged with Dr. Smith in learning all the circumstances under which the disease has arisen and spread; and having regard both to the exhaustive character which the inquiry is taking, and to the nature of Mr. Power's previous investigations into some of the more obscure questions affecting public health, the official report on the subject will be looked for with more than usual interest.

DR. PYLE has been re-elected representative of the Durham University in the General Medical Council.

A CASE tried the other day at the Toulouse assizes possessed no little pathological interest, as one of the three prisoners, a young man of eight-and-twenty, who was accused of committing a series of thefts from shops, had become insane from having, between the time of his arrest and his trial, simulated madness. When first arrested he made several attempts to escape, but finding that there was no chance of this he fell into a state of lethargy and pretended not to understand what was said to him. Three doctors were commissioned to examine him, but they reported him to be perfectly sane, and he was accordingly put into the dock with his two accomplices. He refused, however, to answer the questions which were put to him, and his counsel stated that though he had at first only pretended to be mad he had finally become so in reality. The Court, without directing the jury to acquit him on the ground of insanity, were so far convinced that such was the case that they adjourned the trial and ordered him to be removed to an asylum, pending a fresh examination of him by a specialist from Montpellier.

SURGEON-GENERAL JOHN GIBBONS, C.B., on the retired list of the Army Medical Department, died a few days ago in Dublin in his fifty-eighth year. The deceased was present at the battles of Alma and Inkerman, and at the siege of Sebastopol, for his exertions during which he was specially mentioned in despatches by Lord Raglan. He received the Crimean medal with three clasps, besides the Turkish medal, and was appointed a Knight of the Legion of Honour. He also served during the Indian Mutiny, and was decorated with the Indian medal. He was promoted to the rank of Surgeon-Major in March, 1870, and to that of Deputy Surgeon-General in 1876. In July, 1879, Mr. Gibbons was gazetted a C.B., and last June he was placed on the retired list of the Army Medical Department with the honorary rank of Surgeon-General.

THERE is now in course of erection at Birmingham a magnificent building called The Birmingham and Midland Eye Hospital. The old structure has been found utterly inadequate to the requirements of the 13,450 patients who annually cross its threshold. The committee, of which the Rev. B. Jones Bateman is chairman, have boldly grappled with the difficulty, and a new hospital worthy of its object and replete with the latest and best appliances, both surgical and sanitary, is gradually being reared. It is intended that the building shall be a model of what such an institution ought to be. The estimated cost complete is £20,000. Many munificent donations have already come in, one notably of £5000 from Mrs. Barra.

THE total number of vaccinations performed in Bengal in 1881-82 (says the *Indian Medical Gazette*) was 1,349,607. The percentage of success was 98.39. The compulsory Vaccination Act was introduced during the year into the towns of Rungpore, Rampore-Beaulah, Soory, Hooghly, Chinsurah, Pubna, Bagrah, and Howrah, and its working was unattended with difficulty. In the North-Western Provinces and Oudh the number of vaccinations was 767,235, with a percentage of success of 91.70 in primary operations.

MR. LUTHER HOLDEN, hon. secretary of the Stone Testamental Fund, asks us to state that the Executive Committee of the Fund propose to close shortly the list of subscriptions, and to remind the members of the Committee who have not paid their subscriptions that the money should be forwarded to James Shuter, Esq., M.A., 58, New Broad-street, E.C.

THE completion of the laboratory of the Johns Hopkins University, at Baltimore, has given occasion for the raising of the question whether it were better that the institution should become one of the already too numerous manufactories of practising medical men, or one devoted to the higher teaching of medical science. The *Medical News* (Philadelphia) strongly advocates the latter view, and suggests that the Johns Hopkins institution can, with great benefit, perform precisely the same functions in the United States as the Society for the Advancement of Physical Research does in England.

THE matriculations in the University of Glasgow for the present year number 2270, distributed among the various faculties as follows:—In arts, 1304; in theology, 98; in medicine, 623; in law, 196; in arts and medicine, 20; in arts and law, 16; in arts and divinity, 10; in medicine and divinity, 3. The total number of matriculations last session was 2321. It will thus be seen that the numbers attending the medical classes are well maintained, though at the beginning of the session it was feared that they would show a falling off.

DR. FERRIER is preparing for the press a new and enlarged edition of his work on "The Functions of the Brain," which will embody many new observations and experiments by the author, as well as a critical examination of the various experimental and pathological investigations of recent years bearing on the question of the localisation of cerebral functions.

DR. RUSSELL, F.R.S., Lecturer on Chemistry at St. Bartholomew's Hospital, is engaged, we understand, in making some experiments on London fog at the request of the Meteorological Council, his special object being to ascertain its chemical constitution. We trust that the investigation will be followed by practical benefit to the inhabitants of the metropolis.

THE death is announced of Dr. Dickson, President of the College of Physicians and Surgeons of Kingston, Ontario. Dr. Dickson began his professional studies at Belfast and Glasgow. He was the first President of the Medical Council of Ontario.

THE next Poor-law Conference for Yorkshire will be held in Halifax on the 21st December. The Right Hon. James Stansfeld, M.P., will preside, and his address is to be on "Recent [i. e., last session's] Poor-law Legislation."

PROFESSOR CURNOW, M.D., has been appointed Dean of the Medical Department of King's College, in succession to Professor Bentley, who has retired after nearly twenty years' service.

DR. FLAMINIO TASSI of Siena has published a report of four cases of erysipelas, which rapidly yielded to a saturated aqueous solution of picric acid, applied morning and evening with a camel-hair brush.

MR. H. F. MORLEY has been authorised by the Council of University College, London, to give a course of advanced lectures on Organic Chemistry.

WE have received from Mr. Fradelle of Regent-street an excellent photograph of the late Sir Thomas Watson, Bart.

AN outbreak of measles of a very serious character has within the past few days taken place in Newry.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF INSPECTORS TO THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*Enteric Fever at Galgate.*—The village of Galgate lies within the rural sanitary district of Lancaster and about four miles to the south of Lancaster town; it is enclosed on three sides by hills; it lies on a soil consisting of sand and gravel; and contains a population of 743 persons, who occupy 166 houses. Owing to the prevalence of enteric fever there the place has recently been inspected by Dr. Barry, one of the medical inspectors of the Local Government Board. As a rule the inhabitants are well housed, and the main sewers are efficiently constructed, and are maintained in good working order; but in other circumstances affecting health matters are far less satisfactory. Some of the wells have been voluntarily abandoned on account of their obviously polluted state, and as regards the seventeen that remain there can be little doubt but that many are equally subjected to pollution; indeed, Dr. Barry's description of the filthy surroundings of some of them, taken in conjunction with the porous nature of the soil in which they are sunk, amply suffices to show the risk of fouling which they must constantly undergo. Midden-privies prevail in the place, and some of the conditions of excrement disposal, both as to insufficiency of privy accommodation and as to filthiness of accumulations about houses, indicate neglect of a grave character. In 1881, apparently, enteric fever was introduced into Galgate and occasional cases occurred up to the end of July in this year, when the disease became more intense, some nineteen persons being attacked during the six succeeding weeks. The outbreak was, however, of a circumscribed character, and it was at once apparent that it was in no way due to any special milk-supply. Seven households were affected and they procured their milk from three independent sources, which afforded a supply to the village generally. But with one exception all the persons attacked lived in houses having one water-supply—namely, that derived from "Mackinson's well." The exceptional instance became also of crucial importance in deciding as to the cause, for the patient, though living far away from the suspected well, had been in attendance on a prior case of the disease at a house supplied by it, and she had there partaken of it. The intensity of the incidence of the disease, as in all outbreaks of enteric fever due to water, was mainly upon those between the ages of five and twenty-five years; thus from five to fifteen years the rate of attack was 66.6 per cent. of the total, and from fifteen to twenty-five years it was 41.1 per cent., the infants and the aged almost or altogether escaping. As regards the well itself, the description of its surroundings shows conclusively the facilities that existed for its pollution both excrementally and by other filth, and if further proof were wanted to identify its use with the prevalence of the fever it will be found in its chemical ingredients and in the fact that on its disuse by the inhabitants the outbreak immediately ceased. Unfortunately the story of the epidemic is associated with one of those misunderstandings between officers of health and their fellow practitioners, which, though happily not of frequent occurrence, tend seriously to bring disrepute upon the profession. In this case the medical officer of health, failing, as Dr. Barry says, "to secure the co-operation of" another practitioner, "was refused admission into the houses in which the disease was reported to exist, and hence he was unable to take any special action in the matter." On the other hand, the same officer appears not to have attached sufficient value to the indications of water-pollution which existed, and thus it came to pass that there was an all but complete absence of "that hearty co-operation so necessary in these cases." Dr. Barry concludes by strongly urging the necessity of a proper water-supply and an improvement in the means of excrement and refuse disposal for the village.

#### FEVER AT THE SEVERN TUNNEL WORKS.

At the meeting of the Bristol Urban Sanitary Authority on the 7th inst., Mr. Davies, the medical officer of health, reported the existence of typhus and enteric fever to a serious

extent amongst the workmen employed at the Severn Tunnel works. He knew, he said, of at least twenty cases in Bristol and the Barton Regis districts which could be directly traced to the works. These did not include any cases under the care of private practitioners or of club doctors. Three deaths had already occurred from the above-named fevers. Mr. Davies thought that Dr. Bond, who appears to have already reported on the outbreak, had somewhat under-estimated its severity.

#### THE DRAINAGE OF THE LOWER THAMES VALLEY.

The Lower Thames Valley Main Drainage Board have applied to the Local Government Board for a provisional order to extend the time allowed for carrying out the powers for which they were formed, and to suspend the penalties for permitting the flow of sewage into the river Thames. At the ordinary monthly meeting held on the 7th inst., a communication was received from the Local Government Board, intimating that an inquiry would be held with regard to such application. A hope was expressed that the forthcoming inquiry would not occupy another forty-five days, and cost the constituent authorities another £45,000.

#### VITAL STATISTICS.

##### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5453 births and 3794 deaths were registered during the week ending the 9th inst. The annual death-rate in these towns, which had been equal to 24.2 and 22.3 per 1000 in the two preceding weeks, rose again last week to 23.4. During the first ten weeks of the current quarter the death-rate in these towns averaged 21.9 per 1000, against 21.8 and 21.2 in the corresponding periods of 1880 and 1881. The lowest death-rates in these towns last week were 16.2 in Derby, 16.5 in Leicester, and 17.5 in Plymouth. The rates in the other towns ranged upwards to 29.4 in Blackburn, 31.0 in Leeds, 31.2 in Hull, and 35.5 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 472, showing an increase of 45 upon the low number in the previous week; 119 resulted from measles, 110 from scarlet fever, 81 from "fever" (principally enteric), 81 from whooping-cough, 39 from diarrhoea, 29 from diphtheria, and 13 from small-pox. The lowest death-rates from these zymotic diseases occurred in Brighton and Plymouth, and the highest in Newcastle-upon-Tyne, Liverpool, and Sunderland. Measles caused the highest death-rates in Hull, Cardiff, and Sunderland; scarlet fever in Blackburn and Newcastle-upon-Tyne; whooping-cough in Portsmouth and Leeds, and "fever" in Sunderland and Liverpool. The 29 deaths from diphtheria in the twenty-eight towns included 20 in London and 3 in Sunderland. Small-pox caused 5 deaths in London, 6 in Newcastle-upon-Tyne, and 1 both in Wolverhampton and Nottingham. The number of small-pox patients in the metropolitan asylum hospitals, which had been 68 and 70 on the two preceding Saturdays, declined to 62 at the end of last week; and only 5 new cases of small-pox were admitted to these hospitals during the week, against 7 and 15 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had steadily increased from 330 to 424 in the four preceding weeks, further rose to 447 last week; this number was, however, 41 below the corrected weekly average. The causes of 87, or 2.3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Plymouth, Birmingham, and Cardiff. The proportions of uncertified deaths were largest in Birkenhead, Salford, and Halifax.

##### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 24.3 and 24.8 per 1000 in the two preceding weeks, rose to 28.0 in the week ending 9th inst., and exceeded by no less than 4.6 the mean rate last week in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 78 and 88 in the two previous weeks, rose to 128 last week, and were equal to an annual rate of 5.5 per 1000, or 2.6 above the rate from the same diseases in the English

towns. The fatal cases of whooping-cough, which had been 26, 19, and 21 in the three preceding weeks, rose to 39 last week, of which 21 occurred in Glasgow, and 11 in Dundee. The 24 deaths from diphtheria also showed an increase upon recent weekly numbers, and included 13 in Glasgow, and 3 each in Edinburgh, Greenock, and Paisley. "Fever" was also more fatal than it had been for some time, and caused 19 deaths, of which 7 were returned in Edinburgh, and 5 both in Glasgow and Aberdeen. The fatal cases of scarlet fever which had been 18 and 12 in the two previous weeks, rose again to 18 last week, of which 12 occurred in Glasgow, and 3 in Aberdeen. Twelve of the 16 deaths from measles were returned in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 167 and 139 in the two preceding weeks, further rose to 185 last week, and exceeded by 73 the number from these diseases in the corresponding week of last year. The causes of 100, or more than 15 per cent., of the deaths registered in the eight towns last week were not certified.

##### HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been equal to 29.2 and 25.6 per 1000 in the two preceding weeks, further declined to 24.9 in the week ending the 9th inst. During the first ten weeks of the current quarter, however, the death-rate in the city averaged 24.3 per 1000, against 20.7 in London and 19.6 in Edinburgh. The 168 deaths in Dublin last week showed a further decline of 5 from the numbers in the two previous weeks, and included 12 which were referred to the principal zymotic diseases, against 14 in each of the two previous weeks. These 12 deaths included 9 which were referred to "fever" (typhus, enteric, and simple), 2 to whooping-cough, one to measles, and not one either to small-pox, scarlet fever, diphtheria, or diarrhoea. The death-rate from these zymotic diseases was equal to 1.8 per 1000 in the city, while the rate from the same diseases last week was 2.9 in London and 3.6 in Edinburgh. The fatal cases of "fever" in Dublin, which had been 6 in each of the two previous weeks, rose to 9 last week, and exceeded the number in any previous week of this year. The fatality of "fever" in Dublin last week was nearly three times as great as the average rate in the twenty-eight English towns. The deaths from whooping-cough showed a decline from recent weekly numbers. Compared with the numbers in the previous week, the deaths of infants were more numerous, while those of elderly persons had declined.

##### THE LARGE EUROPEAN TOWNS.

Messrs. Behm and Wagner have recently issued a return showing population statistics for some of the principal cities of Europe, from which it appears that there are only ninety-two European cities having a population exceeding 100,000. Accepting this return to be correct, the large proportion of such towns situated within the United Kingdom is worthy of note. England alone contains nineteen towns with more than 100,000 inhabitants, in addition to which Scotland contains four and Ireland two towns with populations exceeding this amount. Thus, within the comparatively small area of the United Kingdom are situated twenty-five, or more than a quarter of the ninety-two, European cities reported by Messrs. Behm and Wagner. This proportion is very largely in excess of that which the total proportion of the United Kingdom bears to the entire population of Europe, showing a marked excess of urban aggregation in the United Kingdom, which renders its comparatively low death-rate still more remarkable.

##### THE SERVICES.

Surgeon-Major A. F. Churchill, who has been for some time in medical charge of the hospital for women and children at the South Camp, Aldershot, has been placed under orders to embark for Egypt.

Surgeon-General J. A. Hanbury, K.C.B., who was Principal Medical Officer of the Egyptian Expedition, is to remain for the present at Cairo, Sir Archibald Alison considering his presence desirable in consequence of the sickness which prevails among the troops.

The Lords Commissioners of the Admiralty have awarded

to Dr. Henry J. Domville, R.N., C.B., Honorary Surgeon to the Queen, the Good Service Pension of £100 a year for Inspector-Generals of Hospitals and Fleets, vacant by the death, on October 17th, of Dr. James W. Johnston, R.N., Honorary Surgeon to the Queen.

**ARTILLERY VOLUNTEERS.**—1st Forfarshire (not "Fife-shire," as erroneously given last week): William Chalmers Cowan, Gent., to be Acting Surgeon.

**RIFLE VOLUNTEERS.**—2nd East Riding of Yorkshire: Acting Surgeon Henry Morris to be Surgeon.

**ADMIRALTY.**—Staff Surgeon James Bradley to be Fleet Surgeon in Her Majesty's Fleet, with seniority of Dec. 5th, 1882; Staff Surgeon Charles G. Wodsworth, to the *Scrapis*; Staff Surgeon Alexander B. Trousdell, M.D., to the *Tamar*, vice Lambert; Surgeon Alexander W. W. Reid, M.B., to the *Tamar*, vice Richardson; Surgeon Alexander P. G. Gipps, to the *Defence*, vice Reid.

## Correspondence.

"Audi alteram partem."

### THE SCOTCH UNIVERSITIES AND MEDICAL LEGISLATION.

To the Editor of THE LANCET.

SIR,—Allow me to say that I decidedly object to the detached sentence which you quote in your leader to-day on "Scotch Universities and Medical Legislation," from my evidence before the Select Committee of the House of Commons on March 8th, 1880, being given as a fair or sufficient representation of that evidence, or of my views on the position and duties of the Scotch universities. The sentence you quote was a suggested amendment on a particular clause of a Bill then before Parliament. You will find the general view of our Faculty clearly expressed in the second paragraph of the paper from which you quote (Appendix No. 1, page 29). That was only one of the conditions, and my answer regarding it (No. 35) was: "That is so as regards that point." But you may find my views stated concisely in the evidence given last year before the Medical Acts Commission, in Scheme No. I., with reasons, the plan which we think ought to be adopted; and in Scheme No. II. one which, "if it be considered desirable to combine universities and corporations in a general joint scheme," "he thinks would interfere less than any other with the university system of Scotland, if applied in the manner he will explain." Along with the six heads of that scheme please note the four conditions attached (p. 307, and farther in No. 5846), and, preceding that scheme, the "considerations concerning joint schemes in which it is proposed to combine universities and corporations."

Since the evidence given from the Scotch universities before the Select Committee of the House of Commons in 1880, and before the Medical Acts Commission in 1881 was published, not a stone has been cast at the Scotch universities, and it is in vain to endeavour to repeat the old cry of the Scotch universities standing in the way. Our system is one to be followed, not to be decried and interfered with on account of the interests or jealousies of London corporations, or to suit the notions of English universities, which have done little for medical education in the past, and cannot do much for it in the future. Look at the boasted English Conjoint Scheme of 1878, the outcome of some seventy conferences, with its sixteen apothecaries on the examining board, and not a single examiner from the universities, although it was put forward as a scheme which included the universities. That is the kind of joint board we may expect from a council in which English votes predominate. That the present system of registration on incomplete qualifications ought to cease no one can hold more strongly than I do, but in the granting of such qualifications the Scotch universities have ceased to have any part. If the jealousies or interests of corporations continue to prevent their combining to form a joint examination in each metropolis, they must be made to do so by the strong hand of the law, but in doing so it is neither necessary nor just to harass the students of our universities with

additional examinations, or to lay expense on them, because London corporations require a certain sum of money, or for the sake of the name without the reality of uniformity. The Scottish universities, while ready to render every help to apply remedies which are required in the public interest, will doubtless feel it to be their duty to endeavour to prevent all such impositions being placed on the large body of students whom they educate.

It is in vain for our English friends to try to revive the cry that the Scotch universities stand in the way. That cry did duty some years ago till its hollowness was exposed, and the guns of the London corporations and English universities were turned against themselves. Let our English friends rather come to Scotland and see how thoroughly its universities teach and examine, and try to follow our example if they can.

I am, Sir, yours faithfully,

Aberdeen University, December 9th, 1882. JOHN STRUTHERS.

To the Editor of THE LANCET.

SIR,—While acknowledging, as in duty bound, your very paternal advice and warning to the Scottish universities on the basis of my letter to Dr. Glover, I think it is none the less necessary to remark that they will be extremely ill-advised (in my opinion), if they allow themselves, to be led by you prematurely, either to approve or to resist medical legislation, which is, as yet, in the future. When the Bill, which is expected and desired from Lord Carlingford and Mr. Mundella is actually before us, the universities will no doubt consider it, both as to principles and details, with every desire to aid in the settlement of a long-vexed question. Therefore I cannot help thinking that the heading you prefix to my letter, "The Opposition of the Scottish universities to Medical Legislation," is, so far, misleading, and is not borne out by anything in the letter itself. The deputation to the Lord President in several points, as I believe, misrepresented the existing state of opinion in Scotland; and I took the opportunity, while correcting a positive error of statement as regards myself, to enter a caveat against these more general, and, to me, very palpable, misrepresentations. Lord Carlingford, indeed, made, as regards some of these, the very judicious remark: "Scotland is a country that will always make its voice heard." The Lord President of the Privy Council, in 1878, in Committee on the passing his Bill of that date through the House of Lords, unfortunately placed himself entirely in the hands of advisers who were considered in Scotland to be adverse to the opinion of the Scottish universities, and much of the feeling of "opposition" to which you allude may be traced to that fact. The Scottish universities are, as THE LANCET freely admits, in charge of an educational interest equal to that of all the London schools put together, and it is out of the question to suppose that they are to refrain from opposing whatever they may regard as injurious to that great interest. They may possibly prefer, as I do, the scheme of Professor Huxley, or that of Professor Turner, to that contained in the report itself; but they are not on this account "opposed to any well-considered legislation," or subject to the imputations contained in your leading article as regards their motives. Let me add, that they are very sensible of the evident care and consideration given to the whole difficult subject by the late Royal Commission.

I am, Sir, yours truly,

Glasgow, Dec. 12th, 1882.

W. T. GAIRDNER.

### "PICRIC ACID AND SUGAR TESTING."

To the Editor of THE LANCET.

SIR,—I am quite ready to leave the subject of picric acid and sugar testing in the hands of Dr. Johnson, and should not have troubled you with a further communication did I not feel that his remarks about sulphides in relation to the urine call for a rejoinder.

Dr. Johnson says, "But Dr. Pavy, in his letter, goes on to state that 'sulphides of ammonium and potassium are capable of being generated by boiling urine with potash.' This, so far as regards normal urine, I am told by much better chemists than myself is an improbability, and cannot be accepted upon the mere *ipse dixit* even of so great an



authority as Dr. Pavy." Whilst writing this last passage Dr. Johnson's memory must have failed him in the literature of the subject, or his pen for the moment been permitted to run wild. The statement is nothing more nor less than what is to be found in standard works referring to the chemistry of the urine. Simply looking at the books which happen to be before me on my shelves, I find that Parke, Sausderson, Kirkes, Odling, and the late Dr. Golding Bird all speak of a certain amount of unoxidised sulphur existing in the extractives of the urine. This, in other words, means the capacity for producing a sulphide on boiling with potash. Neubauer and Vogel go further, and say, "Sulphuretted hydrogen is sometimes, though very rarely, found in the urine. Its presence is readily ascertained by its property of blackening paper moistened with a solution of sugar of lead." They "had once an opportunity of examining for a length of time urine which contained sulphuretted hydrogen; it was periodically secreted by a man whose lower extremities were paralysed through gout." They suggest even that sulphuretted hydrogen may be sometimes formed by a reduction of sulphates, and say, "It has been already stated under the head of sulphuric acid, that sulphates, when exposed to a moderately high temperature, in contact with organic substances, soon give rise to the formation of sulphuretted hydrogen; and in this way we may, perhaps, account for its formation in the urine."

Next, Dr. Johnson says: "He [Dr. Pavy] further states, 'that a sulphide is actually produced by the action of potash upon healthy urine is shown by the well-known fallacy that Moore's, or the liquor potassæ, test is open to from the presence of a little lead.' I confess that this statement surprises me not a little." Again, a statement which thus gives surprise to Dr. Johnson is to be found in textbooks under the head of "Moore's Test." The late Dr. Golding Bird, in his work on "Urinary Depositions," says: "Dr. Rees has drawn attention to an important error which may arise in the indications of this test [Moore's] from the solution of potash employed containing lead. When this is the case the sulphur in the urinary excretion produces a dark colour with the lead, and might lead to a suspicion of the presence of sugar where none exists." Dr. Odling, in his work on "Practical Chemistry," says: "Moreover, caustic potash frequently contains lead; and this impure reagent, acting upon the sulphur of the ordinary urine, or more decidedly in albuminous specimens, will occasion a brown discolouration." My own observation confirms these statements, notwithstanding Dr. Johnson says, "It has often happened to me in boiling albuminous urine with liquor potassæ to find the liquid darkened and a subsequent precipitate of sulphide of lead, the sulphur being a constituent part of the albumen and the lead an impurity of the potash; but I have never observed this change to occur in healthy urine." The fact is, everything depends upon the delicacy or roughness with which the observation is carried out, and with healthy urine the production of sulphide of lead is easily susceptible of demonstration. Naturally, with albuminous urine, the albumen forming a source of sulphur in addition to that due to the extractives, a much more marked result is observed. If a couple of test tubes be taken and a small quantity of a solution of potash be placed in each, and to one a little acetate of lead be added, we shall have a representation of Moore's test in a proper state and contaminated with lead. If now some concentrated (I do not mean artificially concentrated) healthy urine be added in equal quantity to each, and the two be boiled for a short time, no difficulty will be experienced on looking at the two tubes side by side in seeing a colouration due to the formation of sulphide of lead. The amount of colouration varies according to the degree of concentration of the urine or the amount of extractives present, and in medium or low specific gravity specimens the effect may not be sufficiently marked to be perceptible.

I am, Sir, your obedient servant,

Grosvenor-street, Dec. 12th, 1882.

F. W. PAVY.

To the Editor of THE LANCET.

SIR,—In my letter to you last week I omitted to reply to Dr. Pavy's suggestion, that in my "original observation on the two specimens of albuminous urine the albumen had something to answer for in the result." The result of the following simple and easily repeated experiment negatives that idea. A specimen of urine containing as much albumen

as, when coagulated, occupied one-fourth the column of urine, was freed from albumen by filtering after the coagulation of the albumen by boiling. The filtrate, after the separation of the albumen, and a portion of the highly albuminous urine were then tested separately, but in precisely the same way, by boiling with potash and picric acid, and with results perfectly identical. The colour in the two test tubes was indistinguishable. The presence of the albumen did not increase or appreciably modify the reaction with picric acid and potash. This result is in accordance with my son's more elaborate observations on the effect of mixing a sulphide with the urine, and described in his letter to you.

After comparing the effect of the picric acid and potash test on the urine before and after the removal of the albumen, I tried the experiment of boiling with potash and a few drops of solution of lead. The contrast was very striking, for while the albuminous urine was speedily blackened by sulphide of lead, the urine which had been freed from albumen underwent only that slight deepening of colour which usually occurs in normal urine when boiled for a minute or two with liquor potassæ. It appears, then, that the presence of sulphur, in combination with albumen in the urine, in no way interferes with the picric acid and potash test for sugar. It is therefore unnecessary to separate the albumen before testing for sugar in this way, although the separation is necessary before testing with Fehling's solution, which would otherwise be decomposed by the sulphur in the albumen.

I am, Sir, yours faithfully,

Saville-row, Dec. 11th, 1882.

GEORGE JOHNSON.

To the Editor of THE LANCET.

SIR,—In his letter in your issue of Dec. 2nd, Dr. Pavy seems to conclude that the colour produced by boiling picrate of potash solution with potash alone is the same as that produced by sugar, and he says that I confirm him in that statement. It is true that a certain amount of red colouration is observed, even when no sugar is present; but I have made an observation during the last week which proves that this colour is not due to the same cause as that which is seen on boiling with saccharine liquids. If a little solution of starch be added to the alkaline picrate test, and the mixture boiled, no red colour is developed, the liquid remaining yellow; but on introducing some sugar solution and boiling, the characteristic red tint is at once produced. It is quite probable that this inhibiting action of the starch will considerably increase the delicacy of the test, since it enables us to start with a more nearly colourless solution.

As regards the action of alkaline sulphides upon alkaline picrate, there is no doubt that the colour produced by these salts on boiling their solutions with potash and picrate of potash is identical with that produced by grape sugar in the same circumstances, and the test appears to be as delicate for alkaline sulphide as for sugar. But Dr. Pavy makes a bold assertion, quite unsupported by experimental evidence, when he says that "a sulphide is actually produced by the action of potash upon the constituents of healthy urine;" for the only evidence he quotes appears to be of doubtful accuracy, the darkening of the urine by liquor potassæ in presence of lead being only observed in the case of albuminous specimens.

I have made a series of experiments, which have led me to the belief that (1) no alkaline sulphide is formed when healthy urine is boiled for some time with liquor potassæ, and (2) that even if a trace of alkaline sulphide were produced, it would not in any way interfere with the application of the picrate test for grape sugar to the urine containing it.

The method of experimentation employed will be sufficiently illustrated by the following example:—Twelve fluid ounces of normal urine, perfectly free from albumen, but producing the usual red colouration on boiling with alkaline picrate, were mixed with six fluid ounces of a 2 per cent. solution of potash, and the mixture boiled down to eight fluid ounces. The concentrated alkaline liquid was now made up to twelve fluid ounces (the volume of the original urine) with distilled water. On testing with picrate and boiling, not the slightest darkening of tint could be perceived beyond the slight reddish colour yielded by the picrate itself, a solution containing the same quantity of picrate and of potash being boiled at the same time in a separate tube and used for comparison. Moreover, the addition of nitroprusside of sodium solution to another portion of the alkaline

urine gave no indication of the presence of sulphide, though the absence of any substance interfering with the reaction was proved by adding a drop of an aqueous solution of sulphuretted hydrogen gas to the alkaline liquid containing nitroprusside, when a deep colouration was at once produced. On adding a little  $H_2S$  water to the alkaline urine (boiled as above), containing picrate and again boiling, no red colour was observed, though lead acetate produced a dense black precipitate in the liquid; and, indeed, a considerable quantity of sulphide must be added to alkaline urine before any indication can be obtained of its presence by the picrate test, though this test is excessively delicate when applied to pure solutions of alkaline sulphides.

The explanation of the above results is self-evident to any chemist. It is well known that solutions of glucose are easily decomposed by boiling even with dilute alkalies. It is also well known that there are unoxidised sulphur compounds in healthy urine. Dr. Pavy suggests that these sulphur compounds may be converted by boiling with potash into alkaline sulphide, which may in its turn give a colour when boiled with picrate identical with that produced by sugar. If Dr. Pavy's suggestion were correct, we should expect to find the concentrated alkaline solution giving distinct evidence of sulphide with the picrate test, whereas it gives no indication at all. In short, so far from any compound being formed by boiling the healthy urine with potash, which gives a red colour with picrate, the substance or substances which do give this colouration are destroyed altogether by such treatment; and, as grape sugar is similarly disintegrated, the result of this further investigation has been to add an additional confirmation to Brücke's original statement, that small quantities of grape sugar are present in healthy human urine.

I am, Sir, yours truly,

King's College, Dec. 4th, 1882. G. STILLINGFLEET JOHNSON.

## DIPHTHERIA AND TYPHOID.

To the Editor of THE LANCET.

SIR,—Will you permit me as a pupil, and, in an humble way, coadjutor, of William Budd—of revered memory in medical science—in the investigations which first led to the recognition of the nature of typhoid and its mode of communication, and in the experiments that far-sighted and indefatigable pathologist made with regard to the nature and propagation of diphtheria and the kindred diseases, to point out that there is no such rarity as you suggest in the co-existence of the two maladies. As a matter of clinical fact—a fact too commonly overlooked, if, indeed, it be widely recognised,—typhoid fever is generally preceded by an affection of the throat, which if minutely examined will be found to be characterised by the presence of minute pellicles of diphtheritic membrane, usually situated on the upper and posterior surfaces of the tonsils, and nearly always accompanied by a few small patches in the fauces. This is particularly noticeable in the Paris fever. There would seem to be a tendency to the development of this membrane, in direct proportion to the intensity of the poison and the vigour of the "constitution"—if I may use this term—of the patient attacked, and in inverse proportion to the rapidity with which the glands of the intestine are infected. To state the results of inquiry—somewhat too dogmatically perhaps,—it may be said when a patient is infected by the specific morbidities of diphtheria or typhoid, the poison being the same in either case, it depends on the subject more than the disease whether the malady will take the form of "diphtheria," conventionally so-called, or of "typhoid fever." And in a case such as that on which you comment this week, in which the diphtheritic throat affection was strongly marked at the outset, there would, and probably will, be special danger of hæmorrhage; not from deep ulceration, but from the rupture of minute vessels in the course of the disease, when the diphtheritic sloughs are thrown off from Peyer's patches; the hæmorrhage, if it occur, being preceded by the appearance of exceedingly minute streakings of bright blood in the yellow-ochre-like (Budd) portions of the stools.

Another point of interest which I should like to mention relates to the susceptibility of patients to diphtheria and typhoid fever respectively. I believe the two maladies are so related that one may be employed—or will probably hereafter

be employed—as a prophylactic of the other. Experiments made on monkeys in the days before the "anti-vivisection" craze—that most pernicious bane of science—showed that the malady might be produced in a very mild form by direct inoculation; and, except that the amount of evidence collected was not sufficient for the absolute proof, that when once the organism had been infected with diphtheria it was not likely to have typhoid badly. I have now in recollection cases of the kind in which infection with typhoid subsequent to the infection of diphtheria was sufficiently distinct to cause the subject to communicate the typhoid to other subjects who had the malady fully developed, but only to show the symptoms of typhoid in its own case in a very mild degree.

There is therefore no reason why diphtheria and typhoid should not co-exist, not, as you assume, as two distinct diseases, but as one and the same disease in two forms. It is not rare to find these two forms together; but the throat affection is very commonly overlooked. The non-recognition of typhoid in the case of Mr. Fawcett probably arose from the delay which occurred, and which commonly happens, in the discovery of the "spots" in cases in which the diphtheritic throat affection is strongly developed, as a prodromic disease. The "spots" of typhoid, if we disregard for the moment the Irish type of the fever, must be considered as bearing a direct relation to the degree of the intestinal affection—I mean the degree of the disturbance set up in Peyer's patches in what may be called the eruptive stage of the disorder. Those who treat diphtheria would confer a benefit on the science of pathology—the pathology of existing disease—if they would in all cases look for typhoid spots. I believe there is generally some, though not great, irritation of Peyer's glands in diphtheria, and when this is strongly marked there ought to be "spots."

I am, Sir, yours faithfully,

Welbeck-street, W., Dec. 9th, 1882. J. MORTIMER GRANVILLE.

To the Editor of THE LANCET.

SIR,—The illness of the Postmaster-General has raised the question of the co-existence of diphtheria and typhoid fever, and which, from the general consent on this point of the medical journals, must be considered to be of rare occurrence. It may, therefore, be thought right that I should at the present time put on record the following case, which occurred in my practice:—

M. B—, a housemaid in a family living in the neighbouring village of Aston Clinton, was, after a week or ten days of general malaise and aversion to work, on December 12th, 1881, seized with a rigor, which was quickly followed by great heat of skin, excessive pain in the head, spine, and legs, extreme restlessness, and slight delirium, symptoms leading to the belief that it was a case of cerebro-spinal meningitis. In a few days this highly excited state of the nervous system having somewhat subsided, soreness of throat, with slight swelling of the cervical glands, was complained of, and patches of diphtheritic membrane were discovered on the uvula, soft palate, and tonsils. About the end of the week the patches had separated and peeled off; and the bowels, which up to this time had been sluggish, began to act more freely. A dull, heavy state, with much despondency, now supervened, and on examination rose spots were discovered on the chest and abdomen. The case was now clearly one of typhoid fever. From this time the patient progressed favourably, diarrhoea being controlled by scruple doses of the carbonate of bismuth, given in warm milk, until January 21st, 1882, when numerous spots of purpura with ecchymoses, the result of slight pressure, appeared, more especially on the arms and legs; and on the 23rd I found there had been, during the night, a very considerable oozing of blood from the gum adjacent to the stump of a carious tooth. This bleeding was with great difficulty arrested by pressure made with pieces of lint steeped in the strong solution of the perchloride of iron, but for several days it continued to recur. There was, too, considerable hæmorrhage from the bowels, and also from the vagina, to restrain which frequent doses of the tincture of perchloride of iron, with liquid extract of ergot, were given. After being reduced to the most extreme state of anæmia, the girl eventually recovered, and left for her home in Kent on the 6th of March.

The case is interesting, as showing the extreme difficulty

of forming a correct diagnosis in the early stage of typhoid fever. To give an opinion that a case is one of cerebro-spinal meningitis, then of diphtheria, and ultimately of typhoid fever, is, to say the least, embarrassing, and likely to be productive of a loss of confidence in the professional acumen, more especially in young practitioners.

I am, Sir, your obedient servant,

Tring, Dec. 11th, 1882.

EDWARD POPE.

### "THE DISCOVERY OF TRICHINA SPIRALIS."

To the Editor of THE LANCET.

SIR,—Our great anatomist does himself injustice. He speaks slightly of the "mere zoological elucidation of a species," yet it was on this very point that Sir James Paget generously went out of his way to remark that Professor Owen's "admirable memoir" was "much more complete and exact in zoological detail than anything he himself could have written." The concession was too liberal. Most foreign writers have remarked upon the "incompleteness" of Prof. Owen's record. Leuckart has a long comment to that effect. Kestner says: "The illustrious naturalist gave a very imperfect description of the parasite;" and the same author has made observations on Dr. Arthur Farre's more complete description. It comes to this, that in the matter of zoological status, the position assigned by Prof. Owen to the worm was altogether at variance with the facts observed by Paget and Farre—facts of organisation not observed by himself, although he was, as we are now told, so much "concerned in the working out of the evidences of the structure and zoological position" of the parasite. Mr. Hilton's guess placed the worm-specks within the helminths, and thus Hilton's conjectural allocation came nearer to the zoological truth than Prof. Owen's deliberate opinion, since, to employ Leuckart's words, Prof. Owen thought that the worm "agreed with the helminths only in its mode of life." As Prof. Owen's memoir gave a great impulse to the study of parasites, and as Leuckart has said "der Genusname Trichina (Owen) verbleiben muss," it seems to me that such concessions—added to other stores of scientific capital, the greatness of which no one disputes—ought to satisfy our venerated countryman.

I am, Sir, yours truly,

London, Dec. 10th, 1882.

T. SPENCER COBBOLD.

### NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

AT Gateshead the subject of lead-poisoning has again occupied the attention of the guardians, and the matter was stated to be under the consideration of the Home Secretary. It was proposed that the number of cases of lead-poisoning which come under the notice of the medical men and relieving officers should be reported to the Local Government Board monthly. It was stated that there were many cases of the lead affection in the workhouse at present, under the care of Dr. Cook, and unless there was some improvement in the lead manufacture the consequences would become very serious to the workers, and ultimately to the ratepayers. There is a good deal of disease now of a zymotic character in the mining and agricultural villages of Northumberland and Durham. At Hunstonworth, an outlying village in Durham, in the Weardale Union, there has been an outbreak of small-pox; the disease was first introduced by a farmer, who had been at Newcastle purchasing stock. It transpired at a meeting of the Weardale guardians that in one house eight persons were found in one bed, including five illegitimate children, three of whom were ill with small-pox. It was proposed to remove the patients to the workhouse hospital at Stanhope, but Dr. Livingstone very properly and successfully resisted this proposition. Apart from the cruelty of transporting patients along twelve miles of a moorland road, he pointed out the dangers as to infection in the more populous place, and showed how the cases could be more safely and successfully treated on the spot, due attention being given at the same time to isolation and disinfection in a temporary village hospital.

As regards the sanitary condition of Sunderland, the Town Council has held two special meetings, and received

the recommendations of the health officer (Mr. C. E. Harris), which I am told they are likely to adopt; the report in question goes to the root of the matter, and is a production of labour and much ability. It points forcibly to a more speedy removal of midden contents, a thorough examination of the condition of the sewers, an alteration in the sewer ventilation, the encouragement of the watercloset system of sewerage, a house-to-house inspection by the inspectors of nuisances, an increase in the number of inspectors of nuisances, of whom there are only two for a population of 120,000. The severity of the weather and measles considerably influenced the death-rate of last week. There were 81 deaths, which represent an annual death-rate of 35.4 per 1000 inhabitants. Measles affected the death-rate by 5.2. Of the total deaths 40 were children under five years, and 10 were sixty years and upwards. Among children measles was the greatest cause of mortality, proving fatal to 12, of whom 10 had not reached their fifth year. Half of these deaths occurred in Monkwearmouth.

At the Newcastle Infirmary, I was told the other day, there were 231 patients in the house; the revival of trade and manufactures would seem to augment the number of daily accidents, some of them of a very severe surgical nature. Some cases were admitted of burns lately which presented some unusual points of interest. The cases in question arose from an explosion in an ether distillery, and it was observed in the cases which ultimately did well that the superficial burns or scalds were not blistered, but red, and bleeding, while none of the patients suffered from shock. Mr. Jeaffreson has had some important operations in abdominal surgery. The last was the case of a patient about forty, with a large tumour supposed to be ovarian. After the usual incision and tapping, it was noted that the growth had very deep pelvic attachments; on removing these it was found adherent to the uterus, so much so that it was a moot point as to the removal of that organ; however, it was dissected off, and found to be a cystic sarcomatous tumour. The patient's life was in the balance for some hours, but she may be said to have recovered without a bad symptom. It is nearly three weeks since the operation, at which Drs. William Murray, Creaswell, Garson, and Williamson were present. Mr. Jeaffreson will soon present details of his cases.

As regards the health of Newcastle, there appears to be some increase in small-pox, typhus, and other zymotic diseases. While on this subject I regret to hear of the death from typhus of Mr. C. M. Goyder, at the early age of twenty-six. Mr. Goyder was for some time house-surgeon at our infirmary, but some short time ago he commenced private practice as successor to the late Dr. MacLachlan in this city, and he was making good way in his profession, until he was suddenly struck down with fever. We lately lost another young surgeon here from the same cause, Mr. R. W. Smith, who contracted the disease when visiting some dispensary patients. Another name well known to old students has disappeared from the roll of life in that of Mr. Thomas Craster, who died at the advanced age of eighty. Mr. Craster was connected with the Museum and Anatomical School since their institution. He was what is commonly known as "a character," he had a keen love of his work, and his knowledge of comparative and human anatomy was the wonder of all students, with whom, as well as with the lecturers, he was deservedly a great favourite. Most old students here have sat at the feet of "Tommy Craster," as he was familiarly, but not disrespectfully, called.

Newcastle-on-Tyne, December 13th, 1882.

### SCOTTISH NOTES.

(From our own Correspondent.)

As the ever-recurring storm leaves its sad traces along our coasts, the question of the avoidance of death through shipwreck possesses increasing interest. Along the east coast especially, the fishing fleet is subject to dangers which every year seem to claim a larger number of victims; and just at present the excitement caused by these frequent disasters is likely to lead to definite results. The provision of a harbour of refuge at some point on the east coast of Scotland is now looked upon as an absolute necessity by those interested in

our sailors and in shipping; but as usual, the wrangle has begun as to which place shall be so favoured, and it is just possible that local jealousies may afford those holding the national purse-strings a sufficient excuse for overlooking the subject altogether. The recent storms have further demonstrated the necessity for a larger number of life-boats being provided for the same rock-bound coast; an experiment very fully tested at Aberdeen would indicate, that when properly carried out, the spreading of oil over the surface of a raging sea is sufficient to so still the waters that vessels can easily pass over the dangerous bars found at the entrance of many of our harbours. Mr. Shields, of Perth, has pressed this subject with great assiduity, and his last efforts seem to be his most successful, while the fact that an officer from the Board of Trade was present shows that the authorities do not neglect the matter.

Mr. Murdoch, of Drumwhirn, Kirkcudbrightshire, died last week, having completed his hundredth year in October last. The interest always attaching to the death of a centenarian is intensified in this case by the fact that Mr. Murdoch was the last contemporary of the poet Burns, who had seen and conversed with our great national bard. When a boy it appears that the deceased had done a slight service to Burns, and the familiar and kindly pat on the head by which he was rewarded for the action proved a life-long subject of congratulation to one who till the last retained a great power of story-telling and a wonderful conviviality. His faculties were acute, and till within a fortnight of the end Mr. Murdoch enjoyed out-door exercise freely.

Dr. Andrew Wilson has completed his course of lectures at Perth, given under the direction of the Combe Trust. In the eight lectures many physiological subjects of great interest have been discussed; but the noteworthy fact in connexion with this and similar courses in Scotland is the enthusiasm with which they are supported by the public. The leading citizens, as well as the people generally, were fully represented, and testified to the great value and need of such instruction being rendered available. Only the other day, from the two extremes in the social scale, the cry was for a knowledge of sanitary laws; and the coincidence of Earl Rosebery and a poor woman in the slums of Edinburgh—the former as chairman to Professor MacLagan as Health Lecturer for the night, and the latter at a conference of a novel kind between philanthropists and the very lowest of the people—stating that what was most required for the welfare of the classes they severally represented was sanitary teaching, is worthy of record. Lord Rosebery suggested the wholesale distribution of sanitary tracts, a method of reaching the people recently recommended by THE LANCET. Such leaflets, written by men whose views would command confidence, and gratuitously distributed, would be of great service to the poor and ignorant.

Diphtheria is at present proving most fatal in Dundee. It appears that during October there were seven cases reported, and of these six died, while in November, of sixteen cases, no fewer than fourteen ended fatally. Dr. Anderson, the medical officer, attributed this excessive mortality to deficient drainage, and the sanitary inspector has been instructed to investigate the question in the different districts where the outbreaks have occurred. The statistics of this disease recorded by medical officers of health are useful to place opposite those of men who publish such long lists of successful cases as raise the question whether, after all, they were cases of diphtheria with which those sporadic gentlemen were called upon to deal.

After lengthened consideration the directors of the Dundee Infirmary have determined to devote a separate ward to the treatment of children's diseases, and that the ward shall simply form part of the infirmary managed by the general board. The scheme for a new, or, in any way, independent institution, has been wisely set aside; but any one desirous of naming and endowing a cot can do so by a subscription of £200. The directors do not consider it at all necessary that children should have special ward accommodation, but to prevent the foundation of a rival charity, and in deference to the feelings of those who have interested themselves in the matter, they have resolved upon the above step.

**VENTNOR CONSUMPTION HOSPITAL**—An anonymous donor has presented this institution with funds for an additional house and furniture to meet the great pressure of applicants for admission.

## NIGHT LECTURES.

(From a Correspondent.)

THE Council of the Royal College of Surgeons in Ireland have passed a resolution refusing for the future to receive certificates of night lectures. This decision, come to so unexpectedly and so late in the session, must prove a hardship to a large class of young men engaged in business during the day, who have not the time to attend lectures during that period, and who were in the habit of dissecting and attending the various courses of lectures in the evening. A man who can obtain his diploma under these circumstances deserves praise for his energy and perseverance. Of course it is a debateable question whether the ranks of the profession should be recruited from this source—that is to say, whether it is probable that men who are otherwise occupied during the day from pecuniary necessity, when admitted members of the profession are likely to add to its honour and dignity. Much may be said on both sides of the question, but what I consider as injudicious is the action of the Council in passing a resolution of the kind referred to, when a large number of students—in one school alone about fifty—have entered for night lectures, paid fees, and proceeded with professional work, on the understanding that their attendance on night lectures would be countenanced as heretofore. Some time ago a correspondence took place between one of the medical schools and the Council on this very subject; but the College, although objecting, did not positively refuse to receive certificates of night lectures, and gave no intimation that they would do so without proper notice. Of course it may be said that the hardship is only nominal, and that those affected by the resolution can go to other corporations; but if I am not misinformed, the Irish College will also decline to receive certificates of lectures from any school at which night lectures are given. If the Council had refused to receive certificates of night lectures after this year it would have been perfectly fair on their part, having given due notice, but under present circumstances the resolution appears oppressive and unjust.

## HYPNOTISM IN PARIS.

(From an occasional Correspondent.)

### NO. V.

I HAVE now gone through the different phases of animal magnetism or hypnotism, as it is now called, to give it a more scientific character, from the days of Mesmer up to the present time, and the different phenomena that may be produced in subjects during this state. These are the cataleptic state, the lethargic state, and the somnambulistic state. The demonstrations of Professor Charcot and Dr. Dumontpallier have hitherto been confined to hysterical and hystero-epileptic females, but we have seen that the same phenomena, whether simulated or not, have also been produced in male subjects. Different methods have also been employed to produce hypnotism. Mesmer and his followers resorted to certain manœuvres called "passes"; Braid enjoined the subject to fix his or her eyes on a bright object held above the forehead; and Professor Charcot hypnotised his patients by placing them before a bright light and asking them to fix their eyes on it. M. Donato, however, thought his own eyes quite sufficient to transmit the magnetic fluid, and did nothing but stare at his subjects to produce the hypnotic state. The great secret consists in the fixing the gaze of the subjects, the result being a peculiar nervous state called hypnotism, from its resemblance to a sort of sleep, and which is produced by a certain influence on the nervous system through the medium of the eyes, or through the imagination. That the magnetiser possessed any special influence himself has long ago been disproved, and, as the late Professor Broca, in commenting on this subject, asserted, "one does not magnetise subjects, the subjects magnetise themselves." There is some semblance of truth in this remark, but it would have been more correct to say that the subjects hypnotised

themselves, though even this does not properly express the real state they are thrown into. I may here briefly describe that state. The eyes of the subject being fixed on an object, the pupils contract at first, and then dilate. This dilatation increases to a considerable extent, then they have a tendency to fluctuate, and if at this moment the operator or anyone else advance the first two fingers of the right hand horizontally and slightly separated towards the eyes, the lids close involuntarily. If after a few seconds the limbs be raised they will remain in the position in which they were placed, and, in fact, the three states already described may be produced. The special senses, besides that of vision, and a certain portion of the mental faculties, become abnormally excited, the symptoms being somewhat similar to the primary effects of wine, opium, and alcohol. When these effects have reached a certain point they are followed by a degree of depression much greater than that observed in the torpor of natural sleep. Here the state of the special senses, and the action of the muscles, may be altered at the will of the operator by simply blowing on the organ or organs it is intended to excite, or on the muscles the operator would render pliable, and which previously had been in a state of cataleptic rigidity. After some rest the other senses return to their primitive state. As has been already observed, a subject once hypnotised has the faculty of hypnotising himself at pleasure by simply holding up his finger and looking fixedly at it, or even at any other object. When this is done only a few times, and after certain intervals, no ill effects may result to the health of the individual, but the operation cannot with impunity be repeated often, as has been amply proved by the communication made by M. Milne-Edwards to the Academy of Sciences already referred to.

The facility with which certain individuals are magnetised has no doubt induced mountebanks and others to turn it to good account for their own personal interest, at the expense of the public; but what is less easily explained is the necessity or utility of producing hypnotism or animal magnetism in hysterical patients in hospitals or elsewhere; for, as a means of diagnosis, it is of little if any value, as the hypnotic state can be so well simulated even by healthy subjects. To physicians and surgeons it is of no practical interest, and to the lay public it is even dangerous, as there are a great number of people already too disposed to believe in all that looks and sounds marvellous. Even as a source of amusement it is dangerous, and as a therapeutic agent it is perfectly useless. In a report submitted to the Academy of Sciences on the 26th of February, 1844, M. François Arago expressed himself thus: "After the experiments conscientiously instituted under the auspices of the Academy in 1784, that which is termed animal magnetism does not exist; that it has nothing that would point to a new force for study; and as to its therapeutic virtues for curing or relieving patients, there is nothing, in consequence, to be expected from it." In another report, Bailly declared that "animal magnetism might exist without being useful, but that it cannot be useful if it does not exist." These truths have the same force now as they had in 1844, for nothing new has been since discovered in it, and animal magnetism or hypnotism is at the present time what it was in the days of Mesmer, a gigantic imposture. It is now the fourth time since its discovery in 1766 that the monster has been brought before the public in this country, but why the French capital should always be selected for its exploits has often been a puzzle to me, unless it be that adventurers of all sorts meet with greater hospitality here, and the Parisians, who are, after all, cosmopolitan in their composition, representing as they do the *élite* and ruffians of all classes and professions of the entire population of the country, have an abnormal thirst for what they term "le progrès." They abhor the *status quo* as nature abhors a vacuum, and this I believe is the explanation of their revolutionary character.

To return to hypnotism in its various forms. That the three states so frequently referred to may exist spontaneously or result from certain morbid conditions of the brain and nervous system is everywhere admitted. With these we have nothing to do; they cannot be simulated, or rather they cannot be produced artificially; and those interested in the subject might read with advantage the remarkable memoir of Dr. Paul Richet, entitled "Etudes Cliniques sur l'Hystéro-épilepsie ou Grande Hystérie," an abstract of which lately appeared in THE LANCET. As for hypnotism, or animal magnetism, to show that its existence is a pure

hypothesis I cannot do better than quote the following lines from that excellent dictionary of medicine by Littré and Robin: "In fine, the interest that there may be in the study of magnetism depends, according to certain authors, on our habitual ignorance of all that concerns the physiology of the brain, and this interest is reduced simply to the establishment of the fact that it is easier to produce at first in any single individual than in a portion or the whole of an assembly such an intellectual state, that the data more or less vague obtained by the first are interpreted by the others in the sense in which or towards which it is desired to direct the attention. It is in such a disposition of the brain that is found the explanation of all the singular effects of magnetism, allowance being made for the jugglery by which it is surrounded, effects varying according to the practices of the magnetiser, or according to the credulity and the cerebral disposition of the magnetised." (*Vide* article "Somnambulism.")

## NEW YORK.

(From our Correspondent.)

As a commentary to my remarks relating to the Hôtel Dieu at Montreal, I may mention a remarkable and unfortunate circumstance which has occurred there since the date of my visit.

One morning the gardener, in walking across the garden, discovered the dead body of a man. Subsequent inquiry disclosed the fact that the remains were those of a patient who had precipitated himself from the window of a ward situated in one of the upper floors of the hospital. The discovery caused much excitement, and several of the nuns hastened to the spot. One of them, in making a short cut across a bed of vegetables, stumbled over the body of a woman who had also, during the previous night, thrown herself from one of the upper windows of the establishment. The most remarkable circumstance about the affair was that neither of the patients had been missed from the wards. Such evidence of mismanagement will, however, surprise no one who reads the description of the Hôtel Dieu in my last letter. I mentioned that the patients were hid behind the curtains of old-fashioned four-post bedsteads, and I also referred to the entire absence of any member of the medical staff, or the presence of a resident surgeon, the place being wholly given over to the charge of nurses.

The establishment of the Post-graduate College of New York appears to have suggested, or provoked, others to form a similar medical school on the same principle. Thus is announced the "New York Polyclinic," a school of practical medicine and surgery, situate at 214 and 216, East Thirty-fourth street, New York. The list of directors and the faculty comprise the names of some of the most eminent physicians and surgeons, and the organisation appears a strong one. I would desire the success of both of these schools; but the question arises, Is there room for both? The *Medical Record* takes the ground that the necessity for either hardly exists, suggesting to post-graduates a system of bedside instruction under proper management. The establishment of the second school appears to jeopardise the success of the first, or even both. The result may, however, prove otherwise, and perhaps friendly rivalry may stimulate all concerned to great efforts, which may end in the establishment of both schools on a solid basis. In any case, I presume that "the fittest" will survive.

Much attention has been given on this side of the Atlantic to Dr. Koch's discovery of the special form of bacillus found in tuberculosis. The forms described by Dr. Koch were found, but the theory of their being the active contagion was regarded as far from proved. A new light has been thrown on this matter by Dr. H. D. Schmidt of New Orleans, who at a recent meeting of the Pathological Society of that city gave the result of his tests of the value of Dr. Koch's discovery. Dr. Schmidt is said to have given special attention to this subject for some years, and therefore took great interest in Dr. Koch's researches, and at once put the theory to exhaustive tests. He claims to have demonstrated beyond doubt that the tuberculous bacillus of Koch is simply



a fatty crystal. The report states that "this result was obtained after long and arduous labour, in which the diseased organs of persons who had been affected with pulmonary consumption were minutely and carefully examined. Dr. Schmidt succeeded in tracing the crystals, which were similar in appearance to those discovered by Koch, and evidently the same. To determine their nature Dr. Schmidt subjected the crystals to the action of boiling ether, when they disappeared, proving that they were not germs or organisms." Dr. Schmidt is well known for his microscopical work, much of which has been printed in the journal of the Royal Microscopical Society. I therefore refer to the matter; but it seems hardly possible that Dr. Koch and others could have made such an egregious blunder. Dr. Schmidt says nothing about staining; fatty crystals would hardly take the stain of an aniline dye. From this I infer that Drs. Koch and Schmidt are working on different material.

Lieutenant Schwatcka has sent a long article to the *Medical Record*, of a quasi-medico-scientific character, explaining in detail some of his views on living matter, which will doubtless be gratefully received by the biologists of this and other countries. The article, however, contained much matter of interest relating to his experiences in the Arctic regions in combating that scourge of Arctic explorers, scurvy. Lieutenant Schwatcka travelled 500 miles beyond the reach of civilisation without supplies, and, let it be known at the English Admiralty, without an ounce of lime-juice. It is claimed by Lieutenant Schwatcka, and after his experience his opinion should be received with respect, that fresh vegetables, lime-juice, or other preparations of this nature, are not alone necessary, provided freshly killed animal food can be procured. He found that drinking the blood of animals just killed had a beneficial effect. He also suggests that even raw meat may be used with good results; in fact, anything alive or freshly killed, whether animal or vegetable, and not of a poisonous nature, should be eaten by those who are in a position to be exposed to the ravages of scurvy. Such was the plan adopted by Lieutenant Schwatcka during his eventful and interesting travels in the Arctic regions, with the result of bringing his men home in excellent health and condition. The valuable suggestions of Lieutenant Schwatcka are further confirmed by a letter to the *Medical Record* by Dr. E. F. Brush, who states that scurvy very often attacks the lumber men of Maine, U.S., who are in the habit of eating the large black ants found in the pine trees as a remedy when suffering from this disease. This additional confirmation of Lieutenant Schwatcka's experiences may induce naval authorities to modify their old views that an expedition in the Arctic regions without a supply of lime-juice must at once abandon further progress, and return to their base of supplies.

New York, Nov. 21st, 1882.

## MEDICAL TRIALS.

### HIGH COURT OF JUSTICE: CHANCERY DIVISION.

#### THE STRATFORD PROVIDENT DISPENSARY.

ON Thursday, November 23rd, 1882, at Lincoln's-inn, before Mr. Justice Kay, Mr. Rigby, Q.C., moved the Court on behalf of Dr. Herbert Davies of Finsbury-square, for an interim injunction to restrain Drs. J. A. H. Budgett and W. E. Richardson, and the Stratford Provident Dispensary, their servants, agents, assistants, and others, from issuing or publishing any circulars, forms, cards, or letters, with Dr. Davies' name thereon, or from otherwise representing him to be the consulting physician to the said dispensary. Mr. Rigby in support of the motion stated that so long ago as 1880 Dr. Davies' name was being used in the manner complained of without his knowledge or consent, and on his solicitors calling attention to it at that time, they received in reply a written apology from Dr. Budgett, stating that the act complained of was a clerical error and undertaking the act complained of was a clerical error and undertaking that such a thing should not occur again. In August of that year Dr. Davies, however, again discovered that his name was still being used in contravention of the undertaking and he therefore was compelled to take the present proceedings. The facts of the case being in evidence, his Lordship granted the injunction prayed for.

### PROPOSED COMBINED EXAMINATION BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

A FRESH start has been made in what may become a practical Conjoint Examination for England. On Thursday last the Council of the Royal College of Surgeons appointed seven delegates to meet and confer with a sub-committee of the Royal College of Physicians on the possibility of a combination of the two Colleges for the establishment of a complete conjoint medical and surgical examination. The qualifications of the members of the sub-committee afford sufficient guarantee that no pains or consideration will be spared to accomplish the object proposed. Mr. Spencer Wells (President), Messrs. John Marshall and Cooper Forster (Vice-presidents), Sir James Paget, Messrs. Erichsen, Savory, and Holmes, will represent the Royal College of Surgeons, and Sir William Jenner (President), Sir Risdon Bennett, Sir William Gull, and Drs. Acland, Sieveking, Ord, and Pitman, the Royal College of Physicians.

At the same meeting of the Council the retiring members of the Board of Examiners in Anatomy and Physiology—namely, Messrs. Power, Pick, Rivington, Baker, Lowne, Bellamy, M'Carthy, Langton, and Gerald Yeo—were re-elected for a further period of twelve months.

## Obituary.

### SIR THOMAS WATSON, BART.

TO the entire profession and to a very large portion of the public, from the Sovereign downwards, the death of this eminent physician, which occurred on the 11th instant, will be a source of deep sorrow. We purpose now to give a sketch of his very distinguished career.

Thomas Watson was born at Kentisbeare, in Devonshire, on the 7th March, 1792. He was educated at the Grammar School at Bury St. Edmunds, of which Dr. Malken was head master, where he was a contemporary of the late Bishop Blomfield, with whom he always retained an intimate friendship. On leaving Bury school he was entered as a pensioner in St. John's College, Cambridge, of which college his uncle, Mr. Catton, was then a resident Fellow. He graduated B.A. in 1815, being placed tenth in the list of wranglers, was elected a Fellow of his college in the following year, and became M.A. in 1818. According to the rules then in force at St. John's College, no Fellow could retain his Fellowship for more than a short time without being ordained. From this rule, however, two Fellows were exempted, one of whom was to study medicine. A vacancy having occurred he availed himself of it, and retained his Fellowship until he married in 1825. During his residence at Cambridge as Fellow of his college, a period of eight years, he took private pupils, many of whom (including, amongst others, the late Lord Auckland, Bishop of Bath and Wells, and Lord John Thynne) continued their friendship with him to the end of life. He served the office of junior proctor in the University of Cambridge in 1823 and 1824.

In 1820 and 1821 he attended the medical classes in Edinburgh, and in a letter to his sister dated from Edinburgh he speaks of his intention to return thence in a sloop as being more economical and allowing the carriage of an unlimited amount of luggage. During his residence at Cambridge he made the acquaintance of his future wife, a daughter of Edward Jones, Esq., of Brackley, in Northamptonshire, who, as a favourite niece of the Rev. Dr. William Turner, then Dean of Norwich and master of Pembroke College, was a frequent visitor to Pembroke Lodge. They were married in 1825 in St. Luke's Chapel in

Norwich Cathedral, and in the same year he took his M.D. degree. In the following year Dr. Watson was elected a Fellow of the College of Physicians, and in May, 1827, Physician to the Middlesex Hospital, an office which he continued to hold until November, 1843. For some years after he settled in London practice came very slowly, patients and fees were few, and he was not free from pecuniary cares and anxieties. In September, 1830, he had the great grief of losing his wife, who died suddenly three days after the birth of their second child. In a letter written to his sister a few days after this terrible blow occurs this characteristic sentence: "My business henceforward in this life must be to endeavour to train up the children as nearly as I can as she would have trained them, and so to live as to acquire, through God's blessing, a hope that we may all hereafter meet their poor mother in happiness."

At the opening of the medical school of King's College in the autumn of 1831 Dr. Watson was appointed Professor of Forensic Medicine, and what we believe to be his first contribution to medical literature appeared in the *Medical Gazette*, vol. ix., 1831, entitled, "Remarks on the Dissection of Bishop, and the Phenomena attending Death by Strangulation." Bishop had been hanged for the murder of an Italian organ boy, whose body he brought to the dissecting-room of King's College for sale. The late Professor Partridge had his suspicions excited, and gave the man Bishop into custody. He was tried and condemned, and after his execution his body was sent to King's College for dissection. After this Dr. Watson was a frequent contributor to the *Medical Gazette*. The same ninth volume contains clinical lectures "On Pulmonary Hæmorrhage and on Epilepsy." In the tenth volume there are the Lumsian lectures on "Hæmorrhage from the Stomach, Intestines, and Urinary Organs." In the thirteenth volume there is an admirable introductory lecture, delivered at the opening of the medical session at King's College. In the fifteenth volume appears a paper "On the Efficacy of the Vapour Bath in Cases of Diabetes." The sixteenth volume contains two lectures "On Rheumatism of the Heart," and a paper "On the Connexion of Hypertrophy of the Heart with Cerebral and Pulmonary Hemorrhage." In July, 1832, Dr. Watson accompanied Sir Walter Scott from London to Edinburgh on his last sad journey from Italy to Abbotsford. In "Lockhart's Life of Scott" it is stated that Dr. Watson went the whole way to Abbotsford with Sir Walter; but in a copy of the work which he gave his son Dr. Watson has written the following foot note: "This is a mistake of Mr. Lockhart's. I did not accompany Sir Walter to Abbotsford, but returned from Edinburgh to London."

In 1836, Dr. Watson was appointed Professor of Medicine at King's College, and he continued to hold this office until the spring of 1840, when, at the opening of the newly-founded King's College Hospital, he had to resign either his office of physician to the Middlesex Hospital or his chair at King's College, and he preferred to retain the former office. The resignation of his professorship, which was felt as a calamity by King's College, was attended with this great benefit to the entire profession and the public, that it led to the publication of his admirable lectures on the "Principles and Practice of Physic." The lectures were first published week by week in the *Medical Gazette*. The first lecture appeared on Sept. 25th, 1840 (vol. xxvii.); and the last of the series on Sept. 23rd, 1842 (vol. xxx). In the following year, 1843, they were collected and published in two volumes by Messrs. J. W. Parker and Son, West Strand; a second edition was called for in 1845; and a third in 1848. Two editions have since been published; one in 1857, and, lastly, the fifth in 1871.

The publication of these lectures, admirable as they were universally acknowledged to be, not less for the soundness of their teaching than for their lucid, elegant, and scholarly style, greatly increased the reputation of their author, acquired for him the well-merited title of the Cicero of English medicine, and led at once to a large extension of his practice. The well-known volumes had, for a number of years, probably a larger sale than any other similar work that has ever been published, and we have pleasure in recording here an anecdote illustrative of his publishers' liberality, which was related to us by Sir Thomas Watson. Mr. Parker one day called on him and said that the sale of his lectures, and the profit resulting therefrom, had so far exceeded his (the publisher's) anticipations, that he did not feel justified in sharing the profits equally with the author, according to the terms of their original agreement; he there-

fore proposed that the author should receive two-thirds of the profits, while the publisher retained one-third. And as a practical illustration of his generous intentions, he handed the author a cheque for twelve hundred pounds. This surely is an example of liberality not unworthy of imitation.

At the College of Physicians Dr. Watson held numerous offices before he was elected President. In 1827 he was Gulstonian Lecturer; in 1830-31 Lumsian Lecturer; in the years 1833, 1834, and 1835 he gave the College lectures on *Materia Medica*; he was Censor in 1828, 1837, and 1838; on the Council at various times between 1833 and 1868; From 1858 to 1860 he was the College representative on the Medical Council. In 1862 he was elected President, and he held that office for five successive years. The College would have gladly elected him for a sixth period of office; but he declined on the plea of advancing years, and at the annual meeting for the election of President, after referring in graceful terms to the Fellows who had died during the previous year, he bade the College, as their President, farewell in the following eloquent and characteristic words:—"It only remains that I should attempt to do that which I feel to be well-nigh impossible—to embody in any form of words that I can devise the deep and inextinguishable sense of gratitude with which my mind is full for that kindness and trust which have placed me, year by year, on five successive occasions, at the head of the College of Physicians; in other words, at the head of the medical profession in this great country. According to my estimation, already more than once expressed, there is no nobler position in medicine, whether I look before me and around me to the body of men from whom it comes, or backwards to the splendid list of names of those who have preceded me in the presidential chair—Linacre, Caius, Glisson, Sir William Browne, Pitcairn, Sir George Baker; these, to go no later, are but a few of the eminent men and sound scholars with whom it may well be deemed a proud distinction to have one's name in any way associated. But, besides this great and repeated honour—the greater because so repeated—I have much else to thank you for. I have to acknowledge your indulgence towards the many shortcomings of which I am but too conscious. I have to express my thanks for your constant support and counsel in all difficulties, for your unvarying courtesy and deference, for the friendships which my official intercourse with you has formed or strengthened, and most especially for that recent signal and touching evidence of your approbation and esteem shown by your wish to possess within your walls some pictorial remembrance of my unworthy person. Of this high and generous compliment I can never, while life and reason remain to me, be otherwise than most gratefully, and I hope pardonably, proud. Further, I have to rejoice that the happy lustrum during which I have presided over your affairs has been harmonious and peaceful—disturbed by no unseemly quarrels or serious differences among us—stained by no scandal arising within our proper body, and productive, through your exertions and self-sacrifices, of something at least of benefit to the common weal. If I find anything to regret it is that I have not taken larger advantage of the opportunity which you have confided to me of promoting the interests of the College, and of our useful and noble profession."

Still, I must cherish the hope that the College has suffered no abatement of its ancient dignity and renown through my occupation of the office, which I now respectfully render back into your hands. And so, without encroaching further upon your time and in redemption of the pledge which I gave you last year, I bid you, as your President, one and all, a cordial, affectionate, and final farewell."

The "pictorial remembrance" to which he refers is an admirable portrait by his old friend, George Richmond, which was subscribed for by a large number of the Fellows, and which is now amongst the most cherished treasures of the college. A replica is in possession of Sir Thomas Watson's family, and it has been successfully engraved by Samuel Cousins.

Dr. Watson was appointed Physician Extraordinary to the Queen in 1859, and in 1870 one of the Physicians in Ordinary. On the 9th December, 1861, he was summoned to attend the Prince Consort at Windsor in consultation with Sir James Clark, Sir Henry Holland, and Sir (then Dr.) William Jenner, and his attendance continued until the lamented death of the Prince on December 14th. In 1866 Dr. Watson was created a baronet, the honour having been offered to him, as he was informed by the then

Minister, Lord John Russell, by the express desire of His Majesty. Amongst other distinctions which were conferred upon the great physician, he was elected an Honorary Fellow of his old college, St. John's, at the same time as the late Sir John Herschell. He was Hon. D.C.L. in 1862; Hon. LL.D. Cambridge, 1864; and Hon. D. of King's and Queen's College of Physicians, Ireland, 1859, he was elected a Fellow of the Royal Society. Many years he was a most influential member of the Council of King's College, London. During the session 1858, Sir Thomas Watson was President of the Pathological Society. In 1868, he became the first President of the Clinical Society; and in his inaugural address he urged the Society, with his customary good sense and grace, the supreme importance of an endeavour to obtain the exactness of knowledge, and therefore more direct intelligent purpose, and more successful aim in what is the aim and object of all our labours—the application of remedies for the cure and relief of disease.

During the last ten or twelve years of his life he had retired from the active practice of his profession, but continued to take great interest in all that concerned it.

Notwithstanding his advanced age, he enjoyed his usual health, spending great part of the last summer and autumn with his daughter and his son's family, partly at Reigate and partly at his son's house, Reigate Lodge, Surrey. On Sunday, Oct. 22nd, he had attended the morning service, as usual, at the parish church. On attempting to rise from the table, after lunch, he made a sudden inclination towards the left side, and would have fallen if he had not been supported by his son, who was standing by.

He afterwards took a short walk in the garden, but his left leg was found to be weakened, and he walked with great difficulty. He was seen at once by his neighbour, Dr. Lister, and on the following Wednesday he was visited by his old pupil and friend, Dr. George Johnson, to whom he calmly said, "This is the beginning of the end." There then came paralysis of the left leg and of the left side of foot and tongue, but there was no appreciable weakening of his arm. The mental faculties and the power of speech were quite unimpaired. Drs. Johnson and Walters were of opinion that there was probably obstruction by thrombosis of some of the smaller cerebral arteries.

On the following Thursday, Oct. 26th, after some exertion in walking across the room (up to this date he had been dressed daily and had gone downstairs), he was suddenly seized with difficulty of breathing, his face became cyanotic, and he believed himself to be dying. There appeared to have been some sudden failure of the heart's action; but the course of an hour or two the distress passed off. He was then carried to his bed; and from that day he did not leave his room, and rarely could even be moved from his bed. It was neither necessary nor desirable to dwell on the details of the subsequent seven weeks. The condition was one of increasing weakness and often of most distressing restlessness. Then there came irritation of the bladder with some retention, for which Dr. Walters was prepared to render the usual aid; but the restless sufferer, with a firm conviction that he had stone in the bladder, insisted on having Dr. Lister telegraphed for; and it was not until Mr. Lister had been sent for and had come a second time that he would allow Dr. Walters to give him the relief which henceforth was required two or three times daily.

During the last few weeks, a little milk with a small quantity of brandy was all the nourishment that could be taken. Weakness and emaciation, with a falling temperature, steadily increased. He retained his consciousness until within the last two days of his life, although his power of speech was latterly much impaired. It was believed that he understood and was gratified by a kind message of inquiry and sympathy from Her Majesty the Queen. He was often comforted by the reading of a prayer or a hymn.

At length he sank into a slumber, and so on Dec. 11th, near midnight came the final rest for which he had longed and prayed. To quote his own words with reference to his old and beloved friend, Dr. P. M. Latham, "Ripe in years as he was, and ready in spirit for the solemn change, his death must long be the subject of tender and sacred regret among the nearest and dearest of his surviving family and friends; nor will his memory soon cease to be reverently cherished throughout a much wider circle."

Throughout the trying seven weeks of weakness and of suffering Sir Thomas was most assiduously attended by his kind friend and neighbour, Dr. Walters, and occasionally by

Dr. Holman. He was also seen from time to time by his neighbour Dr. Greenhow, who was always ready to render assistance when needed, and he was frequently visited by Dr. George Johnson. We have already mentioned that Mr. Lister twice obeyed the distinguished sufferer's summons. It need scarcely be said that all felt it a privilege to minister to the relief of one so universally revered and beloved.

He has left instructions that his burial in the churchyard at Reigate, shall be conducted without pomp or senseless parade; and it has been arranged that the procession shall leave the house, Reigate Lodge, within five minutes' walk of the railway station, at half-past two this day (Friday), the 15th inst.

#### DEPUTY SURGEON-GENERAL PEARSON.

ON Nov. 20th the death was announced of Mr. Francis Pearson, Deputy Surgeon-General in the Indian Medical Service. Although his name was little known in England, it will long be remembered in Northern India as that of a man who rendered remarkable services to the State and to the public. For nearly thirty years Mr. Pearson, while performing at the same time other interesting but less important duties, was the chief officer in the vaccination department in the North-West Provinces. The history of his work would furnish to the scientific inquirer a collection of facts of extreme value on the whole subject of vaccination, for it is probable that no living man had in this respect greater opportunities for observation than those which Mr. Pearson enjoyed. He began his work about the year 1852 in the Himalayan Provinces of Gurwhal and Kumaon. There was, perhaps, at that time no country in the world in which small-pox was more prevalent or more fatal. Vaccination was hardly known, its advantages were disbelieved, and it was obstructed in every way by the ignorance and prejudices of the people. The Government resolved to check if possible the terrible mortality which was frequently occurring, and Mr. Pearson was appointed with a staff of vaccinators, the strength of which was gradually increased. Although it would have been easy for him to bring other influences to bear, he was wisely content to make vaccination popular by convincing the people that it afforded almost certain protection against small-pox. Before many years had elapsed he was rewarded by an astonishing measure of success. The people became convinced by their own observation that the protection was real; small-pox rapidly diminished, and at last virtually disappeared. Before Mr. Pearson left India, three years ago, small-pox, as an epidemic disease, had long been unknown in Kumaon and Gurwhal, and there was probably no country in Europe in which vaccination had become so universal. Many interesting stories could be told of Mr. Pearson's experiences, and to find a parallel to some of them we should have to go back almost to the time of Jenner. Not the least remarkable cases were those of the crucial experiment in which the professional and literary inoculators attempted in vain to inoculate children who had been successfully vaccinated. The great results obtained by Mr. Pearson in the hill districts induced the Government to extend his operations to the plains, and in 1864 he was appointed Superintendent General of Vaccination in the North-West Provinces. The extirpation of small-pox in so vast a tract, with a population of more than forty millions, was of course a work which will require the labour and care of many years for its completion; but before Mr. Pearson left India in 1879 immense progress had been made, and more than half a million of children were being successfully vaccinated in the North-West Provinces every year. Another interesting chapter in Mr. Pearson's life was the campaign he undertook against the mysterious and deadly disease known in the Himalayan Provinces as "mahamari"—i.e., "the great death." He proved conclusively that this was identical with true plague, and armed with official authority to enforce sanitary regulations he succeeded in completely eradicating it for many years in the district of Gurwhal. Space does not allow us to say more, but this notice of Mr. Pearson's career would be altogether deficient if it made no reference to those personal qualities which formed so strong an element not only in his social but in his official life. He was one of those fortunate men who command obedience and success, not merely by their ability and strength of character, but by

the personal affection and respect which everyone who knows them feels for them. He was buried at Kensal Green Cemetery on Nov. 24th, and many of his friends were present. Among them was Sir John Strachey, who had known him intimately from his youth, and on whom as member of the Government of India, and as Lieutenant Governor of the Provinces in which Mr. Pearson served, the duty had often fallen of acknowledging on behalf of the Government the admirable services which he had rendered.

## Medical News.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following Members, having passed the required examination for the Fellowship on the 23rd, 24th, and 25th ult., were, at a meeting of the Council held on Thursday last, duly admitted Fellows of the College:—

Buck, William Elgar, M.A., M.D. Cantab., Leicester; date of Membership Nov. 1872.  
Dingley, Allen, L.R.C.P. Lond., Argyle-square; July, 1878.  
Gunn, Robt. Marcus, M.B., C.M. Ed., Park-street; July, 1873.  
Hardie, Jas., M.D., L.R.C.S. Ed., Manchester; not a Member.  
Lane, Jas. Ernest, Norfolk-square; May, 1880.  
Prowse, Arthur Bancks, M.B. Lond., Cambridge; July, 1877.  
Smith, T. F. Hugh, L.S.A., Wimpole-street; Aug., 1877.  
Walters, Fred. Rufenacht, M.B. Lond., Croydon; April, 1880.

One other candidate passed the examination, but not having complied with the regulations of the College, will be admitted at a future meeting of the Council; and seven candidates failed to reach the required standard, and were referred for twelve months.

**UNIVERSITY OF LONDON.**—The following candidates have passed the recent M.B. (Honours) Examination:—

### MEDICINE. FIRST CLASS.

King, David Alex. (Scholarship and Gold Medal), St. Barth. Hosp.  
Wooldridge, Leonard C., D.Sc. (Gold Medal), Guy's Hospital.  
\*Harris, Thomas, Owens College.  
Collingwood, David, University College.  
Adeney, Edwin Leonard, Guy's Hospital.  
Wilkinson, William Camac, B.A. Sydney, University College.  
Honeyburne, Richard, L'pool Royal Infirm. and Univ. College.  
Webb, Malcolm, Owens College.

### SECOND CLASS.

Eq. { Buxton, Dudley Wilmot, University College.  
Shaw, Lauriston Elgie, Guy's Hospital.  
Fielden, William Eckett, Guy's Hospital.  
Eq. { Scharlieb, Mary Ann Dacomb, Madras Med. Coll. and Roy. Free Hosp.

### THIRD CLASS.

Pratt, Reginald, University College.  
Eq. { Batterham, John Williams, Westminster Hospital.  
Dingley, Edward Alfred, University College.  
Shove, Edith, London School of Medicine for Women.

### OBSTETRIC MEDICINE.

#### FIRST CLASS.

Scharlieb, Mary Ann Dacomb (Scholarship and Gold Medal), Madras Med. Coll. and Roy. Free Hosp.  
King, David Alex. (Gold Medal), St. Barthol. Hospital.  
Honeyburne, Richard, Liverpool Roy. Infirm. and Univ. Coll.

#### SECOND CLASS.

Shove, Edith, Lond. Sch. of Med. for Women.  
Dingley, Edward Alfred, University College.  
Harris, Thomas, Owens College.

### FORENSIC MEDICINE.

#### FIRST CLASS.

Wilkinson, W. Camac (Scholarship and Gold Medal), Univ. Coll.  
Webb, Malcolm (Gold Medal), Owens College.  
Maddison, Wm. Thomas, King's College.  
Wooldridge, Leonard Charles, Guy's Hospital.  
Currie, Oswald James, Guy's Hospital.  
Scharlieb, Mary Ann Dacomb, Madras Med. Coll. and Roy. Free Hosp.

#### SECOND CLASS.

Dingley, Edward Alfred, University College.  
Batterham, John Williams, Westminster Hospital.  
Adeney, Edwin Leonard, Guy's Hospital.  
King, David Alexander, St. Bartholomew's Hospital.  
Vinrace, John Hinks, Queen's Coll. Birm. and Univ. College.

#### THIRD CLASS.

Honeyburne, Richard, Liverpool Roy. Infirm. and Univ. Coll.  
Collingwood, David, University College.

\* Obtained the number of marks qualifying for a gold medal.

**UNIVERSITY OF OXFORD.**—At a congregation held on Dec. 7th the degree of M.D. was conferred on—

Joseph Arderne Ormerod, Jesus.  
Samuel Hatch West, Christ Church.

**UNIVERSITY OF CAMBRIDGE.**—At a congregation held on Dec. 7th the degree of M.D. was conferred on—  
William Collingridge, Christ's.

**UNIVERSITY OF DURHAM.**—At a convocation held on the 12th inst. the following degrees were conferred:—  
M.D. (practitioners of fifteen years).—P. Colmer, P. Cowen, R. Goddard, A. C. Rayner, and G. Thompson.  
M.D.—A. W. W. Dowding, T. Dutton, A. Mantle, G. L. Pardington.  
M.B.—D. H. Barley, F. W. Gilles, P. Brown, J. Hartley, W. Sheppard, M. S. C. H. Milburn, W. Sheppard.  
M.B. *ad eundem*.—Rev. R. R. Furlong, Trinity College.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Dec. 7th:—

Culhane, Francis John Fitzgerald, St. Helena, Hastings.  
Dobbs, Charles John, Newport, Isle of Wight.  
Hewitt, Frederick Wm., Grove-place, Pond-street.  
Maddison, Charles John, William-street, Regent's-park.  
Sparkes, Claud Stephen, St. Catherine, Guildford.  
Stephens, Samuel, Camborne, Cornwall.

The following gentleman also on the same day passed the Primary Professional Examination:—

Anwyl, James Norman, St. Bartholomew's Hospital.

It is proposed to increase the number of coroners for Surrey from three to five—two for the East, two for the West, and one for the Central Districts.

**WEST KENT MEDICO-CHIRURGICAL SOCIETY.**—The third meeting of the twenty-seventh session, 1882-83, was held at the Royal Kent Dispensary, Greenwich-road, on Dec. 1st, when Mr. H. W. Jackson read two papers, entitled, "Some Diseases and Injuries of Prehistoric Man," and "Royat in the Puy-de-Dôme as a Health Resort."

**FACTORY ACTS.**—At the County Petty Sessions, Faversham, Kent, on the 7th inst., Mr. J. A. Redgrave, Her Majesty's Inspector of Factories, appeared to prosecute the Cotton Powder Company (Limited) for having employed young men and women in their works on Sunday, Nov. 5th. One young man lost his hand through an explosion on the occasion. Penalties and costs amounting to £16 10s. were inflicted.

**HOSPITAL SATURDAY AND SUNDAY IN THE PROVINCES.**—At the annual meeting of the Shrewsbury Hospital Sunday Committee on Monday, it was stated that £288 5s. 3d. was collected in thirty-three places of worship, which was 15s. 6d. less than in the previous year; £142 10s. was given to the Salop Infirmary, and the remainder between the Eye and Ear Hospital and Dispensary.—Nearly £1000 has been received up to the 11th inst. by the Hospital Saturday Committee of Wolverhampton as the result of the annual contributions made by the artisans, shop assistants, and others, on the previous Saturday, in aid of the Wolverhampton and Staffordshire Hospital.

**WORKING MEN'S SEASIDE CONVALESCENT HOME.**—About eighteen months ago a movement was commenced to establish a Convalescent Home for Working Men in connexion with the Hospital Saturday Fund, which, however, was not to be touched for the purpose. About £320 has been subscribed, and it has been decided to purchase a large house at St. Margaret's, near Dover, which would accommodate thirty or forty patients. At a meeting held last week at Old Ford, to promote the enterprise, Mr. Hamilton Hoare said the bank with which he was connected had authorised him to promise the advance of whatever funds might be needed to purchase the site of the proposed Home, so that the project, which is an eminently worthy one, is not without promise of success.

**THE CAUSES AND PREVENTION OF BLINDNESS.**—The fifth International Congress of Hygiene, which will meet at the Hague, Holland, in 1884, will award the prize of £80 offered by the London Society for the Prevention of Blindness to the author of the best essay written in English, French, German, or Italian, on "The Causes of Blindness and the practical means for preventing it." Besides this prize, the International Society for the Improvement of the Condition of the Blind reserves to itself the right to award a second prize of £40, or two prizes of £20 each, and a silver gilt medal with a diploma, should it see fit, to such of the essays as should, in the opinion of the international jury for the principal prize, be deserving of it; the last-mentioned prizes will be distributed at the centenary festival of the first blind institution founded by Haüy, which will take place in Paris in 1884.

**YORKSHIRE POOR-LAW CONFERENCE (1882)**  
held on Thursday, Dec. 21st, commencing at 10.30 precisely, in the Masonic Hall, Halifax. After the President's address on "Recent (i.e., last session's) Poor-law tion," papers will be read on "The Education of House Children in Public Elementary Schools," by Messrs Bottomley; on "Settlement and Removal," by Mr. W. Wright; and on "Vaccination," by Mr. Dolan. Session will follow the reading of each paper.

**MANCHESTER MEDICO-ETHICAL ASSOCIATION.**—At a meeting of the above Association, held on the 8th inst., was introduced for discussion "The Position of Shipwrecked," and the following resolution was unanimously adopted:—"That this Association is convinced that the moral and sanitary departments of our mercantile marine are in a highly unsatisfactory condition, and that the lives of seamen are frequently endangered thereby. That this Association desires to press upon the Government the necessity of an immediate inquiry into the position, status, and efficiency of surgeons upon passenger ships."

## Medical Appointments.

Communications for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

**ANDERSON, BUSHELL, M.D.** Cantab., M.R.C.S., has been reappointed Medical Officer of Health for the Chesterton Rural Sanitary District.

**ANDERSON, J. W., M.B., B.S., 1st B.Sc.** Lond., M.R.C.S., L.S.A. Lond., has been appointed House-Surgeon to the Wolverhampton and Staffordshire General Hospital.

**ANDERSON, HENRY F., F.R.C.S.** Ed., has been appointed Surgeon to the "Apples" Nursery, Park-place, Clarence-gate.

**ANDERSON, WILLIAM J., M.B., L.R.C.S.**, has been appointed Surgeon to the Iron Works, Chester-le-Street.

**ANDERSON, G. E., M.R.C.S.**, has been appointed House-Surgeon to the Westminster Hospital.

**ANDERSON, M. CURSHAM, L.S.A.** Lond., has been reappointed Clinical Assistant to the Out-patient Department of the East London Hospital for Children.

**ANDERSON, RICHARD E., M.D.**, has been appointed Honorary Medical Officer to the Dover Hospital.

**ANDERSON, CHARLES OWEN, M.R.C.S., L.S.A.** Lond., has been appointed Assistant Resident Medical Officer to the London Fever Hospital, Abington.

**ANDERSON, WILLIAM HARRIS, M.R.C.S., L.S.A.** Lond., has been reappointed Medical Officer of Health for the Crediton Urban Sanitary District.

**ANDERSON, E. W., M.B., B.C.** Edin., L.R.C.P., has been appointed House-Physician to the Wolverhampton and Staffordshire General Hospital.

**ANDERSON, THOMAS, L.F.P.S.** Glas., L.R.C.P.E., has been appointed Medical Officer for the High District of the Pontefract Union.

**ANDERSON, CYRIL LLOYD, M.D.** Dub., M.B. Cantab., M.R.C.S., has been appointed Public Vaccinator for Christchurch and St. Saviour's District, St. Saviour's Union.

**ANDERSON, ROBERT GUY, L.K.Q.C.P.I., L.R.C.S.I.**, has been reappointed Medical Officer of Health for the Halstead Urban Sanitary District.

**ANDERSON, H., M.R.C.S.**, has been appointed Junior House-Physician to the Westminster Hospital.

**ANDERSON, TIMOTHY WOOD, M.R.C.S., L.S.A.** Lond., has been appointed Medical Officer to the Workhouse of the Thame Union, vice R. Lee, deceased.

**ANDERSON, JAMES M., M.R.C.S., L.R.C.P.** Ed., Senior Assistant-Physician to the Surrey County Asylum, Brookwood, has been appointed Medical Superintendent of the Surrey County Asylum, Cane-hill.

**ANDERSON, E. SETON, M.R.C.S., L.R.C.P.** Ed., L.M., has been appointed Medical Officer to St. Mark's Training College, Chelsea.

**ANDERSON, JAMES, M.D., C.M.** Aber., M.R.C.S., has been appointed Medical Officer for the Sandhurst District of the Berkhamstead Union.

**ANDERSON, R., B.A.** Oxon., M.R.C.S., has been appointed Senior House-Physician and Chloroformist to the Westminster Hospital.

**ANDERSON, ALEX. WILLIAMSON, M.B., C.M.** Ed., has been appointed Medical Officer for the High District of the Longton Union.

**ANDERSON, WALTER JOHN, M.D., C.M.** Ed., has been reappointed Medical Officer of Health for the Borough of Portsmouth.

**ANDERSON, H., M.R.C.S.**, has been appointed Medical Officer for the Christchurch District of St. Saviour's Union, vice T. S. Worboys, deceased.

**ANDERSON, J. H., M.K.Q.C.P.I., M.R.C.S.**, has been appointed Medical Officer for the Second District and Workhouse of the Guiltcross Union, vice Sayer, deceased.

**ANDERSON, CHARLES J., M.D.**, has been appointed Certifying Surgeon, under the Factory Act, for the Snodland District, vice T. L. Marsden, resigned.

**ANDERSON, ALFRED, M.R.C.S., L.S.A.** Lond., has been reappointed Medical Officer of Health for the Romford Rural and Urban Districts.

## Births, Marriages, and Deaths.

### BIRTHS.

**CAMERON.**—On the 10th inst., at Lochiel, Harlesden, N.W., the wife of Charles H. H. Cameron, L.R.C.P. Lond., M.R.C.S., prematurely, of a son, stillborn.

**CLARK.**—On the 15th ult., at Umritsar, Panjab, the wife of H. Martyn Clark, M.B., C.M. Edin., Medical Missionary of the Church Missionary Society, of a son.

**DAVISON.**—On the 12th inst., at Langton House, Battle, Sussex, the wife of Rashell Davison, M.D., of twins.

**EMERY-JONES.**—On the 5th inst., at St. John-street, Manchester, the wife of A. Emery-Jones, M.D. Edin., of a son.

**HUTCHINGS.**—On the 7th inst., at Southborough, Tanbridge-Wells, the wife of Edward J. Hutchings, M.R.C.S., of a son.

**LAMB.**—On the 8th inst., at Yew Tree Cottage, Lewisham, the wife of William Lamb, M.D., of a son.

**MANDERS.**—On the 5th inst., at Agincourt House, Yorktown, the wife of Horace Manders, F.R.C.S., of a son.

**RAYNER.**—On the 12th inst., at the County Asylum, Hanwell, the wife of H. Rayner, M.D., of a daughter.

**WALLIS.**—On the 10th inst., at Priory-place, Doncaster, the wife of Ferdinand Wallis, M.R.C.S., of a son.

### MARRIAGES.

**ANDREW-MARTIN.**—On Oct. 28th, at Christ Church, Mussooria, George Andrew, M.B., Surgeon-Major, A.M.D., to Milly, widow of the late Curtiss Martin, Brigade Surgeon, A.M.D.

**DRURY-YOUNG.**—On the 9th inst., at Holy Trinity Church, Bournemouth, William Vallancey Drury, M.D., of Lingmoor, Bournemouth, to Emelyn, eldest daughter of Edward Young, Esq., J.P., of Thornleigh, Bournemouth, and Birchfield, Lancashire.

**MACGEEGH-DAVIES.**—On the 6th inst., at Baltimore, U.S.A., by the Rev. Dr. Leeds, T. E. Foster MacGeagh, M.D., &c., eldest son of Benjamin Scott Foster MacGeagh, Esq., of Combe House, Coombe, Surrey, and the Middle Temple, London, to Fanny, daughter of the late S. D. Davies, Esq., of Baltimore, U.S.A., and niece of Sir W. Rose Robinson, K.C.S.I. (By cable.)

**SHARP-MORETON.**—On the 7th inst., at Bushbury Parish Church, by the Rev. George Tuthill, Vicar of St. Paul's, Wednesbury, assisted by the Rev. J. W. Kenworth, Curate in Charge, Gwinnett Sharp, Surgeon, of Walsall, to Elise, younger daughter of the late John Moreton, of Moseley Court, Wolverhampton.

**SWALE-PARISH.**—On the 5th inst., at St. Mary's, Guildford, Harold Swale, M.B. Lond., of Ingfield Hall, Settle, Yorkshire, and of Tavistock, Devon, to Alice, daughter of Capt. Parish, R.N.R. (late of P. and O. Co.'s Service), of Guildford.

**FRAMPTON-TURNER.**—On the 7th inst., at Holy Trinity, Paddington, Tom Henry Trevethan, M.R.C.S., elder son of Thomas Frampton, M.R.C.S., L.R.C.P., to Kate, third daughter of the late J. Turner, Esq., of Cleveland-square, Hyde-park.

**WELLS-WILLETT.**—On the 9th inst., at the Parish Church, West Brighton, Anne Maria, second daughter of the late R. B. Willett, Esq., of 20, St. John's-terrace, West Brighton, to Chas. Wells, M.D., M.R.C.S. Eng., L.S.A. Lond., of 13, College-crescent, Belairpark, N.W.

### DEATHS.

**BOUGLAS.**—On the 9th inst., at Carlisle, James Bouglas, L.F.P.S. Glas., aged 84.

**BENSON.**—On the 10th inst., at Bath, Ernest Walter Benson, B.A. Camb., L.S.A., M.R.C.S., youngest and beloved son of George Benson, Esq., Gloucester-street, Warwick-square, South Belgrave.

**BAYES.**—On the 8th inst., at Lansdowne-place, Brighton, suddenly, William Bayes, M.D., aged 59.

**ESWORTH.**—On the 12th inst., suddenly, from congestion of the lungs, at 11, Collingham-place, South Kensington, Alfred Esworth, F.R.C.S.E., aged 61.

**FOLKER.**—On the 1st inst., at Hanley, Staffordshire, Ellen Jane, wife of William Henry Folker, F.R.C.S., aged 52.

**FRANCIS.**—On the 10th inst., at Frederic-street, Sunderland, Matthew Francis, M.R.C.S., Surgeon to the Sunderland and River Wear Police.

**GIBBONS.**—On the 6th inst., at Waterloo-road, Dublin, Surgeon-General John Gibbons, Retired List, Companion of the Bath, and Chevalier de la Légion d'Honneur, late Surgeon of 44th, 95th Regiments, and Royal Artillery.

**RITCHIE.**—On the 30th ult., at Chesterhill House, Anstruther, N.B., the Rev. Wm. Ritchie, M.D., formerly of Berwick, Bovey Tracey, Liskeard, Plympton, and London, aged 82.

**SAVORY.**—On the 5th inst., at Wendover, Bucks, Arthur Henry Savory, M.R.C.S.E., L.R.C.P. Edin., youngest son of the late Joseph Thomas Savory, Surgeon, aged 34.

**WATSON.**—On the 11th inst., at Reigate Lodge, Surrey, Sir Thomas Watson, Bart., M.D., aged 90.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.



## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, Dec. 14th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiations in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Dec. 8	29.22	N.E.	35	34	..	39	29	.53	Overcast
" 9	29.64	N.W.	37	35	..	38	32	..	Overcast
" 10	29.84	S.W.	29	..	..	31	24	..	Foggy
" 11	29.78	N.W.	28	..	..	32	22	..	Foggy
" 12	29.71	S.E.	31	..	..	39	23	..	Overcast
" 13	29.64	S.E.	39	39	..	47	28	..	Overcast
" 14	29.69	N.	40	40	..	42	35	..	Overcast

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

## AN IMPROVEMENT IN MERCURIAL THERMOMETERS.

MR. S. G. DENTON has recently exhibited at the Meteorological Society forty-six newly made mercurial thermometers, constructed in a special manner, the zero of which has remained constant for over twelve months. The thermometers comprised twenty-three standards and twenty-three clinicals. To prove that they were newly made, the pieces of enamel stems were sent to the Kew Observatory and hall-marked previous to having their bulbs blown. They were then constructed into thermometers, graduated, and returned to the observatory, and tested throughout. They were then placed under seal by the superintendent, and remained so for over a year, and after that time were again tested, the mean amount of change being only about half a tenth of a degree Fahr. A standard thermometer made by the same process as above was also shown, it having been verified in 1873 and in 1882; the zero was still constant.

## "ON THE INTERNAL ADMINISTRATION OF CHRYSOPHANIC ACID IN PSORIASIS."

To the Editor of THE LANCET.

SIR,—With reference to Mr. Cauty's communication on the above (THE LANCET, Dec. 2nd), I ask permission to draw attention to my paper, "Deductions from 319 observations of the action of chrysarobin—a new emetic purge," which was read before the Harveian Society of London in 1877, published in the *British Medical Journal* in May of that year, and published by Mr. Balmanno Squire in his "Chrysophanic Acid in Skin Diseases," in 1878.

Chrysarobin is the name by which freshly prepared Goa, Bahla, or Aroba powder is known. Chrysophanic acid, present in the proportion of 80 to 81 per cent. (Attfield), and resinous bodies (2 per cent.) having a similar action to the former, are the active principles of chrysarobin, or, as it may be less conveniently called, "yellow Aroba powder."

In the paper named I claim to have first observed the marked effect which chrysophanic acid has of discharging large quantities of bile from the body, foreshadowed its usefulness in small, repeated doses in cases of inactivity of the liver, and given such observations as I think enable the reader to deduce for himself the way in which small doses may be given so as to avoid the unpleasant effect which prevented continued medication with them in some of Mr. Cauty's cases. In large doses (ten to fifteen grains) I have found it a valuable emetic purge, which I should now be very unwilling to lose the use of.

I am, Sir, yours, &amp;c.,

J. ASHBURTON THOMPSON.

Thatched House Club, St. James's-street,  
Dec. 7th, 1882.

## MUSHROOM CATSUP.

A MICROSCOPICAL EXAMINATION of several samples of mushroom catsup has recently been made by a well-known fungologist, Mr. Worthington G. Smith, and has brought to light several details of its composition that must be highly pleasing to lovers of this condiment. Of four samples manufactured in London, in one he found only matter which looked like mashed up toast and salt; in another decayed fish, mildew, and broken twigs; in a third, fungus spawn, mildew spores, crushed walnut-husks, and vibriones, large black spores evidently belonging to the genus *coprinus*, and brown ones recognisable as those of the horse-mushroom. Genuine mushroom catsup should exhibit basidia, cystidia, and spores of the true mushroom, salt crystals, and occasionally a pollen grain or fragment of pappus, but nothing more.

## IMITATION BUTTERS.

OF these there are several kinds. *Butterine* is made by a respectable firm and of sound materials, and is a cheap and wholesome substitute for butter when this is dear. It is made, according to one receipt, by melting beef suet in warm water with carbonate of potash; then pressing out the oleo-margarine from the stearine, mixing the former with the soluble matter from cows' udders, a little annato, and a due proportion of milk, and then churning. *Bosh* is made by a direct admixture of various fats with (often very inferior) butter.

## THE TREATMENT OF UNUNITED FRACTURE.

To the Editor of THE LANCET.

SIR,—In the columns of THE LANCET of December 2nd, I see, on page 940, an account of a "case of ununited fracture of the humerus in an old man successfully treated by resecting the ends of the bones and fastening them together with a probe." Was not this operation severe, more especially so in an old "debilitated" man? On March 8th, 1884, a paper by Mr. Bickersteth was read before the Royal Medical and Chirurgical Society on the treatment of ununited fractures. In this paper he described a method of treatment by simply nailing the ununited ends of the bone together with a drill, which was then left in position by the removal of the handle. This without any resection, he it noted. The operation yielded the most satisfactory results. Since that date Mr. Bickersteth has further elaborated his method. I regret I cannot lay my hand upon the paper or reference to it. A sharp clean drill is taken, fitting into an Archimedean screw, and two or three pegs of ivory are carefully adapted to fit tightly into the drill hole, of suitable length, the upper ends to be slightly thicker than the lower. A small incision is made down upon the ununited ends of the bone, with all antiseptic precautions. The drill is passed into the bone in two directions, so as to nail both ends together; the drill is removed; the pegs are inserted, and driven completely home by a few taps of the mallet. The skin incision is closed, the wound dressed in the usual manner, and a suitable splint applied. On removing the dressing in about a week's time, the wound is found soundly healed. The pegs undergo changes consequent upon being tightly grasped by the living bone, and are not usually seen again. Firm union results. I can conceive it quite possible the operation might require repetition. In the cases that have come under my own observation no disturbance followed the slight operation.

I am, Sir, yours, &amp;c.,

W. T. C.

December 11th, 1882.

Dr. Ross, Mr. Louis Birch, and others.—The subject will not be overlooked.

## ECZEMA.

To the Editor of THE LANCET.

SIR,—Perhaps some of your correspondents can furnish a hint for the treatment of the following case:—

A gentleman, aged thirty-five, suffers yearly from an eruption of eczema on the backs of the hands and wrists which comes on when the weather gets warm, about the beginning of summer, and generally declines as the weather gets cooler, but recurs every year. He has many of the marks and appearances of the scrofulous habit, and there is an obscure history of gout in his family; but, with the exception of being rather nervous, he has nearly always had fair health. The remedies which seemed to have done most good are iron in large doses, arsenic, Easton's syrup, and lime-water, also milk diet and a bracing atmosphere, but nothing I have tried seems to prevent its recurrence in hot weather.

I remain, Sir, yours obediently,

MEDICUS.

December 12th, 1882.

M. T. G.—Writers of letters are responsible for the contents of their communications.

## SALICYLATE OF SODA IN SCARLATINA.

To the Editor of THE LANCET.

SIR,—There is an epidemic of scarlatina here of a severe character. I wish to record the very great benefit that seven cases have received by the prompt exhibition of salicylate of soda. I give it in doses of fifteen grains every two hours to adults until the ringing in the ears is produced, and then the dose is given every four hours during the first week. In all of my patients so treated the anginous symptoms have disappeared, and they have made good recoveries. For children I give one grain of the salicylate for every year of age of the patient.

I am, Sir, yours faithfully,

Scunthorpe, near Brigg, Dec. 11th, 1882.

JAMES COULDRY.

## FRIENDLY SOCIETIES MEDICAL ASSOCIATIONS.

*Justitia* says that an association of the above type is about to be started in a town of about 15,000, and asks our opinion, and that of our readers, on the subject. Our opinion is soon told. The existing Associations of this class have reduced the scale of remuneration for medical services, and disturbed far more respectable arrangements for medical attendance on the working classes and their families. They are not institutions that we can approve. They contemplate medical attendance on a monster scale for a miserable pittance that may attract a young and impecunious man, but should have no countenance from established and experienced members of the profession, and, we may add, a pittance that should not be offered by respectable working men to their medical advisers.

## INTERVENTION OF THE GERMAN GOVERNMENT IN THE CORPORAL DEVELOPMENT OF YOUTH.

ABOUT six months ago a society was established at Düsseldorf for the purpose of propagating in a systematic manner the generally received opinion that gymnastic exercises are of advantage to the corporal development of youth. Herr Von Gössler has issued a circular dwelling on the importance of suitable rooms and open spaces being provided for such exercises. He calls attention to the arrangements which he considers most suitable for carrying out the various suggestions which have been made by competent authorities from time to time as to the exercises most appropriate for the class of schools intended to be dealt with in the Government scheme.

## GLASGOW ROYAL INFIRMARY.

To the Editor of THE LANCET.

SIR,—In your issue of the 9th inst. there was a description of the New School of Medicine in connexion with the Royal Infirmary, Glasgow. In that account there is mention of a room set apart for "smoking, chatting, and reading." Now, to any person acquainted with students, such an arrangement shows a decided want of experience in organising a medical school, as smoking and chatting are not consistent with reading. On an average there are three hours per day not occupied by classes, which amounts to a good total at the end of the session; and if there was a suitable room this time could be profitably employed. The students have already asked the directors to remedy this defect, and apparently only the will is lacking, as there is a very suitable room, which at present is not used for any purpose, although ostensibly set apart for a surgical museum, for which object, according to the lecturer in surgery, it is wholly unsuitable. As THE LANCET at various times has been the means of causing improvements in medical matters, we hope, by our letter appearing in your columns, it may give the necessary stimulus to the directors to remedy a defect which seriously interferes with the studies of the students.

We are, Sir, yours, &c.,

December 12th, 1882. TWO ROYAL INFIRMARY STUDENTS.

*Ajax*.—Under the circumstances a minimum fee of ten guineas.

*Dr. Octavius Sturges*.—Yes.

## "ORCHITIS IN TYPHOID FEVER."

To the Editor of THE LANCET.

SIR,—Having read your very interesting article on the above subject in the issue of December 9th, I think you may like to have my personal experiences on the subject. About the middle of November, 1881, I had a mild attack of typhoid fever, and had become quite convalescent, having been out two or three times, when I had a sudden attack of orchitis, accompanied by extreme tenderness of both testes (phlebitis of external saphenous veins, or myalgia of scrotal muscles). The left testicle was the one affected particularly, and the pain was excruciating for about ten days when touched or pendant. After that I was obliged to suspend the testicles for three or four weeks, and they always ached after any extra exertion for a month or two afterwards. The scrotum was reddened; there was no urethral discharge. The epididymis was not especially involved, but the spermatic cord was tender for a short time, and the swelling was globular and about the size of a duck's egg.

I am, Sir, faithfully yours,

EDWARD P. MANLY.

Cambridge College, Cambridge, Dec. 12th, 1882.

*W. G.* should seek the advice of a qualified medical man.

*Dr. Harding*.—Too late for this week.

## ART. "GOITRE" IN QUAIN'S DICTIONARY.

To the Editor of THE LANCET.

SIR,—A letter appeared in THE LANCET of December 2nd, page 970, signed "Chirurgus," which questioned the correctness of some of the statements in my article on "Goitre." If the anonymous writer of that letter will publish his name, I will refer at length to his strictures. I may add that should my answer give satisfaction to the readers of the article on "Goitre," it probably will not give equal satisfaction to the surgeon who has written anonymously.

I am, Sir, yours faithfully,

POWELL THORNTON.

December 12th, 1882.

## THE EFFECT OF THE ELECTRIC LIGHT ON HEALTH.

THE above question was lately discussed at a meeting of the Hygienic Society of Hamburg, and Dr. Krüss explained his views on the subject at some length. He referred to the influence of the electric light on the human eyesight, and expressed his opinion that it produces no evil effects, the light having a violet tinge under most circumstances. He referred to the somewhat exaggerated expectations which had been formed as to the distance at which the light was visible at sea; but, on the whole, he considered that the safety of human life at sea had been increased by the use of the electric light in lighthouses. The electric light being free from the disadvantages incidental to the combustion of gas in the consumption of oxygen and the production of carbonic acid, he considered its development as being a hygienic measure of relative importance.

## THE CONSUMPTION OF TOBACCO.

THOSE who take part in the perennial crusade against tobacco, and all who disapprove of its excessive use, will be glad to learn that the consumption of tobacco is as small in England as in any other civilised country. From some statistics on the subject which have been published by a French journal, *Les Mondes*, it appears that in Russia, France, and England the consumption amounts to 1 lb. per inhabitant. In Italy it is rather higher, 1½ lb. Austria comes next with 2.25 lb. In the United States and Germany the consumption amounts to 3 lb., in Belgium to 4.5 lb., while Holland has the privilege of heading the list with a consumption per inhabitant of more than 5½ lb.

*Antigua*.—We have no knowledge of any respectable institution which grants degrees in medicine without examination, and we shall not pay our readers the poor compliment of asking them if they know such.

We are unable to find room this week for *Dr. Denkin's* communication.

*Subscriber*.—THE LANCET, vol. ii., 1861.

## PROFESSIONAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—A woman brought her little boy to me on Saturday evening, December 2nd. I prescribed for him, and told the mother he was too ill to be out; if not better, to let me know. They were staying at a farm bailiff's a short distance from the town, whom I had attended previously. On December 4th I was sent for to see the boy, and found him suffering from scarlatina. I wrote at once to the bailiff's employer, saying what the boy was suffering from, and advising him not to let his children go to the house. The next morning, on visiting my patient, I found Mr. Duke had been the previous evening, and Dr. Chessman, his partner, had preceded me that morning, and had gone away to get a room for my patient in the town, where he was moved in the course of the day from a lone house out of the town to a house in the middle of the town in a thoroughfare, without my consent—indeed, without any communication with me by the employer or his medical attendants (Duke and Chessman). I ought to mention that, as medical officer of health, at some inconvenience early in the day of the 4th I went to see my patient, with the intention of taking all proper measures to "stamp out" the disease which, being in a lone house, was in a most suitable place for so doing.

I am, Sir, yours, &c.,

Buckingham, Dec. 11th, 1882.

ROBERT DE'ATH.

*Dr. G. Stanley Murray*.—A medical man's claim would be on the friends. But the proprietor of an asylum is supposed to see that such claims are satisfied.

*Dr. Maurice G. Evans*.—Mr. Stamp, Great Portland-street, W.

## CASE OF FREQUENT TAPPING IN ASCITES.

To the Editor of THE LANCET.

SIR,—B. S.—, aged forty-two years (formerly a hospital nurse), was anxious that her case should be noticed in your valuable journal, and as it may interest some of your readers, I am glad to comply with her request. I may briefly state that the patient had been under treatment for many years at various times for congestion of the liver and stomach, and was eventually brought to death's door from an attack of violent hæmatemesis, from which she rallied slowly. The dropsy first showed itself during her recovery. Having diagnosed the case to be one of cirrhosis of the liver, I tapped her early, and removed about a gallon and a half of fluid on Jan. 8th, 1881. Between this date and Aug. 27th, 1882, I tapped her no less than thirty-nine times, and removed 110 gallons of fluid, the patient finally sinking from exhaustion on Sept. 7th. The treatment was merely palliative, the usual remedies for dropsy not suiting her. I used a cannula of small calibre, with india-rubber tubing attached, the process of tapping generally lasting an hour; and since it was so well borne, I was enabled to visit other patients in the interim. None of the directions mentioned in the text-books as to the use of compress and bandage were complied with, and the patient lay on her back or side, as she felt disposed. No post-mortem was made, as the nature of the case was evident.

I am, Sir, yours, &c.,

Edinburgh, Dec. 1882.

R. H. PATTERSON, M.R.C.S.

*A Twenty Years' Subscriber.*—1. There is no extra fee provided, under the Poor-law, for reducing strangulated hernia without the use of the knife. If the case were a very bad one, there could be no harm in a statement to the Board and an application for remuneration.—2. Rectified spirit is not so applicable to those practical purposes as the finer brandies, though, according to Sir Robert Christison, it is more free of grain oil than common spirits.—3. We think diagrams would not suffice for the examination referred to.

**ERRATA.**—In our annotation last week headed "Downing College, Cambridge," for "Mr. Alex. Hall," read "Mr. Alex. Hill."—In the last line of Mr. Innes' article on "Stone in the Bladder," p. 934, for "visceral matters," read "viscera matted."

**COMMUNICATIONS, LETTERS, &c.,** have been received from—Sir James Paget, London; Professor Graham Bell, Washington; Professor Bigelow, Boston, U.S.A.; Dr. De H. Hall, London; Dr. Cobbold, London; Dr. Henry Thompson, London; Mr. J. Jones, Lewes; Mr. Birch, Epperstone; Mr. De'Ath, Buckingham; Mr. Knowlesy Thornton, London; Dr. Shann, Cambridge; Mr. H. C. Cowan, Dundee; Mr. Lemont, Newcastle-on-Tyne; Mr. E. Pope, Tring; Dr. J. C. Hutchison, Brooklyn; Mr. Pugin Thornton, London; Mr. Couldrey, Scunthorpe; Mr. Chavasse, Birmingham; Mr. Martin Coates, Salisbury; Mr. Hopkins; Mr. Royce, Oakham; Dr. Campbell, Garlands; Mr. Manby, Cambridge; Dr. Anderson; Dr. M. G. Evans, Cardiff; Mr. J. Hamilton, Swadlincote; Dr. Asburton Thompson, London; Miss Mechl; Mr. Ellison, Leeds; Mr. Turner, Norwich; Mr. E. Prideaux; Dr. Delafield, New York; Dr. Mallins, Walton; Dr. Clapham, Wimbledon; Rev. B. J. Bateman, Pentre Mawr; Mr. Drew, London; Mr. H. Lee, London; Surgeon-Major Hamilton, Dublin; Mr. F. K. Green, Bath; Dr. Puckle, Havana; Mr. Grace, Bristol; Mr. C. F. Hancock, Hendon; Mr. A. E. Barker, London; Mr. Wheeler, Manchester; Messrs. Turnbull and Wood, Newcastle-on-Tyne; Mr. F. Edwards, Ravenstow; Dr. O'Sullivan, Burnley; Dr. Laffan, Cashel; Mr. Millican, Kineton; Dr. Barron, Southport; Dr. Burnet; Dr. Geo. Johnson, London; Dr. H. Donkin, London; Mr. Fradelle, London; Dr. Moxon, London; Dr. Brown, London; Mr. Scott, Manchester; Mr. Twyford, Hanley; Messrs. Wood and Co.; Mr. Baker; Mrs. Webb, Drighlington; Dr. Houghton, St. Leonards; Mr. Luther Holden, London; Dr. S. W. Abbott, Wakefield, Mass.; Dr. W. T. Gairdner, Edinburgh; Mr. Hartridge; Dr. T. C. Williams, London; Mr. Henston, Paris; B.; R. R.; Justitia; M. T. G.; Ajax; Inquirer; Medicus; M. D.; The Editor of *Truth*; &c. &c.

**LETTERS, each with enclosure,** are also acknowledged from—Mr. Pace, Newcastle-on-Tyne; Mr. Phillips, Hoxne; Mr. Manders, York-town; Mr. Burgess, Manchester; Mr. Everest, Bodmin; Messrs. Singer and Co., Coventry; Dr. Davidson, Uley; Surgeon-Major Nox, Dundalk; Mr. Burcombe, Lincoln; Dr. McMurray, Warren Point; Dr. Glover, Dorrington; Messrs. Hill and Co., Glasgow; Mr. Sergeant, London; Mr. Eburn, Coxhoe; Mr. Owen, Liverpool; Mr. Spencer, Walsall; Mr. Wilmore, Walsall; Dr. Sibbit; Mr. Lambert; Mr. Murray, Brighton; Dr. Johnson, Bournemouth; Mr. Richardson, Rhayader; Mr. Brett, Bridlington; Dr. Rayner, Hanwell; Messrs. MacLachlan and Co., Edinburgh; Mr. Lea; Mr. Walker; Mr. Birchall, Liverpool; Mr. Brand; Mr. Gilbert; H. F.; Medicus, Spitalfields; Midlands; Medicus, Sheffield; G., Whitechapel; L.R.C.P., Long Eaton; Kato, Birmingham; Madame, Cheltenham; G.; J. C., Accrington; W. M.; Secretary of the Boscombe Infirmary; J. H.; Zeta; Zero; Medicus; Doctor; E. J., Seaford; Surgeon, Southwark; A. B., Blackfriars; Alpha, Poplar; &c. &c.

*Leamington Spa Courier, Edinburgh Courier, Sunderland Daily Echo, Port Elizabeth Telegraph, Leeds Daily News, Burnley Express, Leeds Mercury, Newcastle Daily Journal, &c.,* have been received.

## Medical Diary for the ensuing Week.

### Monday, Dec. 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.  
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.  
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.  
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Braxton Hicks, "On the Tension of the Abdomen."—Dr. Wiltshire, "On Abdominal Pulsation."

### Tuesday, Dec. 19.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.  
WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
WEST LONDON HOSPITAL.—Operations, 3 P.M.  
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. The following specimens will be shown:—Disseminated Polyp of Colon; Polypus of Rectum; Specimens of Casts made of a New Material; Disseminated Abscesses in Liver of Python and of Kangaroo; Nerves from Three Cases of Infantile Paralysis; Case of Infantile Bone Disease; Addison's Disease without Bronzing; Bone and Brain Disease in Syphilis; Micro-Organisms from Pyæmia; Cancer of Omentum (card specimen); Specimens of Neuromata; Urinary Calculi chiefly composed of Carbonate of Lime.

### Wednesday, Dec. 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
MIDDLESEX HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.  
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.  
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.  
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.  
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

### Thursday, Dec. 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.  
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.  
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.  
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.  
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.  
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

### Friday, Dec. 22.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.  
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.  
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

### Saturday, Dec. 23.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.  
ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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# Clinical Lecture

## CALCULUS IN THE FEMALE BLADDER.

*Delivered in University College Hospital,  
Oct. 23rd, 1882,*

By CHRISTOPHER HEATH, F.R.C.S.,  
HOLME PROFESSOR OF CLINICAL SURGERY.

GENTLEMEN,—You saw me last week remove from the bladder of a woman aged thirty-three the mass of calculous material which I show you in this bottle, and which weighs, now that it is dry, just one ounce. The patient is a married woman, and had been confined six weeks when she presented herself in the out-patient department, complaining of pain about the bladder and frequent micturition. For this she was sent upstairs to see me, and I had no difficulty in detecting a large mass of stone in the bladder. When placed upon the table in the lithotomy position, you saw that I proceeded to dilate the urethra with a pair of polypus forceps, and then introduced my little finger and subsequently my forefinger without difficulty. In this rapid dilatation there is of course some laceration, and it is usually upwards under the pubes, and does no harm. My finger enabled me to feel a very irregular mass of phosphatic stone, which I proceeded to break down with small lithotomy forceps, and I was able with these, with a scoop, and by washing out through a vulcanite speculum, to remove the debris which we have in the bottle. After clearing out all the fragments, I found that the bladder was in part encrusted with phosphates, and this mortar-like material I scraped away with the nail of the forefinger and a lithotomy scoop, until I was satisfied, by compressing the bladder with the other hand so as to sweep the finger over the whole interior of the viscus, that the mucous membrane was clear. Then, lastly, through the little vulcanite speculum, I applied a solution of nitrate of silver (a drachm to the ounce) over the whole surface of the interior of the bladder, and sent the patient to bed with a half-grain of morphia suppository in the rectum. I expected that there would have been more or less complete incontinence for a day or two, after which the patient would have recovered perfect control; but this was not the case. She was able to hold her water completely on the day of the operation, and passed from the first acid urine, instead of the abominably offensive ammoniacal urine which had been present before. Now, this I find the invariable result of mopping out the bladder with a strong solution of nitrate of silver; and some of you may remember a man in whom the same thing was seen after lithotomy. The woman is now taking her food well, and is fairly convalescent, so much so that I have allowed her baby to be put to her breast again.

The symptoms of stone in the female closely resemble those in the male, except that, from the close propinquity of the bladder to the uterus they may be referred to the latter organ. Frequent micturition, pain especially after emptying the bladder, with "bearing down," should direct attention to the bladder and the condition of urine, which last is probably thick, and may occasionally contain blood. The detection of a stone with the sound is comparatively easy, for the urethra is short, and there is no prostate behind which a small stone can lie hid, whilst the ease with which the fundus of the bladder can be simultaneously examined with the finger in the vagina makes the diagnosis simple enough.

Calculus in the female may be of renal or vesical origin, or both, just as in the male; but there is the peculiarity about stone in the female that it may occasionally have for its nucleus some foreign body introduced by the patient herself. If the foreign body is small, such as a piece of cork, and is completely enveloped by the calculous matter, it in no way complicates the treatment; but cases are not very uncommon in which a hairpin or some other implement has been introduced into the bladder, and having escaped the patient's grasp, has been left there to form the nucleus of a concretion which is certain to form. In these cases the foreign body projects from the stone, and may not improbably

have pierced the bladder, and given rise to serious complications.

Stone is not nearly so common in the female as in the male, the proportion between the two sexes being, according to Mr. Poland, one in the female to twenty or twenty-three in the male; and the same author remarks that "statistics respecting stone in the female, the operation and its consequences, and the mortality after operation, are incomplete and unsatisfactory." I am inclined to think, from what I have seen, that stone is more common in the female than is here stated, or than is generally supposed, because in all the cases I have had under my care the disease had not been recognised until shortly before I saw them, although the symptoms had long been present, and had been for the most part referred to uterine disorders. Irritability of the bladder is so common an accompaniment of uterine disease that it is easy to understand how both patient and doctor may be deceived by the symptoms produced by stone; but I would warn you, in all cases of uterine complaint, not to be satisfied without making both a rectal and a vesical examination if the symptoms are at all obscure or do not yield readily to appropriate treatment. When a vaginal examination is being made, it is so easy to pass the finger into the rectum and to slip the uterine sound (if no more convenient instrument is at hand) into the bladder, that there really is little excuse for overlooking disorders of any of the pelvic viscera.

The treatment of stone in the bladder of the female has been simplified almost as much as that of calculus in the male by the "one-sitting" method of lithotripsy introduced by Bigelow. In former years I should have hesitated to break up a stone weighing an ounce and have probably had recourse to vaginal lithotomy, of which I shall speak presently. Of course lithotripsy for small stones has been often performed in the female, and I ventured some years ago thus to break up a small mulberry calculus, the fragments of which may be seen to be covered with phosphates. The ordinary lithotrite, or a shorter one made for the purpose, may be readily employed, or where, as in the great majority of cases, the stone is soft and friable, recourse may be had to simple lithotomy forceps and the crushing power of the hands. Bigelow's, Thompson's, or Clover's evacuator may be employed in the female as in the male, but I think I saved time in my case by using simply a vulcanite urethral speculum and washing out the fragments with an ordinary Higginson's syringe.

Extraction of small stones per urethram with polypus forceps or a scoop is readily performed if the urethra is rapidly dilated in the way I have described; but it is never worth while to drag out large calculi at the risk of producing incontinence, when they can be so easily reduced in size by crushing. The method is, however, very satisfactory for the removal of the foreign bodies which occasionally find their way into the female bladder. Various ingenious instruments have been contrived for catching, doubling up, and extracting such articles as hairpins; but I have found practically that with the finger introduced through the urethra there is no difficulty in guiding a pair of polypus forceps, and extracting a hairpin or other similar body without the risk inseparable from a supra-pubic lithotomy, which has been performed in similar cases.

The operation of lithotomy in the female resolves itself into a very simple proceeding—viz., cutting through the vaginal and vesical walls where they are in contact, and is hence called vaginal lithotomy. Let me remind you that the peritoneum does not touch the anterior wall of the vagina, which may therefore be divided quite up to the os uteri without risk to that membrane, whereas the pouch of Douglas lies between the upper part of the posterior vaginal wall and the rectum, and is liable to injury by obstetric instruments, &c. Vaginal lithotomy is no new operation, for it has been long known to surgeons, but the great modern improvement in it is the practice of closing the wound immediately by wire sutures so as to obviate the formation of a vesico-vaginal fistula. I show you three large stones which I removed from different women by this proceeding some years back. The first stone weighs one ounce and a half, and is remarkable, as you may see in the section, for having consisted originally of three angular calculi, which had become fused together in a mass of carbonate and phosphate of lime, measuring 2 inches by 1½, and being 1 inch thick. This I extracted from a woman aged forty-nine, in whose bladder I detected a very distinct pouch, in which no doubt the stone had originally lain. I closed the wound with tin wire sutures introduced through the whole thickness of the bladder and

B B

vagina, and the patient made a perfect recovery. The second stone is nearly circular in shape, its long diameter being 2½ in. and its short diameter 2½ in., and its greatest thickness 1½ in. It weighed two ounces, and I extracted it from a woman aged forty who had long suffered from pain supposed to be uterine. In this case the closure of the wound was not entirely successful, and she had slight incontinence when in the upright position, but declined further interference. The third stone consists of one large mass and a quantity of débris, weighing altogether three ounces and a half, which I extracted from a woman aged fifty, who made a perfect recovery.

You will thus see that there is no difficulty in extracting very large calculi from the female bladder entire, but it is in some sense a reproach to our art that stones should be allowed to attain such a size. Early detection is as desirable in the female as in the male, and the great majority of such cases can be best treated by lithotripsy at one sitting.

## COMPOSITION, RESOLUTION, AND ABEYANCE OF SECONDARY PERCEPTIONS.

By BRIGADE SURGEON T. OUGHTON,  
ARMY MEDICAL DEPARTMENT.

DIRECTIVE phenomena are affected by muscles influencing one another, as well as by the mechanical arrangement of their constituent fibres. Such was a cursory rejoinder to a hypothetical objection to the motor diathesis of the secondary perceptions on the ground of the multiform and incongruous distribution of the fibres of certain muscles—the pectoralis major, penniform muscles, &c.<sup>1</sup> It is a rejoinder meriting critical examination, since the problem of secondary perceptual currents being conducted centripetally from a voluntary muscle during its vital contraction must be incompletely verified, if not quashed, without its due acceptance. Taking it, then, as a text for the present remarks, I trust that abundant evidence will be forthcoming in its support, which will also have a practical bearing on the further proof of the problem in question.

*Composition.*—A very good and simple illustration of this nervous process is afforded by the following observation:—"The left eye may perceive an object eight degrees to the right of the main line of direction, and the right eye four degrees; but binocular vision will give it its correct value of six degrees by virtue of muscular co-operation and the agency of a directive composition."<sup>2</sup> It is an absolute essential for the dynamic composition of secondary sensorial forces that the muscular fibres engaged in the operation be consensual—that is, pull in the same direction more or less. 1. Note the parallelism of the elementary fibres of a voluntary muscle in contrast to their intricate interlacings in an involuntary and non-directive muscle. They would doubtless have been perfectly parallel were it not for the convenience in packing, admirably shown by Paley, arising from thin tendinous sheets and delicate cords. Composition renders perfect parallelism unnecessary, however; the fibres agree in their general direction, and the muscle's contraction generates a single directive resultant. 2. Observe how the numerous muscles of a set (flexors on the forearm) operate sensorially as one muscle would do when unified in one particular action (flexing the hand). Many muscles are indispensable for the attainment of various distinct ends, but muscular consent originates a directive unification where it would be useful. 3. The phenomenon of single vision has been interpreted by a consensual theory; the external rectus of one eye pulls in the same direction as the internal rectus of the other eye, thereby initiating a directive composition. There is a strict analogy between this case and that of a single muscle or set of muscles. Hence an objection to the motor diathesis of the secondary perceptions, on the ground of the extremely irregular form (pectoralis major), or distribution of the elementary fibres (penniform) of certain voluntary muscles is a weak one. Should it be sought what single directive message any muscle (penniform or otherwise) transmits to consciousness, it will be necessary merely to note the relative positions of

its osseous attachments, and the direction towards which the movable segment is turned by its shortening, so that the directive message is determined by the mechanical conditions of a muscle's origin and insertion. But, mark here, nothing will be more natural than to conclude that this result could not obtain excepting the relative positions of osseous origin and insertion are known by a sort of inner consciousness; the superior rectus, for instance, rotates the ocular globe upwards, it may be concluded that the resulting upward idea has no *points d'appui* for its realisation in the absence of a recognition of the sites of origin and insertion of the muscle by a latent process of consciousness. I regard such a conclusion as erroneous, inasmuch as latent or inscrutable consciousness is incomprehensible; the directive message, although due to mechanical conditions, has no further reference to them, referring only to any sentient point or points that may be impressed *ab externo*. Thus, the biceps has a sensorial reference to any impressed sensitive point either on the hand or the forearm, and not to its bony attachments; again, the muscles rotating the body or the head may have a directive reference to an impressed retinal point. From a very simple starting-point we now find ourselves at the complex borderland where the Ego and the Non-ego meet; there is the natural cohesion of the insensate tendinous and bony origins and insertions (the Non-ego) in juxtaposition with and holding relation to an independent agency—namely, the vitalised cohesion of muscular contraction (one main-spring of the Ego). Nothing remains for us apparently but to contemplate these two stupendous forces standing thus face to face; a fair simile of the position is to be found in a pair of horses drawing a tram-car round a corner, the animals being guided as it were by the *vis a tergo* of the heavy tram with its mechanical adjustments.

*Resolution.*—It is an almost axiomatic observation, where one finds composition there one may search for resolution; and it would seem that the latter process is in operation to produce the visible directions of the peripheral portions of the retina. Before entertaining this subject, however, let us consider the direct proofs that visible direction is a motor physiology in the following condensed argument:—

1st. Peripheral retinal points are equally sensitive with the axial point, noticeable in the observation of minute stars; therefore, on the theory that the special nerve of sight is a directive agency, the centre of visible direction will correspond with the centre of the retinal concavity (ocular centre). Sir David Brewster has promulgated this view.

2nd. Prof. Volkmann and Dr. Griffin have shown, each by an independent investigation, that the centre of visible direction is situated at a point considerably anterior to the centre of the retinal concavity; therefore visible direction is not effected by the retina.

3rd. Every object before the single eye, whether median or lateral, is seen accurately in position; therefore the centre of visible direction coincides with the eye's optical centre. The latter is at a point in the crystalline lens near its posterior border—that is, anterior to the centre of the retinal concavity.

4th. Every object appears to be fixed during the rolling of the eyeball (Brewster); therefore the optical centre and the centre of visible direction both coincide with the centre of rotation of the eyeball. Hence (*nisi prius*) visible direction results from the motions of the eye—i.e., its muscular apparatus.

Reference being now made to the following figure, *c* being the optical centre, the straight line, *m m*, will represent the median and main line of monocular visible direction. This line is regarded as being originated by the recti pulling the eyeball evenly backwards by their normal tonicity. Muscular tonicity, according to this view, is a directive agent as well as volitional contraction, and the opinion is corroborated by the directive phenomena resulting from the erect position of the body and the head, both postures being referable to tonicity. The balance of the recti is destroyed when the eye is directed laterally. If the eyeball be turned towards the right, the rectus so rotating it is in a more active state of tension than its fellows, and consequently the axial point, *m*, will now perceive the image depicted on it along a line of direction inclining to the right. But the lateral points *a*, *b*, *z*, or *y* are each equally affected by the greater tension of a given rectus, as is point *m*. How is it that the images impressing these points are not perceived along a line of direction that is parallel to, or identical with,

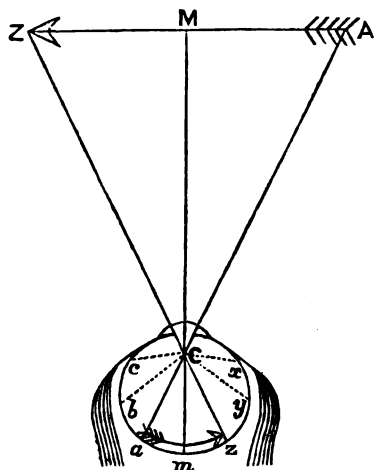
<sup>1</sup> Vide THE LANCET, July 29th, 1882.

<sup>2</sup> Ibid., October 22nd, 1881.



t of the image on point  $m$ ? Herein consists the paractical problem of visible direction. I hold that the main section,  $mC$ , is resolved into the oblique visible directions  $bC$ ,  $zC$ ,  $yC$ , &c.

Such resolution appears to be warranted when we consider the instability of peripheral retinal points as compared with the stability of the axial point, and that said instability is progressively greater in the direct ratio of the distance of any peripheral point from the axis. Assuming the eye to be looking forwards, it will be manifest that the backward pull of the entire recti operating on the axial point,  $m$ , would draw the eyeball backwards, whilst if operating on



any oblique point,  $a$  or  $z$ , it would tend to rotate the eyeball. Again, the mobility of this rotatory influence will be greater if exerted on point  $b$  than on point  $a$ , on point  $c$  than on point  $b$ , and so on. Further, the tendency of the muscular action to pull the eyeball backwards will be inversely as the tendency towards its rotation; hence the forward direction,  $mC$ , originating with the backward pull, will be modified accordingly. A visible direction corresponding to any oblique point,  $a$  or  $z$ , will not originate such a forward idea as the point  $m$ —that is, it will be inclined to right or left in addition to forwards; neither will a visible direction corresponding to points  $b$  or  $y$  originate such a forward idea as the less oblique points  $a$  or  $z$ —that is, it will be more inclined towards the right or left. Thus the causation of the progressive scattering of visible directions from retinal centre in circumference, as with other directions, is determined by mechanical condition (the globular shape of the eyeball). The backward pull (the forward idea) will be very slight at the peripheral points  $c$  and  $x$ , but it is still there; in other words, the main direction,  $mC$ , is resolved into the dotted lines indicated in the diagram.

In what manner the site of the centre of visible direction is fixed at point  $C$ , correspondent with the eye's centre of motion, is a less abstruse inquiry. That the progressive scattering of visible directions must cause them to intersect at a common point eventually, will be evident on considering that the directions are different on either side of the median line  $mC$ , and that the eyeball is globular. Why, then, at point  $C$ , or how are the visual angles  $mCa$ ,  $acb$ , &c., generated? Confining our attention to the images  $m$  and  $a$  of the objective entities,  $M$  and  $A$  with visual angle  $mCa$ :—(1) Retinal points are impressed by light for one-eighth of a second. (2) The glances of the eye must be considerably more rapid than this, since even the movements of the hand are more rapid; an ignited piece of charcoal revolved in the hand deceives the retina by producing the semblance of a fiery circle. (3) Therefore, in directing the eye rapidly from object  $M$  to object  $A$ , the retinal points  $m$  and  $a$  will be impressed by the images of these objects simultaneously for a definite period. (4) Therefore the visual angle  $mCa$  will be identified by perception, and this angle will be formed at point  $C$ , the eye's centre of motion. (5) Therefore every single visible direction into which the main visible direction is resolved will have a fixed value for a certain retinal point; thus,  $aC$  for the lateral point  $a$ . Let it be understood that muscular traction reacting on the mechanical sphericity of the retina generates visible resolution, whilst ocular rotation affects monocular visible direction.

Other phenomena that are probably determined by directive resolution may be briefly alluded to: I refer to the visible area correspondent to the punctum cæcum, and to the resolution of main tactile directions correspondent to the manifold sentient points on the skin's surface. The latter forms a fit subject for reflection and analytical investigation.

*Abyeance.*—There are two varieties of this process—viz., the subordinate and the insubordinate. The directive and positional perceptions of the sense of touch are subordinated to those of vision, as indicated in the following original experiment: Holding the thumb and forefinger midway between and a few inches before the eyes, let them be rubbed together. Looking now with both eyes at a remote and median position, two spectral thumbs and forefingers will be seen, and with these singular results: When the optical axes (still divergent) are inclined to the right side, the forefinger will feel the thumb at the site of the right spectrum; on inclining the axes leftwards, the thumb will be localised on the left side. The same tactile abyeance may be proved by studying one's face in a distorting mirror; however much the forehead is seen to recede abnormally, its parts will be accurately felt by the fingers just wheresoever they may be seen. Brewster's well-known experiment with the cane-chair,<sup>3</sup> in which the octagonal perforations of the seat are felt in a different position to which they are seen, does not invalidate the above statement; this is apparently an example of single vision, but really one of double vision with a sensorial antagonism operating between the ocular muscles. Is it possible that a tactile positional perception can be in abyeance to visual positional perceptions that are at variance so as to neutralise each other? Certainly not; in such an event, as a result of the first experiment, the thumb would be felt by the forefinger at the sites of both the visible spectra simultaneously.

Another example may be instanced in viewing objects behind by bending the body forwards and looking between the legs; the superior rectus now localises objects below and the inferior rectus above, because these muscles are in abyeance to those bending the trunk. Muscular abyeance exhibits many manifestations in the upper extremity, concerning which it may be said generally that a given distal segment is subordinated to any given proximal segment—the fingers to the hand, the fingers or hand to the forearm, and this to movements of the arm. The index finger indicates direction or position only through the abyeance of the indicator muscle to wrist, elbow, or shoulder movements, which clearly modify its indications. Analogously taking a natural skeleton of the upper extremity, the phalanges may be moved independently of the metacarpal bones, but not *vice versa*; and the carpus may be moved independently of the humerus, but not *vice versa*. Hence a practical illustration is afforded of a statement made elsewhere that "the muscular organism of the secondary perceptions is correlated to the mechanical forces of nature in like manner as that of the primary perceptions is correlated to the sense essences of nature";<sup>4</sup> other facts endorsing the same doctrine are contained in the present thesis.

A single instance of insubordinate muscular abyeance must suffice—namely, it is the usual province of the right external rectus to give rise to a rightward perception; but, rotating the face over the right shoulder, the resultant perception of this muscle is a backward one. In this experiment the rectus is not in abyeance to the rotatory muscles of head, but it co-operates with them, whilst remaining *per se* an efficient factor throughout. The result is due to an absence of inconsistency or antagonism between rightward and backward directive perceptions. A mechanical equivalent of the process is afforded by two rulers that are fixed end to end at right angles, and that rotate on the free extremity of one of the rulers as on a centre.

Derby-villas, Forest-hill, S.E.

<sup>3</sup> Brewster on the Stereoscope, p. 95, 1856.

<sup>4</sup> Vide THE LANCET, July 29th, 1882.

THE Visiting Committee of the Holborn Infirmary at Highgate have reported that, in order to meet the demand for admission at the present time, they have made arrangements to provide fifty-two additional beds, and instructed the clerk to write to the district medical officers, calling attention to the crowded state of the infirmary and asking them to treat cases as far as practicable in their own districts, and send only urgent cases to the infirmary.

ON THE  
SAFE ADMINISTRATION OF CHLOROFORM.

By WM. MARTIN COATES, F.R.C.S.,  
SURGEON TO THE SALISBURY INFIRMARY, FORMERLY TEACHER OF  
ANATOMY AND MIDWIFERY IN THE ÉCOLE PRATIQUE DE  
MÉDECINE, PARIS.

In the year 1858 I made known to the profession in a *brochure* my views on the "Safe Administration of Chloroform." This little work was most favourably reviewed by the medical press, and several surgeons more or less eminent wrote to me their conviction that I had solved the problem of greatly limiting, if not abolishing, the dangers of this anæsthetic. By experiments on frogs and observations on patients, I had become convinced that chloroform could only be safely administered by limiting the dose to the smallest quantity capable of inducing insensibility to pain. By repeated trials I found that by means of Snow's inhaler five minims of this anæsthetic, followed by ten in twenty seconds, and in forty seconds by fifteen, and then fifteen every minute until the patient became insensible, and afterwards an occasional ten minims, sufficed in almost every case to produce and maintain complete anæsthesia. Very rarely twenty minims were required. It was found that when fifteen minims were put into the inhaler every minute during the inhalation all the chloroform had evaporated at the end of that time. I have reason to think that from the publication of these facts the doses were much moderated, and that in consequence the number of deaths became relatively less. Although I have during these twenty-four years never been prevented administering it by extreme age or infancy, by chronically diseased heart, lungs, or kidneys, I have not had a death by chloroform. Considering that I have been surgeon to the Salisbury Infirmary during all these years, and have had during that period a numerous *clientèle*, this evidence will not, I trust, be considered unimportant. I have read with painful interest the reports of deaths from chloroform, and have not come across one in which this mode of giving it had been adopted. In every case of death in which the quantity of the anæsthetic inhaled was recorded, it was much larger than that advocated by me. Of late years a quicker and more daring plan has been advised and practised. Hence, I feel sure, the more frequent fatal results. During these twenty-four years I have never refused chloroform to any patient in whose case pain was anticipated. The scares inducing pressure of the chest, placing the head below the level of the body, &c., have not occurred. Sometimes those who have kindly administered the chloroform have preferred the towel and handkerchief. This I consider dangerous, and now always request that the plan detailed above be adopted. By it the sickness, headache, and malaise, following operations performed under chloroform, are immensely diminished. Some timid patients fancy that the mouthpiece of the apparatus will suffocate them. In such cases I sprinkle ten minims of the anæsthetic on a handkerchief, and when it begins to act return to the inhaler. Mr. Matthews has supplied me with three sizes of mouthpieces, surrounded by inflated indiarubber tubes and more perfect valves. These are much better than those used by Dr. Snow. When the towel or handkerchief is used the dose must be more than doubled, as more than half is lost by evaporation and expiration; but then the atmosphere becomes loaded with vapour, and if danger should arise the chances of life to the patient would be much diminished. It would seem almost unnecessary to give facts or arguments to prove my position, for what would any educated practitioner think of one who having made up his mind to give a grain of opium every hour for twelve hours gave twelve grains at once? or having decided to give twenty grains of chloral every four hours for twelve hours administered sixty grains at one dose?

I admit that these are extreme illustrations, but the principle is the same. We all know that some patients are prone to be rapidly and profoundly affected by mercury, opium, and chloral hydrate, &c. I am certain that some, and not a few, are dangerously affected by the usual doses of chloroform. Curiously, I have had several illustrations of this in the wards of the Salisbury Infirmary lately. One young woman of twenty-four years of age was completely

narcotised by five minims of chloroform. A middle-aged woman was rendered insensible to pain during an operation lasting a quarter of an hour by seventy-five minims, and a child by ten minims. Had the usual doses been given to these patients, would not their lives have been placed in danger? I think so. I admit that in most cases by the withdrawal of the anæsthetic, opening the windows (which during the inhalation should never be shut), &c., the patient is mostly saved, and the fatal cases reduced to one in a few thousands, but to that one this makes all the difference between life and death.

It has been said above that I have not in one instance refused to give chloroform because of diseased heart, feeling that indications of danger would declare themselves in time to combat them. Two illustrative cases have occurred in private practice during the last few weeks. One was a gentleman seventy-nine years of age, on whom I performed colotomy. His pulse was very feeble and intermittent. The other case was an elderly lady with tricuspid insufficiency very marked. These cases have an additional interest from my having made an important addition to my usual method of giving the anæsthetic. It struck me that it might be useful in the cases in which the heart showed symptoms of powerlessness to give a dose of pure ether by inhalation in the same relatively small quantities with the view of rallying this organ. These two cases prove, I think, that this idea is a valuable one. The old gentleman was given chloroform after my method, and when the pulse dropped at all twenty minims of ether were put into the modified Snow's inhaler. The pulse on each occasion answered to the whip instantly, and was firmer and more regular at the end of the operation than at its beginning. The elderly lady suffered from hæmorrhoids at both sides of the anus, and from a very painful fissure. She was very anæmic, and her skin was of the colour so familiar to us in cases of malignant disease. We could, however, detect none. A gentleman who had had much experience in giving chloroform with a towel or handkerchief, declined, in consequence of the tricuspid disease and extreme anæmia, to be the administrator. As this case was more than usually risky, I requested Mr. Harcourt Coates to operate, I administering the anæsthetic. The patient objected to the inhaler. Ten minims of chloroform were dropped on a handkerchief which was placed over her mouth and nose. She soon became sufficiently unconscious to admit of the use of the inhaler. The operation lasted from first to last half an hour. She was kept insensible to the pain by seventy-five minims of chloroform and the same quantity of ether. Her pulse varied but little during the half hour. When it became a little depressed, twenty minims of ether raised it instantly. In no case since the year 1858 have I had to use galvanism, nitrite of amyl, artificial respiration, or any other mode of resuscitation.

My readers have, no doubt, compared the small doses of ether with those habitually given. May it not be that the same freedom from danger from this anæsthetic would be attained if the necessary quantity only was inhaled? Before I publish my contemplated next edition of the little work on "Chloroform and its Safe Administration," I hope to work out this practically, both as regards ether and the bichloride of methylene. The economy of chloroform is necessarily very great by this method. I admit this to be of least consequence. Am I rash in concluding that the foregoing facts are calculated to prove:—

1st. That the plan advocated is rational and consistent with our practice with other powerful remedial agents.

2nd. That it lessens the dangers and after disagreeable effects of the anæsthetic, and so would enlarge the area of its utility?

If so, I am very thankful; as the frequent deaths lately reported, should they continue to occur, would naturally increase the anxieties both of the public and of ourselves, and might limit to a fearful degree the blessing of that merciful gift of God, anæsthesia.

Salisbury.

THE practice of tobacco smoking appears to be largely on the increase in the United States. Among youths especially it is rapidly extending. The head master of the Latin School at Boston, Mass., states that tobacco is used by half the boys in the upper classes in his establishment, while the principal of Harvard Grammar School in Charlestown avers that out of 300 boys about 40 per cent. use tobacco habitually.

# CASES SUGGESTIVE OF A PROBABLY PROLONGED INFECTIOUSNESS IN SOME CONVALESCENTS FROM SCARLET FEVER.<sup>1</sup>

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ON. PHYSICIAN TO THE HUDDERSFIELD INFIRMARY; MEDICAL  
OFFICER OF HEALTH AND PHYSICIAN TO THE BOROUGH  
FEVER HOSPITAL, HUDDERSFIELD.

THE question how long the poison of scarlet fever may  
remain about the person of a patient, convalescent from the  
disease, is at once so important and so difficult to answer,  
I shall perhaps be pardoned, as the following cases are  
somewhat suggestive, for giving such particulars of them as  
either come under my own observation, been furnished  
for the purpose by my friend Dr. Stewart, or gathered  
from the relatives of the patient.

On Tuesday, Feb. 14th of the present year, Ada, the eldest  
child at home of George B—, a journeyman mason, was  
sick with vomiting, and complained of a sore-throat. On  
Wednesday the skin of the chest was covered with "small  
red dots," the face was flushed, and the child was feverish.  
The mother attached no great importance to the symptoms,  
the child was delicate and often ailing. She kept her  
nurse, in bed, but next day (Thursday) during her mother's  
absence, the girl got out of bed and went to the outer door.  
It would appear to have thus got a chill, for the reddening  
rash on the skin disappeared, and on the following Monday  
the mother noticed a slight swelling or puffiness of the face.  
There was also swelling of the hands and ankles, and these  
symptoms so alarmed the girl's mother that next day she  
called Dr. Stewart to see the child. This he did on Tuesday,  
Feb. 21st. Feeling in some doubt as to whether the child  
might not have had a slight attack of scarlet fever, Dr.  
Stewart advised that the two other children should be sent  
away. They were accordingly sent to Mrs. B—'s mother,  
at the door, and remained there, as we shall see, some eight  
days. I am informed that there was no intercommunica-  
tion between the houses, but I do not ask anyone to accept  
this literally. The arrangement, however, was probably as  
efficient, or as inefficient, as the separation of a scarlet fever  
patient in one room of a moderate-sized house generally is.  
The patient was under medical care till March 13th, and  
as, her mother says, in bed about a fortnight of that time,  
the loose skin peeled off for some time longer. Later, I  
do not learn exactly when, but not till risk of infection was  
supposed to be over, the house was cleaned down, white-  
washed, the paint and furniture washed, the mother's and  
children's dresses and underclothes, the bedclothes, bed-  
ding, even the flocks of the bed itself, washed, while  
mats, old blankets, and some other things of little value,  
which could not be washed, were burned. The mother's  
mats had never been out of their box, and that, for want  
of room, had been all the time at the grandmother's. I do  
not find that Mr. B—'s clothes were subjected to any  
process of disinfection. Otherwise disinfection was carried  
out as completely as, perhaps even more thoroughly than, is  
usually done by people of the same class, and on March 23rd,  
over more than five weeks from the date of attack, the  
mother, mother, and convalescent moved to another cottage  
out a quarter of a mile distant. Rather more than three  
weeks after, when they had got thoroughly established, the  
two younger children were brought to the new home. This  
happened on Sunday, April 16th, nearly nine weeks from  
the commencement of the patient's illness.  
The second girl, Florence, a child of four, slept with Ada  
at night, and next (Monday) morning was sick, vomited,  
and complained of sore-throat. On Tuesday she had a rash,  
more distinctly marked than ever Ada had, and Mr. B—'s  
mother, who came in, suspected scarlet fever, and advised  
them to get the doctor. Dr. Stewart's assistant saw the  
child on the 20th; he saw her himself on the 21st, and in-  
formed me of the case on the 22nd, requesting that, as the  
other was expecting to be confined, I would take steps in  
this matter. I saw the children at once, and felt inclined to  
tell both cases scarlet fever. There was a certain amount  
of roughness of the skin still about Ada, hardly typical  
squamation. The younger child had a slightly dusky ring

round the isthmus of the fauces, but no very distinct rash.  
I explained to the father the state of the case—that I could  
not say more than that probably both children had had  
scarlet fever, and offered, if he was willing to run the risk,  
to send them to the scarlet fever ward at the borough hos-  
pital, but gave him the alternative of sending them both to  
some friend who had no children, and who did not intend to  
be with his wife during her confinement. I gave him an hour  
to make up his mind, and he elected to send the children to  
his wife's sister, a married woman without family. They  
were sent to Mrs. R—'s, about half a mile away, at once,  
and the house emptied of people and well stoved with brim-  
stone by one of our inspectors. Mrs. B— had a slight  
sore-throat at the time the children were sent away. That  
night Mrs. R— took the second child, Florence, into her  
own bed, and next morning (Sunday, April 23rd) she was  
sick, had a sore-throat, and the following day a red rash.  
When I saw her, a few days later, she was suffering from a  
well-marked attack of scarlet fever. The children remained  
there till after their mother was confined, and till after Mrs.  
R— herself had quite recovered. Mrs. B— was confined  
on May 23rd, and did well.

When Dr. Stewart considered the cases ready for dis-  
infection, the corporation officials fumigated Mrs. R—'s  
house, removed for disinfection the bedding, bedclothes, and  
clothes, and some eleven weeks from the time they had been  
sent away the children returned home. A few days later  
the third child, a boy of twenty months, was attacked in a  
similar way. His mother brought him, as an out-patient,  
to my clinical at the infirmary on October 31st. He has  
never been thoroughly strong since his illness in the summer,  
and has a trace of albumen in his urine.

The points of special interest about these cases are—  
(1) That a child, nearly nine weeks after the commencement  
of her own illness, should apparently have conveyed the  
poison of scarlet fever to her sister by contact; and (2) that  
an ailment so little marked, that one hesitated to incur the  
risk of sending the children to the fever hospital, should  
apparently have been infectious enough to cause a well-  
marked attack of scarlet fever in a healthy adult, who, as  
we learned afterwards, had not previously had the disease.

The amount of scarlet fever in the borough at the time  
was below the average of the same season during the three  
previous years. From the middle of April, for six weeks,  
it was as nearly absent as this disease ever is from a large  
town.

My own feeling about the infectiousness of scarlet fever at  
present is, that it is unwise to allow children to mix with  
others till desquamation has quite ceased, and my expe-  
rience, during the last few years, of close upon a thousand  
cases of this disease at the borough hospital, is that the  
process is seldom completed before the eighth week, is often  
incomplete at the tenth, eleventh, and even the twelfth week,  
and is by no means always ended at the thirteenth week.

Huddersfield.

## CASES OF STRANGULATED HERNIA, AND THE TREATMENT OF OMENTAL PROTRUSIONS.

BY JOHN TUDOR, M.R.C.S.,

SENIOR SURGEON TO THE DORSET COUNTY HOSPITAL.

CASE 1. — H. W—, railway porter, aged twenty-eight,  
was admitted into the Dorset County Hospital on Oct. 13th,  
1864, with a large hernial protrusion in the right inguinal  
region of some years' standing, for which he had been in the  
habit of wearing a truss. Two days previous to admission  
the truss was left off. The man having been drinking rather  
freely, and being unable to return the hernia, which hitherto  
he had been able to do without trouble, he was obliged to  
send for a surgeon, who was also unsuccessful in returning  
it. At the expiration of two days from this the patient was  
sent to the hospital. He was at once put under the influence  
of chloroform, but no impression could be made upon the  
protrusion, which was very tense and painful; and as the  
man's condition was becoming critical, I without delay cut  
down upon it. The sac was opened, and found to contain  
an extensive mass of highly coloured omentum, also a large

<sup>1</sup> A paper read before the Huddersfield Medical Society, Nov. 7th, 1882.

coil of intestine of a bright-red tinge. The stricture at the internal ring was divided and the gut returned; a strong double hempen ligature was passed through the centre of the omentum just in front of the internal ring, and firmly tied upon either side, which was then cut off about a quarter of an inch in front of the ligatures, the ends of which were allowed to hang out of the wound, thus keeping the stump *in situ* and maintaining a free drainage. The omentum removed weighed a little over a quarter of a pound. The subsequent treatment consisted in giving opium freely and covering the abdomen with hot fomentations. A simple fluid diet was maintained for the first few days, until there had been a free action of the bowels. On Oct. 31st, three weeks after the operation, the notes record: "The patient has progressed well without a bad symptom." I heard of this man sixteen years afterwards, and the report stated that he was very well.

CASE 2.—J. G., aged sixty-five, a spare, healthy man, the subject of crural hernia for some years, was admitted into the Dorset County Hospital on April 23rd, 1867. The gut had been strangulated for four days, accompanied by continuous stercoraceous vomiting. The protrusion had passed upwards over Poupart's ligament, and had been mistaken for an inguinal hernia, and sedulous attempts had been made to reduce it as such. Aperients had been freely given by the mouth, and also by injections. The most troublesome symptom upon admission was the constant fecal vomiting. There was but slight pain and little swelling of the abdomen. Under the influence of chloroform, a cautious attempt was made to return the gut, but without success. I then decided to operate. Upon opening the sac, dark-coloured serum escaped. The hernia consisted of omentum and gut, the latter being of a dark mulberry colour, and adherent to the omentum, which was also adherent to the sac. The adhesions were very firm, and required great care in separating them. Gimbernat's ligament was divided, and the bowel returned. The omentum was ligatured and divided by scissors. The after-treatment was essentially the same as that carried out in the former case, and the patient did well. Some years afterwards I had the opportunity of examining the man, who was "radically cured," and could do his work without the use of a truss. I again heard of him at the age of eighty, when he was enjoying good health.

CASE 3.—I was summoned, late in the evening, April 21st, 1881, to see an old lady, aged fifty-eight, living in a town about eighteen miles distant, suffering from strangulated crural hernia. I found her rolling about in her bed in great agony, proceeding from a hernial protrusion in the right groin about the size of a cricket-ball. She had been the subject of hernia for about twenty years, which had never been returned. The usual size of the protrusion had been about that of a hen's egg. Upon the day of my being called in the patient over-exerted herself, and the tumour rapidly increased in bulk, accompanied with great pain. She was at once put under chloroform, and, after a careful attempt at reduction, I operated. Upon opening the sac, it was found to contain a large mass of omentum and a considerable-sized knuckle of intestine. From the large bulk of the two together, great care was required in dividing the stricture. The omentum was raised up and held over the side of the abdomen, whilst the gut was shielded by an assistant, and the stricture was carefully divided upon the fingers. The gut being returned, the omentum was ligatured and excised. It was quite a handful, and weighed over two ounces. In this case the ligatures were much longer in coming away than usual—the one not until after four, and the other three, weeks. Morphia and extract of belladonna were given at intervals. At the end of three days oil and turpentine injections were administered, but without effect. At the expiration of a week I was telegraphed for, as the patient was thought to be dying. There had been no action of the bowels, in spite of the treatment, and the patient was in great distress. The abdomen was very much swollen and tympanitic, and somewhat painful to the touch. I concluded it was a case of extreme flatulent distension, with muscular inertia, but with an absence of inflammatory complication. I advised an enema containing two ounces each of castor oil and spirits of turpentine, with one drachm of tincture of opium, to be carefully blended with the yolks of two eggs, and to be administered in two quarts of thin gruel as warm as could be borne. This had the immediate effect of bringing away a large volume of flatus and small quantities of feculent matter, which gave instant relief and reduced the abdomen to its normal dimensions. Six grains

of calomel were placed upon the tongue, and a senna draught ordered for the morning. During the night there were two copious motions, and from this time the patient made a favourable recovery.

CASE 4.—On September 11th, 1881, I was telegraphed for into the country to see a gentleman, aged about seventy, suffering from strangulated femoral hernia. The patient had been the subject of rupture for some years, for which he had consulted a well-known London surgeon, who pronounced it to be omental. Having failed to return it, he advised the use of a truss. This was several years ago. Six days before I was called in the patient felt unwell, accompanied by sickness, and followed by constipation, for which he was ordered effervescing medicines and aperients, which failed to give relief. Upon my arrival I found him very feeble and low-spirited, having been unable to take food for some days, fluids even being rejected. The countenance was haggard and anxious, the pulse quiet and compressible, tongue dry and furred, and the vomit stercoraceous. The abdomen was painful and tympanitic, and there was increased tenderness over the seat of hernia. The case seemed in all respects critical, for in addition to the above symptoms, the age of the patient, the duration of the illness, with a weak heart's action, were to be taken into consideration. I advised immediate operation as the only chance. The patient was placed under chloroform, and I cut down upon the hernia, opening the sac. There were slight adhesions between the gut and omentum, and between the latter and the sac. The gut was of a dark-purple colour, and the stricture unusually tight at Gimbernat's ligament. The omentum, which was of a dark-red colour, was ligatured and cut away with scissors. The patient was ordered ice to suck, and to take small doses of opium and belladonna, whilst the abdomen was covered with hot fomentations. This gentleman, under the careful management of his own medical man, subsequently made a very favourable recovery.

CASE 5.—On March 16th, 1881, I was telegraphed for from a town some distance away to a Mrs. —, aged fifty-nine, suffering from strangulated crural hernia. There were two protrusions, one in either groin, about the size of a walnut; that on the left having existed for seventeen years, and that on the right for ten, neither of which had ever been reduced, although, the patient stated, that she had worn a truss upon the left side for ten years. Four days previously to my being called in she complained of pain in the right groin, which was soon followed by vomiting and other symptoms of intestinal obstruction. The vomit shortly became stercoraceous, and continued so for three days, up to the date of my visit. Upon examination there was but slight swelling over the abdomen, and the chief pain was referred to the right groin. Under these circumstances I determined to operate upon this side if reduction under chloroform failed. This being the case, I cut down upon the protrusion, opening the sac, which contained a small piece of ileum about the size of the first two joints of the little finger, which was of a dark-purple colour. There was very little fluid; but the gut was so closely enveloped by the sac as to render it necessary to be very cautious in using the knife. The patient was ordered ice *ad lib.* to suck, and a pill composed of half a grain of morphia and a quarter of a grain of extract of belladonna every six hours. She made a good recovery at the end of three weeks. During the time the patient was confined to her bed the protrusion on the left side disappeared spontaneously.

*Observations.*—It must be admitted that, in the operation for strangulated hernia complicated with an omental protrusion, an important question arises as to how this can be best treated so as to place the patient in the most favourable condition for recovery. The treatment of these protrusions has been clearly and precisely indicated by many able writers, and perhaps the different modes suggested have answered well in the hands of those surgeons who have practised them. I myself have followed one line of practice under the impression that it has superior advantages over the others; and although a few cases might not appear of much value in establishing a principle of treatment, still it seems to me that there are circumstances surrounding the history of those recorded which give a favourable complexion to the proceedings adopted, and taken together, I think they might be considered rather above the average in severity, sufficiently so to test the merits of any treatment and to encourage a repetition of it. The plan of passing a

ature around the omentum and allowing it to slough away has been long abandoned. The different methods now followed seem to be to return the omentum with the intestine, or excise it. Two ways are suggested for carrying the latter effect:—First, by severing the mass, and tying the feeding vessels; and, secondly, by passing a double ligature round what might be called the neck of the protrusion, and securing it on either side; then excising, either by knife or scissors, the mass in front, allowing the ends of the ligatures hang out of the wound to the extent of several inches. As regards returning the omentum into the abdomen, I could always fear the risk of injury to so delicate a structure, however carefully manipulated. And where the protruded part is large, or where it has been down for a length of time, it would appear almost impossible to avoid rupture or tearing, and hence probably establishing a centre of inflammation, leading to peritonitis and its serious consequences. In excising without first ligaturing the omentum I conceive that several risks might be incurred, the most prominent being the retraction of a portion of the cut surface within the abdominal cavity, where oozing of blood or serum might take place, and perhaps giving rise to an internal hæmorrhage or septic changes, probably exciting local or general peritonitis. I can likewise conceive some difficulty in securing small vessels in such a structure. On the other hand, by ligaturing before excising, any risks, it seems to me, might be avoided, and certainly in some instances, as I have related, a "radical cure" might be induced. As I have never followed another plan than that which I have advocated, I cannot profess a personal experience in other methods; therefore I do not attempt to compare any different modes of proceeding which might have been carried out with equal success by other surgeons. But different opinions decidedly exist on the subject, based somewhat upon theory, I bring my views before the profession as the result of practical experience, and after a careful consideration for some years past of a point of treatment which seems essential in importance.

Dorchester.

## POSITION AS AN AID TO THE REDUCTION OF IRREDUCIBLE HERNIÆ.

By BUXTON SHILLITOE, F.R.C.S.,  
SURGEON TO THE LOCK HOSPITAL.

THE following case is, I think, of sufficient interest to justify its record.

I was consulted in June last by a rather stout active lady, aged forty-eight years, mother of ten children, for an irreducible left femoral hernia. The hernia had existed for three years. No truss had been worn and no special notice taken of it. For the first year it frequently went back, but for at least eighteen months it had never returned. Recently it had given rise to some pain without any apparent increase in size. On examination I found a very tense roundish swelling, about the size of a large walnut, in the ordinary situation of a femoral hernia. Neither coughing nor change of position appeared to make any alteration in its bulk. I endeavoured for a considerable time to reduce it, but without making the smallest impression upon it, and I then sent her home, ordering her to keep perfectly recumbent, to live on low spare diet, and to take repeated doses of a saline purgative. I saw her three days after. She had kept entirely in bed, and had followed my instructions. I again attempted reduction, but without success, and I ordered the same treatment to be continued for another four days, when I again visited her, and again unsuccessfully applied the taxis; it appeared to me to be absolutely irreducible. I then explained to her that I was desirous of trying the effect of position upon the rupture, and that I wished her to remain with her head downwards some few minutes two or three times a day. She entered fully into the plan and agreed to give it a fair trial. I had a mattress placed on the floor, and I got her to slip off the side of the bed so that she rested on her elbows on the mattress, her sister and nurse, standing on the bed, holding her up by her legs. The first day she could not bear this position for more than two or three minutes twice in the day; the second day she three times remained for five minutes. On the third day I saw her, and finding no change I recommended that she should

support herself sideways on her right shoulder and arm, one attendant supporting her round her waist, another taking the legs, and a third keeping the left side higher than the right, at the same time that with one hand she gently pushed the tumour in an upward direction towards the feet. For the next two days this was tried three times for five minutes at a time. On the third day, on the third trial (which was continued for seven or eight minutes) it yielded, being, as she described it, slowly dragged into its place. A truss was then fitted, and in a few days she was moving about as usual.

Frederick-place, Old Jewry, E.C.

## APOMORPHIA IN CASES OF POISONING.

By AMAND ROUTH, M.D., B.S., M.R.C.P. LOND.

THOSE liable to be called to cases of poisoning are always glad to have an agent handy which, not in itself lowering, will produce prompt emesis, especially in those cases where the jaws are rigidly clenched and the stomach pump absent or inadmissible. This agent I am sure we have in apomorphia, an alkaloid which Dr. W. Murrell has brought before the profession. Though a derivative of morphia, it has no narcotic effects in the doses required to cause emesis. Dr. Murrell recommends it to be kept in a solution of 1 in 50 strength, and to be given subcutaneously in doses of from 3½ to 10 minims (½ to 1 grain). Emesis occurs in from two to five minutes, the contents of the stomach being usually voided in one rush without previous nausea, but with violent and visible muscular action of the stomach walls. The following two cases will serve to show its utility.

CASE 1.—I was sent for to see Mrs. S—, who was said to have swallowed a white powder and to be then dead. I found her on the floor, doubled up, jaws and hands clenched, blood and froth at mouth, respiration seemed absent, and pulse barely perceptible. She had not vomited. Though evidently dying, I injected five minims of the above solution into her arm, keeping my hand on the pulse. In two minutes and a half by the watch the stomach evacuated its contents with a rush, whilst the pulse seemed to rally for an instant and then finally ceased. Oxalic acid was proved to have been the poison used, and at the post-mortem about two drachms only of fluid were found in the stomach.

CASE 2.—A lady, a dipsomaniac, had obtained access to the wine-cellar and had swallowed straight off two bottles and a half of brandy. She then put the corks in her pocket, hid the bottles, put on her clothes, and went out for a walk with her footman. She walked quite steadily for 300 yards, when she dropped down insensible, and was carried home in a cab. On arrival, ten minutes after, I found her comatose, not able to be roused, respiration stertorous and infrequent, pupils dilated and insensible, jaws clenched, pulse slow and intermitting, two or three beats in every eight. Her stomach was full of fluid. I injected 3½ drops of the solution, and in exactly three minutes and a half about a pint of alcoholic liquid was expelled, and altogether in about five minutes a quart (measured) of hardly-altered brandy was vomited. The pulse and respiration now improved, the pupils becoming slightly sensible, and I left her for two hours, by which time she could be roused temporarily. After twelve hours' sleep she awoke none the worse.

Apomorphia fails to cause emesis during chloroform narcotism, but no other drug seems to be antagonistic to it, and there is no reason why it should not be used to get rid of even morphia itself. In the dyspnoea of chronic bronchitis, emesis from apomorphia produces temporary relief. If only the certainty, rapidity, and absolute safety of apomorphia were known, it would undoubtedly form part of every practitioner's paraphernalia.

Upper Montagu-street, W.

MR. JOHN HATTON, late medical officer of the Coleford District of the Monmouth Union, has been awarded a superannuation allowance of £26 a year.

MEDICAL MAGISTRATES. — Surgeon John Roche, M.D., of Mount Clarence, Kingstown, retired, Indian Medical Service, has been placed on the Commission of the Peace for Dublin County; and Dr. Jabez Thomas has been placed on the Commission of the Peace for Swansea.



# A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## ST. GEORGE'S HOSPITAL.

SARCOMA OF THE FEMUR; AMPUTATION AT THE HIP-JOINT;  
RECOVERY; NO RETURN OF THE DISEASE; REMARKS.

(Under the care of Mr. PICK.)

THE following case is interesting, not so much on account of the rarity of the disease, as from the fact that amputation of the hip-joint was performed for sarcoma of the lower end of the femur five years and a half ago, and the patient has remained well and free from any symptoms of a return of the disease up to the present time.

Mary Anne P—, aged nineteen, was admitted into Princess ward on Jan. 10th, 1877. Her history was as follows.—Her parents were both alive and healthy. She had three brothers and three sisters, all living and healthy. She stated that she had never been very strong, and had suffered from enlarged glands in the neck when a child. She had had measles in early life, but no other complaint, and had never been troubled with cough. She had been accustomed to live well and work hard. Catamenia had always been regular; no syphilitic history obtainable, and no history of cancer in the family. About four months previous to admission she noticed that the lower part of the right thigh began to swell, more particularly on the outer side. The right knee also swelled. About a month later the thigh and knee began to pain her very much, more especially when pressed upon, and when she moved. The swelling did not interfere with the motions of the knee-joint, and she was able to walk. She does not remember ever having received a blow or injury of any kind. The swelling did not increase rapidly after its first appearance. For some weeks she attended as an out-patient, and was treated with iodide of potassium. At first the treatment appeared to produce some benefit, the swelling got smaller and she gained weight and strength; but for a month previous to her admission the swelling increased rapidly, and she suffered from a dull, aching pain in the part, which was worse at night.

Upon admission she was found to be thin and slightly built, presenting the appearance of a strumous diathesis. There was a large, smooth and nearly uniform swelling situated at the outer side of the lower end of the femur, of the right side, about two inches above the condyle. The swelling was confined to the outer side of the shaft of the bone, on the inner side and at its lower extremity the femur could be felt to be unaffected. The skin was tense and reddened, but freely movable over the tumour, and some enlarged veins could be seen crossing over it. The swelling was hard and somewhat elastic and firmly connected to the bone, from which it could not be moved. Pressure caused pain, but no sensation of crackling or fluctuation could be felt. Now and again she experienced a starting or shooting pain through the limb. Upon placing a stethoscope on the outer and lower part of the swelling an occasional soft, blowing bruit was audible. The bruit was not constant, and could only be heard at one particular part of the tumour. At this spot, upon making firm pressure, an indistinct feeling of pulsation could be perceived. This pulsation and bruit were felt and heard for the first time on the day after admission, though they had been carefully sought for on several previous occasions. The temperature of the affected limb, especially over the swelling, felt considerably raised above that of the sound limb. There was some enlargement of the glands in the right groin, but the same condition also existed on the left side. The knee-joint was unaffected and could be flexed, extended, and rotated with perfect freedom.

A consultation was held, and it was determined to remove the limb. This was proposed to the patient, but she refused to entertain the proposition and left the hospital. She was lost sight of for a time, but again applied for readmission on

March 12th, six or seven weeks from the date of her previous discharge. The alteration in her appearance was now most marked. She had lost flesh considerably and was much emaciated. There was a hectic flush on her cheeks, and her countenance wore an expression of great anxiety. She was unable to sleep on account of pain, and had entirely lost her appetite. The tumour had grown rapidly, especially in an upward direction, so that the upper margin, which was well defined, reached to within six inches of Poupart's ligament. The skin over it was red, shining, and adherent to the surface of the swelling. There was a distinct pulsation and an audible bruit. The glands in the groin were more enlarged. Amputation at the hip-joint was now proposed to the patient, who willingly accepted any proceeding which would relieve her of her intense pain. This operation was accordingly performed on March 15th by the long anterior and short posterior flap.

The subsequent progress of the case requires no comment. Her recovery was much retarded by the formation of bed-sores, the profuse discharge from which at one time threatened her life. Eventually, however, she rallied and left the hospital with a perfectly sound stump. Six months after the operation a patch of dulness about the size of the palm of the hand appeared at the upper part of the right chest, accompanied by tubular breathing in this situation, and it was found that the disease was returning in the lungs. Gradually, however, it disappeared, resonance returned, and the breath sounds again became natural. The exact cause of it was never clearly made out. At the present time (November, 1882), five years and a half since the operation, the patient is perfectly well, and there are no signs of a return of the disease. She has married, and expects shortly to become a mother.

The tumour after removal was found to be of a soft brain-like consistence and of an almost uniform greyish-white colour. Interspersed throughout its structure were numerous patches of extravasated blood. The tissue of the tumour was arranged in lobules, each of which was surrounded by a more or less distinct capsule. The whole of the lower third of the femur was destroyed and its structure replaced by the growth, which had also extended downwards into the knee-joint. The patella and bones of the leg were unaffected. The microscopical appearances were as follows:—A number of thickly interlacing spindle cells, with distinct nuclei, arranged for the most part in closely set parallel bundles. Intermixed with these spindle cells were a number of irregularly, round, nucleated cells, and in some parts the tumour consisted wholly of these. They were grouped in a delicate stroma, were irregular in shape, and contained two or three nuclei. In addition to these, there were found, here and there, large, irregularly round, multi-nucleated cells, not unlike transparent "giant cells."

*Remarks.*—The disease in this case appears to have belonged to the class of central tumours of bone, in contradistinction to the subperiosteal form of growth; and, as Mr. Butlin has pointed out in his Lectures at the College of Surgeons, the "treatment of central sarcoma of the femur is very much more hopeful than of subperiosteal sarcoma. That amputation high up at an early period of the disease may be undertaken with very fair prospect of success, if not of permanent recovery, at least of long relief." This case seems to bear out Mr. Butlin's opinion. Nothing could have been more unpromising at the time of the operation; the rapid growth of the tumour and the considerable emaciation which had taken place during the six weeks or two months immediately preceding it induced us to regard the case as one of a very malignant type, and to give a most unfavourable prognosis. Happily, that opinion has not been verified by the subsequent history of the case.

## NEWCASTLE-ON-TYNE INFIRMARY.

GASTROSTOMY IN A CASE OF MALIGNANT STRICTURE OF THE ŒSOPHAGUS; REMARKS.

(Under the care of Dr. G. H. HUME.)

J. H—, a labourer, aged fifty-seven, was admitted on August 3rd. Twelve months previously he had first found difficulty in swallowing, and had cough and shortness of breath. He had attended at the infirmary as an out-patient from time to time, and had bougies passed, which temporarily relieved the difficulty in swallowing. At the time

his admission he could only swallow liquids. Examination of the chest detected some dulness to the left of the sternum. Articulation, and throughout the lungs a considerable amount of bronchial catarrh. An œsophagus bougie could be passed down to, but not through, a stricture situated nearly opposite the middle of the sternum. For a few days after his admission a considerable amount of liquid food was taken, and, with rest in bed, the patient's condition appeared slightly to improve. But the difficulty in swallowing gradually increased, until very little could be taken by the mouth, and life was maintained almost solely by nutrient enemata. Gastrostomy was therefore determined upon; and on the first stage of the operation was performed on Sept. 2nd. An incision, about three inches in length, was made an inch from the left costal margins, its direction being such as to make it terminate at the extremity of the tenth rib. The structures of the abdominal wall being divided down to the peritoneum, all bleeding was completely stopped, and the peritoneum divided on a director. The wall of the stomach, which was readily found lying below the left lobe of the liver, was taken up between the finger and thumb, and a black thread passed through it for the purpose of holding it forward during the insertion of the sutures. These latter were nine in number, and enclosed a piece of the gastric wall, somewhat larger than a shilling. The sutures were passed into, but not through, the wall, so that they did not enter the stomach cavity; and each was passed through all the structures of the abdominal wall, so as to bring the peritoneal sacral in apposition with the parietal peritoneum. The ends of the incision in the abdominal wall were then brought together.

The operation was performed under carbolic spray. During the first part of the operation ether was unfortunately administered instead of chloroform, and it was probably in part due to this that on the evening of the day of operation the pulmonary catarrh was considerably increased.

Sept. 3rd: Catarrh much increased, though the patient had a good night. Temperature 100° F.; pulse 86. The enemata were continued, and use was also made of Slinger's nutrient suppositories.—5th: Great thirst and hunger complained of; breathing, which has been very bad, is somewhat relieved. Temperature 99°; pulse 82.—6th: On removing the dressings the exposed portion of the stomach wall was found covered with lymph, and firm union seemed to have taken place to the edge of the incision. The stomach was therefore opened with a tenotomy knife, the incision being just large enough to admit easily a No. 10 gum elastic catheter. Some milk was poured into the stomach by means of a funnel and tube attached to the catheter. Feeding with milk and brandy and beef-tea was continued from this time at regular intervals, and the enemata were administered as before.—7th: The patient has had a good night. Temperature 99°; pulse 80.—9th: The difficulty of breathing, which had become less distressing, has again increased, and there is now a dusky appearance of the face. There is slight wandering.—13th: The patient died.

*Post-mortem examination.*—The body was much emaciated; the left lung was consolidated, especially the lower lobe, and gangrenous in parts. Similar gangrenous masses were scattered through the right lung also, but were less numerous. Opposite the fourth dorsal vertebra the œsophagus was found to be constricted by an annular deposit in its wall of a scirrhous nature. This constricting ring was almost an inch in longitudinal depth. The stomach was adherent to the margin of the incision, and there was not the slightest trace of inflammation either on the peritoneum or wall of the stomach.

*Remarks.*—This case was, undoubtedly, in some respects, a favourable one for gastrostomy. The cancerous formation in the wall of the œsophagus was of limited extent, and had not involved surrounding structures. Probably a lengthened period might have elapsed before life was threatened by the invasion of the air-passages and large vessels. It is a matter of regret, therefore, that the operation was not performed earlier, before the patient's strength had become exhausted, and the consequent condition of the lungs developed. The operation in itself does not appear to be attended by special danger. When peritoneal surfaces are placed in accurate contact they speedily unite, so that the general cavity is shut off, and there is little risk of discharge entering it from the wound. The case only serves to illustrate the well-recognised truth that gastrostomy to be of service in prolonging life must be had recourse to in good time.

## Medical Societies.

### OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

*The late Mr. Critchett.*—Hydatid Tumour of Orbit.—Panophthalmitis.—Large Ivory Exostosis of Orbit.—Hard Chancre of Inner Canthus.—Central Amblyopia in Diabetes.—Optic Neuritis.—Tortuosity of Retinal Vessels.

THE ordinary meeting of this Society was held on the 14th inst., Mr. W. Bowman, F.R.S., President, in the chair. He alluded in feeling terms to the sad loss they had sustained in the death of Mr. Critchett, in whom they mourned a warm-hearted, true-hearted colleague, and one whose calm and mature judgment, based on long and wide experience, would be missed by many in cases of anxiety and difficulty. In him Mr. Bowman had lost an almost life-long friend, and although it would be more fitting to attempt a particular enumeration of his claims on some future occasion, he could not help recalling the fact that Mr. Critchett had presided in the chair at the close of the last session. He concluded by reading the following resolutions, which had been unanimously passed by the Council: 1. "That the Council of the Ophthalmological Society of the United Kingdom desire to record their sense of the great loss sustained by the Society, as well as by the profession at large, in the death of one of their vice-presidents, George Critchett, whose extended reputation at home and abroad rested on the solid foundation of important services rendered to that department of the medical art to which he was chiefly devoted, and whose kindness of heart and excellent judgment were universally recognised and esteemed." 2. "That a copy of the foregoing resolution be forwarded to the family of Mr. Critchett with an expression of the cordial sympathy of the Council on the part of the Society under their bereavement."

Dr. P. H. MULES showed a Hydatid Cyst removed from the Orbit, the size of a pigeon's egg. The patient was a boy aged six years; the growth was difficult to diagnose, and was treated by free incision and drainage tubes. The cyst was discharged on the seventh day. Before this, however, a condition of choked disc supervened which interfered with the perfect recovery of vision; but six months after the removal of the cyst he could read.—Mr. HUTCHINSON asked if any echinococci were found in the fluid.—Dr. S. MACKENZIE pointed out that the laminated membrane of the cyst sufficed for the diagnosis.—The PRESIDENT asked whether the firm adhesion of the cyst prevented its being wholly removed at once, for it was very desirable to avoid inflammation within the orbit.—Mr. MILLES mentioned a case lately treated at Moorfields Ophthalmic Hospital where the whole cyst was readily removed, and the wound rapidly healed.—Dr. MULES, in reply, said that the cyst was very firmly adherent, and he did not think it prudent to tear it away.

Dr. MULES also gave particulars of a case of Panophthalmitis. Two or three months before the patient had undergone an operation for glaucoma, which had left a cystoid cicatrix. A panophthalmitis, which he attributed to septic absorption through the faulty cicatrix, destroyed the eye within twenty-four hours of the first symptom of purulent infection.—Mr. PRIESTLEY SMITH said that Leber had recently pointed out the dangers of such cystoid cicatrices. He had himself lately seen a case where the eye was rapidly destroyed from septic inoculation, due probably to an old wound of the iris.—Mr. BRUDENELL CARTER mentioned the case of an old lady operated upon for chronic glaucoma of both eyes, in whom suppuration occurred three years later in one eye, the pus escaping at the cicatrix. There was no evidence of inoculation.

Dr. H. A. LEDIARD (Carlisle) read notes of a case of Necrosis and Spontaneous Separation of a large Ivory Exostosis of the left Orbit. He showed the portrait of the patient, and also the exostosis itself. The tumour was stated to have been about the size of a pea at birth, and was situated between the upper eyelid and the eyebrow. It gradually enlarged, and at the age of nine years, induced destruction and rupture of the globe of the eye. The tumour ceased to enlarge at about twenty-five years of age, and, about two years later, the skin, which had hitherto covered it, suddenly gave way. The patient was admitted into the

Carnarvonshire and Anglesey Infirmary, under the care of Mr. Hughes, in 1870. He was then thirty-three years old, a sailor, and in good health. The tumour seemed to arise from the cavity of the left orbit. It was of stony hardness, irregularly pyramidal in shape, nodulated on the surface, and measured 4.5 by 5 inches; the tumour was then movable, and, whilst under observation, gradually became looser; an offensive discharge issued from the base; finally, about a month later, the whole mass became suddenly detached, without any associated pain or hæmorrhage. The tumour was pediculated, and weighed nine ounces. The neck also was much enlarged, the anterior and lateral portions being of stony hardness, the left side being on this account much larger than the right; the girth of the neck was 17.5 inches, and of this a space of ten inches was of stony hardness. In October, 1882, the patient survived, was in good health, and master of a vessel. The vision of the right eye remained good. Dr. Lediard referred to the other similar cases which he had been able to find recorded. Mr. Hilton reports in Guy's Hospital Reports (1836) a very similar case, where the exostosis, which weighed 14.75 ounces, became spontaneously detached. In a case recorded by Mr. Hutchinson in his "Illustrations of Clinical Surgery," and under his care jointly with Mr. Borlase Child in 1859, the exostosis which was of large size, and appeared to spring from the frontal sinus, also became necrosed. Sir James Paget, in his "Surgical Pathology," mentions another case of large ivory exostosis in the orbit, which projected not only forwards, but also backwards into the skull. Dr. Lediard showed a photograph of the skull in this case, which had been sent to him by Professor Humphry of Cambridge. Boyer had referred to spontaneous necrosis of ivory exostosis, and had remarked on the fortunate nature of the process.—Mr. HUTCHINSON said these tumours had slender pedicles, and if dealt with early they might be removed without much risk, necrosis being a late event. In Mr. Borlase Child's case it took an hour to saw through the neck; it should have been broken off at the root. A year later, necrosis having occurred, the tumour readily shelled out, leaving the orbit much dilated.—The PRESIDENT recalled a case where an exostosis as large as a walnut projected from the orbit; it was easily shelled out.—Dr. FITZGERALD referred to a specimen in the Museum of the Royal College of Surgeons at Dublin, much resembling that at Cambridge. In a case under his own care the tumour sprang from the roof of the orbit, but he did not venture to remove it.

Mr. S. SNELL (Sheffield) communicated notes of a case of Hard Chancre of the Inner Canthus, which occurred in a nurse-girl, aged twenty-one, who had under her special charge a syphilitic infant of five months. The chancre was noticed some few weeks as a pimple before the girl came under observation on Aug. 15th, 1882. It then involved the caruncle and adjacent conjunctiva as well as the integument of the commissure and the lids. A point of interest and diagnostic value was the presence of well-marked induration of the pre-auricular and submaxillary glands. Other symptoms were a papular, coppery rash and alopecia, ulcerated throat, and later on mucous tubercles of the vulvæ. The chancre healed with hardly appreciable deformity.—Mr. BRUDENELL CARTER had seen two instances of hard chancre on the eyelids in young subjects; the mode of infection could not be traced.—Dr. FITZGERALD had seen a case in Paris in a young girl, and had attributed it to direct inoculation.—Mr. MCHARDY suggested that inoculation might arise from the popular practice of using the tip of the tongue to remove foreign bodies from the eyes; or the use of moistened blotting-paper for the like object.—Mr. J. E. ADAMS thought inoculation generally occurred from the sore mouths of syphilitic children through kissing; and Mr. VOSE SOLOMON mentioned a case directly traceable to kissing.

Four papers on the subject of Central Amblyopia in Diabetes were read. The first was by Mr. LANG. The second was by Mr. J. B. LAWFORD, who gave an account of a case of Stationary Tobacco-amblyopia in a man subsequently affected by diabetes. The patient was forty-six and had always been a heavy smoker. His sight had begun to fail about seven years ago, and diabetic symptoms supervened about nine months ago; but his sight had not deteriorated, though the diabetes had grown steadily worse. Vision was very defective, and there was a well-marked central scotoma for red. The optic discs were a little pale, but the ophthalmoscope revealed no other morbid state.—

Mr. STANFORD MORTON communicated a case of Double Amblyopia, with well-marked central scotoma for red and green, in a man, aged thirty-four, accustomed to smoke very moderately, and who was suffering from diabetes. The patient was not under care long enough (barely two months) for the result as to sight to be known.—Dr. EDMUNDS and Mr. NETTLESHIP communicated a paper on the same subject. It contained notes of four cases of central amblyopia without ophthalmoscopic changes, in patients suffering from diabetes. 1. A man aged forty, who had suffered from diabetes for several months. He smoked half an ounce of tobacco a day. Failure of sight had been noticed for one month. Vision in each eye  $\frac{1}{200}$ , letters 14 J. (corrected). Under treatment for diabetes, health improved, but not vision. He would not, however, stop smoking. 2. A man, aged thirty-eight, had had diabetes three or four years. He smoked half an ounce of strong tobacco daily. Failure of sight had been noticed for five months. Vision in each eye  $\frac{1}{200}$  and 14 J. He died in the country three months later. 3. A male, aged forty-eight, had been the subject of diabetes during twenty-one months. He had smoked, during the last thirty years, three-quarters of an ounce of tobacco a day. He had experienced failure of sight for five weeks. Vision was  $\frac{1}{200}$  and 8 J. 4. A man, aged fifty-eight, a moderate smoker, complained that his sight had been failing for eighteen months. Vision in each eye  $\frac{1}{200}$  and 16 J. His urine, on examination, was found to contain sugar. Nine cases were referred to by the authors (including published ones) of failure of sight with central scotoma, in the subjects of diabetes without ophthalmoscopic changes. The authors, however, suggested that the coincidence would prove to be fairly common. Most of the patients were smokers, some of them great smokers; and it was not yet certain whether diabetes alone caused the disease, or only acted as a predisposing cause to tobacco-amblyopia. The analogy of double amblyopia to the symmetrical neuralgia in diabetes, described by Worms and Buzzard, was pointed out.—Dr. S. MACKENZIE pointed out that these cases had all come under the care of surgeons rather than physicians. He had seen two cases, one in a woman. Tobacco was an important factor in their production.—Mr. PRIESTLEY SMITH, speaking of the pathology of central amblyopia apart from constitutional or toxic causes, stated that Samelshon of Cologne had suggested that inflammation of the central parts of the nerve at or near the optic foramen, causing the amblyopia, might depend on the distribution of the nutrient bloodvessels of the nerve, the capillaries in the centre of the nerve being more numerous than at the periphery. On this view sudden changes in the vascularity of the face from exposure to cold, &c., might through the orbito-facial anastomoses lead to congestion and inflammation of the central part of the optic nerve. Mr. Smith referred to a case in point.

Dr. S. WEST read a sequel to a case of Optic Neuritis reported by Mr. Stanford Morton in the Society's Transactions, vol. i. The patient came under Mr. Morton's care in January, 1881. Vision was then perfect, but both discs were greatly swollen; in the following month she consulted Dr. West for headache and for sudden temporary attacks of blindness. Vision began to fail in June, 1881, in the right eye, amounting to J. 2, and  $\frac{1}{200}$ , and the field of vision was much contracted; headache worse. At the end of July, 1881, vision in the right eye was completely gone and was defective in the left. She was very actively treated with mercury and with iodide of potassium on several occasions, but without any good result. In September, 1881, she was completely blind in both eyes. The swelling of the disc remained; atrophy gradually ensued, so that in August, 1882, the discs were quite white and extremely atrophic. In November, 1882, there was no perception of light; the pupils did not react to light, but freely to movements of the eyeball; the eyes diverged but could fix fairly well. The condition was probably secondary to some tumour of the brain, possibly a tubercular tumour, which had become stationary or retrogressive, but the diagnosis was exceedingly difficult. The case was of interest, owing to the persistence of perfect vision for about five months in the presence of extreme optic neuritis, to the attack of temporary complete blindness, to the rapidity with which the failure of vision became absolute when once it commenced, and to the entire absence of any symptoms beyond the eye changes.

Dr. S. MACKENZIE showed a drawing of the Fundus, exhibiting great Tortuosity of the Retinal Vessels, from a patient, aged twenty, who was suffering from severe ves-

emphysema, œdema of the legs, and lividity. The in the fundus of both eyes were extremely tortuous, and somewhat dilated. This condition of the veins, perhaps, have been attributed to the venous obstruction consequent on the emphysema but for the cases recorded lessers. Nettleship and Benson, where the condition was seen in otherwise healthy eyes.—The PRESIDENT had occasionally seen cases, mostly women, of small varicosities of the episcleral region, without impairment of the functions of the eye. In some other cases glaucoma eventually superadded, but he had not operated for fear of hæmorrhage, a which iridectomy shows to be unfounded. In some of the cases the retinal vessels also were enlarged.

Mr. EDMUNDS and Mr. LAWFORD exhibited Microscopical sections of the Optic Nerve from a case of Amblyopia in betes. The patient had been a hard smoker, and sight had been failing for about four months. No ophthalmic changes were detected. He died of diabetes. The section showed changes limited to a group of fibres which extended through the length of the nerve—viz., a thickening of the connective tissue with degeneration of the nerve fibres. Mr. JULER showed again the case of Chronic Membranous conjunctivitis exhibited at the last meeting. The right eye recovered under the use of lapis divinus, but the case had extended in the left.

Mr. J. E. ADAMS showed a case of Chancre of the Upper lip, an indolent shallow ulcer, with surrounding thickening of the under surface of the left upper lid near the outer thus, and a very marked adenopathy on the same side. It was too early to allow of an absolute diagnosis, since no secondary symptoms had as yet appeared.

Mr. GUNN showed a girl with Peculiar Appearances in the Right Retina below the disc, probably congenital.

Mr. ADAMS showed a case of peculiar Congenital Opacity of the Capsule of the Crystalline Lens.

## MEDICAL SOCIETY OF LONDON.

### Microscopical Demonstration of Various Forms of Bacteria.

A MEETING of the above Society was held on the 4th inst., Mr. F. Mason, President, in the chair.

Dr. HENEAGE GIBBES showed a large number of specimens of Bacteria, including bacillus anthracis, bacillus tuberculosis, from cattle and the human subject; the so-called "typhoid bacillus," putrefaction bacilli; bacilli from diphtheria, diphtheria, sheep-pox, purples; bacilli from Welbeck poisoning case; and the so-called infective streptococci from the spleen of a tubercular patient. A great part of the evening was spent in the examination of these specimens. After speaking in detail about the specimens and the mode of preparation employed in the tubercular cases, Dr. Gibbs drew attention to the two forms of tubercle met with in the human subject, as already defined by Klein, the reticular and non-reticular forms (specimens of bacilli both were shown). In the former class of cases bacilli were rarely found; in his own observations in one lung out of ten, and then in the smallest numbers, singly or in groups of three or four in the meshes of the reticulum. In the non-reticular tubercles, on the contrary, bacilli were of almost invariable occurrence in large numbers, and were aggregated into masses especially to be found in the caseous centre. He was inclined to think that the latter form indicated a more acute disease than the former. Bovine tubercle was always of the reticular form, with large and numerous giant cells, the tubercles being aggregated in large masses, which are caseous in many places. In bovine reticular tubercle, however, bacilli were abundant; found, not as in the human subject, solely in the reticulum, but partly round the edge of the caseous region, and partly in the interior of the epithelioid and giant cells. He was inclined to think that this bacillus would prove to be of a different kind from the human one. He had found the bacillus in the liver and spleen, but not in the omentum.—On the motion of the President a cordial vote of thanks was given to Dr. Gibbs for his excellent demonstration; and to Messrs. A. and J. Beck for their kind loan of microscopes.—Dr. C. T. WILLIAMS remarked on the failure, in other hands, of Koch's and Ehrlich's methods of obtaining bacilli, and the universal success of Dr. Gibbs' mode. Had Dr. Gibbs detected the bacillus in the blood? He himself had not been able to do so. By Dr. Gibbs' method he detected bacilli in the sputa of nearly all cases of advanced phthisis,

but not in all. He thought they were most difficult to find in cases undergoing partial recovery.—Dr. R. CROCKER thought Ehrlich's process more successful than Dr. Williams represented.—Dr. HERON said that Koch's process was very difficult, and had been lately abandoned by Koch himself in favour of Ehrlich's process of floating the cover-slip in a solution of fuchsin. Fuchsin is precisely the same thing as magenta, though various specimens of either were slightly different in tint. The cover-slip was washed in nitric acid (one part to two of water), and the specimen then stained with methylene blue. This process, therefore, was practically identical with that of Dr. Gibbs', whom he personally thanked for his labours.—Mr. JABEZ HOGG thought the greatest advantage of Dr. Gibbs' method was that low powers might be used in it. The distinction between various specific bacilli was not at present clear, and it was questionable whether these bacilli of tubercle are really characteristic of this affection.—Dr. GREEN presumed that the Fellows were prepared to assume with M. Koch the essential connexion between the bacillus tuberculosis and the tuberculous processes. Was there, he would ask, any relation found between the number of bacilli and the stage of the disease? He had still to hear what the conditions were which enabled the bacillus to produce its effect.—Dr. GIBBES, in reply, said that he had not examined the blood for bacilli. His method of mixing rosaniline with aniline to form a definite compound was totally distinct from Ehrlich's. Fuchsin would not combine with aniline.

### An Improved Invalid Carriage.—Transplantation of Skin in the Treatment of a Large Hairy Mole.—Talipes Varus treated by Partial Excision of Tarsus.—Bronchiectasis treated by Tapping.

At the meeting of the Society held on the 11th inst., Mr. F. Mason, President, in the chair,

Mr. RICHARD DAVY exhibited an Invalid Carriage he had devised, capable of carrying one, or, at an emergency, six injured persons, in addition to the surgeon and the driver. The carriage was drawn by one horse, and could be shunted on to a steamer or railway-truck; was of large cubical capacity, and admitted plenty of fresh air and light; the door facing a platform for easy ingress or exit. The stretchers are comfortable and strong, and could be easily slung to the roof. Journeys not exceeding twenty miles could be undertaken by road. For the surgeon there is ample space, a floor easily cleaned, and ready means of communication with the driver. A cupboard beneath the driving-box contains surgical requisites and food. Mr. Davy commented on the exorbitant rates and bad accommodation furnished by railway companies, and stated that his carriage had been appreciated by invalids, pointing out the comfort arising from a system that required no change of conveyance in going from one place to another. The carriage was constructed by Mr. Burt, of Swinton-street, W.C.

Mr. W. PYE read notes of a case of a large Hairy Mole on the forehead treated by Transplantation of a Skin-flap from the arm. The patient, who was exhibited, was fifteen months old when admitted into the Victoria Hospital with a very disfiguring hairy mole occupying the right half of the forehead. It was plain that simple dissection or destruction by caustics would involve great risk of deformity to the eyebrow and lid, besides the unsightliness of the resulting scar. It was therefore decided to cover the wound with a flap of skin from the forearm. The flap dissected from the forearm was left attached to the wrist; the mole was completely dissected off, the arm brought up and the flap adjusted to the wound by several sutures. The arm was then fixed in position by strapping and bandaging, and the sides of the wound in the forearm were partly brought together with sutures. Within twenty-four hours the flap had united at all the joints, where it was in contact with the edges of the wound. On the third day, however, the side of the scalp became tumid, and the eye became irritated by the discharge. The flap was therefore detached from the arm on the fourth day, and after a little of it had sloughed the wound healed rapidly. There is now only a fading circular cicatrix marking the place of the original mole. The surgical interest of the case consisted in (1) the method of treatment employed, (2) the fact that the pedicle was taken from the distal side of the forearm with no ill effect, and (3) that the pedicle was divided as early as the fourth day.—Mr. ROSE had lately performed a similar operation on the hand, using

a flap of skin from the abdomen. He divided the pedicle by degrees at the end of a fortnight. Mr. Pye was to be congratulated on the flap living after so early a division of the pedicle.—The PRESIDENT remarked that wounds in children united earlier than in adults. It was fortunate that the child could be induced to keep its arm quiet. He had never divided a pedicle at so early a date. He showed two photographs of cases. In the first, a hairy mole, he had used ethylate of sodium without success, and subsequently nitric acid. In a case of artificial nose he had transplanted a large flap of skin from the forearm to the forehead successfully without any pedicle.—Mr. DAVY had used for many years a very fine needle with thermo-cautery in removing hairy moles in preference to excision. In young infants, however, extensive wounds of the skin might be made without much ultimate deformity.—Mr. PYE said that he had fixed the arm with strapping and bandages, keeping the child under the influence of opium. He thought the mole could not have been removed by the thermo-cautery without leaving a large scar. The mole was raised and deep. He had no alternative between dividing the pedicle and letting the eye slough.

Mr. ROSE read notes of a case of Talipes Varus in a boy aged thirteen, who was successfully operated on by removal of a wedge of bone from the tarsal arch. Casts of the right foot were shown before and after operation, the second cast showing the foot in good position. The patient had been operated on by tenotomy four times at other hospitals without result. The operation was performed antiseptically on April 14th, and the boy left the hospital on June 3rd plantigrade. Mr. ROSE brought forward the case as another link in the chain of evidence in favour of this operation, which should, of course, be restricted to cases in which instrumentation and tenotomy had failed, and where, without this last resource the patient would remain a permanent cripple. The cast of another case was shown, operated on fourteen days ago, the position of the foot and progress of the case being very satisfactory.—The PRESIDENT doubted the necessity of removing so much bone. Did Mr. Davy use Listerism?—Mr. DAVY was glad to see this operation making way, and promised to show some patients operated on by this method at a future day. The insertion of the peroneus tendon was as a rule involved. It was of no importance whether the tendon was cut or not. He did not use Listerism. He had but one death in twenty-five cases.—Mr. ROSE said his patient walked away within two months of the operation.

Dr. C. T. WILLIAMS read notes of a case of Bronchiectasis treated by Tapping. The case was that of a man, aged forty, admitted into Brompton Hospital in April, 1882, with a history of continued cough and expectoration (latterly fetid) of a year's duration following pleurisy. The physical signs pointed to double chronic pneumonia, adhesion of right pleura and numerous bronchiectases of the right lung, the spots of gurgling being seated in the second and third interspaces near the shoulder, in the fourth and fifth outside the right nipple, and posteriorly near the lower angle of the scapula. Antiseptic measures failing to reduce the fetor, Professor Marshall, at Dr. Williams' request, made a vertical incision from the fourth to the sixth rib, along a line marked out by the latter, and plunged a trocar and director (specially devised by Dr. Hicks) to the depth of four inches in the direction of the root of the lung. Air hissed out of the opening, and a quantity of fetid matter and sloughing debris was forcibly ejected. The opening was enlarged and a drainage-tube inserted. All fetor ceased, the cough moderated, the temperature fell to normal, and the patient took exercise in the garden. Nineteen days later the discharge increased and became thoroughly fetid, the temperature rising to 101.4°; there was some headache. The discharge continued, but became fetid; vomiting, followed by drowsiness and left hemiplegia, ensued, and death by coma took place on July 6th, forty-five days after the operation. An abscess was found in the left cerebral hemisphere; there was chronic pneumonia, an adherent pleura in the left side, and numerous small bronchiectases, as well as some larger ones, in the left lung, the largest, of the size of an orange, having been the one tapped. No tubercular or caseous masses were found. The case illustrated the difficulties of dealing with bronchiectasis, especially of the globular or saccular variety. By loss of their contractility the tubes were converted into mere bags of putrescent matter, which became absorbed and caused pyæmia. The diagnosis was tolerably exact, and, fortunately, the largest bronchiectasis was reached without much difficulty, and the first results of the operation were thoroughly satis-

factory. He alluded to the value of a vertical skin incision over two interspaces, to allow, if necessary, a second puncture into the adjoining space, and to Dr. Hicks' director attached to the trocar and cannula, which enabled the opening to be readily enlarged for the introduction of the drainage-tube. This was the fourth case of bronchiectasis which Dr. Williams had tapped, but was the only one where death ensued from cerebral abscess; in two others septicæmia of the opposite lung was the cause. One patient was still living after two years' interval, but the chief difficulty lay in the number of operations which were sometimes necessary to establish efficient drainage.—Dr. SYMES THOMPSON said that the difficulty in these cases was that the dilatations were seldom single. In one case Dr. Williams had made as many as six incisions. The irritation of retained secretions could not be successfully overcome by inhalations.—Mr. E. OWEN asked whether Listerism was essential to these cases. In a case he had recently operated on for Dr. Broadbent, excellent results had followed without it. Was it worth while keeping germs from the wound while they could enter by the bronchi?—Mr. HUBERT SMITH thought antisepticism useful when pleural adhesion had not taken place.—Dr. WILLIAMS, in reply, said that in such cases something must be done, otherwise the fetor would render a hospital uninhabitable. He had left the surgical treatment of the case in Mr. Marshall's hands. Free drainage was the main point. It was his first care before operating to ascertain that the pleural layers were adherent.

#### MIDLAND MEDICAL SOCIETY.

AN ordinary meeting of this Society was held in the Birmingham Medical Institute on Wednesday, November 22nd, Dr. MALINS, President, in the chair.

Dr. MALINS showed a large Cyst of the Broad Ligament successfully removed by Abdominal Section.

Mr. KENNETH MILLICAN (Kineton) exhibited some specimens of Bacilli from cases of Diarrhoea which were found in the stools of patients affected during an epidemic. The motions were not unlike those of typhoid fever, and contained small gelatinous lumps. A cover-slip smeared with these lumps, dried and then stained with aniline blue, exhibited the organisms. An interesting therapeutical point was that the diarrhoea, which resisted all ordinary methods of treatment, yielded in about twenty-four hours to the internal administration of carbolic acid and terebene, the former being given in one and one and a half grain doses every two hours, the latter in doses of from five to ten minims.—Mr. MILLICAN also showed a specimen of Bacillus Anthracis.

Dr. A. H. CARTER showed specimens of the Bacillus Tuberculosis prepared by the method of Dr. Heneage Gibbs.—Mr. MILLICAN, referring to some remarks as to the diagnostic value of the bacillus tuberculosis, said he considered Dr. Heneage Gibbs' method absolutely diagnostic for the following reasons:—(a) It stained the bacillus tuberculosis clearly, and did not affect the organisms found in phthisical sputum. He had tried Ehrlich's method and several stains of his own, but found that, while they certainly brought out this particular organism, they obscured the diagnostic value by bringing out also the organisms and putrefactive bacteria. Having assured himself that these organisms were present in the sputum, he then used Gibbs' method, and found that only the bacillus tuberculosis appeared. (b) On employing Baumgarten's method—viz., immersion in a 33 per cent. solution of caustic potash—he found this rendered the bacilli visible; afterwards by staining with Gibbs' process it was found that all the organisms took the stain. (c) He failed to make Heneage Gibbs' stain dye the organisms from epidemic diarrhoea, stale sputum, and stale hay infusion until after they had been immersed in the 33 per cent. solution of caustic potash; they then stained readily.

Dr. SIMON showed a series of living cases of Extensor Paralysis.

Dr. SAVAGE showed two specimens of Double Pyosalpinx which he had recently removed from two young single women. There had been a long history of pain, and in one of the patients anæmia and a high temperature, 104°. The tumours were each about the size of an orange. During removal of the tumours rupture occurred, and there was a considerable escape of pus into the pelvis; this was cleaned



, and a drainage-tube inserted. The operations were not formed antiseptically. The patients did well.

#### *The Notification of Infectious Diseases.*

Mr. J. H. PALMER (Solihull) in moving the following resolution, "That this Society, recognising the necessity for isolation to provide for the better notification of infectious cases, is of opinion that the duty of making such notification should devolve upon the occupier of the house and not on the medical attendant," said that the expediency of providing legislation for the better notification of infectious cases had occupied the attention of the profession, with whom the idea had originated, and of the public. In many private Bills which had passed into law powers had been conferred upon sanitary authorities to enforce which no one would dare to attempt. The Bill introduced by Mr. Hastings was sound in its object but faulty in detail. The duty of making the notification was one which obviously devolved upon the occupier of the house. In the Bill brought for Ireland the duty of notifying was rendered compulsory on the occupier and permissive on the part of the medical attendant; that seemed the prudent course. Mr. Hastings' proposal that the matter should go to a Select Committee was a fair one, and showed that Mr. Hastings was quite prepared to see the question discussed in all bearings.—Dr. GRIFFITHS seconded the resolution.—ALFRED HILL in moving an amendment combated the objection raised by the opponents of notification by medical men, such as compulsion and its alleged consequences—viz., antagonism between the medical attendant and the medical officer of health, the inquisitorial character of the duties of the latter in some cases, and the spread of disease from concealment. He showed that in many towns where the Acts had been put in operation the evil predicted had not followed, and the best results had been attained. Compulsion of the householder had been tried in Greenock for five years, and had failed to achieve the amount of good to be expected from a compulsory system of notification. Nothing but notification by the medical attendant, either with or without the same on the part of the occupier, would be of use. He concluded by moving the following amendment:—"That this Society, regarding the views of the leading sanitary authorities, that early notification is necessary for the control of infectious diseases, and having the benefit of the experience of the large number of towns which have already put the Compulsory Notification Act into force, is of opinion that every sanitary authority should possess parliamentary powers to obtain notification from both the medical attendant and the householder or person in charge."—Dr. WILSON (Leamington), seconded the amendment, and said there could be no doubt that outside as well as inside the profession there was a steadily growing conviction that a systematic or efficient control of dangerous infectious disease was possible without early notification, and that early notification could not be uniformly obtained unless under legal compulsion. It was quite true that the experiment had been tried in various quarters, and in a part of his own district, of entering into an agreement with medical practitioners to report all cases of certain specified diseases on payment of a stated fee; and though he admitted that the experiment, so far as his experience went, had succeeded admirably, he felt sure that it would not succeed in any locality of limited area and population where the medical officer of health was allowed private practice, and could thus enter into competition with his medical brethren. He felt convinced that there could neither be promptitude or efficiency in notifying unless the medical attendant was made responsible, although he maintained at the same time that any measure would be faulty and one-sided if it did not render the householder liable to heavy penalties if he failed to report.—Mr. GAMGEE spoke in favour of the resolution.—Mr. HENRY MAY (Aston) supported the amendment.—Mr. H. R. KERR (Halesowen), while believing compulsory notification to be necessary, objected to the proposal being thrown on the practitioner.—Mr. HALL WRIGHT believed that in refusing to notify the members of the profession would be doing an injustice to themselves and to the public by shirking a responsibility that it was their duty to take.—Dr. A. H. CARTER thought there was an official and professional side to the question, and that the members of the profession had not been treated well in the matter. The Birmingham Town Council were about to apply for a Bill compelling professional notification, and he thought that a

deputation should attend upon that body before the initiative was taken.—Mr. PALMER, in reply, stated that he regarded compulsory notification as the thin end of the wedge. The amendment was then put, and carried by a large majority, and subsequently as a substantive resolution.

#### NORWICH MEDICO-CHIRURGICAL SOCIETY.

THE second meeting of this Society was held at the Norfolk and Norwich Hospital on Dec. 5th, the President, Dr. Barnes, in the chair.

Dr. EADE showed a specimen of a Phlebolithe, the size of a hazel nut. A lump had existed on the lower part of the right leg of a woman for thirty or forty years, ulceration occurred, and the concretion was discharged; it weighed twenty-nine grains. The portion insoluble in water consisted of phosphate of lime, with traces of phosphate of magnesia and some carbonates; the soluble portion consisting of the chlorides of sodium and ammonium, and some sulphates.

Mr. D. DAY exhibited a Dissection of a Double Fœtal Monstrosity, of which the following is a brief description. The heads and limbs are perfectly formed. The bond of union is the front of the thorax and upper part of the abdomen. The ribs are united on each side to a complete sternum, which is symmetrical; the lungs are normal; and there is one umbilical cord. The heart is single, in a single pericardial cavity; the auricles are distinct, the ventricles completely blended; the vessels at the base are quite distinct; and there are two inferior venæ cavae. The diaphragm and liver are common to both. Close under the liver are two stomachs, the intestine beginning by a fusion of the two pylori; for sixteen inches it is single, it then branches into two, and the remainder of the intestines run a normal course. The umbilical veins divide as soon as they enter the abdomen, half going to each side.

Dr. BATEMAN showed a specimen of Ovarian Disease, complicated with Hydatids of the Liver. Against advice, the woman persisted in going to the w.c., and was there seized with an attack of syncope, from which she died.

Dr. MALLINS recorded a case of Jaundice, caused by a round worm obstructing the common bile duct.

Mr. LYDDON reported a case of Removal of Foreign Bodies from the Ears after twenty years' impaction; from one ear a pearl button, and from the other an iron dress-hook, where removed by iridectomy forceps. No structural changes had taken place in either ear, and the hearing was perfect.

Mr. H. TURNER read notes of a case of Rheumatic Fever which, while apparently progressing satisfactorily, terminated fatally in two hours, with cerebral symptoms (the patient was taking fifteen grains of the salicylate of soda every six hours). The cause of death was believed to be meningitis.—Dr. EADE also described three cases, with cerebral symptoms, he had seen in consultation about the same time (September), no cases of the kind having occurred in his practice for several years.

#### Reviews and Notices of Books.

*Report on the Scientific Results of the Voyage of H.M.S. "Challenger" in 1873-76, under the Command of Captain George Nares and Captain Frank Thomson. Prepared under the superintendence of Sir C. WYVILLE THOMSON, F.R.S. Vol. III.: Zoology. London: Longmans and Co.; John Murray; Macmillan.*

THIS volume contains a report on the Echinoidea, dredged in the course of the voyage, by Alexander Agassiz; and a report on the Pycnogonida, by Dr. P. P. C. Høek, assistant at the Zoological Laboratory of Leyden University.

Agassiz states that a careful comparative study of the new species collected by the *Challenger* and by the *Blake* seems to make a short revision of some of the principal lines of the recent and fossil Echinids desirable, as, from our present knowledge of the affinity of the Echinoidea, several groups formerly considered somewhat aberrant can now be shown to be closely connected. The consideration of this group

could have passed into no better hands than those of Alexander Agassiz, for he possesses an extensive acquaintance with both the recent and fossil specimens, and has himself examined all but a few of the deep-sea species, whilst he has had the further advantage of describing the first important collection of deep-sea echinids made by Count Pourtales. He holds that the artificial classification of the Echinoidea at present accepted is unsatisfactory, because based upon characters of such uncertain value as the presence or absence of teeth and of actinal cuts. He founds his classification of the echinids on that of Lovén, which he regards as by far the most ingenious that has yet been proposed, and who has suggested a most admirable notation to denote the several ambulacral and interambulacral areas, which simplifies to a remarkable degree the comparison of the various types. The number of fossil species is about 2000, whilst there are not more than 300 recent, and about one-third of the whole number of known species have been discovered since the days of deep-sea dredging; but the difficulty of tracing the genealogy of these is almost insuperable, for, as he shows, the number of variable terms are at least twenty—viz., the apical system, the actinal system, the genital, ocular, anal, and coronal plates, the ambulacral and interambulacral areas, the poriferous zone, the primary, secondary, and miliary tubercles and their corresponding spines, the modifications of the poriferous zone near the apical and actinal systems and on the test; the fascioles, jaws, alimentary canal, the position of the apical system, of the anal system, of the actinostome, and the modifications of the same; and when we consider that these may be combined in all possible ways, it is hazardous, to say the least, to attempt anything beyond the broadest indications of the outlines of the relationship.

The study of the Echinids dredged by the *Challenger* has shown very plainly the antique character of many of the deep water species, and their resemblance to Cretaceous genera, and Agassiz points out many noteworthy relationships. He remarks that in comparing the Tertiary fossil Echinids of the European beds with the species now living in the West Indies, it is impossible to avoid being struck with the similarity existing between them. Thus the species of *Cidaris*, *Clypeaster*, and others, which are found in the Tertiary beds of Malta, are no longer found in the Mediterranean, having undoubtedly disappeared from that sea as soon as it became closed, and the temperature of the water became raised above that of the ocean; while, on the contrary, where the oceanic conditions have not undergone any great change, we find a remarkable identity in the genera of the Tertiaries and of the surrounding deep sea, as can be easily seen by comparing the Tertiary West Indian types of *Echinolampas*, *Agassizia*, *Brisopsis*, and others, with the species of the same genera now found in the deep waters of the Caribbean Sea and Gulf of Mexico.

The number of deep sea species discovered by the *Challenger* appears to have been forty-nine, whilst forty-one were discovered by the *Blake*, *Porcupine*, and *Josephine*. The plates are sixty-four in number, many of them representing several forms.

We must refer to the original for the descriptions and beautifully executed lithographs of the numerous new species collected by the *Challenger* and the *Blake*. Many interesting facts are related in the account of each genus and species. Thus, under "*Goniocidaris*," he quotes Thomson's "*Voyage of the Challenger*," to the effect that the eggs, after escaping from the ovary, are passed along on the surface of the test towards the mouth, and the smaller spines articulated to the tubercles round the peristome are bent inwards over the mouth, so as to form a kind of open tent, in which the young are developed directly from the

egg, without undergoing any metamorphosis until they have attained a diameter of about 2.5 mm. Even before they have attained this size the more mature or more active of a brood may be seen straying away beyond the limits of the nursery, and creeping with the aid of their first few pairs of tentacular feet out upon the long spines of their mother; after a short ramble they return to the marsupian.

In regard to the Pycnogonidæ the results of the *Challenger* dredgings are most satisfactory, for it appears that of the forty-one species obtained during the voyage of the *Challenger* and the cruise of the *Knight Errant*, thirty-three are new to science, and of the nine genera represented three are new. The pycnogonidæ are long-limbed aquatic animals, distantly resembling a spider or a "daddy longlegs," or a spider crab. They breathe by the general surface of the body, which body consists of a cephalo-thoracic segment, three thoracic segments, and rudimentary abdominal segment. They have a proboscis and three pairs of cephalic appendages, of which the first represents antennæ, whilst the two others are post-oral. The thoracic part of the cephalo-thoracic segment and the three thoracic segments are each furnished with a pair of long eight-jointed legs, into which the alimentary canal sends off long cæca. The nervous system shows a supra-oesophageal and five thoracic ganglia. The eyes are feebly developed in the deep water species, but rather highly developed in the shallow water species. The sexes are separate. The paper is illustrated by twenty plates, seven of which are devoted to the elucidation of the internal structure of this curious group of animals.

*Nice and its Climate.* By Dr. A. BARÉTY. Translated, with additions, by CHARLES WEST, M.D.; and an Appendix on the Vegetation of the Riviera, by Professor ALLMAN, F.R.S. 8vo, pp. 160. London: Stanford. 1880.

THIS volume is one of a class which we should be well pleased to see multiplied. It has been written, not with a view to extol Nice as the only suitable winter resort for invalids, but with the desire to furnish the profession with reliable information on the subject of the climate, and its therapeutic effects upon different diseases. With this object Dr. Baréty first gives an account of the essential conditions governing the climate of Nice; the invariable, as topography, soil, air, &c., and the variable, including the temperature, barometric pressure, winds and rainfall, and its suitability for invalids. In this portion of the book he lays down some excellent hygienic rules, which well deserve the perusal of all medical men who send patients abroad for change of climate, and the careful study of all who are obliged to seek winter health-resorts. "They who come to Nice for their health must not forget the risk to which a participation in these pleasures [the opera, the theatre, concerts, and balls] exposes them, and, if they are wise, will consult their medical attendant as to the degree in which they may indulge in them, as much as concerning the remedies they should employ, or the regimen they should observe." He then proceeds to a consideration of the influence of the climate as a remedial agent, pointing out in detail the class of cases likely to derive benefit from residence in each of the three climatic zones into which he divides the territory of Nice, and especially its influence on the various forms and in the different stages of phthisis. In the third part, comprising a description of Nice and its neighbourhood, Dr. West has, by permission of M. Lenthéric, incorporated the description given in "*La Provence Maritime*" with that of M. Baréty, and has thereby added much to the value of the work as a guide-book. He has also, with the consent of the author, appended a sketch of the vegetation of the Riviera contained in Professor Allman's anniversary address as President of the Linnæan Society in 1880. The book has been translated by Dr. West with that care which always characterises his work, and he has added to its value by the notes he has interpolated.

*Madeira: its Scenery, and how to see it.* With Letters of a Year's Residence, and Lists of the Trees, Flowers, Ferns, and Sea-weeds. By ELLEN M. TAYLOR, 8vo, p. 261. London: Stanford. 1882.

THIS volume does not treat of Madeira from a professional point of view, nor does it afford any information as to the influence of its climate upon disease, but it is an excellent book for visitors to the island, or for those who desire to make a more prolonged residence in it. It contains all the necessary information as to the means of getting there, the mode of life in hotels, lodgings, or a hired house. Details are given to enable the visitor to make excursions to all the most beautiful parts of the island, and the volume abounds in information respecting its flora. In addition to a good description of Funchal and of its various public institutions, there is much that is interesting respecting the past history of Madeira. The volume appears remarkably well adapted to the purpose for which it was written—that of a handbook which will furnish all the information necessary for a stranger visiting, or intending to reside in, Madeira either for health or pleasure.

*Physicians' and Surgeons' Visiting List, Diary, Almanack, and Book of Engagements for 1883.* Thirty-seventh year. London: John Smith and Co.

THE return of Christmas reminds us that we must renew our visiting lists, than which nothing contributes more to the easy and methodical discharge of medical duty. Of no one holds its ground better than Smith's, which this year, amongst its new features, has a useful list of so-called "American Eclectic Remedies" and other doses, which is always to be found in available works of materia medica. The doses of remedies do not always correspond to those given in the Pharmacopœia. Sometimes a larger dose is recommended than that of the Pharmacopœia, as in the case of ext. nuc. vomic.; sometimes a smaller, as in the case of tinct. conii. We think it would be better to give the Pharmacopœial doses. The book is full of useful tables, including one of corresponding degrees on different thermometric scales, one of days of incubation of eruptive fevers, and is altogether too well known to need further commendation.

### THE LATE SIR THOMAS WATSON.

ON Friday, the 15th instant, the remains of Sir Thomas Watson were conveyed in a plain coffin of polished oak, without other covering than a large floral cross, from the residence of his son to the burial-ground attached to the gate parish church. At the entrance of the churchyard a procession was met by the clergy and a surpliced choir, who chanted the opening sentences of the service. The latter part of the service, including the singing of the two well-known hymns, "Lead kindly light" and "Ten thousand times ten thousand," was performed within the church. There was afterwards a procession to the grave, the bare top of which had been concealed from view by a lining of greenery and flowers. Amongst those forming the procession were the son and heir of the deceased Sir Arthur Watson, Lady Watson, Miss Watson, the two sons and two daughters of Sir Arthur and Lady Watson, and Captain Watson, a nephew of Sir Thomas. The medical attendants of the deceased were all present—namely, Dr. Walters, George Johnson, Mr. Lister, Dr. Greenhow, and Dr. Leman. The College of Surgeons was represented by the President, Mr. Spencer Wells, and the College of Physicians by the Registrar, Dr. Pitman. Sir William Jenner wrote to express his regret that he was unavoidably prevented from attending. The attendance of many London physicians and surgeons

was prevented by the distance from town, and by the wintery weather, which deters many elderly and not over-robust men from attendance at a funeral. Sir James Paget was prevented from attending by an important engagement at the College of Surgeons.

The remains of the revered physician rest near those of his sister, who died about two years ago. In the brief written instructions which he left he chose this as the place of his burial, since he could not, as he would have wished, be buried by the side of his wife, whose remains, in September, 1830, were deposited in a burial ground at St. John's-wood, which has since been closed.

The Rev. Mr. PAGE ROBERTS, preaching last Sunday in St. Peter's, Vere-street—a church so much frequented by medical men as to have received the name of "the Doctor's Church"—said: "The life of a good man is moral vitality poured into the blood of the next generation. Such a life as that of Sir Thomas Watson is a blessing diffusing itself through humanity, and is still more influential in the profession which he adorned. I am but little fitted to pay a worthy tribute to his memory. A misfortune I shall ever consider it that my acquaintance with him was but short and my intercourse with him intermittent. In this church there are many more fitted than I to do him honour. In one way only am I as fitted as they, and that is in as tender and reverent a devotion to his memory. I know not what he was in the maturity of his powers, but in advanced age he put forth a spell of fascination, and 'virtue went out of him.' There are some words of his with which he concluded his lectures on the Principles and Practice of Physic which reveal his character—'That by the humane exercise of our noble calling you may do good in your generation to others, and so to yourselves, is my earnest desire and prayer.' Here we have the spirit in which he held his calling should be fulfilled, and the piety which was the natural breathing of his mind. His calling he felt to be noble; it concentrated his energies and filled his mind, and made him always do his best. In his own words, he felt it 'worthy the devotion of a lifetime.' He could not degrade that high calling by pretence of manner and remunerative plausibility. If ever a man was unstained by charlatanism and unacquainted with the arts of a properly qualified impostor, it was Sir Thomas Watson. In the minutes of a life of a once famous doctor and still prized man of letters—Sir Thomas Browne—whose 'Religio Medici' will be read with pleasure when most of the popular books of to-day are forgotten, his biographer says that 'had it been his province to preach his funeral sermon, he should have taken his text from an uncanonical book. Honour a physician with the honour due to him for the uses which ye may have of him: for the Lord hath created him. For of the Most High cometh healing, and he shall receive honour of the King. The skill of the physician shall lift up his head, and in the sight of great men he shall be an admiration' (Ecclus. xxxviii. 1, 2, 3). Sir Thomas Watson was a physician indeed, and the honour he received was his due. The distinguished members of his own profession did him reverence; rivalry was impossible in the presence of such open-minded modesty. 'Quite the right man' said the Prince Consort of him, with his keen perception, as he lay upon the bed from which he was no more to arise, and from his Sovereign he received that gracious recognition which men who do worthy work so justly prize, and to the last that rewarding notice never failed. His noble calling Sir Thomas Watson exercised 'humanely.' There are members of it who are charged by some with inhumanity, because, in the service of humanity they seek knowledge by methods which many sensitive minds condemn. Give me the freedom of opinion which you all take for yourselves, and I must say I cannot charge such servants of humanity with inhumanity because they put men first, and subordinate all below man to his well-being. Wanton cruelty, I am sure, is rare, and is worthy of condemnation. The cruelty of unfertile

curiosity cannot be frequent among men who know too much of pain, and are too eager to alleviate it willingly to inflict it. I am convinced that Sir Thomas Watson, profoundly humane as he was, would not have dissented from this opinion I have been so bold as to express. But when I use his own word 'humane,' I mean that he was benignant. He had a graciousness, a sympathy, a quickness to understand, a liberal openness of mind, and a gentle, assuring courtesy, which gave courage to those who came to confide in him, and at least did somewhat to alleviate the alarms which add fresh burdens to those of disease. He could not be ill-mannered; he could not forget what was due to others; above all, he was a deeply religious man. 'It is a common speech,' says an old writer, 'ubi tres medici duo athei.' Three doctors, two doubters. But it is not hard to explain why doctors are regarded by people who do not think as indifferent or opposed to religion. Very often they have had to set themselves in opposition to teachings and practices which were connected with religion, and thus they were held to be attacking religion itself. The very moment medicine began to distinguish itself from magic, that moment it must have excited the enmity of the professors and practisers of magic, who were generally priests. 'Doctors,' says Mr. Mathew Arnold, 'are the natural friends of lucidity,' and he defines lucidity as 'the perception of the want of truth and validity in notions long current, the perception that they are no longer possible, that their time is finished, and they can serve us no more.' Rational medicine became possible when at length charms and incantations were seen to be worthless, and rational medicine must at first have been looked upon as a rebellion against religion. Then, again, the study of physical science, which includes that of the human organism, was looked upon for generations with suspicion, and Christian ecclesiastics, and even a Pope, fell under suspicion of heresy, because of his scientific investigations. The same dark shadow could rest upon the doctors and would do much to deter earnest Churchmen from adopting the medical profession. It fell, therefore, into the hands of Jews and Arabs, among whom lived on the traditions of Greek schools and freer days; and it has been said that 'in the eleventh century nearly all the physicians in Europe were Jews' (Draper). But Arabs and Jews, to the Church, were infidels—in other words, doctors were infidels; and men have gone on saying this, or something like it, until the present day. But, speaking from a fairly large experience, I should say the contrary. Instead of less, I have seen more reverence and piety of soul among doctors than among other classes of men. And I should naturally expect it. 'These men see the wonders of the Lord.' Foppery and frivolity may have no feeling, and fools may say there is no God; but intellectual eminence gives a man a vision denied to the vacant and the idle. Sir Thomas Watson was a truly and unaffectedly religious man. For many years, how many I know not, each Sunday saw him in this church, and to the last his venerable devotion was expressed at the Lord's table. Various were the sides of truth which were presented to him in the ministry of this church, but I am sure that to all he gave the consideration of a temperate and unprejudiced judgment. That which he could take he took, and at least his prayers always overshadowed him with benediction. 'I have no genius for disputes in religion,' he might have said, with Sir Thomas Browne. 'He was a man of peace, and the blessing of the peace-maker is his.' 'The profession of medicine,' he said, 'having for its end the good of mankind, knows nothing of national enmities, of political strife, of sectarian divisions.' I cannot more fitly close this sermon than in words of his own which were spoken on the death of his friend Dr. Peter Mere Latham, and which I will say of himself, 'Ripe in years and ready in spirit for the solemn change, his death must long be the subject of tender and sacred regret among the nearest and dearest of his surviving friends; nor will his memory soon cease to be reverently cherished throughout a much wider circle.' Not as 'water spilt upon the ground,' is the life we seem to have lost. His are the two immortalities which are granted to the good. And specially let me say to you members of the medical profession, to so many of whom it is my great privilege and responsibility to minister, that life of nobleness is still with you, and will be with those who shall come after you, even when no conscious memory of it remains; and that you, too, may reach that high life over which death hath no dominion, is the earnest desire and prayer of your friend and pastor."

## DR. MOXON'S LECTURE ON

To the Editor of THE LANCET

SIR,—Will you grant me space while what appears to me a needful remark Moxon's attractive lecture on "Fever," read in your issue of Dec. 2nd.

I allude to his criticism, severe in form gentle, delivered on a definition of "fever" which the lecturer and most of us recent work on medicine." And he begs Moxon's pardon if I wrongly take his criticism, as his many readers have done, to be a criticism of the lecturer and not of the book. I plead, as my reason for writing, the temptation to counteract the very false impression produced by this somewhat plausible work.

In a passage reminding one a little of an examination, Dr. Moxon treats the definition of fever which he appears to allude to, as follows: "By that abstract condition which is called febrile disorders, and the presence of which is claimed to that designation"; and the writer of the confessedly useful work, including in the terms of his definition, to be defined. But an accurate definition deprives that seemingly formidable terror. Dr. Moxon's edition of the work is perfect; garbled unintentionally, inverted commas (in this instance) are ignored; imperfect, in that the definition is altogether omitted. The author's own statement: "By that abstract condition which is called febrile disorders," and the presence of which is claimed to that designation. Essentially of temperature, the immediate elevation, and the consequence entail." A moderately careful reader that Dr. Moxon has resorted to the classical device of setting up the term "so-called febrile disorders" in this well-known book on medicine to express conveniently the typhoid, variola, scarlatina, &c. the words "so-called" and the term "febrile disorders," Dr. Moxon. Had the author of his list of diseases explicitly, in grouping mark or formula, the never have been shot at all, for formal plausibility that it now passes for a book as it stands is certainly guiltless of any logical flaw.

For his well-timed and brilliant and unsavoury medical bulletins to the reader, as a necessary consequence, Dr. Moxon has a confession at large. Such a confession have sounded farther and more in the midst of the digressions ordinary and very interesting lecture.

I am,

Upper Berkeley-street, Portman

PROVIDENT SURGICAL the 14th inst. the decennial in the Cannon-street Hotel. the toast of the evening, at the practice to extend aid obtaining the requisite number applicants were relieved of requirement. During the 25,000 surgical appliances course of the evening the was announced,

# THE LANCET.

LONDON: SATURDAY, DECEMBER 23, 1882.

THE action of the English Royal Colleges in the direction of combining for the establishment of a complete conjoint medical and surgical examination continues. As we reported last week, the Council of the Royal College of Surgeons has elected seven delegates to confer with an equal number of representatives of the Royal College of Physicians. The presence of the members chosen by each body is a further proof of the earnestness of these corporations. Many persons think that in the circumstances of the present moment, if a Government disposed to legislate on the lines of a Royal Commission appointed by itself, and a case ripe for legislation, the Royal Colleges might have waited a few weeks for the final decision of the Government. The English Corporations, and notably the Royal Colleges, have shown a great deal of public spirit and disinterestedness of late years in urging legislation to compel the formation of a Conjoint Board in each division of the kingdom. It would have been natural for the English Royal Colleges to assume that the conjunction which they have all along advocated was about to be accomplished with the help of a strong Government and the concurrence of a large majority of the profession. But it would seem that they see nothing in the actual situation to forbid them from preparing to co-operate. It is undeniable that in itself the conjunction of the Royal Colleges will be a good thing. It will unify the portal by which the majority of English students enter the profession. It will abolish, as far as England is concerned, the system of half-qualifications, which has had an absurdly long life, and which, when once abolished, will be regarded still more absurd than it even now appears. There is nothing, too, in this projected Board which has great significance and satisfaction for medical reformers. One corporation will be conspicuous by its absence in it, and will, in fact, be quietly dropped out of existence. The Apothecaries' Society will become a thing of the past as far as the medical profession is concerned. Having lived to do duty neglected by the College of Physicians, its *raison d'être* disappears when the College resumes its duty. It will, indeed, remain open to anyone desirous to label himself apothecary to repair to "the Hall," as his forefathers have done for a couple of generations, but few such pilgrims will be found among those who succeed in obtaining the diploma of the conjoined Colleges. We take this disappearance in England of an altogether superfluous corporation as an earnest of what will happen both in Scotland and in Ireland.

But whatever may be the good done by the conjunction of the Royal Colleges in England, there is one thing that it will not do—it will not supersede the necessity for legislation; it will not remove the competition downwards of rival Bodies or of rival Conjoint Boards. A conjunction of Royal Colleges is in itself no guarantee of a satisfactory examination. The examinations of the Conjoint Corpora-

tions of Scotland have suffered in reputation more than any other examinations by the ordeal of inquiry of the Royal Commissioners. Even if the examination of the English Colleges were in itself satisfactory, there would be no guarantee that the examination of the Conjoint Boards of Scotland would be equal to it. The very excellence of the English examination might and would drive men elsewhere to an easier one, so long as it can be found. And it will be found till legislation reduces the number of Boards to three, that can be easily supervised, and provides other securities for a rough equality in the licensing examination of each division of the kingdom. So far, then, from the creation of such a Conjoint Board as is contemplated by the two Colleges in England superseding legislation, it will increase the urgency of the need for it.

THE time has arrived when it is necessary, in the interests of public safety and professional honour, to speak out on the subject of the employment of "unqualified assistants." We are not insensible to the exceeding difficulty of the position in which a considerable section of the medical fraternity is placed. Poor-law appointments are so miserably salaried, and the lives of medical practitioners in many districts are so hard, and involve so great a struggle to make both ends meet, that it will be a very heavy tax on the profession as a whole, and a crushing burden on many of its most hard-working members, to put an end, once and for all, to the employment of unqualified assistants. Nevertheless, the sacrifice should be made. It is unfair to the sick to place their welfare and even their lives at the jeopardy of unskilled treatment, and it is not consonant with the honour of our high calling to allow patients to suppose they are receiving qualified advice and assistance, when, as a matter of fact, they are being attended by incompetent, or at best unlicensed, practitioners. The profession as a whole has no adequate notion of the extent to which the employment of unqualified assistants has been carried. In many of the "populous districts," and lower neighbourhoods of our large cities and towns, from the metropolis downwards, the bulk of the heavy work has been done by persons of this class, either under the guise of studentship, apprenticeship, or some such flimsy pretence. This is a great evil, and we are glad that attention has been publicly called to the matter, so that it only now needs a little earnest and plain speaking to secure its discontinuance before worse troubles than those which have already arisen occur.

One of the difficulties which will attend the endeavour to reform the mode of practice by unqualified representatives—and it must be reformed altogether, and quickly too,—will be found to lie in the danger and disadvantage of extinguishing the class of "private pupils." Although apprenticeship has almost died out, there has been, and is, a widespread clinging to the notion that youths ought to be trained to the art and mystery of medicine by the personal tutelage of a practitioner. We must confess to a strong belief that this notion is well-grounded. Young men who have never done more than attend lectures, dissect, and "walk the hospitals," to use an old-time phrase, are not initiated into the detailed work of a "practitioner"; they can really know nothing about *private* practice. How should they? Except by hearsay they can have no possible acquaintance with the



routine work of the busy family attendant. A thousand and one little questions of personal treatment—many of the highest practical moment—never crop up at a hospital, especially a hospital conducted on the modern principle, with a “nursing” department administered by women. We may go further, and assert that the great bulk of minor maladies, such as those of children and women, the “colds,” teething-troubles, nursing-difficulties, and such simple ailments as infantile diarrhoea, tooth-rash; and even measles, whooping-cough, the mumps, and slight but troublesome gastric disturbance, are not seen at the hospital! These minor maladies are many, and constitute a vast *terra incognita* to the college and hospital trained student. He knows no more—can know no more—of them than a modern art student knows of the business of grinding and mixing his own colours. There is only one way of learning the practical business of “a family doctor,” and that is by direct personal observation and training under a practitioner. Not even dispensary practice—excellent as that is in its place—will suffice to qualify the tyro in medicine for the work before him as “a general practitioner.” It is a matter of daily observation and experience that the men who have had the training to which we point are incomparably better furnished for the discharge of medical duties, even in the highest walks of the profession and the most exclusive practice as consultees, than those who have begun at the top of the ladder and undertaken the onerous and difficult task of giving advice to others before they have first mastered the rudiments of their professional work, and gathered *experience*—for the lack of which nothing else can possibly compensate—by acting under personal direction and being advised.

Now, it must be obvious that if young men are not to practice until they are qualified, some arrangement will have to be made by which a term of supplementary final pupilage may be entered upon immediately after passing a qualifying examination. To the adoption of this method we have often pointed in THE LANCET. It would be an admirable and convenient plan for young men entering the profession to pass some months in the service of a general practitioner after the first qualification has been obtained. If this practice should find favour with students, one great difficulty in the way of wholly discontinuing the employment of unqualified assistants would be removed. We do not think the services of those unfortunate men who, having failed to “pass,” hire themselves out as “unqualified assistants,” are so highly valued by the profession as some writers on this subject seem to suppose. Practitioners would gladly get rid of the unsatisfactory representatives to which we refer if only they could obtain the aid of young qualified men fresh from the schools. We look to this solution of the difficulty for a way to the needful reform.

A DISTINGUISHED German pathologist, Dr. AUFRECHT, has for some time maintained the opinion that all forms of diffuse nephritis begin in a similar manner; and that in all, even the interstitial variety, the inflammatory process is essentially “parenchymatous,” and starts from the epithelium of the glomeruli and urinary tubules. In support of this view, he published some time ago a series of experi-

ments on temporary ligation. The first effect was to be became granular and clotted. During the first few days the kidney was perfectly normal. There was a dilatation of the cellular elements between the cells of their nuclei. Subsequently the process became increased in thickness, swelling of the adventitial tissue. At the same time further changes in the epithelium of the urinary tubules became transformed into small, visible nuclei. They did not, although the interstitial tissue bulk in consequence of the cell multiplication, with a consequent dilatation of the lumen of the tubules. Thus a morbid process was set up, but beginning distinctly in the interstitium. REIGERT has urged that the process is secondary to destruction of the tubules. In these cases the epithelium presents an altered condition, while the interstitium is established.

STRAUS and GERMONT, in France, studied the effect of ligation of the ureter. They did not, however, find any interstitial process. They are inclined to attribute the absence of antiseptic precautions observed in their experiments. If such precautions are not observed, micro-organisms may find entrance; and through these, directly interstitial process may be produced. This, however, be allowed much weight. It is an assumption to suppose that micro-organisms producing such effects and no others, and quackery as a means of explaining a discrepancy between the results obtained by two sets of experimenters. The results of the experiments of AUFRECHT have, moreover, confirmed AUFRECHT's views on the mode of origin of tube-casts by the process of the epithelium of separate clear spherules, and within the tubules. They have also confirmed the view of the adventitia and muscular coat of the small arteries and the thickening of the membrane propria.

But the evidence which AUFRECHT has adduced that in one form of diffuse nephritis the morbid process commences within the tubules cannot be regarded as necessarily applicable to all forms of renal inflammation. Experimental evidence is needed regarding the process in other forms of nephritis, which proceed to a greater degree of structural change than that which follows the transection of the ureter. Some further evidence AUFRECHT is now in a position to supply. In a communication to *Centralblatt für die Med. Wissenschaften*, in which he reviews the facts above alluded to, he states that by the subcutaneous injection of small quantities of cantharidin, suspended in oil, he has succeeded in producing almost all forms of nephritis—the so-called acute parenchymatous form, the diffuse parenchymatous-interstitial form, and even the contracted kidney, with granular surface and marked degenerations. All these varieties of nephritis were produced by the

the method, the only difference being that to give rise to contracted kidney the injections of cantharidin had to be frequent. As a rule, the largest and strongest animals required the greatest number of injections; but in one case, a single injection in a rabbit which had just completed a period of lactation set up an acute parenchymatous nephritis, which was fatal. This interesting pharmacological fact has afforded AUFRECHT the opportunity of studying the evolution of these morbid states. In the earliest stage the glomerular epithelium was found to present considerable swelling, and was separated from the wall of the capsula. The tubular epithelium was cloudy, swollen, and contained clear refracting bodies, which, becoming free, produced tube-casts, just as in the case of ligature of the ureters. Subsequently the epithelium of the glomeruli became swollen, as well as the nuclei of their vessels. That these changes are really inflammatory is shown by the appearances presented in a later stage, when it deserves the name of "parenchymatous-interstitial nephritis." The changes in the epithelium of the convoluted tubules were manifested in a still more considerable degree. The cells were small, flat, and pale, and were nowhere absent, though some of the glomerular epithelium had disappeared. The vessels contained little blood, as if the swelling of the nuclei had prevented the passage of the blood into them. The interstitial tissue was, however, increased in area in all parts, in consequence of swelling of the nuclei, especially between the convoluted tubules and in the neighbourhood of the glomeruli. There was no indication of an excess in the number of cellular elements in the interstitial tissue, or of any migration from the vessels. From these facts AUFRECHT concludes that the changes must be ascribed to a specific affinity of the cantharidin to the epithelium, exciting in the latter some chemical process, which ultimately influences also the interstitial tissue in the way described.

Granular degeneration of the kidney, in its most perfect form, was produced by twenty-five injections of cantharidin (0.025 gramme), extending over four months. The microscopical appearance of the organ was similar to that of the same condition in man. By the contraction of the interstitial tissue the glomeruli and renal tubules were much narrowed. The former were denuded of their epithelium, and their structural elements could scarcely be recognised. The epithelium of the renal tubules was shrunken, and the bodies of the cells had a protoplasmic aspect. Here and there the lumen of the tubules was occupied by casts. These results AUFRECHT holds to be evidence of the etiological and pathogenetic relation between parenchymatous nephritis and the contracted kidney, and that even in the latter the morbid process begins within the tubules.

THE letters of Professors GAIRDNER and STRUTHERS in THE LANCET of last week, and the letter of Dr. GLOVER which we publish to-day, show how curiously different is the view of the same subject taken by persons who must have one feeling in common—a wish to maintain the fame of the Scotch universities and the value of their degrees. Perhaps, in the face of an actual Bill before Parliament introduced by a powerful Government, these differences will grow less. The tone of Dr. GAIRDNER'S letter justifies this hope. He admits the care and consideration given to the

subject by the Royal Commission, and has no doubt that the universities will consider such a Bill "with every desire to aid in the settlement of a long-voiced question." He speaks of the educational interests with which the Scotch universities are charged, and compares these with those of the London schools. Dr. GAIRDNER will scarcely deny that, if Scotch universities are doing the work of English schools in such a vital matter as that of medical education, they should be prepared to submit to the public tests to be applied to English medical schools, and, for that matter, to English universities, which do not come into competition with medical schools, as the Scotch universities, to their credit, do. The Scotch universities are no longer merely Scotch institutions. They educate and examine probably half the practitioners of the empire. It is a very small thing to ask them to submit to imperial tests at a cost of five pounds.

Dr. STRUTHERS' view of this subject throughout has been very local. The whole demand for legislation originates, according to Dr. STRUTHERS, in the jealousy of London corporations. The whole cure for existing scandals and evils is for the London corporations to combine as the Scotch corporations have done, and to prohibit, if necessary by law, registration of incomplete qualifications. Dr. STRUTHERS sees no temptation in the circumstances and work of the Scotch universities to be guarded against. They are perfection, and scarcely elsewhere is any proper education to be had. He astonished Professor HUXLEY by denying that as good education in anatomy and physiology is to be got in London as in Scotland. But the most astonishing part of Dr. STRUTHERS' views is his entire complacency with the examinations of the Scotch corporations. To him it seems nothing that visitors of the Medical Council and most authoritative witnesses before the Royal Commissioners have seriously disparaged these examinations, and that the Commissioners have given prominence in their Report to the fact of such damaging testimony. With complete and happy disregard of this slight circumstance, he is never tired of telling us that all the English bodies have to do is to imitate the Scotch ones. Holders of Scotch diplomas have a right to expect more serious treatment of the evidence that has so damaged the reputation of their licence to practise, and he is no friend to Scotch corporations who does not try hard to improve a system that provokes such disparagement.

AT the ordinary meeting of the Manchester Medical-Ethical Association, held on the 8th inst., it was unanimously resolved, at the instance of Dr. IRWIN, that "the medical and sanitary departments of our mercantile marine are in a highly unsatisfactory condition, by which the lives of passengers are frequently endangered." It was further resolved "to press upon the Government the necessity of immediate inquiry into the position, status, and efficiency of surgeons upon passenger ships." There can be little doubt that the time has arrived when the whole question of the regulations, remuneration, and duties of ship-surgeons, especially upon Atlantic steamers, should be reconsidered and revised. The surgeon is usually relegated to one of the worst cabins in the whole vessel, and which is frequently inferior to that allotted to the third and fourth officers. A recent inspection of the quarters allotted to ship-surgeons upon the

leading Atlantic Ocean steamers has revealed the fact that, as a rule, the surgeon is placed in an inner cabin close to the engines, and of very inadequate proportions. Here he is frequently surrounded by his medicines and other impedimenta, and a couch, which must also be used for professional purposes, is all the sleeping accommodation provided. Owing to want of light, it is impossible for anyone to diagnose successfully any case, much less a case of eruptive fever or obscure disease. The Board of Trade official, with satanic irony, when signing the ship-surgeon's warrant of appointment, exhorts him to do as much scientific work as possible during the voyage, and to keep accurate records of all the cases which come under his care. Having issued these instructions, he carefully abstains from visiting the surgeon's quarters, on the principle, it is believed, that "where ignorance is bliss, 'tis folly to be wise." The ship-surgeon's pay, from £5 to £10 per month, is ridiculously small when the work he has to do and the responsibility placed upon him are considered. He occupies a position which should be second in importance only to that of the captain, and he is remunerated at the same rate as the cook, steerage-steward and fifth engineer. He is supplied with no assistant, no dispenser, no nurse, no servant, and therefore in times of general sickness his duties are far too great for any one person to perform satisfactorily. Ship-surgeons at the present time have no control over the ventilation of the vessel or its hygiene, such matters being left to chance or the benevolence of the captains. In view of these facts it can be in no way surprising that there should be an excessive mortality among passengers—"a far higher mortality than is justified by the necessities of transit." From recent reports we learn that the death-rate among the passengers of all European vessels entering New York during the ten years ending December, 1880, was 44.6 per 1000 per annum; while of 315,850 persons who embarked on English ships for North America during 1881, 185 died in transit. We have not space to enumerate the many abuses at present existing upon Atlantic Ocean steamers, but we have said enough to prove that the resolutions adopted by the Manchester Medical-Ethical Association are well timed, and that the Government must be induced to institute an inquiry forthwith. We would suggest that one of the London Societies should initiate a discussion and organise a deputation, with the view of securing the necessary legislation without further delay.

### Annotations.

"Ne quid nimis."

#### BACHELOR OF SURGERY AT CAMBRIDGE.

THE first examination for this degree, which has been instituted by the new statutes of the University, took place last week. Of the four candidates who presented themselves three were approved—viz., Morris of Caius College, Pitt of Clare College, and Sheild of Downing College. The Examiners were Mr. Holden and Mr. Bryant, both members of the Court of Examiners of the College of Surgeons. The examination consisted in operations on the dead body, which were done at the anatomical school; and the application of surgical apparatus and the examination of patients, which took place in Addenbrooke's Hospital. Before admission

to this examination candidates must have passed nine terms in the University examination in Civil Surgery. The first and second parts of the third examination are the Principles and Practice of Surgery, and the degree of the candidate or second part of the third examination is the graduate in surgery. The examination for Bachelor of Medicine in Practical Surgery, including the degree of Bachelor of Medicine, is held in addition. It is clear that the examination men, will take a high standard. There is also a still higher examination for Master in Surgery, which is held every year, and for which new

#### UNCERTIFIED DEATHS.

THERE are few of the facts which Dr. Tatham's recently published report on Salford during 1881, which shows the relation between the causes of death and the recorded deaths, that are so recorded within that 1 certified deaths in Salford against 2.4 per cent., the large English towns described in the Weekly Return. The number in Salford last year was in Hull and Oldham; upon the proportion of the previous year. Dr. Tatham's connexion with this excessive mortality to the fact that the proportion was abnormally low in Hull, and Salford. The year in the twenty English towns, whereas it was only 2.8 in Salford. Dr. Tatham does not mention the facts of the high proportion of uncertified deaths, the attendance of a registrar, exceptionally small proportion to Salford, Dr. Tatham's report in Birmingham, in which the number in 1881 did not exceed 2 inquest cases were as he could have wished that the causes of the large number in Salford: whether it is due to unqualified and irregular practitioners, or to neglect of attendance. There is little of all or any of these causes, an increase in the number

#### THE RECENT

THE statement circulated that sentries had been frozen at Curragh Camp, is, we believe, devoid of truth, however, unfortunately. During such exceptional weather, visited the northern ports, some precautions, such as duty, or sending two po-

ads, should be adopted in the interests of these hardened and responsible servants of society. Comedy, however, has alternated with tragedy, and the spectacle of the Nottingham County Court judge, whilst administering justice, sitting enveloped in rugs, and being addressed by masters and solicitors wearing great-coats and mufflers, is the grotesqueness of which is only foiled by the fact that recent death of a promising young solicitor is attributed to cold caught in that Court, the ventilation and warming of which are in a most unsatisfactory state.

#### REGINA v. TAYLOR.

THE conviction of Louisa Jane Taylor, aged thirty-six, at the Central Criminal Court (before Mr. Justice Stephen) of the murder of Mary Ann Tregillis with sugar of lead is of sufficient rarity and importance to be recorded. The deceased was eighty-one years of age, and lived with her husband, a naval pensioner, aged eighty-five, at Plumstead, near Woolwich. Early in August, 1881, the prisoner came to live with Mrs. Tregillis, and slept in the same room with the deceased. After this Mrs. Tregillis fell ill. She complained of being weak, and that "her throat burnt like a hot coal." She only complained of pain when medicine was given her (by the son), and was more sick at night than in the daytime. About a fortnight before deceased died it was noticed, both by her husband and a neighbour, that her teeth had turned black. On Oct. 1st deceased had an attack of convulsions, and one or two attacks subsequently. She also had tremor of the hands. She lost her speech on Oct. 20th, and died on the 23rd. It was proved that between August and the death of deceased's death the prisoner had on three several occasions purchased an ounce of sugar of lead. The deceased, in a "dying declaration," had asserted that the prisoner was in the habit of mixing a white powder with the medicine which the doctor ordered for her, and that it was after taking medicine thus treated that her sufferings increased. The medical evidence went to show that deceased became ill on or about August 23rd with sickness, shiverings, perspiration, and abdominal tenderness. Her skin was sallow, her teeth black, and there developed a characteristic blue line on the gums. Seventeen days before deceased died the prisoner ceased to attend upon her, and a few days before death the deceased had an ordinary hemiplegic attack, which it was not alleged was due to lead poisoning. Dr. Stevenson on analysis found distinct evidence of lead in the liver, spleen, kidneys, stomach, and brain. The drinking water of the house contained no lead. No mention was made in the evidence of the coarse sensations (if any) which produced the hemiplegia. The motive alleged for the crime was the desire on the part of the prisoner to succeed the deceased as the wife of Tregillis, and thus enjoy with him (aged eighty-five) the pension of £40 a year which he is receiving from the Admiralty. The defence was that the lead had been administered by the husband and not by the prisoner, and the prisoner's possession of the lead was accounted for by the alleged necessity which she had of using a vaginal injection made of lead. The defence was a flimsy one, and there can be no doubt that Taylor attempted to compass the life of old Mrs. Tregillis. What was the actual cause of death is not so certain. The deceased was eighty-one, she had an attack of hemiplegia shortly before death, and she had not had any poison administered to her for seventeen days previous to her decease. Cases of death from sugar of lead are rare; cases of criminal poisoning with this agent are infinitely so. The fatal dose in cases of acute poisoning can hardly be said to be known. Some have suffered only slightly after an ounce, and several cases of recovery after this dose are on record. There were no signs of corrosion or irritation post mortem, and almost the only symptoms of chronic lead

poisoning at the time of death was the blue line on the gums. The very marked blackening of the teeth which was noticed by those in attendance on Mrs. Tregillis may, no doubt, be accounted for on the supposition that she never cleaned her teeth, and that they became coated with lead sulphide; but nevertheless it is not among the ordinary symptoms of lead poisoning. The blue line round the edges of dirty teeth is due to the deposition of lead sulphide in the tissue of the gums. That Taylor is a heartless creature and richly merits punishment, there can be no doubt. That lead poisoning was the cause of Mrs. Tregillis's death is not so certain. Old Mrs. Tregillis's death was probably hastened by the administration of the lead, but this is more a probability than a proved fact.

#### THE HARVESTING OF ICE.

THE season has again come round when large quantities of ice are collected and stored with a view to its being used during the summer months in connexion with our food supplies. Some of it is actually mixed with foods and drinks, more still is brought into close contact with such articles of diet as fish, poultry, butcher's-meat, &c., in order that it may act as a preservative. Unfortunately, however, but little regard is had to the sources whence the supply is derived, and after every frost, carts laden with ice which has been collected from the surface of ponds, canals, and streams which would be studiously avoided as water-supplies, may be seen passing along our streets to the shops of tradesmen dealing in articles of food and drink. That the use of such ice for the purposes to which it is put is not without risk has been shown both in this country and more especially in America, where in the warm weather ice enters largely into the list of table requisites; indeed, it has been further proved that ice has acted as the vehicle of disease germs capable of conveying enteric and scarlet fever, and its use has also been associated with conditions of ill-health which have much resembled these and other specific fevers. The carelessness which has obtained in selecting sources for the collection and storage of ice has been largely due to the fact that there is a very general opinion that in the act of crystallisation water practically rids itself of all its injurious qualities, however offensive it may be in its liquid state, and acting on this view, it is notorious that ice for domestic use has been, and still is, collected from streams receiving sewage, ponds that are offensive in summer time with decomposing vegetable growth, and similar sources. There is also a sufficient amount of truth in the general opinion as to the process by which noxious and foreign matters are eliminated from water during the act of freezing to lead to some lack of caution on the part of the uneducated, but recent experience has clearly shown that the process of purification is only a partial one. In connexion with this subject an interesting paper comes to us from across the Atlantic in Dr. Wight's First Annual Report to the Board of Health of Detroit, and it includes a copious reference to certain recent experiments by Mr. C. P. Pengra, an analytical chemist. In the first instance, urea, as a representative of the crystalloids, was mingled with water, which was then frozen; and it was found that whereas 100 cubic centimetres contained 0.83 gramme before freezing, they still retained 0.50 gramme when in the form of ice. Very similar results followed in experiments made with urea as found in urine, and with other substances, such as grape sugar. The next experiment was with the colloids; albumen, both from the egg and from a case of albuminuria, being taken as a sample, and it was shown that the amount retained in the frozen mass was greatest at its under, and least at its upper, surface. Thus 50 cubic centimetres from the lower third contained 6.87 grammes, the same quantity from the middle and upper thirds containing 4.19 grammes and 3.0 grammes

respectively. Other experiments with the same material showed that the purification which did take place amounted to about 20 per cent. of the total admixture. The results would doubtless vary according to such circumstances as the rapidity of freezing, but since in all the instances recorded the specimens were frozen naturally, they amply suffice to show, as the author contends, that pure ice can only be procured from water free from impurities, and that ice for domestic purposes should never be collected from ponds or streams which contain animal or vegetable refuse or stagnant and muddy contents.

#### FLOORING AS A MEDIUM OF INFECTION.

THE *Zeitschrift für Biologie* lately published a statement on the above subject from the pen of Dr. Emmerich of Leipsic, in which it is remarked that notwithstanding the attention paid to disinfecting walls, furniture, bedding, and clothing after illness of an infectious character has taken place in a house, the danger from the flooring, though usually neglected, is no less real than that which might arise from any of the sources enumerated. The material used in filling up flooring is often of a nature, it is urged, capable of itself producing, under certain circumstances, emanations of a noxious character. Should, however, even quite harmless materials have been used for the purpose indicated, it is argued that while a house is inhabited there is a gradual accumulation of organic substances going on which penetrate through the openings in the flooring. The constant washing tends, it is said, to make the filling damp, and in addition to this source of danger the temperature under the flooring is often higher than that of the room itself, it having been demonstrated that when the temperature of a room has been 61° Fahr., that of the space underneath the boards has been as high as 90°. This has apparently been specially the case in the vicinity of a stove. This fact is referred to in connexion with the theory held by Dr. Koch that a temperature of 90° is necessary for the development of bacilli, the existence of which he has demonstrated. This temperature as a normal one was found by him not to exist in connexion with our daily surroundings. In addition to dry-rot, which is not without an influence on health, Dr. Emmerich found in numerous samples of the filling used underneath flooring quantities of bacteria. That other substances of a noxious character were present was likewise proved by the fact that Dr. Emmerich and his assistant became ill whenever they had been engaged in protracted investigations of this kind. It is evident that if infection lurks in the flooring, the most thorough measures of disinfection which may be taken as regards other portions of a room may fail to restrain the spread of disease. This explains how illness has been found to originate in one room of a house, or even in certain portions of a room. A mouldy smell in a room after it has been washed is said to be in some measure an indication of the existence of the state of things which has been described. It is, however, remarked that the absence of such a smell must not be taken as conclusive proof of the room being free from any such noxious influences from underneath, as earth has the property of checking the bad odour of decaying organic matter without, however, arresting the process of decomposition. The practical recommendations of Dr. Emmerich consist for the most part of suggestions for the prohibition of the employment as filling material in new buildings of any substance containing phosphorus, potash, or magnesia; it being remarked incidentally that they are notably abundant in coal-slag. For houses already inhabited, he recommends that the inner portions of the flooring should be shut off by an air-tight and water-tight substance from any communication with the air of the room itself. It is further suggested that divisions between the boards should

be avoided as much as possible should be coated with in order to render them moisture.

#### APPOINTMENTS

WE are glad to record Jacob as medical officer Sanitary District. In the has held this appointment attaching to his office with of comparative healthiness pressed on sanitary measures improvement in the health any special incidence of disease been indefatigable in tract ports, both as to such or sanitary circumstances as such as to command confidence he has recommended. The paper of the county, em testimony. Owing to the recently been converted pointment to this parish but we hope that no effort place from the united district up to the present. Both glad to note a recommendation Board to the effect that not successfully served their comparatively long terms. bined district the recommendation years, and though the authority it for six years, yet the principle the office of a health officer one which we are glad to see have found themselves serve that at frequently recurring be compelled to submit to not only prevented the course of improvement in many competent men from joining The step taken is one in bably the first instalment of the central authority of the of health.

#### THE REFUSAL OF

THE iniquity—we can see the “workhouse test” is in this rich nation. If we see one of the devices by which us rather say by which police school are dragging this social confusion and consequence test is an offence against worthy of men with brains anything be more unnatural married folk struggling against unless they will go into torn asunder at the moment wane, and when the only the fag end of a luckless effort in hand. It is hard to write is smirched over with the this device. We have seen our veins of the encouragement has been held up to reproving.” Let us tell those phrase in the face of Engl



instincts of our nature. The cold calculating spirit sits down to tottle up its figures to prove that beggars encouraged by giving them alms, has found its fruition in the "workhouse test." There is no humanity, no true philanthropy, underlying this crazy cleverness. Give to the poor!—on their heads be it, not on ours, if charity is abused. The struggling creatures who are striving to keep out of the "house," who do not wish to be wholly dependent, who have a scrap of self-respect still left in them, be helped to it, not left to die. We appeal to the ratepayers of this country to say, when next the election of guardians occurs, that not one man shall be returned who will refuse out-door relief to the poor. Make the relieving officers and the overseers do their work, and see to it that the public money is not wasted on impostors; but let it once for all be understood that the ratepayers of England will not permit the funds to be subscribed for Poor-law purposes to be so administered that the black crime of letting honest and true-hearted people die because they will not be separated lies at their door.

### FACE POWDERS.

It is necessary to raise a warning cry against a most mischievous statement which has recently been circulated, and which has already done harm, to the effect that "arsenic in small doses is good for the complexion." It is not difficult to imagine the risks women will incur to prevent or improve their "good looks." No more ingenious device for recommending a drug can be hit upon than that which the authors of this most baneful prescription "arsenic for the complexion" have adopted. Suffice it to recall the fact that for many years past chemists and sanitarians have been labouring to discover means of eliminating the arsenical salts from the colouring matter of all-papers, and certain dyes once largely used for certain classes of clothing. It is most unfortunate that this hopelessly antagonistic recommendation of arsenic to improve the complexion should have found its way into print. Those who employ the drug as advised—and there are many either ready using it or contemplating the rash act—will do so at their peril. So far as they are able, however, it will be a duty of medical men to warn the public against this pernicious practice, which is only too likely to be carried on secretly. It is not without reason that we speak thus indignantly, and urge practitioners to be on the *qui vive* in anomalous or obscure cases.

### "NOTIFICATION" IN SCOTLAND.

PRESENT appearances would indicate the probability that the question of notification of infectious diseases, its value as a sanitary agent, and the proper persons on whom to lay the responsibility, may be fought out during next session in connexion with the proposed General Police Bill for Scotland, to be introduced by the Lord Advocate on the part of the Government. This Bill will be applicable to all the large towns and to police burghs, so that practically the whole urban population of Scotland will fall within its scope. Considering the adoption of the principle in local Acts by the authorities of Edinburgh, Dundee, Aberdeen, and Greenock, the incorporation of similar clauses in the now unnecessary private Bill for Glasgow, the strongly expressed opinion by the medical officers of health consulted by the Board of Supervision, and the evident bias of that Board itself, there need be little doubt that a clause requiring compulsory notification will form part of the measure of next session. Wherever professional opinion has been consulted, determined opposition has been shown to the proposal to make the medical attendant directly responsible for this information; but unless concerted and vigorous

action be arranged for, emphatic opinion will go for little when the question comes before Parliament. So far as Scotland is concerned it is remarkable that the only town where a large reduction in zymotic mortality has taken place subsequent to the operation of compulsory powers is Greenock, where the intimation is given by the householder. Still more curiously, there is no medical officer so eager in his anxiety to burden his fellow practitioners with this obnoxious work as the officer of the very town where such direct good has resulted from another system. Dr. Littlejohn has all along favoured the system which has worked with little friction, but the Edinburgh medical men and their patients are probably little troubled with undue interference, as they have themselves to say whether any attention by the authorities is or is not necessary. The foot-note in which the medical attendant is allowed this liberty, and which must have saved a world of trouble to the authorities, is objected to by some men who can only view the world and its doings through the spectacles of a medical officer of health. The Scotch authorities at present enjoy the counsel of some such men, and if their advice against all compromise be taken, it will behove the profession, not only throughout Scotland, but by all its powerful combinations throughout the country, to take such measures as will make its voice effectually heard on this important question.

### AN ENGINEER'S LUGGAGE.

THE almost motherly care exercised by the Government, and others in authority over us, respecting our lives and welfare, which is so often held up to ridicule, is fully justified if we may judge by one instance of the extreme recklessness and utter disregard of human life and property displayed by some members of the community. An engineer, of Newcastle-on-Tyne, was on the 15th inst. fined £20—a most inadequate penalty—for carrying, in conjunction with his assistant, a large quantity of blasting gelatine, which was to be used to blow up a dangerous wreck at Deal, in a second-class smoking carriage on the North-Eastern Railway. The explosive compound was carried in hand-bags, and it is painful to imagine the probable result of an accidental kick by a blundering passenger, or, supposing these bags to have been placed on the network above the seats, a sudden jerk of the train in starting or stopping which might have sufficed to dislodge them. A glowing fusee or the smouldering end of a cigar might have fired a charge that would have annihilated passengers and train, and would have effected in a moment such widespread destruction as fogs, deficiency in the working of signals and block system, or any of the numerous causes which usually contribute to our railway catastrophes, would not bring about in a decade.

### A HEAVY BRAIN.

IT is well known that, although many distinguished men have had very large brains, these have been occasionally equalled by the brains of persons who never displayed remarkable intellect. Another illustration of this has been lately published in the *Cincinnati Lancet* by Dr. Halderman of Columbus. A mulatto named Washington Napper, aged forty-five years, recently died in the hospital at that town in consequence of purulent infection due to an abscess of the thigh. His brain was found to weigh 68½ oz., nearly 5 oz. more than the famous brain of Cuvier. His height was six feet, his limbs are said to have been ape-like in length, his head was massive, lips thick, lower jaw prominent, but his forehead large and well developed. He had been a slave until the year 1862, and had never been regarded as particularly intelligent; he was illiterate, but is said to have been reserved, meditative, and economical.

## THE METROPOLITAN ASYLUMS BOARD.

THE Metropolitan Asylums Board seem doomed to disappointment in their relations with the central authority. Having expressed themselves as willing to undertake any or all of the duties recommended by the Royal Hospital Commission they appealed to the Local Government Board and asked to be informed of the intentions of that board with respect to the Commissioners' Report. It was hardly to have been expected that in answer to such a communication the Government would have divulged all its intentions with regard to future legislation in the matter of dealing with infectious diseases in the metropolis; but having regard to the arduous and unaided labours of the Asylums Board in the past, and to their offer to work in the future, the central authority might surely have done something more than again tender them their sympathy and say they could give them no information at all. As Sir E. Hay Currie stated, the managers could not but feel that such an answer indicated, on the part of the Local Government Board, a want of interest in the serious troubles to which they had been exposed in the performance of their duties.

## MR. FAWCETT.

WE are glad to learn that Mr. Fawcett has made considerable progress since our last notice of his case. He has had an attack of rheumatism and some aphthous inflammation of the mouth, which, as well as the other complications in the case, have now nearly subsided. There remain only some temporary weakness of the action of the heart, a slight rise of temperature at night, and inability to sleep, but these are not unusual results of a severe attack of fever such as Mr. Fawcett has undergone; and, having regard to the possibility of further complications in the course of convalescence, there is nevertheless good reason to anticipate a favourable and complete recovery.

## THE REPRESENTATION OF FINSBURY.

THE rumour which has been circulated respecting Dr. Richardson's candidature for Finsbury, rests, we learn, on the following grounds:—At present there is no vacancy in Finsbury, and Dr. Richardson himself has taken no initiative whatever as to any future vacancy; but certain of the sections of the Liberal party of the borough have applied to him to ask if he would stand in the event of a seat becoming vacant, or in the event of a general election. To this he has replied, that on the condition that he is not rendered liable for expense of any kind connected with the election, he will respond to the request, and it is pretty generally known that with this proviso plainly understood, he has recently, on invitation, met the members of the committee of the Liberal Association and has had a long deliberation with them. His candidature has also been incidentally referred to at several public meetings in the borough, and has been enthusiastically received.

## NAVAL GOOD-SERVICE PENSION.

WE hear of dissatisfaction with the late award of the good-service pension of £100 a year, vacant by the death of Inspector-General Dr. J. W. Johnston, R.N., being made to Inspector-General Dr. H. J. Domville, C.B., notwithstanding the very high claims of three of his seniors of the same rank, of whom one is a C.B., wounded in action under the forts of Sebastopol, and another a K.C.B., in recognition of their meritorious services. We would not assume to be arbiters in such questions, while we find it difficult to assign, as some have done, occult motives for an award which is so obviously prejudicial to Dr. Domville's senior officers.

## AYR COU

AT the annual meeting last week, the directors we towards the completion of we shall have something healthy subscription-list. larger expenditure would Dr. Naismith, in the a medical report, which is the part of the institutio value in providing for th patients during the past averted. The rule by wh hitherto held the office of and the new hospital wi Sir Peter Coates, whose pri

## NEGLEC

DR. DANFORD THOMAS good service in directing which follows the neglec opinion among the poor th and that when it gets the and but little care. This i which we gave last week fatal in the large towns more even than scarlatina. the disease generally do liable to serious complicati consequences. It has beer one of the parochial medic had 400 cases in a month.

## M. C

THE most alarming r M. Gambetta's state of b affected with a slight indim mation of the intestines, MM. Lannelongue and S cold during his first prom last. This, however, has the hand, which is now co

## SOCIETY OF

AT a recent meeting to found two scholarshi profession, one in Clinic Hygiene, and the other in and other particulars of stand, be published early J. F. de Grave, Esq., a has bequeathed £5000, free fund for the relief of the di

## ENTERIC FE

A CONSIDERABLE preval in Salford, and pending f has advised that the mill that all using milk should near Manchester, there is a disease. Reports as to it tary authority both by the Dr. Henry Tomkins of M having received special in yet the disease has attacked houses. The water and th

in no way implicated, but in the area specially affected defective and blocked sewer had recently been opened, to this the outbreak is provisionally attributed. Further reports as to both these epidemics are promised.

AN alarm of fire was raised in Glasgow Royal Infirmary Monday evening. A chimney formed of iron tubing, which passed through the roof of a small outshot building, caught fire, and burned so fiercely that for a short time the structure seemed in some danger. Through the exertions only of the superintendent and the resident assistants the fire was prevented from spreading further. In view of the terrible results which would certainly ensue from the occurrence of a fire in such an institution, it is to be hoped that the Royal Infirmary authorities have their fire extinguishing apparatus in proper order, and judiciously placed about the buildings. The new part of the Infirmary is well supplied with hose, &c.; but what of the "old house"?

AN order was lately made by a Justice of the Peace for Norfolk for the vaccination of a child whose father had been told nine years before for refusing to have it vaccinated. Putting the power of the Magistrate to make the order, counsel on behalf of the father made an application to the Queen's Bench Division to raise the issue before the Court, but permission to do this was refused, Mr. Justice Hawkins deciding that to do what was asked would only be to raise doubts about what was perfectly clear.

THE French doctors in Nice are, it appears, up in arms against their English and other foreign brethren established there that favoured health resort. A general meeting of the medical body has been held, at which protests were entered against the manner in which alien practitioners monopolise the most lucrative practice. Amongst other points urged it was stated that many of the intruders are not qualified medical physicians, and consequently have no right to practise anywhere in France.

MR. PRIDGIN TEALE, in a letter to the *Leeds Mercury*, calls attention to a rough-and-ready method of filth disposal adopted in the town. "Within the last few months," says Mr. Teale, "hundreds of cartloads of ashpit refuse and 'night soil' have been tipped into an old quarry by our corporation carts," with what effect upon the health and comfort of the immediate residents may be safely left to the imagination to depict.

ANTISEPTICISM grows in favour in Italy, if we are to judge from an article "On the Foundations of Modern Surgery," first published by Professor Andrea Ceccherelli in the *Rivista degli Ospitali* (Milan, Dec. 13th). The author is a firm believer in the clinical potency of micro-organisms, and extols antiseptic dressings as amongst the greatest of modern surgical conquests.

It was decided at a meeting held at Liverpool on the 15th inst., the Mayor presiding, to erect at a cost of £100,000 a new and more commodious infirmary, the present one being quite unsuited to the present requirements, and the sanitary arrangements also being defective. Subscriptions to the amount of £50,000 are already promised.

THE expedient of pouring oil upon the broken waves of the ocean to produce a comparative calm is, curiously enough, spoken of by some of the scientific journals as a new thing. The fact is that this action of oil in stilling breakers is as old at least as Aristotle.

DR. MEREDITH, in the *Birmingham Medical Review*, recommends oil of peppermint as an external application for allaying the neuralgic pain so often complained of in cases of herpes zoster (shingles).

DR. D. G. F. MACDONALD has in the press a work on "Grouse Disease, its Causes and Remedies," with illustrations by Elwes. It will be published by Messrs. W. H. Allen and Co. early next month.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*St. George's, Hanover square.*—According to Dr. Corfield's annual report the death-rate for this parish is still maintained at a low ebb, it being 16.9 per 1000, as opposed to an average, during the ten preceding years, of 17.9. The population is all but stationary; for although there has been an increase in the neighbourhood of Mayfair, there has been a still greater decrease about Hanover-square, the result being that in 1881 there were 185 less inhabitants than in 1871. The mortality under one year of age is 13.4 for every 100 births. This rate is low, but the circumstances of the district are exceptionally favourable to the majority of the children born. The mean duration of life in the parish is also high. During the past seven years it has been 50 years; last year it was 50.2 years; whereas it is but little over 35 years for London generally. Apart from deaths of non-parishioners in St. George's Hospital, no special prevalence of infectious disease is indicated; but having regard to the amount of sanitary work done, such a result must in part be attributed to the careful action taken against the spread of infection and against the continuance of conditions unfavourable to health. Amongst other items we notice that inspection of 236 houses in which infectious disease had prevailed had been carried out, and that over 3000 large articles, in addition to many smaller ones, had been dealt with in the hot-air disinfecting stove. The stove is that designed by Dr. Ransom, F.R.S., and it is reported to work satisfactorily in every respect.

*Bethnal-green; Sewer Ventilation.*—According to Dr. Bate's annual report for the parish of St. Matthew, Bethnal-green, the district had in the middle of 1881 a population of 127,180, the number of houses being at the rate of one to every 7.2 inhabitants. The death-rate amounted to 24.0 per 1000, this rate exhibiting a slight increase on the average for the ten preceding years. The birth-rate was high, amounting to 41.1 per 1000, but the infantile mortality was also high; the rate of death amongst infants under one year reaching 15.3 per cent. of the births registered. Small-pox attacked 737 persons, of whom 680 were removed to hospital. Owing to the rapid filling of the Asylums Board Hospitals the vestry provided additional hospital accommodation at Plaistow, and Dr. Bate remarks that in no single instance was it necessary to resort to compulsory measures in order to get the cases removed. Measles was very fatal during the year, and it is to be regretted that sanitary interference can as yet do but little to prevent its spread and fatality, for owing to the fact that it is so highly contagious before it can be diagnosed, even isolation is rarely of any avail. Unfortunately, however, Bethnal-green is not yet provided with all the means which are proved to be of use in preventing the spread of infectious diseases. In 1880 Dr. Bate prepared an exhaustive report on the value of the different disinfecting chambers, and concluded by recommending the erection of a Washington Lyon's steam apparatus. Nothing has, however, been done in the matter; and hence when cleansing and disinfection of premises, as also the burning of beds, &c., have been carried out in houses where infectious disease has prevailed, the disease breaks out again by reason of the use of infected clothing.

A separate report is issued by Dr. Bate on the question of the ventilation of the sewers in his district. He would, as a general rule, advocate a system by which ventilating shafts should be carried from the sewers to a height above the level of house chimneys, some of the openings being fitted with cowls so as to ensure a down current of fresh air. The



sk since the middle of May last. During the first eleven  
 aks of the current quarter the death-rate in the city  
 raged 25·2 per 1000, against 21·2 in London and 20·1  
 Edinburgh. The 224 deaths in Dublin last week showed  
 increase of no less than 58 upon the number in the pre-  
 us week, and included 20 which were referred to the  
 acipal zymotic diseases, against 14 and 12 in the two  
 ceding weeks. These 20 deaths included 9 which were  
 ributed to whooping-cough, 8 to "fever" (typhus, enteric,  
 1 simple), 2 to diarrhoea, 1 to diphtheria, and not one  
 ner to small-pox, measles, or scarlet fever. The death-rate  
 m these zymotic diseases was equal to 3·0 per 1000 in the  
 y, while the rate from the same diseases last week was  
 in London and 3·6 in Edinburgh. The fatal cases of  
 ooping-cough in Dublin, which had been 5 and 2 in the  
 o previous weeks, rose to 9 last week, while the 8 deaths  
 erred to "fever" were within one of the number in the  
 vious week, and were equal to a rate more than twice as  
 gh as the average rate from this cause in the twenty-eight  
 ighish towns. The deaths of infants showed a marked  
 rther increase upon recent weekly numbers, and those of  
 lerly persons were also more numerous.

### THE SERVICES.

THE Greenwich Hospital pension of £50 a year, vacant by  
 e death of Retired Deputy Inspector-General of Hospitals  
 d Fleets Alexander Cross on Dec. 3rd, has been awarded  
 Retired Deputy Inspector-General of Hospitals and Fleets  
 ndrew Murray from that date.

ARMY MEDICAL DEPARTMENT. — Brigade Surgeon  
 nderick M. Skues is granted retired pay, with the  
 onorary rank of Deputy Surgeon-General. Brigade  
 rgeon Sir Robert William Jackson, C.B., is granted  
 tired pay, with the honorary rank of Deputy Surgeon-  
 eneral. Surgeon John Percival Hunt, M.D., from half-  
 y, to be Surgeon, vice D. O'Sullivan, who has resigned  
 s commission.

MILITIA MEDICAL DEPARTMENT. — Surgeon-Major George  
 ilson, Royal Monmouthshire Engineer Militia, resigns his  
 mission; also is permitted to retain his rank, and to  
 ear the prescribed uniform on his retirement.

ARTILLERY VOLUNTEERS. — 1st Sussex: Surgeon Heckstall  
 uth resigns his commission; also is permitted to retain  
 s rank, and to continue to wear the uniform of the corps  
 s his retirement. 1st Kent: Acting Surgeon William  
 yre Blennerhassett Atthill resigns his appointment.

RIFLE VOLUNTEERS. — 1st Ayrshire: William Sneddon,  
 ent., M.D., to be Acting Surgeon. 9th Lanarkshire:  
 cting Surgeon James McIlade resigns his appointment.  
 t Lincolnshire: Honorary Assistant Surgeon George  
 alker resigns his commission. 14th Lancashire: Surgeon  
 nderick Blakesley Mallett, M.D., is granted the honorary  
 ank of Surgeon-Major. 1st Midlothian (Leith): James  
 allan Gray, Gent., to be Acting Surgeon. 22nd Middlesex  
 entral London Rangers): John Robert Kemp, Gent., to  
 e Acting Surgeon. 6th West Riding of Yorkshire: John  
 utcliffe, Gent., to be Acting Surgeon. 2nd East Yorkshire:  
 D. Ridpath, M.D., to be Acting Surgeon.

ADMIRALTY. — Fleet Surgeon George William John  
 utherland having been placed on the Retired List from  
 Nov. 20th last, has been allowed to assume the rank and  
 title of Deputy Inspector-General of Hospitals and Fleets  
 on the Retired List from that date. In accordance with the  
 provisions of Her Majesty's Order in Council of April 1st,  
 1881, Staff Surgeon Thomas Harvey has been placed on the  
 Retired List of his rank from the 8th instant.

The following appointments have been made: — Staff  
 Surgeon Evelyn R. H. Pollard, to the *Albatross*; Surgeons  
 Archibald M'Kinlay, to the *Belleisle*; Thomas D. Gimlette,  
 to the *Hector*.

PRESENTATION. — On the occasion of the transfer of  
 Dr. Vans Christian Clark, R.N., from the medical officership  
 of Millbank Prison to H.M. Prison for Female Convicts at  
 Woking, an illuminated address was presented to him  
 by the governor of the former establishment on behalf of the  
 officials, who desired thereby to testify their sense of the  
 value of the Doctor's services.

## Correspondence.

"Audi alteram partem."

### "THE SCOTCH UNIVERSITIES AND MEDICAL LEGISLATION."

To the Editor of THE LANCET.

SIR,—I have no pleasure in controversy with such  
 medical teachers as Professor Struthers and Professor  
 Gairdner. I shall therefore not prolong it. I will leave  
 it to you and your readers, and all seriously interested  
 in placing our medical licensing system on a better and  
 permanent basis, to judge whether my essential state-  
 ment to the Lord President does not remain entirely un-  
 shaken—that the Royal Commissioners have safeguarded  
 the just interests of the Scottish universities by adopting  
 the proposal of Professor Turner before the select com-  
 mittee, which was repeated by Professor Struthers, to  
 exempt all university students from all but the final exa-  
 mination of the conjoint boards to be established, and this,  
 Professor Struthers suggests, not to cost more than five  
 pounds.

I have never denied that Professor Struthers, Professor  
 Gairdner, and Professor Turner, prefer to be entirely left  
 alone, and to have the degree of universities recognised as  
 above the sphere of public criticism, and as, *per se*, full  
 qualifications, and entitling their holders to registration. I  
 believe that it would be safe at present so to regard uni-  
 versity degrees; but there have been times within easy  
 memory when it would not have been safe, and there might  
 easily be such times again. Universities, like corporations,  
 are only made up of men, and, like them, again, have  
 interests, sometimes of a pecuniary order, which are not  
 always the interests either of the profession or of the State.  
 It is easy to see that if some precautions are not taken in  
 the contemplated legislation, the Scottish universities, being  
 poorer than the English, would be under strong temptation  
 to enter into competition with the conjoint boards, and  
 we should have a continuance of what Sir Dominic Cor-  
 rigan called a "battle of the shops," only in a more dis-  
 creditable form than at present.

I am, Sir, your obedient servant,  
 Highbury, Dec. 18th, 1882. JAMES GREY GLOVER.

To the Editor of THE LANCET.

SIR,—In your leader of the 9th inst., speaking of the  
 Scottish universities as opposed to the Conjoint Boards, you  
 use the following words:—"They educate probably as many  
 students as all the London schools put together, and their  
 degrees, though only qualifications in medicine, entitle the  
 holders to registration. A graduate is seldom content with  
 his mere degree; he wishes to have a diploma besides, and  
 generally takes it from a College of Surgeons. Under the  
 proposals of the Commissioners he will, after passing his  
 university examinations and the clinical examination of the  
 Conjoint Board, be completely qualified, and have a honour-  
 able degree for a much less sum than he now most generally  
 pays for similar advantages and multiplied examinations."  
 The italicising is mine.

These statements are likely to convey to the minds of  
 those unacquainted with the Scottish universities the  
 erroneous impression that Scottish graduates are only half-  
 qualified. I therefore beg permission to point out that all  
 the Scottish universities themselves either teach very  
 fully both medicine and surgery or require that candidates  
 for their degrees shall have been equally well taught else-  
 where. The degrees conferred are the Bachelorship of  
 Medicine (M.B.), the Master-ship in Surgery (C.M.), and the  
 Doctorate of Medicine (M.D.); and no man has been per-  
 mitted to graduate even as M.B. alone unless he had passed  
 the full examination for both M.B. and C.M. It is usual  
 for candidates to take the two degrees. It is only a very  
 exceptional few who, being already in possession of a  
 diploma from some surgical corporation, take the M.B.  
 degree alone; and candidates for this single degree are not  
 exempted from passing any part of the full examination in



both medicine and surgery. The great body of graduates, therefore, are "doubly qualified," and do not, as you would seem to suppose, seek surgical qualification elsewhere. Now I believe it is imperative on all candidates to take both degrees. It is somewhat beside the point, but I believe I could, also, demonstrate that where the M.D. degree alone has been conferred under the regulations existing prior to 1861, it is a "double qualification"—i.e., in medicine and surgery. I am, Sir, yours faithfully,

R. M. MOFFAT, M.D., C.M. St. And.

Manchester, 18th Dec., 1882.

\* \* It is quite true, as our correspondent points out, that the Scotch universities confer the title of Master in Surgery on such graduates in medicine as wish for it. When they do so they charge an additional fee for the diploma. His view of the double virtue of the degree of M.D. under the old regulations has never been acted on by graduates or by the university. On the contrary, regarding it as only a qualification in medicine, the university devised the new title of Master in Surgery, which it confers, we believe, without any additional examination. The ingenious way in which the universities have contrived to give the virtue of a double qualification to their degrees shows how hollow and artificial the system of half qualifications is.—ED. L.

#### DR. HENEAGE GIBBES' "NEW METHOD FOR THE DETECTION OF THE TUBERCLE BACILLUS."

To the Editor of THE LANCET.

SIR,—At a meeting of the Medical Society of London last night, Dr. Heneage Gibbs exhibited some specimens of various forms of bacteria. Amongst them were several examples of the bacillus of tubercle stained in a way which Dr. Gibbs has described as "new." In the course of some remarks which I made during the meeting, I expressed my inability to perceive anything new in the method of staining the bacillus of tubercle used by Dr. Gibbs. I also said, in effect, that in the specimens of the bacillus of tubercle then before the Society I could not see evidence of any advantage in the results obtained by Dr. Gibbs' plan of mixing the ingredients of the colouring solutions in certain definite proportions. In describing what he claims as his method, Dr. Gibbs says: "It is necessary to make two staining fluids—one, magenta, which stains the bacillus; the other, chrysoidin, which stains the surrounding substance, but not the bacillus."<sup>1</sup> Now, on reading this, it certainly appears as though in using magenta Dr. Gibbs has introduced a new dye for the purpose of staining the bacillus. As is well known to those who are familiar with the subject, Dr. Ehrlich uses fuchsin for that purpose. I had always been under the impression that fuchsin and magenta were different names for the same substance. When Dr. Gibbs described his "new" method and spoke about magenta, I thought that I must have been in error, and that fuchsin and magenta were names for two different substances. On looking up the literature of the subject, however, I found that these two names are given to one and the same substance. In order to put the point beyond dispute, as regards the use of the dye in the staining of this particular bacillus, I called upon Mr. Beck, the manager of the Badesche Anilin Fabrik, 22, Bush-lane, Cannon-street, E.C. I called upon him because Dr. Gibbs says that the aniline colours are made by that company. Mr. Beck, in answer to my questions, told me that fuchsin and magenta are names given to one substance. He said that if he received an order for magenta he would supply the same substance which he would supply were an order given for fuchsin. Fuchsin, he said, is the name used on the Continent; magenta is the name in use in England. I was also told that the substance supplied by Mr. Beck to Dr. Gibbs was known in the trade by the two names, fuchsin and magenta. Mr. Beck said that Drs. Koch and Ehrlich used this same dye in their experiments. In April last Dr. Ehrlich used fuchsin to stain the bacillus of tubercle, and

my friend Dr. Koch, to me in a letter last fuchsin in this connexion for the bacillus in

It is not necessary for Gibbs' use of chrysoidin he himself informed that up the use of that substance sputum, although, he most useful when the the bacillus. In saying but that was the sense Dr. Gibbs upon this

Having given up the staining "the surrounding" Dr. Gibbs has substituted in his specimens last night of Oct. 21st last, on page Remarks on Staining writes: "I have made view of finding a good which would not at tissues too deeply. I purpose." Now, at August last (and Dr. G Ehrlich used methylene stained bacilli.<sup>2</sup> The men who were then were mentioned to me by Dr

Where, then, is the method? I suppose it which he makes on page of Oct. 21st, where he about this method which first place, the magenta compound having a diphenolrosanilin result portion of pure aniline is commonly called, a definite compound is a colour from the bacilli stable compound is used plasma alone is stained, like bodies only are seen the whole organism is stained rod-shaped bacillus colonies (?spores)." I rosanilin results; but let rest of this statement, in cess, I can only say that own experience. I have produced by that process of head-like bodies only vast majority of the organs

Dr. Gibbs asserts that colour does not fade from does fade where Ehrlich that when men first with bacilli did, now and the early experience that he different now. Ehrlich's quite as good results as an illustration I may mention specimens which June last for exhibition College of Physicians. aniline colours will, but distinct. As M. Vignat upon this subject, "When colour fades with equal tion be adopted or not."

Dr. Gibbs also claims use the bacillus can be with an ordinary quarter According to him, when bacillus is so faintly stained illumination is required in factory manner." This is surprising statements. showed the bacillus, previously last at the Royal Medical quarter-inch object glass.

<sup>1</sup> British Medical Journal, Oct. 14th, 1882, p. 736.

<sup>2</sup> British Medical Journal

bacillus under an ordinary quarter-inch object glass, and a very ordinary London daylight as my only illuminator. It is not very surprising to find that Dr. Gibbs has so poor opinion of Ehrlich's process when one reads his description on page 736 of the *British Medical Journal* for 14th. It runs thus: "In Ehrlich's process the stain the bacillus is too faint, and the vesuvium used to stain the substance too opaque; consequently the bacillus has a faint pink colour on a dense yellowish-brown ground, and is not easily made out without high power or artificial illumination." If with Dr. Ehrlich's process the staining of the bacillus is found to be too faint, the fault lies with the experimenter and not with the process. August last Dr. Gibbs evidently did not know what was meant by Ehrlich's process, else he would surely never have said that at that time, or for months before that time, Ehrlich used vesuvium to give a "dense yellowish-brown ground," to a bacillus of a "faint pink colour." Since April Dr. Ehrlich has used methylene blue as a contrast colour for red stained bacilli.—I am, Sir, yours faithfully,  
G. A. HERON.  
London, Dec. 5th, 1882.

### "PICRIC ACID AND SUGAR TESTING."

To the Editor of THE LANCET.

SIR,—In reply to Dr. Pavy's imputation on my memory I beg to allow me to say that I have neither denied nor admitted the existence of unoxidised sulphur compounds in normal urine, but in answer to his statement that the presence of such compounds "means, in other words, the incapacity for producing a sulphide on boiling with potash," I ask him for some proof of this other than a reference to unknown text-books. He may, perhaps, consider that in describing the reaction which occurs on boiling normal urine with liquor potassæ mixed with lead, he has given sufficient proof; but Dr. Pavy will doubtless admit that practically there is a very wide difference between the blackening of albuminous urine when boiled with lead-contaminated potash, and the slight and even doubtful colouration which results from treating normal urine in the same way. And I ask him to give careful consideration to my son's error in your last number, where he has shown that prolonged boiling of normal urine with caustic potash, while it destroys the sugar, does not form an alkaline sulphide. I request his particular attention to the facts and arguments contained in this week's letter from my son. He demonstrates and explains the fact that while a lead sulphide is formed by boiling albuminous urine with liquor potassæ mixed with lead, no alkaline sulphide is formed in the same urine is boiled with pure liquor potassæ. This observation explains the fact mentioned in my last letter to you, that albuminous urine containing the normal proportion of sugar—i.e., about 5 of a grain per ounce, gives exactly the same depth of colour when tested with picric acid and potash as the same specimen after the removal of the albumen by coagulation and filtration. I beg now to thank Dr. Pavy for his friendly criticism, the result of which has been to elicit a more speedy and complete demonstration than without it would probably have been given—that there is no substance, either in normal or in albuminous urine, to interfere with, or to render in any way fallacious, the picrate test for sugar. I hope in the course of a few days to send you a detailed description of a method of quantitative analysis of saccharine by which I obtain results practically identical with those arrived at by my son, who analyses the same specimens by means of Dr. Pavy's ammonio-cupric method. The advantage which I claim for my method is that it requires only a very simple and inexpensive apparatus, that it is easily learnt and practised, and that by its means an exact analysis of a sugar solution may be made in about five minutes.—I am, Sir, yours faithfully,  
GAVILLE-ROW, Dec. 18th, 1882.

GEORGE JOHNSON.

To the Editor of THE LANCET.

SIR,—The argument employed by Dr. Pavy in his communication to you of the 12th instant is that, as an alkaline sulphide is produced by boiling albumen with caustic alkali solution, so an alkaline sulphide will likewise be formed by the action of boiling potash upon those unoxidised sulphur compounds which have been proved to exist in healthy urine,

and which are presumably nearly allied to albumen in their chemical properties and constitution.

Now it is stated and accepted as a fact in the chemical text-books, and is to be found in so many words in "Watts' Dictionary," that albumen gives rise to an alkaline sulphide when boiled with solution of caustic alkali. It was, therefore, very surprising to me to find that dried ovalbumen, a specimen of which happened to be handy, produced no trace of sulphide even after boiling for half an hour with a strong solution of potash; the solution thus obtained gave no dark colour or precipitate with a solution of acetate of lead, and no reaction with nitro-prusside of sodium, even after diluting the liquid till the excess of caustic alkali was no longer sufficient to interfere with the production of the characteristic colour on the addition of a single drop of H<sub>2</sub>S water.

At first I was inclined to doubt whether the specimen of albumen employed had not been subjected to some process which had deprived it of its sulphur, but this idea was at once negatived by the fact that if the lead solution was added to the albumen and potash before boiling, and heat afterwards applied, an abundance of lead sulphide was produced. And here is the clue to the mystery. The text-books direct to add the lead before boiling the albumen with potash. The fact is that a sulphide can be produced only by boiling an alkaline solution of albumen (made in the cold) with a metallic solution, such as one of lead or copper. Clearly the sulphur of the albumen is converted into some sulphur salt of potash (not sulphide) by boiling with caustic potash, for the solution thus obtained gives no sulphur reaction with the picrate test, lead test, or nitro-prusside test.

Taking into consideration the importance of this observation, and especially the fact that it contradicts accepted statements concerning the action of alkalis upon albumen, it was thought necessary to establish the fact by yet further, and if possible, more convincing evidence. With this end in view I performed the following experiment:—Some of the alkaline albumen solution, obtained by prolonged ebullition of white of egg with caustic potash, was placed in a two-necked Woulfe's bottle and a stream of pure carbolic anhydride gas passed through it till all air was expelled. This having been accomplished, the liquid was rapidly acidulated with pure acetic acid, and the issuing gas caused to bubble through a slightly acidulated solution of lead acetate. Not the faintest turbidity was observed after prolonged passage of the gas through the lead solution, and no darkening of colour, though the issuing gas possessed a peculiar fetid odour. This test is, of course, one of extreme delicacy, the CO<sub>2</sub> gas tending to carry on with it any gas that might be in solution in the acid liquid, and at the same time preventing the possibility of any H<sub>2</sub>S being oxidised by the air. Anyone may convince himself that these observations upon the albumen of the egg apply equally to the serum albumen found in albuminous urine. Place some albuminous urine in two test-tubes, add to one test-tube some caustic potash and a few drops of acetate of lead solution, whilst to the other an equal portion of caustic potash is added, but no lead. Then boil the contents of both tubes for three or four minutes, and add to the liquid containing potash and urine only, a quantity of lead equal to that added to the other tube. It will be found that the liquid to which the lead was added after boiling remains clear (the colouring matter is somewhat reddened, but no sulphide of lead is formed), whilst the other solution will be blackened by lead sulphide in proportion to the quantity of albumen in the specimen under examination.

It seems, then, that no sulphide is produced by boiling even albumen with caustic alkali, unless a metallic solution be added previously to boiling, and as no metallic solution except the potash is employed in the picrate test, it follows that the presence of albumen in urine can in no way interfere with the application of this test to the detection or quantitative estimation of grape sugar therein. And in this respect the picrate test possesses a manifest superiority over that of Fehling.

I am, Sir, yours truly,

G. STILLINGFLEET JOHNSON.

King's College, Dec. 18th, 1882.

### "DEATHS AFTER ABDOMINAL OPERATIONS FROM HEART-CLOT."

To the Editor of THE LANCET.

SIR,—Mr. Lawson Tait declines to enter into the question raised by my reading of his cases of death from heart-clot, and shelters himself behind the easy device of the denial of

the septic condition. His previous description of the cases will go farther with most people in deciding what was the cause of death than his present mere denial of septicity. Mr. Tait claims that his recently published statistics show that abdominal operations do far better without Listerism than with it. I dispute this statement entirely; and in proof of my right to do so I give the following ovariectomy statistics. I only myself became aware of the actual state of the case on collecting these statistics recently at the request of a distinguished American surgeon.

*Ovariectomy Statistics.*

		Recoveries.	Deaths.	Mortality per cent.
Keith's cases,	381	340	41	10.76
Thornton's „	328	293	35	10.67
Tait's „	226	199	27	11.94

I take Dr. Keith's figures from his letter to Mr. Spencer Wells (Oct. 1881, "Ovarian and Uterine Tumours," p. 224). My own statistics are down to date. Mr. Tait's are taken from his successive published tables, and end with a case operated on on August 5th, 1882. If the fact of my giving my own to date improves my relative position, it only proves that recent Listerism in my practice has done more for me than the discarding it has done for Keith and Tait. I have asked the former for his later statistics, and have received no reply; so that if including them would have improved his percentage, the fault does not rest with me. The results are curiously close; but the fact remains that my practice of consistent Listerism gives me a slight advantage in percentage mortality over Dr. Keith, and a more marked one over Mr. Tait. If the antiseptic and non-antiseptic cases of each operation are separated into two classes, the value of Listerism becomes still more evident, but to do this fully would take up too much space in a letter. I believe that if Dr. Keith had stuck to pure Listerism, he would have reversed our respective positions. From Mr. Tait's own statements to me about his wounds, when he was supposed to be practising Listerism, and from his many public utterances on the subject, I do not believe that he has ever been able to grasp the true meaning of Listerism, or ever really to practise it.

If we turn now from ovariectomy statistics to those of oöphorectomy, Mr. Tait's special operation, and one in which he has had a larger experience by far than I have (and Mr. Tait has always had the greatest faith in the effect of experience on success), we find that in his first seventy cases Mr. Tait had six deaths, or a mortality of 9.57 per cent. And one of the deaths which started this correspondence also results from oöphorectomy. I, on the other hand, with a much smaller experience of fourteen oöphorectomies, with careful Listerism have not had a single death. Mr. Tait's mortality, then, is nearly 2 per cent. higher than mine in ovariectomy, and 9½ per cent. higher in his special operation of removal of the uterine appendages. With regard to the action of carbolic acid on feeble kidneys, I can only say that I have not met with the dangerous results which have befallen Dr. Keith, Mr. Tait, and Dr. Bantock. And I can tell Mr. Tait that the informant, whoever he may be, who caused him to write as follows, "I have heard that Mr. Thornton's own experience has been unfortunate in this direction," has led him into a statement which has no foundation in fact. I have not had reason to believe that any of my cases have seriously suffered from the use of carbolic acid, though I have performed nearly two hundred Listerian abdominal sections since I last published my results. There is also, I am glad to say, a marked falling off in septicaemia as compared with my last published one hundred and seventy-two antiseptic abdominal sections.<sup>1</sup> With regard to the quotation which Mr. Tait makes from Mr. Wells's book, anyone who reads the whole paragraph will see that its sense is very different from the portion of it which Mr. Tait has separated from the context, and the fact remains that Mr. Wells continues to use full Listerian details, including the spray, and is, as I know from a recent conversation with him, well satisfied with the results he obtains, and he, like myself, has not met with any of those remarkable deaths from diseased kidneys which tell so seriously upon the statistics of Dr. Keith, Mr. Tait, and Dr. Bantock.

I will tell Mr. Tait why operations such as the one of the

<sup>1</sup> Medico-Chirurgical Society's Transactions, vol. lxiv.

success of which he boasts because we consider him endangered; and our fibroid are only just endangered by the disease was under my care in the She was then forty-three ment of the uterus, with symptoms of any kind. from Oct. 1st to Oct. 1st her against operation, died in placing her life much worse, and that cure at the menopause years which have elapsed become very much worse, quoting the case as having to operate. Perhaps "huge and rapidly growing and the other urgent symptoms. I have just advised two uterine fibroids, both from England, and both sent. They were healthy women operation by recovery, I putting them to the same a brief note of these two. clusion, I have to thank afforded me of demonstration by Listerism in ovariectomy.

I am,  
Portman-street, W., Dec. 1

THE RECENT BA  
OFFICE  
To the Editor

SIR,—It would, I think, Deputy Surgeon General explained the reasons that bearers after the battle European wounded from enemy's position having his right collapsed at once offered to the Indian command by the Indian brigade at the force of the above statement proportion to that of the have had no dhooly bear.

I am,  
December, 1882.

SCOT  
(From our

THROUGH advancing years has found it necessary to Banff Museum, an office years. The remarkable made familiar by the fresh in the memory of to know that the fame devotion resulted in su veteran can pass his decli

The annual meeting of Royal Infirmary was held favourable financial statistics patients treated as 1693. now in course of completion is already almost in hand expenditure will provide tional beds. The report reference to Drs. Johnston

Since the establishment at Aberdeen, five years rapidly to grow. Comm are now thirty, and there that there is seldom an e for further accommodation

, as well as to carry out the wishes of a handsome contributor to the funds, the directors have determined upon extensive additions to the building. At present no provision is made for the isolation of cases of infectious disease which may occur, and for this purpose a separate building is proposed. Anyone visiting the tidy and cheerful wards will see at a glance how zealous and enthusiastic is the management. Drs. Stephenson, Garden, and Macgregor on the staff; but no one will more readily than these gentlemen admit the large share of the hospital success which is due to the kind care of Miss Lumsden, the matron.

The pathology question was again before the managers of the Aberdeen Infirmary on the 11th inst. It will be remembered that the new professor of pathology requested access to the material for instruction afforded by the infirmary, but the considerable difficulty in the way was that the institution was already served by a pathologist who has done the work most acceptably for some twelve years—there was, in fact, no vacancy in the office of pathologist. In May last the whole subject was remitted to a committee to report, and they ascertained that Dr. Deger was willing to offer every facility to the professor in the use of material from the dead-house and the museum. The committee, by a majority, reported in favour of Dr. Deger retaining his present position, but that Professor Milne should make half the post-mortem examinations. This compromise is so evidently unsatisfactory that the managers willingly agreed to the motion of Dr. Struthers, that the whole subject should lie over for three months, in the hope of a private settlement. Everyone will feel relieved should the matter be thus amicably arranged; but it is highly important that able and active officers should have a feeling of insecurity in their position; and certainly a precedent would be established were Dr. Rodger suddenly removed from office, or felt himself called upon to resign in consequence of undue pressure. The question of the appointment of an assistant-physician has been postponed.

As the new material celluloid is coming into use in the manufacture of catheters, tracheotomy tubes, &c., it may not amiss to mention the narrow escape from a disagreeable accident which a patient of mine had a few days ago. The catheter seemed so suitable for use by my patient himself, that I placed it in his hands, and in this way it had been passed a very few times. As it was the first of this kind which I had used I was curious to know my friend's experience, and on examining the instrument before use quickly detected a crack, which went almost completely round the tube. A few inches of a broken catheter in an unexamined bladder would have been exciting enough, and the notion of my escape may place others on their guard.

## IRELAND.

(From our own Correspondent.)

THE following "resolution" of the Council of the Royal College of Surgeons was adopted on the 7th inst.:—"That the Inspection Committee be instructed not to receive certificates from any school in which evening lectures are delivered." This resolution naturally created great dissatisfaction among a numerous class of students, those attending evening lectures on account of being engaged in business during the day. That no notice had been given by the College until after November 25th, the last day for registering students, was looked on as an additional hardship, as there was no time to enter at any other recognised school of medicine. A meeting of those interested was held, and a memorial prepared for presentation to the Council. Accordingly, a deputation of night-students had an interview with the Council of the College on the 14th inst., and stated their views through the spokesman, Mr. Carroll, who pointed out the hardship which must necessarily ensue should the Council refuse to modify their resolution. A division of the Council afterwards took place, when only two members voted for excluding night-students altogether, while the remaining members voted for their recognition during the present term. The following resolution was then adopted:—"That the resolution of December 7th in reference to night lectures shall take effect from April 1st, 1883, after which it

shall be strictly enforced." It is believed that if the deputation had asked for better terms they would have obtained them; and there are some, and not a small number either, who are of opinion that any resolution of the College refusing to receive certificates of night lectures is altogether illegal, and could not be upheld if properly opposed.

The returns for the five medical schools in Dublin show that the Ledwich still holds the highest place as regards the number of students receiving instruction within its walls. The following are the numbers for the present session: Ledwich, 230, or 9 increase; Trinity College, 225, or 9 increase; Carmichael, 134, or 25 decrease; College of Surgeons, 132, or 8 decrease; Catholic University, 116, or 16 increase. These make a total of 837, or exactly one more than those registered in the session of 1881-2.

The Medical Section of the Academy of Medicine held its first meeting at the College of Physicians on the 15th inst., when the President of the Section, Dr. William Moore, President of the College, delivered the inaugural address. Dr. Moore spoke of the improvements in the diagnosis of disease which had taken place during the past twenty-five years. He referred to the thermometer, which was often of service in difficult cases, and alluded to the advances made in the diagnosis of cardiac disease. He believed that the prognosis depended less upon the various murmurs heard than on the vital condition of the organ itself, the prognosis being more important than the diagnosis. He next referred to Claude Bernard's experiments, which had thrown light on various affections, and spoke of abdominal aneurism, the specific nature of fevers, bacilli, and of cerebral and spinal diseases. It was sometimes very puzzling to diagnose between organic and functional diseases; and he detailed various cases which occurred in his practice as examples of the difficulties occasionally met with.

Last week, Mr. Harrington, master of the Carrick-on-Shannon Workhouse, and his wife were found dead in their bed. A fire had been lighted in their bedroom the previous evening, and the fatal result was attributed to the imperfect ventilation of the apartment, and the large amount of deleterious gases given off from the coal, which was of a very inferior kind.

During the September quarter the returns of pauperism in Ireland show a decrease of 1174 in the number of workhouse inmates, and an increase of 810 in the number of persons on out-door relief as compared with the previous quarter. The prevalence of the following zymotic diseases was reported by the various registrars:—Measles in 56 districts, scarlatina in 40, diphtheria in 4, and fever in 53. Three deaths from hydrophobia were recorded during the quarter.

The late Dr. Handzel Griffiths, who was Assistant-Librarian to the Royal College of Surgeons, died from typhoid fever in 1877, and since then his wife has also died, leaving three orphan children behind her with but scanty means of support. A committee has been formed to collect funds for supporting and educating the three boys, and as the case is a deserving one, it is to be hoped that the amount required will be obtained.

The death is reported of Dr. John Burgess Allen, of Gorey, a well-known practitioner in that place. Deceased, who was in his fifty-third year, succumbed from congestion of the lungs.

## PARIS.

(From our Paris Correspondent.)

THE discussion on typhoid fever which has been carried on at the Academy of Medicine for the last two months is, like the prevailing epidemic, on the wane. I shall endeavour to summarise it as briefly as possible in this letter. The first part of the discussion was taken up with the etiology of the disease, most of the orators being evidently converted to the faecal, or what the French authors are pleased to term the English, theory of its origin. Dr. Noël Guéneau de Mussy is the principal representative of the English theory, and he endeavoured to prove that typhoid fever in general, and the present epidemic in particular, may be clearly traced to the contamination of drinking water and alimentary substances by dejections of patients suffering from the disease. This theory Dr. Guéneau de Mussy has sustained for several years, and in 1877 he made a com-

munication to the Academy of Medicine in support of it. He believes more than ever in the English theory; but he thinks, also, that the germ of typhoid fever may have another habitat or another medium for its culture. Founding his arguments on this view, he insisted on a more scrupulous attention to sanitary measures, both public and private, particularly to the privies and cesspools. The latter he totally condemns, as, also, the practice, introduced into this city about twenty years ago, of emptying their contents into the sewers, which, in their turn, are emptied into the Seine. Dr. Rochard, an old academician, endeavoured to show, in the most eloquent terms, that while he conceded the probable correctness of the theory of the faecal origin of typhoid fever, there are other elements to be taken into consideration which, no doubt, play a great part in the development of the disease, such as cosmic influences, overcrowding, and want of cleanliness; but he does not wish it to be inferred from this that he believed in the spontaneity or the production of the disease *de novo*, adding that the microbe of typhoid fever exists in the air and develops itself as soon as it can find a favourable soil. Other speakers followed, all sustaining, in more or less definite terms, the theories above enunciated. M. Jules Guérin then came forward, and suggested that, in the present state of our knowledge of the etiology of typhoid fever, it would be of more practical interest and utility to discuss the means, on clinical grounds, by which the disease may be successfully combated, instead of wasting time in going over the already frequently trodden ground.

As to the therapeutics of typhoid fever, Professor Hardy stated his preference for the old classical treatment, which consists of the administration of purgatives during the first ten days; the application of dry cupping to the chest; draughts composed of extract of cinchona and alcohol; and of acidulated drinks during the second and third weeks. He sometimes prescribes the sulphate of quinine, but never exceeds 75 centigrammes, or about eleven grains daily. Dr. Hérard had always obtained good results from the administration of quinine, but in larger quantity than that employed by Prof. Hardy—as much as three or four grammes, or about one drachm daily. He also prescribed salicylic and carbolic acids in minute doses, which he considers powerful antiseptics and antipyretics. Dr. Legouest believed that the proper quantity of quinine in these cases would be two grammes (thirty-one grains) daily, which he learned from long experience in the military hospitals; and is inclined to think that when sudden death occurs in typhoid fever, it is attributable to the malignancy of the disease itself. Most of the speakers seemed to lay great stress on the necessity for reducing by every possible means the excessively high temperature that exists in this fever, by the employment of salicylic and carbolic acids, and the use of cold baths; but, according to Dr. Dujardin-Beaumetz, hyperpyrexia is certainly a manifestation of the gravity of the disease, and to treat this manifestation only would not constitute the proper treatment, as the temperature would be simply kept in abeyance by the remedies employed, but the disease would continue its course all the same. Moreover, he asserted that it was impossible to lay down any definite rules for the treatment of this terrible affection, but patients must be treated according to existing indications, as in all epidemics there is a certain morbid agent, something unknown, which renders them so different from one another. That which distinguishes the present epidemic of typhoid fever in Paris, is the frequency of bedsores over the sacrum, which reminded one of the description given by Trousseau, and also the frequency of diphtheritic symptoms. Under these circumstances the statistics of the treatment employed would be of little or no value. Dr. Dujardin-Beaumetz was of opinion that in these cases simple "expectation" would be far preferable to the use of powerful remedies which may be more harmful than otherwise. Professor Vulpian, after having given a fair trial to some of the drugs reputed to possess antiseptic properties—iodoform, boracic acid, salicylate of bismuth, the carbolate of soda and salicylic acid—has given the preference to the latter, and administers it in doses of five or six grains every two hours, or six or seven grammes in the twenty-four hours. He has employed it on account of its known property of lowering the temperature, which it does in a more persistent manner than carbolic acid or any of the other substances named. The general state of the patient is favourably modified, but the duration of the malady does not appear to be sensibly influenced by the treatment. M. Vulpian, how-

ever, concludes that, considered as a curative agent sufficiently modifying to a place among the treatment of this such that he would, during epidemics of typhoid fever, administer it even to daily. Professor Germain, acid internally, not other form of disease of the vital forces, producing toxic effect the heart which it de considers salicylic acid fever, whether as at these indications he of quinine, which he daily; a larger quantity smaller would be use the following as a t adopts what he term baths, administering and in case of excited tincture of opium in and a half, which he of the disease in patients in individuals worn combats tympanites water; complications and ipecacuanha. Actions he employs even time aids in lowering carbolic dressings in the disease. Of fifty Dr. Lancereaux from of November only five Paris, Dec. 19th, 1882.

## TENEMENT

(From a  
(Co

AT Boston, Mass., been done to secure the be regretted, however Health Commissioners arrangements and con that city. In consequence established a separate are referred, the sanitary houses leave much to be of the townspeople. In responsibility, and in concerned to separate sanitary condition of Department, is almost, to separate the dieting physician who has charge from which he is suffering administrative mistake certainly entitled to raise its culture and sound only to be called to rectification. Nothing best interests of the city and the sooner it is the health of the city. Health for the good during the past ten years quarantine arrangement a genuine enthusiasm for to ensure the health keeps its streets and the Still, when all this is and it is not a little remarkable for the construction in Boston is much behind



for an concerned.

In New York, up to the year 1878, the tenement house was not only a scandal but a danger to the public health. Even to-day the condition of affairs is not satisfactory, and in spite of the energetic action of one of the most capable of Boards of Health to be found in the United States, much remains to be done. Here, as in Liverpool, the difficulty is to provide suitable accommodation for and to restrain the large floating population which constitute the dregs of the emigrant class. In a tenement house in Mott-street situated almost exactly opposite the offices of the Board of Health, and plainly visible therefrom, is situated a tenement house, or rather houses, which are as bad as anything to be seen anywhere to-day. They are occupied by Italians, but though poor the people themselves are fairly cleanly, and their rooms are at times, considering their surroundings, wonderfully clean. The closets, however, are in a disgraceful condition, and present a spectacle as filthy as the slough of despond itself. This state of affairs could be remedied; it has been vastly improved at Boston, and it is not credible that New York should long lag behind. Unfortunately there are many of these tenement houses in New York, and little hope is held out of their extinction or removal. Much good has, however, been done since 1878 when the *Sanitary Engineer* drew public attention to the condition of the New York tenement houses, and offered a prize of \$500 for the best design for such a building. This competition excited keen interest, and resulted in much improvement. Public attention was aroused, clergy and laity combined to urge reform. A joint committee, consisting of the judges and a committee of the State Charities' Aid Association, was formed, and in the result an amendment to the Tenement House Act was passed by the State Legislature in May, 1879. This Act limited the space to be occupied by any tenement house to sixty-five per cent. of the lot it occupies, required all bedrooms to have windows, with direct light and air, and greatly increased the powers of the Board of Health to remedy the abuses in such buildings. Two associations were formed to erect model dwellings for working men, and several improved tenement houses have been and are being erected by private individuals. No plan can be settled now without the approval of the Health Department, and all plans which fail to meet the requirements of the law are invariably rejected. All this is most satisfactory; and it would be unjust to omit to mention the fact that these results are largely due to the liberality, earnestness, and zealous labour of Mr. H. C. Meyer, whose whole-hearted and disinterested exertions

should not pass without public recognition. A visit paid to one of the blocks recently erected by the Improved Dwellings' Association afforded many satisfactory proofs of the way in which these buildings are appreciated by the class for whom they have been erected. The dwellings of this company are situated on First Avenue, and consist of thirteen houses of six storeys each, with basements used as cellars and laundry. There is here accommodation for 218 families in suites of two, three, and four rooms, which are rented at from 8s. to 16s. per week. There are a laundry, reading-room, and bath-house connected with these buildings, and there is ample playground for the children. Care has been to make the sanitary arrangements perfect; but a casual visit leads to the conclusion that at present the soil-pipes have to be better ventilated and the drains to be properly disconnected from the main sewer before the health of the inmates is likely to continue good. These buildings were opened in May, 1882, so the managers have had but a short experience of the working. The mortality amongst the children, of whom 400 have been residents, has been a total of three deaths, and out of 218 sections no less than 157 have been occupied. There is a slight discipline enforced. Irish people, who are unable to give a clean bill of health as to drink, all scolds, and mothers who cannot control their children, are not admitted. The refusals are in practice very few, the night janitor reports all cases of drunkenness, and after two cautions a third offence is visited by a notice to quit. Credit is not given except in case of death or sickness. There are resident at the present time within the buildings twenty-one French Canadian families, who are reported to make excellent tenants and to be very respectable. I wish the project every success, and judging from what I saw this association deserves and will obtain it. The great difficulty in New York is the expense of sites, land being so valuable, and this circumstance is likely to delay the erection of an ample quantity of suitable tenement houses.

In Philadelphia there are practically no tenement houses, as here land is plentiful, and it is the fashion for every man to own the house in which he lives. Hence, poverty is rare, thrift is everywhere apparent, and the large number of small houses or pretty cottages fills the visitor with astonishment. It would be a grand thing if every father of a family could own his own house as he does in Philadelphia. This is something for us to aim at accomplishing where possible, and its general adoption would be indeed an approach to the millennium. It is not possible to obtain this in England, but in Ireland and America the general adoption of this Philadelphia system is greatly to be desired.

## Medical News.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.** — At the last meeting of the Council, the following gentleman, who passed his examination for the Fellowship in May last, having attained the legal age of twenty-five years, was granted his diploma of Fellow of the College:—

Firth, Robert Hammill, L.R.C.P. Edin., Ware.

[The letters following the name of Arthur Bancks Prowse, in the list published last week, should have been "M.D.," not "M.B."]

**UNIVERSITY OF LONDON.** — The following candidates have passed the recent M.D. Examination:—

\*Buckell, Arthur Edward, University College.  
Collins, Wm. Job, B.S., B.Sc., St. Bartholomew's Hospital.  
Dalton, Norman, King's College.  
Davy, Henry, Guy's Hospital.  
Dickinson, Thomas Vincent, St. George's Hospital.  
Edwardes, Edward Joshua, St. Mary's Hospital.  
Firth, Charles, St. Bartholomew's Hospital.  
Gabb, James Percy Alwyne, University College.  
Hobson, Lewis John, B.S., University College.  
MacDonald, Greville Matheson, King's College.  
Maguire, Robert (Gold Medal), Owens College and Manchester Royal Infirmary.  
Notley, William John, B.A., Edinburgh Royal Infirmary.  
Paddison, Edmund Howard, Guy's Hospital.  
Parkes, Louis Coltman, University College.  
Penny, Edward, Guy's Hospital.  
Petch, Richard, King's College.  
Plumbe, Samuel Thomson, St. Bartholomew's Hospital.

Railton, Thomas  
Owens College  
\*Rake, Beaven N.  
Routh, Amant J.  
Russell, George I.  
Saunders, George  
Savill, Thomas D.  
Sayer, Mark Feet  
Squire, John Edw.  
Stonham, Thomas  
Suckling, Corneli  
Whittle, Edward

### LOGIC

Barnes, George F.  
Buckley, Samuel,  
Hayward, John E.  
Neale, William H.  
Suk, John Freder  
Taylor, Harold Gi

\* Obtained the

The following have passed

Ballance, C. Alfie  
Collier, Mark Pur

The following have passed

Collingwood, David  
Pike, Charles Jam  
Roedel, Waldema  
Sutton, Samuel W.  
Walters, Frederick

Batterham, John  
Buxton, Dudley W.  
Campbell, Harry,  
Clarke, Ernest, St.  
Dakin, William Ra  
Scharlieb, Mary A.  
School of Medic

**UNIVERSITY OF CAMBRIDGE.** — On the 18th inst. the following candidates have received the degree of B.A.:—  
Bonville Bradley Fox and Percy Kidd, Balliol.

**UNIVERSITY OF CAMBRIDGE.** — The following candidates have received the degree of B.A.:—  
Adolphus Vaughan Berns  
Gonville and Caius; W

The degree of B.S. has been conferred on—  
Morris, B.A., Gonville and Caius.

At a Congregation he appointed Electors, the undermentioned P. Flower, Hunterian P. Dr. Allen Thomson, Esq. Huxley; Dr. Michael J. Forster; Mr. J. W. ship of Medicine: Sir C. Dr. F. J. Farre, St. J. burgh; Dr. Richard Qu. fessor Liveing; Profe. St. Johns.—Pathology. Dr. J. F. Payne, Ox. Humphry; Professor F. Dr. J. Burdon Sanders. Dr. Michael Foster, of the Board of Studies for Board of Studies for Bi

**COLLEGE OF PHYSICIANS.** — December examination in Medicine and Midwifery.

**MEDICINE.** — G. Purcell  
Donnellan, George Her  
Robert Joseph Gabbins  
Maguire, Edward Dudd  
Pollock, Edward Vernor  
**MIDWIFERY.** — G. P. Al  
George Henry Johnson  
Joseph Gabbins, Richa  
Joseph Kerr, Patrick J.  
James Nolan, Rowland

undermentioned Licentiates were admitted to the membership of the College:—

Edw. Geoghegan, R.N.	John Byrne Power.
John Joseph Mullen.	William Tobin.

George St. George Tyner.

**POTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Dec. 14th:—

Buckley, Thomas William, Betley, near Crewe.  
Canton, Herbert, Camden-road.  
Dodd, Henry W., Hildrop-crescent, Camden-road.  
Ledlie, Andrew, Belfast.  
O'Kane, Michael, Gaulock-road, Camberwell.  
Perry, Allan, Poplar Hospital.

The following gentleman also on the same day passed the Medical Professional Examination:—

Crisp, James Ellis, London Hospital.

**ANOTHER CENTENARIAN.**—A woman in Kendal, named Sarah Birkett, has just died at the reputed age of 100 years.

**VACCINATION GRANT.**—The following gentleman received the Government grant for efficient vaccination: Dr. G. R. Barnes Ewell, Surrey (fifth time).

**CHARLETON FEVER** is very prevalent at Tebay in Lancashire. The authorities seem to be awake to the necessity of strenuous efforts to cope with the disease.

**HOSPITAL SUNDAY** at Hull has yielded the largest collection yet taken in that town—viz., £788 14s. 9d. Last year the amount was £694 11s. 5d.

On the 15th inst. the new wing lately added to the Midland Infirmary was formally opened by the Mayor of the town. About £2000 remains to be collected to cover the cost of the improvement.

At the last meeting of the Middlesborough Town Council it was agreed, on the recommendation of the Watch Committee, to advance the salary of the Police Surgeon (Mr. M'Cuaig) from £52 to £75 per annum.

The governors and trustees of the York County Hospital have voted £300 towards improving the sanitary condition of the hospital, in accordance with the advice of the medical staff and the recommendation of Mr. Slater, sanitary engineer, of York.

**NORTH-WEST LONDON HOSPITAL.**—The following appointments have recently been made to this hospital, Kentish Town Road:—Skinners' Company, £10 10s.; Vintners' Company, £10 10s.; Haberdashers' Company, £10 10s.; Mercers' Company, £26 5s.

The governors of the Hastings, St. Leonards, and East Sussex Infirmary have decided to accept the gift of a large mansion to be converted into a convalescent home, and also to build a new infirmary on the site of the existing structure, capable of accommodating seventy-five patients.

## Medical Appointments.

Communications for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

**NOLD, RICHARD O.,** L.F.P.S.Glas., L.S.A.Lond., has been appointed Medical Officer for the Workhouse, Luton, Beds.

**INTERHAM, J. W.,** M.B., B.S.Lond., M.R.C.S., has been appointed House-Surgeon to the South Staffordshire and Wolverhampton General Hospital.

**ERS, JOHN W.,** M.A., M.D., M.Ch., M.R.C.S., L.M.K.Q.C.P.I., has been appointed Physician for Diseases of Women to the Royal Hospital, Belfast.

**HEY, EDWARD,** M.D., B.S., has been appointed Medical Officer of Health to the Borough of Windsor, vice S. Turrell, M.D., deceased.

**ADWICK, GEO. F.,** M.R.C.S., has been appointed House-Surgeon to the Dewsbury and District Infirmary, vice Evans, resigned.

**GRAVE, E. MACDOWEL,** M.D., L.K.Q.C.P.I., has been appointed Physician to Whitworth Hospital, Bishop's-road, Dublin.

**DAVIDSON, ALEXANDER,** L.F.P.S.Glas., has been appointed Medical Officer for the Anstey District of the Tamworth Union.

**EMMERSON, WILLIAM LINDSAY,** L.M.Dur., M.R.C.S., L.S.A.Lond., has been reappointed Public Analyst for the Borough of Stamford.

**EVANS, S. E.,** L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident Medical Superintendent of the Bradford Fever Hospital, vice W. K. Rix, resigned.

**FENWICK, E. HURRY,** F.R.C.S., has been appointed Demonstrator of Physiology to the London Hospital Medical College.

**HALL, CHARLES B.,** M.D., has been appointed Honorary Physician to the Dewsbury and District Infirmary.

**HERON, G. A.,** M.D., M.R.C.P., has been appointed Senior Assistant-Physician to the City of London Hospital for Diseases of the Chest, vice S. West, M.D., M.R.C.P., appointed a Physician.

**HOBSON, LEWIS JOHN,** M.D.Lond., B.S., has been appointed Honorary Physician to the York County Hospital.

**HOPE, E. W.,** M.D., B.Sc.Ed., has been appointed House-Physician and Pathologist to the General Hospital, Wolverhampton.

**JORDAN, FRED. WILLIAM,** L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Heaton-Norris Urban Sanitary District, vice Bird, deceased.

**KEYWORTH, JOHN WHITE,** M.D.Lond., M.R.C.S., L.S.A.Lond., has been elected Physician to the Wellington Hospital, New Zealand, vice Dr. Collins, appointed Surgeon.

**NELSON, J. M.D.,** has been appointed Ophthalmic Surgeon to Belfast Royal Hospital.

**PELLEW, EDWARD BRAY,** L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Eastern District and Workhouse of the Hailwhistle Union, vice Walker, resigned.

**RIDPATH, D.,** M.D., has been appointed Medical Officer of Health for the Rural Sanitary District of the Great Driffield Union.

**SHAW, JOHN ALEXANDER,** M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Victoria Hospital for Children, Chelsea, S.W.

**STEELE, R.,** L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Third District of the Lutterworth Union.

**WHITE, SINCLAIR, M.D.,** M.Ch.Q.U.I., has been appointed Lecturer on Physiology in the Sheffield Medical School.

**WILLIAMS, C. J.,** M.R.C.S., has been appointed Medical Officer for the Fifth District of the Lincoln Union.

## Births, Marriages, and Deaths.

### BIRTHS.

**ANGUS.**—On the 19th inst., at North Ashfield, Newcastle-upon-Tyne, the wife of James Acworth Angus, M.R.C.S.Eng., L.S.A.Lond., of a son.

**IRONSIDE.**—On the 18th inst., at Highbury New-park, the wife of R. A. Ironside, M.B., C.M., of a daughter.

**MCINTYRE.**—On the 15th ult., at Avoca House, L. Unchlanga, Natal, S.A., the wife of John McIntyre, M.D., of a son.

**PERKINS.**—On the 5th ult., at Exmouth, Devon, the wife of George Steele Perkins, M.B., C.M.Edin., M.R.C.S., L.R.C.P.Lond., of a son.

### MARRIAGES.

**DAUNT-NICKOLL.**—On the 12th inst., at St. John's Church, Pembroke Dock, South Wales, Elliot Daunt, L.R.C.P.Lond., M.R.C.S., &c., of Pierpoint House, Lindfield, and third son of the Rev. E. S. T. Daunt, of St. Stephen's, Launceston, to Eleanor Maude Mary, only daughter of J. Nickoll, Esq., of Pembroke Dock, and granddaughter of the late Commander J. Harvey Nickoll, R.N.

**LAING-HARDING.**—On the 13th inst., at Madras, Surgeon-Major James Anderson Laing, Indian Medical Department, to Mary, third daughter of G. P. Harding, Esq., of Champs Elysées, Paris.

**POYNDR-NISBETT.**—On the 18th ult., at Landour, N. W. India, George Frederick Poynder, Surgeon, A.M.D., eldest son of the Rev. L. Poynder, retired Chaplain in India, to Mary, daughter of Major-General Nisbett, B.Sc., of Shirley, Southampton.

### DEATHS.

**FAWSETT.**—On the 18th inst., at Wisbech, Frederick Fawcett, F.R.C.S., in his 76th year.

**LAWRENCE.**—On the 30th ult., at Claverton-street, Bath, George Edgar Lawrence, M.R.C.S.E., L.R.C.P.Lond., aged 32.

**LLOYD.**—On the 11th inst., at Tyn Rhyl, Rhyl, Edward Lloyd, M.D., L.R.C.P., formerly of Castella, Glamorgan, aged 62.

**PATERSON.**—On the 9th inst., suddenly, at Bahia, Brazil, John Lijertwood Paterson, M.A., M.D., M.R.C.S.E., of Boa Vista, the Grange, Edinburgh, aged 62. Friends at home and abroad will please accept this intimation.

**SHEPHERD.**—On the 12th inst., at Beach Cottage, Teignmouth, Fleet Surgeon Charles Douglas Shephard, R.N., aged 61.

**WEST.**—On the 17th inst., at Cairo, Edward de Lancy West, M.B., C.M.Edin., the dearly-loved and only son of the Rev. Dr. West, of Epsom College, aged 26.

**N.B.**—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

# CONTRIBUTORS FOR

## SUPPLEMENTAL LIST.

THE following Physicians and Surgeons holding Honorary Hospital Appoin-  
the establishments of the Army and Navy, Medical Officers of Health, and leading  
country, have intimated their intention of contributing to the columns of THE LAN-

- ADAM, A. MERCER, M.D. Edin., Surgeon to the Boston Cottage Hos-  
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- ATKINSON, E., M.R.C.S. Eng., Surgeon to the Leeds General Infirmary,  
and Lecturer on Surgery at the Leeds School of Medicine.
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Guy's Hospital, and Administrator of Anæsthetics at the East  
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- BISSHOPP, J., L.R.C.P. Lond., M.R.C.S. Eng., Surgeon to the Tun-  
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Lecturer on Materia Medica and Therapeutics at Charing-cross Hos-  
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land, and Consulting S
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Deaconesses' Institutio  
Wood and Portland To
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to Anderson's College I
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Dr. BALL, Professor at the Paris School of Medicine, Physician to the Paris Hospitals.

Dr. BESNIER, Physician to the Paris Hospitals.

Dr. BOCHEFONTAINE, Chef de Laboratoire at the Hôtel Dieu.

Dr. ALEXANDER BOGGS, Paris.

Dr. ARTURO BOMPIANI, Consultant to the Lying-in Hospital, St. John Lateran, Rome.

Dr. BRACCHINI, Assistant-Surg. to the San Giacomo Hospital, Rome.

Dr. BROWN-SEQUARD, Professor at the Collège de France.

Professor BUSINELLI, Lecturer on Ophthalmic Surgery in the University of Rome.

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Dr. JULES GUERIN, Member of the Academy of Medicine.

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Dr. KRISHABER, Paris.

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Dr. LE BLOND, Paris.

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Dr. NEUMANN, Paris.

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Dr. FEDERICO PAPI, Consulting Physician to the Santo Spirito Hospital, Rome.

Professor PASTEUR, Member of the Paris Institute.

Professor ERCOLE PASQUALI, Director of the Lying-in Hospital of St. John Lateran, Rome.

Dr. PEAN, Surgeon to the Paris Hospitals.

Dr. POZZI, Surgeon to the Paris Hospitals.

Dr. CH. RICHET, Agrégé of the Paris Faculty.

Dr. EMILIO DI ROSSI, Professor of Aural Surgery in the University of Rome.

Dr. GERMAIN SEE, Professor at the Paris School of Medicine, Physician to the Hospitals, Member of the Academy of Medicine.

Dr. CLAUDIO SPORZA, Medical Officer to the Department of Military Hygiene, Rome.

Dr. TERRIER, Surgeon to the Paris Hospitals.

Dr. TERRILLON, Surgeon to the Paris Hospitals.

Dr. JULES WORMS, Paris.



## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Dec. 21st, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Dec. 15	29.83	E.	40	39	..	45	35	..	Foggy
" 16	29.90	S.E.	44	43	..	43	36	..	Overcast
" 17	29.89	S.	48	47	..	50	43	..	Overcast
" 18	29.64	S.E.	48	47	..	50	43	..	Raining
" 19	29.97	S.E.	45	44	..	50	39	..	Foggy
" 21	30.31	S.E.	49	38	..	50	35	..	Foggy
" 21	29.89	S.W.	49	48	..	50	35	.06	Overcast

## Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

## A NOVEL CLUB.

A CIRCULAR has reached us from Preston intimating the establishment of "a Cottage and Domestic Servants' Club," with a tariff of charges, signed by "A. Primrose Wells, B.A. Cambridge, L.R.C.S., L.R.C.P., &c., late Assistant House-Physician to St. George's Hospital." The circular has, we are informed, been sent to all the houses in Preston. This is strange action for a graduate of Cambridge and a late assistant house-physician at St. George's Hospital, on which Mr. Wells will not reflect with satisfaction.

## HYSTERICAL IMITATION OF THE EFFECTS OF ETHERISATION.

To the Editor of THE LANCET.

SIR,—A curious hysterical condition that came under my notice on the 30th of last month is, I think, unique.

The patient was a young lady, about eighteen years of age, and had to undergo an operation in connexion with the mouth. It was arranged that this should take place under the influence of an anæsthetic. About three years and a half ago I had administered ether to this patient, and some teeth had been extracted while she was under its influence. Hysterical laughing and crying preceded the return to sensibility, and this condition lasted for several hours. On the morning of Nov. 30th I poured some ether into a cone, which I held for a second or two about three inches from my patient's mouth, so that she might get accustomed to the smell, this being a practice I am in the habit of adopting before pressing the cone on to the face. She could have scarcely recognised the odour when I was struck by her peculiar appearance, and I therefore placed my cone upon a table that was near to me and watched the strange hysterical condition that ensued. First the eyelids quivered with great rapidity and there was a strong convergent squint, the face becoming congested and assuming that purple tint so common in the early stage of anæsthesia. Then followed violent trembling of the upper and lower limbs, succeeded by strong convulsive struggles, and lastly complete muscular flaccidity, with heavy breathing. I could now touch the edge of the upper eyelids without producing reflex action. The time occupied by these successive stages was from two to three minutes, and no ether was inhaled beyond such whiffs as might have reached the patient while the cone was three inches away from her mouth. The moment I replaced it she became sensible, and it was with considerable difficulty, and after the expenditure of seven ounces of ether, that I produced insensibility. When the operation was over violent hysterical crying came on and lasted for more than three hours.—I am, Sir, your obedient servant,

JAS. GODFREY THURPP,

Formerly Etherist, &amp;c., St. George's Hospital.

St. Stephen's road, W., Dec. 5th, 1882.

## PARISH RELIEF IN IRELAND.

WITH the view of relieving cases of distress in Ireland, which have been forwarded to the Boards of Guardians of unions, is anticipated. The Boards are advised that the powers vested in them by the existing Poor-law which need relief are cautioned not to look forward to public money on public works, but to take advantage of the present provided. The circular states that, satisfied by experience that relief works are not demoralising in their effects, but often fail to aid in order, however, that distress may be properly made that each relieving officer be directed to different parts of his district for the purpose of from persons needing relief.

F.R.C.S.—There is no vacancy in the Council of the at present. Mr. Holden, who still retains his seat to be a member of the Court of Examiners in Surgery and also of the Dental Board.

Mr. Gibbs (Darlington).—The document has passed Application might be made to the author.

Mr. Frank Edwards.—We do not know of any such

Mr. Godlee.—Next week.

## AN APPEAL.

To the Editor of THE LANCET.

SIR,—The distressing circumstances of the case bring before your readers' notice are my excuse columns; I trust they may plead with the benevolence for their practical sympathy and help. The appeal is on behalf of the three orphan children of Griffiths, of Dublin, aged respectively eight and four and a half years. Their father, who was a physician and surgeon, was author of several valuable Medical and Chemical works. Some of these were: "Posological Tables," "Materia Medica and Prescribing," &c. He also occupied the position of Royal College of Surgeons in Ireland, and Lecturer in the School of Medicine, Dublin. In his life he was the utmost satisfaction, and, owing to his kindness, he soon became a particular favourite with those brought in contact with him. In the year 1877 he was with an attack of typhoid fever, and having a violent action—never a robust one—by continued mental as severe literary work at late hours of the day, he fell a victim to the attack, and died on the fourth day of the early age of thirty-one, leaving a very delicate children in very distressed circumstances. The months after his father's death. The very week he was about to effect an insurance on his life for his family. Unfortunately, however, he completed. Two months ago his wife, who was the mother of her young family, succumbed to an attack of three little orphan boys are now wholly helpless, and receive from an aged grandmother, who supports the precarious mode of existence of letting support and educate these children till they themselves is the object of my appeal and which has just been formed. Any subscription, or to any of the following gentlemen, received and acknowledged:—Rev. F. P. O'Malley, Mount-Avenue, Leeson-park, Dublin; Rev. J. S. Herbert-place, Dublin; Walter G. Smith, Esq., Street, Dublin; Kendal M. Franks, Esq., M.D., Dublin.—I am, Sir, yours, &c.,

LAMBERT H.

4, Merrion-square West, Dublin, Dec. 20th.

M.A. Oxon.—Yes, the Mr. Arthur Smyth Flood, whose name was amongst the successful candidates for Intelligence, is the eldest son of Professor College of Surgeons.

Dr. Philip Foster (Leeds).—1. The experiment under our notice.—2. We see no objection.

M.R.C.S. (Bath) has not enclosed his card.

## "SALICYLATE OF SODA IN

To the Editor of THE LANCET.

SIR,—In your issue of the 16th inst. I have by Mr. Couldrey under the above heading several months past I have prescribed the following: scarlatina, and with the happiest of results. Forty grains of salicylic acid, half a drachm of two drachms of syrup of mulberry, and lemons to three ounces of water; one teaspoonful (a girl eight years of age), the dose to be repeated.

The subject is at present engaging my attention on the occasion to offer a communication on the subject.

December 20th, 1882.



[illegible][illegible]



## MADEIRA.

WE have received from Messrs. Butler and Son, Fenchurch-buildings, an excellent photographic view of Madeira, which will be interesting to intending visitors to that famous health resort.

*J. B. S.*—We think our correspondent was justified in expecting his fee. Cases in point have been decided in county courts, one of which was reported in THE LANCET of Jan. 25th, 1873, p. 150.

*Mr. Redmond.*—It would be impossible to comply with our correspondent's request.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Rev. W. P. Roberts; Mr. Christopher Heath, London; Mr. Stevens, London; Dr. Hebb; Dr. Heron; Dr. J. C. Warren; Mr. Symonds; Dr. F. Page, Newcastle-on-Tyne; Mr. B. Scott, Brighton; Mr. Eccleston Gibb, London; Mr. W. H. Kesteven, London; Mr. Croudace, Burnley; Dr. Corfield, London; Mr. W. Thompson, South Yarra; Dr. Rayner, Hanwell; Mr. Belgrave, Sydney; Mr. Reginald Harrison, Liverpool; Dr. Philip Foster, Leeds; Mr. Wrench, Chesterfield; Mr. Redmond, Edinburgh; Mr. Banaer, London; Mr. W. Stokes, Dublin; Dr. Noble Smith, London; Dr. Naismith, Ayr; Mr. Thornton, Wolverhampton; Dr. A. Routh, London; Dr. H. Cane, Belvedere; Dr. Gueterbock; Mr. Corbould, Damerara; Mr. Edwards, Buntingford; Mr. North, Micklegate; Mr. T. K. Green, Bath; Dr. G. Fowler, Kennington; Mr. Shann, Micklegate; Brigade-Surgeon Oughton; Dr. Cameron, Huddersfield; Mr. M. Coates, Salisbury; Mr. Tador, Dorchester; Mr. Buxton Shillito, London; Mr. Forman, London; Dr. Tomkins, Monssall; Dr. Moffat, Manchester; Mr. Lawson Tait, Birmingham; Dr. Atkinson, Kingston; Dr. Barron, Southport; Herr Schorer, Berlin; Dr. Ormsby, Dublin; Mr. Ovendon, Dublin; Mr. Wheeler, Manchester; Mr. Edgill; Mrs. Spencer, Glasgow; Messrs. Bell and Bradgate, Edinburgh; Mr. Warren, Boston; Mr. Weiss, Madras; Mr. Pratt, Cardiff; Mr. Graham, Wigan; Mr. Debenham, Presteigne; Mr. Griffiths, Rhos; Dr. Matthews Duncan, London; Mr. Symonds, Oxford; Dr. Cory, Buckhurst-hill; Miss Mathews, Felixstowe; Mr. Vacher, Birkenhead; Mr. Godlee, London; Dr. Colcott Fox, London; Dr. Octavius Sturges, London; Mr. Austin, London; Ignoramus; Enquirer; E. L. W.; P. W. M.; J. B. S.; Medicus; Bearer Company; A Constant Reader; &c. &c.

LETTERS, each with enclosure, are also acknowledged from—Mr. Knox, Glasgow; Messrs. Hodgkinson, London; Mr. F. A. White, London; Messrs. Beal and Co., Brighton; Mr. Hughes, Bromley; Dr. Jacobl, New York; Dr. Mackenzie, London; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. Coward, Huddersfield; Mr. Strong, N.S. Wales; Messrs. Hunter and Co., Aberdeen; Mr. Phillips, Reading; Mr. May, Tunstall; Mr. Armitage, Touranga; Mrs. Nicholas, Alexandria; Mr. Godwin, Hackney; Mr. Harding, Westgate; Mr. Townsend, Exeter; Mr. Bryan, Hornsey; Mr. Pigott; Mr. Asaker, Hereford; Mr. Angus, Newcastle; Dr. Perkins, Exmouth; Mr. Cartledge, Richmond; L. S. B., Manchester; Medicus, Weybridge; G. R.; A. A. C., Blackburn; L.R.C.P., Southwark; Medicus, West Croydon; M.D., Calfield; M.D.; Q. D.; Rodicus, Brighton; Medicus, Carlisle; L.R.C.P., Dewsbury; M.D., Plaistow; Noë; Sternum; Rainbow; L. C. L., Fulham; D. B., Peckham; R. W. C.; Sigma; L. J., Seaford; Doctor, Bayswater; B. S.; Cantab, London; &c. &c.

*Ayr Advertiser, Damerara Daily Chronicle, Warehousemen and Drapers' Trade Journal, Leeds Daily News, Colonist, Church of England Temperance Chronicle, Forest and Stream, Ceylon Observer, Secular Review, Porcupine, Melbourne Argus, Das Echo, Barnsley Times, &c.,* have been received.

## Medical Diary for the

## Monday, Dec

ROYAL LONDON OPHTHALMIC HOSPITAL—10½ A.M. each day, and at the same hour.  
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL—10½ A.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
ST. MARK'S HOSPITAL.—Operations, 2 P.M.

## Tuesday, Dec

GUY'S HOSPITAL.—Operations, 1½ P.M., and at the same hour.  
WESTMINSTER HOSPITAL.—Operations, 1½ P.M., and at the same hour.  
WEST LONDON HOSPITAL.—Operations, 1½ P.M., and at the same hour.

## Wednesday, Dec

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 1 P.M., and at the same hour.  
MIDDLESEX HOSPITAL.—Operations, 1 P.M., and at the same hour.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1 P.M., and at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1 P.M., and at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M., and at the same hour.  
LONDON HOSPITAL.—Operations, 2 P.M., and at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2½ P.M.  
SAMARITAN FREE HOSPITAL FOR WOMEN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 9.15 A.M., and at the same hour.—Skin Department, 9.15 A.M.

## Thursday, Dec

ST. GEORGE'S HOSPITAL.—Operations, 1½ P.M., and at the same hour.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and at the same hour.  
CHARING-CROSS HOSPITAL.—Operations, 1½ P.M., and at the same hour.  
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 1½ P.M., and at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 1½ P.M., and at the same hour.  
NORTH-WEST LONDON HOSPITAL.—Operations, 1½ P.M., and at the same hour.  
ROYAL INSTITUTION.—3 P.M. Professor Eye."

## Friday, Dec

ST. GEORGE'S HOSPITAL.—Ophthalmic, 1½ P.M., and at the same hour.  
ST. THOMAS'S HOSPITAL.—Ophthalmic, 1½ P.M., and at the same hour.  
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 1½ P.M., and at the same hour.  
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M., and at the same hour.

## Saturday, Dec

KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M., and at the same hour.  
ROYAL FREE HOSPITAL.—Operations, 1½ P.M., and at the same hour.  
ROYAL INSTITUTION.—3 P.M. Professor Eye."

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## Clinical Remarks

ON A

## CASE OF BRONCHIECTASIS TREATED BY TAPPING.

By C. THEODORE WILLIAMS, MA., M.D., &C.,  
PHYSICIAN TO THE HOSPITAL FOR CONSUMPTION AND DISEASES  
OF THE CHEST, BROMPTON.

GENTLEMEN,—Bronchiectasis in its worst form is one of the most troublesome affections the physician has to deal with, and the subjoined is instructive, as indicating some of the difficulties.

Charles R—, aged forty, a baker, was admitted into Brompton Hospital on April 28th, 1882, under my care, with the following history. There was no consumption in the family; he was chilled twelve months ago, and had cough and expectoration ever since, with some pain in the chest and tightness, for which he became an inmate of the Bath United Hospital, and remained so till April, 1882. During this period he had night-sweats and more or less pyrexia, the temperature rising to 103° F., but being generally from 99° to 100° in the mornings, and 100° to 101° in the evenings.

On admission the cough was very harassing, inducing vomiting; expectoration abundant, purulent, and so fetid that the patient had to be isolated from the other patients. It contained no lung-tissue. Breath very foul. Pulse 106; temperature 99.4°; respiration somewhat hurried; weight eight stone four pounds and a half. Physical signs: Right side anteriorly hyper-resonant to upper border of the fourth rib; below marked dulness, and intercostal spaces retract on inspiration; bronchophony audible over the whole front, also coarse crepitation, replaced in certain spots by gurgle and cavernous breathing, these spots being situated in the second and third intercostal spaces, near the shoulder, and in the fourth and fifth interspaces between the nipple and shoulder. In the latter position the gurgle was audible over a spot of two inches diameter. Posteriorly, marked resonance from above to the angle of the scapula, below which was dulness with retracting intercostal spaces, as in front; crepitation audible over the whole surface, with spots of gurgling and cavernous sounds between the ninth and tenth ribs, immediately below the lower angle of the scapula, and again in another spot at the same level, two inches nearer the spine. Left side: Crepitation with wheezing sound heard over the lower half of the posterior surface. The diagnosis was chronic pneumonia of both lungs, accompanied in the case of the right by extensive bronchiectasis and adhesion of pleura. The fetor of breath and expectoration were treated by the patient wearing a Roberts' respirator containing a mixture of creasote and carbolic acid, the air of the ward was diffused with vapour of thymol or eucalyptol, the expectoration was duly deodorised by terebene, and stimulant expectorants administered, in addition to two ounces of brandy daily. Notwithstanding these measures, the cough continued sufficiently violent to cause vomiting, the expectoration was so fetid as to greatly distress the patient, and, in spite of all precautions, the smell reached the gallery and penetrated into some of the adjacent wards. After consultation with Drs. Douglas Powell and Tatham, I decided to ask Professor Marshall to make an opening into the largest bronchiectasis, and thus to secure efficient drainage.

On May 22nd Mr. Marshall made a vertical incision along a line drawn by myself, from the fourth to the sixth ribs, about two inches to the right of the right nipple. He divided the skin and laid bare two intercostal spaces, the object being to puncture the upper space, and in case of our thus failing to reach the bronchus to try the lower space without a fresh incision. Mr. Marshall then plunged a special trocar and cannula, with director attached, to the depth of four inches towards the root of the lung. Air hissed through the opening, followed by a large quantity of fetid matter, which was ejected with considerable force. Mr. Marshall then extended the opening by means of his knife and finger, and more fetid mucus, this time mixed with sloughs and

shreddy lymph, appeared; some blood also flowed. A piece of French catheter-tubing was fastened in, through which the discharge passed into antiseptic dressings.—23rd: Slept well; a fair amount of discharge runs through the tube; expectoration diminished, hardly fetid; wound looks well. Temperature 99.8°; pulse 100.—24th: Dr. Hicks found the tube to be slightly movable; discharge free and not offensive; expectoration thirteen ounces, devoid of smell, and breath tolerably pure. Two days later, the expectoration and discharge remaining about the same, the patient had diarrhoea, lasting two days, arising, it was supposed, from swallowing sputum; urine 1020, no albumen.

June 1st: The tube was changed, and the patient was allowed to walk in the grounds of the hospital. He remained fairly well; the expectoration about seven ounces daily, and the discharge tolerably sweet, till June 8th, when the discharge increased; there was a slight rise of temperature to 100°.—4th: The patient complained of headache.—12th: The sputum slightly fetid. Still headache. Discharge increased.—17th: Patient has had severe frontal headache and vomiting with much flatulency since 4 A.M. Wound the same; discharge more fetid. Temperature 101.6°. Ordered a calomel and podophyllin purge. This produced a number of motions, but no relief to the headache, which increased, and appeared to correspond with a diminution of the sputum, the quantity falling from six ounces to one ounce and a half on the 20th, and on the 24th he became drowsy, with more headache. Movement was impaired on the left side. No expectoration.—26th: Headache diminished; left pupil large. Breath very offensive. No sputum.—29th: Very drowsy. Passes motions under him. Wound the same.

July 1st: Complete hemiplegia of the left side of the body. The patient was drowsy and nearly unconscious. He died five days later; the sputum being altogether retained. The autopsy was performed on the following day. The subjoined is an abstract of Dr. Ewart's, the pathologist, and Mr. H. Williams', my clinical assistant, notes. A fistulous opening was seen in the right side of the chest between the fourth and fifth ribs, two inches to the right of the nipple line. The right pleura was universally adherent, rather closely so, by means of a strong fibrous tissue. The right lung was deeply congested and practically devoid of air; the tissue was collapsed, sodden, congested, and infiltrated with pus. A more or less uniform dilatation of all the small bronchi was noticeable on close inspection. Sacculular dilatations as large as peas or almonds existed in the thickness of the basic fringe from sternum to vertebrae, but the main disease was situated in the lower part of the upper lobe anteriorly, and in the anterior portion of the lower lobe. The greater part of the sternal portion of the upper lobe was converted into a 'baggy' multilocular saccululation with thin but very tough fibrous walls, and containing some fetid fluid. This cavity, which was typically bronchiectatic, was also of the size of an orange, and communicated by an artificial channel with the fistulous opening on the chest wall, showing that the principal dilatation had been successfully tapped. In the sternal portion of the lower lobe the saccululations were much smaller, but very numerous and separated by a tissue thoroughly soaked in purulent fluid. The posterior parts of the lung were comparatively free from disease with the exception of two inches and a half above the diaphragm in the interscapular region, where a series of small sacculations about the size of a walnut was found. The left lung had no pleural adhesions, and was crepitant throughout, and tolerably healthy. No bronchiectases were detected in it. The bronchial glands beneath the bifurcation of the trachea were enlarged, pigmented, and soft. No tubercular or caseous deposits were found in either lung. The brain weighed fifty-five ounces, and in the right hemisphere was discovered a cyst as large as a Tangerine orange with walls varying in thickness from one-eighth to one-sixth of an inch containing pus. No abscesses were discovered in the other organs, which were carefully examined and found quite normal.

This case exemplifies some of the difficulties we have to encounter in the treatment of bronchiectasis. The diagnosis was based on the position of the physical signs, especially of the spots of gurgle, which are generally peculiar to bronchiectasis, and on the character of the expectoration; and it was proved by the autopsy to have been fairly correct. It must be admitted that much aid was derived from the fact of the cavernous sounds being very localised and apparently superficial. We had not to deal with a labyrinthine series of dilatations, as in a case com-

c c

communicated by me to the Clinical Society in 1879, where cavernous sounds were audible over a far larger surface than the size of the cavity, owing to its peculiar form. The entire failure of antiseptic inhalations, the knowledge of an adherent pleura, and the certainty of speedy death from septicaemia, induced me to have recourse to the operation, with the immediate results of which I was quite satisfied. I would specially draw attention to the advantage of making an incision, as Mr. Marshall did, over two intercostal spaces in cases where the area of gurgle extends as far; so that, if puncture in the first space fails, we can try the one below or above, as the case may be, without fresh incisions. Another point is using Dr. Hicks' admirable combination of trocar, cannula, and director,<sup>1</sup> so that the channel into the cavity may not be lost through accident—a by no means infrequent occurrence,—but gradually enlarged with the knife, and a large drainage-tube introduced. The wonderful improvement in the cough, the diminution of the expectoration, and disappearance of fetor, indicated in this case, as in Dr. Douglas Powell's case recorded in the 63rd volume of the Medico-Chirurgical Transactions, that much of the expectoration was due to the irritation set up in the bronchi by the passage of fetid secretion; and the marked amelioration made us hope that we were getting over our difficulties. But the return of fetor, the diminution of the expectoration, and, lastly, the pain in the head, followed by hemiplegia, showed clearly that absorption of matter and pyæmia had set in. The presence of an abscess in the brain and the total absence of any other abscesses in other organs were remarkable, and made one doubt at first if the brain abscess were pyæmic, but the curious relation between the diminution of expectoration and the increase of pain in the head certainly pointed to a pyæmic origin. The expediency of operating at all in these cases must be judged of by considering their probable termination. Some patients appear to gain expectorating power by using antiseptic expectorants in the form of medicines as inhalations, and are enabled to empty their bronchi sufficiently to prevent large and fetid accumulations. In others one of four events happens: (1) Either some of the fetid secretion passes during the movements of respiration into adjoining bronchi, or into the main bronchus of the opposite lung, and gives rise to septic pneumonia and death; (2) or the fetid products are absorbed by the lymphatics and bloodvessels, and give rise to pyæmic abscesses in some part of the body, as in the present case; (3) or, again, the bronchiectasis may burst into the pleura and cause pneumothorax; (4) or, lastly, the patient may die of suffocative bronchitis from the secretion penetrating into all or the greater part of the alveoli. All these four terminations are fatal in a shorter or longer period, and it is to obviate them that operations are undertaken. Taking the forms of bronchiectasis into account, of the two cylindrical and globular, the globular form of dilatation of the bronchi is the worst to treat, because all tonicity of the walls appears to have been entirely lost, and although we may tap and relieve one of these collections of fetid pus, we never can be quite sure that another one does not exist in another part of the lung, so that not one but many operations are required, and it looks sometimes as if there was more probability of our reaching the end of the patient's life than of the end of the operations. In the three other cases of bronchiectasis on which I have had operations performed, in all more than one operation was performed. In one six openings, in another three, were made, and this last patient stood the operations well, and is still living, a year and a half after. In the present case we were fortunate enough to hit the largest of the bronchiectases, and I hoped, as it was the lowest, that it would carry out sufficient drainage of a large portion of the bronchial tree. The question may be asked why I did not have another operation performed, but we had no indications. The opening was not blocked, but patent, and the septic symptoms came on too rapidly to allow of more apertures being made.

<sup>1</sup> Lately exhibited at the Medical Society of London.

At a recent meeting of the guardians of the Wandsworth and Clapham Union, Dr. Longstaff, in moving that the whole question of the accommodation provided in the infirmary and the new workhouse be referred to a committee, is reported to have stated that the infirmary was so overcrowded that some of the inmates had to sleep on the floor and in the kitchen.

## ON SPINA BIFIDA.

By G. B. BARRON, M.D., M.R.

THE subject of spina bifida has been discussed in the columns of THE LANCET, and an unusual interest has been evinced in its radical cure by methods of treatment. How far all cases can be amenable to any treatment, or how far justifiable to attempt so dangerous an experiment injecting a cyst of this character, is yet beyond of our knowledge. The cases of successful cure are too limited to warrant any inconsiderate rash and heroic step as rushing in with some hope of success to stop the gap Nature in her has omitted to close. The following case is to record as illustrating how tolerant the human system may be of unnatural processes, and how new ideas may remain unaffected, contrary to our ideas of their integrity. The literature of the subject is unsatisfactory, as authors, in treating of the subject, have it over in a brief and rather off-hand manner. An article on the disease is to be found in Cooper's Dictionary. Cooper relates some interesting cases, but his scientific lines of treatment whereon confidence are even here wanting. I apprehend that surgeons are divided in their opinions as to the best method of dealing with it, and none yet dare issue a definite opinion of probable successful operation. Cooper relates a case which was cured by repeated tapplings and punctures, but states in other cases these measures failed and death ensued. He also says, "We must regard all attempts to cure the disorder by making any kind of opening as being extremely dangerous, and generally fatal." Bryant doubts. He says, "Almost all these cases prove fatal. Many of the subjects are ill-developed, within a few days of birth; some die in childhood, and this mode of death is very usual when the child and its fluid contents escape." Then, as to treatment, he goes on to say: "Palliative treatment is all that is allowed in the majority of cases, although in some instances operative interference promises to be successful. Holmes somewhat favours injection of the cyst, but his practice is almost only adapted to small pedunculated cysts. Erichsen relates a case with an enormously large cyst which was successfully treated by tapping. Probst relates a case which has no parallel in surgical literature. He concludes, "We shall probably best consult the interests of the child by abstaining from all operative interference, and does not even allude to injection."

The cases related at the Clinical Society, and the subsequent discussion, prompt the inference that surgeons are present most disposed to rely upon injection of the cyst. Still, the meagre success and the paucity of cases scarcely justify reliance upon that method. Here we have a case which surgical science requires to deal with without resort to any of these methods.

Three years ago, being on a visit in Worcestershire, I was requested to see the child of a farm labourer living in an adjacent village. The child, well nourished and looking, was six weeks old, and was the subject of spina bifida, situated between the fourth and fifth lumbar vertebrae. It was the size of a small hen's egg. Mr. Woodward, of Pershore, had attended the case, and was present at the time I saw it. The skin looked shiny and red, and was ready to give way. I advised aspiration or tapping, but the latter procedure was adopted by a large hypodermic needle, which was left in the sac for a few hours. About eight drachms of fluid were withdrawn. A piece of cotton-wool was applied to protect the part, and the child was cautioned not to handle the child roughly, and to avoid undue pressure on the swelling.

By the courtesy of Mr. Woodward, in August last I had an opportunity of seeing the child again, and notes of its condition, taken at the time, run as follows: The child is fairly well nourished, and is about the size and weight of a three-year-old child, and has the appearance of full health. It can walk, but its gait is a little hunched and slightly "straddling," with its feet rather more than natural, as though it had a difficulty to secure equilibrium; the lower extremities are thin, but the hands are means emaciated, and sensation is perfect, the



being intact, and plantar titillation immediately as the usual muscular jerk. There is perfect control of the sphincters, and the urine is voided in a full stream. There is no lack of intelligence, the eyes are full of expression, the head of normal size and shape, with no sign of hydrocephalus. Pressure on the tumour produces no symptom of distress, nor does it alter materially the size of the aperture. It has a very broad base, and the edges of the aperture can be felt, the finger-tip detecting a large circular ovoid opening communicating with the spinal cavity. The size of its base indicates its non-pedunculated character. The measurement in circumference at base is fifteen inches, and across from side to side eleven inches. It is as transparent as a hydrocele. The case, when first I did not encourage the idea of attempting a cure by tapping, and I may mention that it has been tapped frequently, but has rapidly refilled each time.

The curious and interesting points about this case of hydromyelia seem to me to be these: the size of the tumour; the full development of the lower extremities; the rapidity of progression; the absence of pressure on the spinal cord, and thus the sphincter integrity. While the size of the opening would point to the possible pressure on the spinal cord, if broad based tumours are more likely to press upon the spinal cord than pedunculated ones, how is it there is no evidence of pressure here? Suppose the nerve structures are pushed forward in front of the fluid, I think we might reasonably on physiological grounds expect to find evidence of nerve pressure, or malnutrition from nerve stretching, or nerve atrophy. There is no talipes in this case. We have told not to puncture the front part of these tumours so as to injure the nerves, but is there any evidence that the structure of nerve structure in this part of the body by a fine needle has been productive of permanent mischief? This seems to me, if not unique, at least curious and demands the following considerations.

If the subarachnoid fluid both of the brain and spinal canal normally does not exceed two ounces, how is it that this tumour is so large? We know the fluid is reproduced rapidly when withdrawn, and the withdrawal when complete produces symptoms analogous to plethora of the blood-vessels, and when it is in excess it also produces convulsions and other evidences of pressure. There being direct communication between the spinal subarachnoid channel, and the cerebral ventricles, how is it that when the fluid was all withdrawn in this case no convulsions ensued? and this procedure has been observed several times without mishap. As this part of the enveloping sac membrane from its internal area alone secrete the fluid, or does the whole arachnoid surface contribute its proportion? and if so why in this case above normality? The question may also be prompted, Why is there usually talipes in these cases? Is that condition purely accidental or is it due to defective tissue growth dependent upon the neural abnormality cutting off nerve-supply to a given set of muscles? I confess my inability to suggest any other method of treating, radically, hydromyelia; but, except in the matter of injection, we have made no advance in our knowledge of it during the last fifty years. This is a reproach to our modern surgery, which boasts, and with perfect justice, of feats so brilliant that they become almost incredible as compared with the surgery of the past half century. Of this I am quite convinced, that something will be won upon the intellect, as a more certain and effective means of dealing with this disease. An interest has sprung up which will eventuate in some satisfactory operation. Can we in any way imitate sloughing which produces spontaneous cure? To say that hydromyelia is an incurable disease would be considered unsurgical, but I am by no means convinced that some better method may not yet be discovered than we at present adopt. The old plan of a seton must be condemned, so I think must tapping and pressure, experience teaching that no reliable good ensues from these measures. It is to be hoped every successful case of cure by injection, no matter what the agent used may be, will be published, that tabulated results may lay the foundation of something like a sound basis whereon to act, and which will inspire confidence in dealing with this *bête noire* of surgery.

Southport.

## CASE OF FEIGNED SKIN DISEASE.

By T. COLCOTT FOX, M.B. LOND.

A. S—, aged nearly sixteen years, a furtive-looking general servant in London, presented herself at the Skin Department of the North-West London Hospital on the 28th of November. The catamenia commenced at the age of thirteen, but had since been irregular, and for the past year absent. She was fairly well nourished, but pasty-looking, and her finger-nails were markedly grooved. She applied on account of three excoriated patches which appeared on Nov. 21st, close together on the front of her left leg, and had, she stated, given her great pain, and caused her to lie awake sobbing at night, so that her mistress had no longer the heart to keep her at work. The suggestion had been made that the sores were caused by the dye from her black stockings, and the girl said that she had dressed the places with "Moore's ointment." One sore was perfectly oval, another nearly heart-shaped, and the third triangular, with a horn at each angle at the base. The patches measured about 1½ in. by 1½ in. to 2 in., and the long axis was in the direction of the limb; they were simple uniform weeping excoriations, with hardly any attendant inflammation. Suspecting the nature of the lesion, I ordered a simple dressing and a saline aperient, and talked of admitting the girl into the hospital if more sores appeared. On Dec. 5th she returned with a transversely oval sore just above each mamma (a very characteristic site in feigned cases, but not quite symmetrically situated. There were two others above the left ankle-joint, and one on the outside of the right calf, all longitudinally oval simple excoriations, with a well-defined border, except on one sore, where the abrasion was not complete at one end, and only papulation existed, suggesting a cantharides application. There was a dark-brown blood scab on some. She was admitted to the wards. On Dec. 6th a transversely oval patch appeared just below the left mamma; and another, longitudinally oval, covered with a slight scab, on the right hip. The girl from time to time, for twenty-four hours after admission, had prolonged fits of hysterical sobbing. On the 12th a sore appeared on the right shin near the ankle, and another on the right mamma, between the site of a former excoriation and the areola. There was a remarkable uniformity in the size of the patches throughout. As to the agency at work, I never could detect any evidence of the formation of a bulla, and the patches were too superficial for causation by an acid; moreover, repeated examination of the clothes, bedding, &c., at convenient times and unbeknown to the patient, failed to furnish any clue. On the 16th, no more excoriations having appeared, I taxed the girl with producing the eruption artificially, and, after prolonged denials, she confessed that she had done so, partly by her nails, but mostly by continued rubbing with the tops of her fingers. Probably the malingering was not altogether motiveless, and she desired a rest from her household labours. She proved to be very troublesome and disobedient in the ward, and I learnt from her father that she was an incorrigibly bad girl and a constant source of worry. The case is of interest as establishing an agency which has hitherto only been suspected as possible. Whether the skin in these cases is peculiarly sensitive to injury is a point for further investigation.

Harley-street.

## LARGE ASYLUMS FOR THE INSANE.

By H. RAYNER, M.D.,

SUPERINTENDENT OF THE MALE DEPARTMENT OF THE HANWELL COUNTY ASYLUM.

It appears to me to be desirable to draw attention to a danger which threatens the welfare of the insane poor of England and Wales. This danger arises from the conversion of asylums of a size that is efficient and economic, into larger asylums that are less economic, and I fear less efficient. Moreover, valuable opportunities are being lost by the building of large, cheap asylums for the detention of lunatics, in place of efficient hospitals for their treatment

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On Wednesday morning Dr. Edwardes, of Hounslow, was found dead in his chair. It is stated that there was evidence present of death having been caused by prussic acid.

and cure. These errors are being committed from the prevalent belief that large asylums are the cheapest.

The following figures abstracted from reports prepared for other objects will, I hope, tend to correct this mistake, and prevent further mischievous consequences. The thirty-sixth Report of the Commissioners in Lunacy for the year 1881 yields the following statistics in regard to the English county asylums. (The borough asylums are excluded as being under different conditions.) The asylums I have divided according to their number of inmates into four groups: the first, in which there are less than 450, being considered too small; the second, above 450 and under 600, being taken as the most favourable size for economy and treatment; and the two other divisions being made only to show the increase of cost with the increase of size.

Names of Asylums.	Number of beds.	Average weekly cost per patient.	Number of patients to each medical officer.
Northumberland, Notts, Derby, Cumberland, Berks, Bucks, Cambridge, East Riding, Hereford, Denbigh, Suffolk.	Less than 450 beds	s. d. 9 7½	181
Dorset, Oxford, Salop, West Riding, Cornwall, Wilts, Chester, Monmouth, Burntwood, Leicester, Carmarthen, Glamorgan, Northampton.	450 to 600 beds	8 10½	223
Lincoln, Norfolk, Sussex, Parkside, Warwick, Hants, Stafford, Rainhill, Devon, Gloucester, Chatham, Somerset, Worcester.	600 to 800 beds	9 3½	265
Beds, Durham, Whittingham, Essex, Wandsworth, Brookwood, Lancaster, Wadale, Prestwich, Wakefield, Banstead, Hanwell, Colney Hatch, Barming Heath.	Upwards of 800 beds	9 5½	345

This table shows, as might be expected, that those asylums are dearest which are not sufficiently large to justify the necessarily complex and expensive staff of such institutions; and it also shows that beyond this is a class much more economic, and, if judged by the proportion of medical attendance supplied, much more efficient than the larger asylums.

A Parliamentary return for the year 1877 yields the following statistics:—

Names of Asylums.	Size.	Total number of beds.	Total cost.	Average cost per bed.
Northumberland, Notts, Derby, Cumberland, Oxford, Berks, East Riding, Suffolk, Denbigh, Cambridge, Carmarthen, Hereford.	Not more than 450 beds	4580	£ 785,570	£ 171·5
Northampton, Burntwood, Bucks, Glamorgan, Cornwall, Dorset, Monmouth, Stafford, Salop, North Riding, Chester, Wilts.	450 to 600 beds	6307	963,122	152·7
Gloucester, Hants, Devon, Worcester, Beds, Essex, Lincoln, Parkside, Rainhill, Somerset.	600 to 800 beds	7099	1,303,166	183·5
Barming Heath, Wandsworth, Hanwell, Colney Hatch, Lancaster, Durham, Whittingham, Brookwood, Wadale, Prestwich, Wakefield, Banstead.	800 beds and upwards	16,423	3,215,717	196·9
Banstead (Asylum for Chronic Cases).	—	1700	276,422	162·9

This report includes all the county asylums of which the returns were available, and shows that the asylums of from 450 to 600 beds are the most economic in construction, larger asylums being dearer in proportion to their size; even

Banstead, constructed in the simplest manner, view to cheapness, being more costly.

A second Parliamentary return for the that in—

#### Asylums of

Not more than 450 beds	.....
450 to 600	.....
600 to 800	.....
Upwards of 800	.....

In this respect the cost would seem to be to the increase of size.

Statistics are proverbially unreliable, considered these carefully, from other points here, with the result that, making a consider the above figures to approximate truth. Assuming that they do so, we following summary of results, in comparison asylums (450 to 600 beds) with the 1 beds and upwards). In the large as 6½d. more per week, and each bed of construction and £1·06 annually in repair to saying that if 40,000 patients (and this is close upon this) were lodged in large cost £1,760,000 in construction of bulk in repairs, and nearly £60,000 annually more than the same number in a advocate.

The current economy is of small importance in the question of efficiency, and this extent on the personal influence of a patient, an influence which I believe a junior officer, however efficient and

The primary importance of the physician was emphatically expressed, and was fully recognised by the Commission their report for 1857, in which they very large buildings on account of the responsible supervision, the loss of time and the tendency of the rate of mortality. I could quote many other authorities in opinion, but that I might appear to

Then arises the question, Over what can an average superintendent exercise personal influence, and at the same time control over the asylum that every patient be used to the greatest advantage for I answer that the number should be that the balance of advantage lies in the number than this.

I do not doubt that efficiency in the larger asylums, but, as the price is much greater cost, which must be the number of medical supervision proportionate to that in the medium

Believing as I do that the current almost direct ratio to the care being expressing an emphatic protest against asylums of useful size, or the large repositories in place of lunatic hospitals at Hanwell.

#### TWO CASES

#### INTRA-VEIN INJECTION FOR SEVERE HÆMORRHOID

BY WM. COATES

RESIDENT ACCOUCHEUR, LATE HOUSE

PROMINENCE having lately been brought to the subject of intra-venous combating the effects of severe hæmorrhoids with which Mr. Jennings has been afflicted, I wish to supplement what has been the history of two cases in which the operation, both of them cases of hæmorrhoids, that the hæmorrhoids occurred a long time after the cause, and that they were the result of the Jennings's syphon has been employed.

The first case is that of Emily C—, aged twenty-six, a patient of the London Hospital Maternity Charity. She is a married woman, has had five children, but has always been delicate. Has had heart disease for some years, having hadumatic fever when young. On October 16th she was seen in labour early in the morning, and at 1 P.M. I was summoned to the case. The patient was feeble, pulse rapid and intermittent, and she had stenosis and incompetence of mitral valve. The head was low in the pelvis, in the second position, but as the pains were few and there had been no further descent during the last three hours, delivery was effected with Barnes' long forceps, and the placenta easily expressed. About twenty minutes after delivery violent hæmorrhage occurred. Manipulation, hypodermic injection of sclerotic acid, cold affusions, ice internally and externally, the intra-uterine injection of hot water, were all resorted to; but these measures failing to produce more than a temporary uterine contraction, ten ounces of a solution of perchloride of iron (one in five) were injected into the uterus. The hæmorrhage ceased, and after the lapse of a little time the uterus contracted moderately. The patient progressed favourably, and seemed in a fair way towards recovery, when, contrary to instructions, she sat up for an hour on November 1st, and again began to flood. She was found in an anæmic and weak state, but the hæmorrhage was easily arrested. Two days afterwards the bleeding returned, and the friends did not summon assistance until she had been "losing" for eight hours. When seen the bed was saturated with blood, and the patient appeared almost moribund. Pulse was only just perceptible at the wrist, and very frequent; skin and mucous membranes were almost bloodless, extremities and face were icy cold, vision was dim, she did not recognise any one about her, and was seemingly unconscious. Although apparently quite still, her friends stated that she had been tossing violently. My colleague, Dr. Basil Walker, agreeing with me as to the necessity for immediate action, and the husband being unwilling to supply blood, Jennings' syphon was procured, and the saline alcoholic solution recommended by me (THE LANCET, September 16th), and which is almost identical with that suggested by Mr. Little in the London Hospital Reports (1866) was allowed to flow into the radial vein, this being the only visible one and of fair size. The result was marvellous. Sight and consciousness returned, the pulse gradually but steadily improved, the patient expressed herself as feeling "beautiful," and soon was able to retain stimulants, which were freely administered. She died a good night, seemed better in the morning though extremely anæmic and weak, and the possibility of another outburst of hæmorrhage being entertained, she was brought to the hospital. With the exception that symptoms of acute mania appeared on November 17th her progress has been most favourable, and recovery is probably not very remote. To give some idea of the intensity of the anæmia it may be stated that retinal hæmorrhages have been observed in both fundi.

The next case is that of Mary C—, aged twenty-seven, patient of the same Charity. On November 10th she was confined of a healthy child after an easy labour. Her convalescence apparently proceeded rapidly. She sat up on the fifth day and performed household duties in a week. On the 19th, soon after straining at stool, she became faint, and then flooded alarmingly. At 1 P.M., half an hour after the onset of the hæmorrhage, the appearance of the patient denoted severe loss of blood, which was found in large quantity upon the floor and bed. The uterus was relaxed, and blood was flowing in gushes from the vagina. The os was not admitted a finger, and the uterus was full of clots. Sclerotic acid, ice, kneading, &c., failing to arrest the hæmorrhage, the vagina was plugged, and patient brought to the hospital. When seen soon after arrival—2.30 P.M.—she appeared much worse, was vomiting, and complaining of abdominal pain. A large tumour was felt, reaching almost to the ensiform cartilage, which proved to be the uterus distended with blood, the constricted os evidently preventing its free exit. A digital exploration of the uterine cavity was now made—the large uterus and small os rendering this incomplete; but nothing abnormal, except a little softening of the anterior wall, could be detected. Failing to check the bleeding, and wishing to ascertain its origin, the os was somewhat rapidly dilated with Barnes' hydrostatic bags. By this time, however, the state of the patient had become most critical. She said her sight was dim, and that she must die. The pulse was almost imperceptible; respiration was irregular; extremities cold; and there

was jaundition. Mr. Unsworth, house-surgeon, concurring with me that there was no time to be lost, and no vein being visible, an incision was made over the situation of the median cephalic, and that vein exposed, into which about twenty-two ounces of simply warm water, at a temperature of about 100° F., were injected with the aid of Jennings' syphon. The result was no less striking than in the preceding case. The pulse became regular, ceased to intermit, and its volume increased; respiration improved; sight returned; and the uterus slowly but distinctly contracted; she at the same time expressing herself as feeling better. At about 4.30 P.M. Dr. Herman saw the patient, and, the os being now fairly dilated, the interior of the uterus was examined, but nothing further was discovered to explain the flooding. As there was still considerable bleeding, the uterus was swabbed out with a saturated solution of perchloride of iron, diluted with about equal bulk of water, and the patient was removed to bed. An enema of beef-tea and three ounces of brandy was administered; but in a short time she could swallow, and stimulants were freely exhibited. The patient is now progressing uninterruptedly towards convalescence, not having had a bad symptom, except a slight elevation of temperature (102° F.) the first few days.

I have pleasure in bearing testimony to the general efficiency of Mr. Jennings' instrument, and although on these occasions I was materially assisted by my colleagues mentioned and Mr. C. J. Dabbs, I believe the operation could have been accomplished single-handed. One merit of the instrument seems to me to be that although the tube is very long, the fear of introducing air is reduced to a minimum by the situation of the hole in the cannula and by the arrangement of the stopcock and glass-interrupter. The fault that was noticed in it on these occasions—but this is one that can easily be remedied—was the sharp point of the cannula. As at present constructed, unless the greatest care were observed, not only would the point injure the wall of the vein, but it would penetrate through the whole thickness of the skin. It is needless to say that Jennings' syphon is altogether unsuitable for the injection of blood, and I believe it is not intended for that purpose, for although the blood be most carefully whipped, its passage through so long a tube would be almost certain to ensure the formation of coagula. As Mr. Jennings' elaborate instrument is not in the hands of every practitioner, it may be as well to point out that the same result might be attained by the use of an ordinary irrigating can, or even a piece of drainage-tube might be utilised to serve the same purpose—i.e., if a suitable cannula were first obtained to introduce into the vein, and this could be prepared out of a piece of marrow glass tubing.

It may appear strange that in the second case simply warm water was injected with a view of reviving the patient, but thinking that the great factor in bringing about reaction in these cases of collapse was by the introduction of some fluid into the circulatory system upon which the heart could contract, I determined to give water a trial. The result speaks for itself. The resuscitation was no less marked in this case than in the one where alcohol and saline salts were employed in addition to the water. The omission of the saline salts in no way interfered with the success, and so a fluid of a different specific gravity, and one which is supposed physiologically to swell up the red globules and cause them to yield their pigment, was injected into the blood, and with a beneficial result. It may incidentally be mentioned that when microscopically examined, twenty-four hours afterwards, there was no obvious alteration in the appearance of the corpuscles. I am prepared to admit that if the fluid injected, in addition to increasing "the dynamic force of the circulation," combined with this the property of cardiac stimulation, it must be superior, but I am inclined to attribute the good effects of the injection far more to the former than to the latter cause; and with the return of consciousness and the renewal of the circulation, stimulants may be freely exhibited which previously are either unable to be retained or else, on account of the feeble circulation, cannot be assimilated.

The outburst of secondary hæmorrhage so long after delivery adds to these cases an especial interest, which is enhanced by the obscurity of its origin. If, as I am under the impression, having seen certain suspicious-looking sloughs about the os whilst plugging the vagina, the hæmorrhage in the first case was the consequence of the separation of a slough formed after the use of the iron injection, in addition to the dangers which are attributed to the intra-uterine injection of perchloride of iron, we are confronted

by one which I fail to find alluded to in the ordinary text-books, and one which, though more ulterior in its appearance, is certainly not less fatal in its consequences. And naturally the question arises, Would the intra-venous injection have made the uterus contract as effectually as the perchloride of iron if it had been employed in the first instance? If it could be proved that such a performance would sufficiently reanimate the patient to bring about uterine contraction, then that course ought to be adopted; because, now that intra-venous injection has been reduced to a practical operation, the dangers of the latter appear diminished when compared with the former. But the issue of the second case shows that although the uterus does contract after intra-venous injection, it does not always do so sufficiently to arrest all hæmorrhage, as the perchloride had subsequently to be applied to completely arrest the flow. It may be thought that the hæmorrhage was the result of polypus, retained placenta, or other cause; but, although carefully sought for, no evidence of such was found. Getting up too soon was the probable cause of the hæmorrhage in the other case.

I am aware that final conclusions cannot be drawn from what may be called two isolated cases; but one thing, at least, appears to have been established—viz., that the operation of intra-venous injection is a practicable one.

In conclusion, I would thank Dr. Herman for his courtesy in allowing me to publish these cases.

London Hospital.

#### A CASE OF ANEURISM OF THE AORTA RUPTURING INTO THE PERICARDIUM.

By H. C. GUINNESS, SURGEON-MAJOR, A.M.D.,  
IN MEDICAL CHARGE, STATION HOSPITAL, WESTERN HEIGHTS, DOVER.

CORPORAL A. D—, Royal Irish Rifles (83rd), age twenty-three, service five years (no history of syphilis, alcoholism, or rheumatism) was admitted into Station Hospital, Western Heights, Dover, on October 24th last, with inflammation of external meatus. In spite of the treatment employed the pus became very fetid, showing its neighbourhood to bone, and there was considerable constitutional disturbance with high temperature, &c. He became low and weak, requiring stimulants, &c., but no delirium or head symptoms occurred. During his life he had no symptom to direct attention to the heart or great vessels, and there was no suspicion of the existence of an aneurism. On November 12th, about 2 P.M., after his ear was syringed, he fell back in bed and expired almost immediately. As will be seen by the post-mortem report, the case is one of exceptional interest, owing to the mischief caused by the aural inflammation, the plugging of the lateral sinus and jugular vein, and the probability of this being the cause of the rupture of the aneurism by the increased pressure on its coats, also by the very small size of the aneurism. The post-mortem report I send in full, as furnished by Surgeon Skinner, Army Medical Department.

*Necropsy.*—Body pale and emaciated, rigor mortis well marked. On removing the skull-cap, the dura mater was found to be unusually adherent to the structures beneath, just above the torcular herophili. The left lateral, petrosal, and cavernous sinuses were filled with ante-mortem clot; also the jugular vein in the jugular fossa, and for about an inch below that point. The brain substance was firm; but presented nothing unusual on examination beyond general emptiness of the veins. The left auditory meatus contained pus; it communicated with the jugular fossa by a perforation. On opening the chest, the pericardium was observed to be distended to its fullest extent by a dark substance. On opening it, some reddish fluid—in amount about two ounces—escaped, and the heart was found surrounded by a firm dark-coloured clot, which on removal weighed ten ounces. This clot was found to be especially adherent to the anterior surface of the first portion of the aorta; on removing it from this situation, a small aneurism was found rather larger than a hazel nut, with a perforation in its centre admitting a medium-sized bristle. The heart had a considerable quantity of fat externally and was firmly contracted. Its muscular structure was pale on section. The valves were healthy, but all the orifices were rather small.

The aorta presented commencing atheromatousness throughout its whole thoracic portion; the aneurism was small, with a ragged margin stained for about one-eighth of an inch, quarter of an inch in its transverse, and a one-eighth of an inch in its vertical measure. The aneurism contained some laminated fibrin. The external coat was thickened in this situation at the point of perforation, which, from the presented a funneled appearance. The lungs were somewhat congested, especially at the base. The liver was slightly enlarged and congested, but was apparently normal, also the spleen.

*Remarks.*—The post-mortem appears to confirm the opinion that the rupture of the aneurism was due to the increased pressure caused by the thrombus in the left side of the brain.

### Medical Society

#### PATHOLOGICAL SOCIETY

*Casts made with New Material.*—Diffuse Large Polypus of Rectum.—Polypus of Liver of Kangaroo.—Abscesses in Liver of Kangaroo.—A Python.—Changes in the Nerve after Atrophy.—Changes in Nerves after Atrophy and Softening of Bones in Disease without Bronzing.—Bone in Syphilis.—Micro-organisms in Pyæmia.

THE ordinary meeting of this Society was held on the 19th inst., the President, Dr. Wilks, in the chair. Dr. Goodhart's specimens of extraordinary softening of the cranial bones were received by the Committee. Dr. Lees showed a living papulatum in a boy aged three years.

Mr. BOWLBY showed some excellent Skin Eruptions made from a new material of which was described in the *British Medical Journal* some short time ago. The most important characteristics of the specimens; some of which had been made nearly a year, but possibly advantageous to add some preservative colouring of the skin eruption was described. His second specimen was a girl, aged sixty years, with diffuse Polypoid growth of the alimentary canal, and no other disease of the alimentary canal, and no symptoms during life. The growth was situated beyond the ileo-cæcal valve as half way down the descending colon and some pedunculated. They covered the mucous membrane, and had no relation to the circumference of the bowels. The patient was a girl, aged twenty, who showed a very large Fibro-cellular tumour. The patient was a girl, aged twenty, who showed the discovery of the tumour had felt occasional constipation. While sitting down something came down which she was told by Mr. Everley Taylor, of Scarborough, found a large mass, the size of a foot, protruding from the anus. The tumour was removed, and was found to be very succulent, and it was cut into, and its weight was found to be 1 lb. 10 oz. Its attachment was to the anterior wall of the rectum, and it contained very loose fibrillar tissue containing a large amount of fluid—i.e., a soft fibroma. The patient was normal. It is now ten months since it was removed, and there has been no recurrence. The absence of symptoms, were the most remarkable features. His fourth specimen was a Polypus of the rectum. A female, aged thirteen months, who was taken ill, with diarrhoea, on April 28th. She was admitted into St. James's Hospital on May 10th, and died on May 13th. The appendix was found hanging loose from the 13th a large portion of the gut was found immediately began to recover, and she was discharged from the hospital on the 19th with a good recovery. On June 1st it was readmitted.

ital syphilitic rash, and it died from marasmus on ly 2nd, without any symptoms of intestinal obstruction. Post-mortem, there was evidence of old peritonitis and adhesions of the coils together, and also to the enlarged mesenteric glands. The upper part of the small intestine was healthy. There was a polypus about eight inches from the anus, with ulceration of the gut above it. There was no colon, but there were signs of the restitution of the continuity of the canal, three inches and a half from the anus. There was very little constriction; but the tube above was dilated. The peritoneum was scarred and thickened. The polypus was doubtless the cause of the intussusception; but it was unusual for the polypus not to come away.—Dr. COUPLAND alluded to a case something like Mr. Bowlby's that was under his care two years ago, the details of which were published in the Clinical Society's transactions. The patient was twenty years of age, and a dominal section was performed for irreducible intussusception. The polypus was in the small intestine, and produced the intussusception which came through the ileo-caecal valve. Alluding to Mr. Bowlby's case of multiple polypi, he said there was a specimen somewhat similar in the Middlesex Hospital Museum.—Mr. CRIPPS remarked on the large size of the rectal polypus; and with regard to the disseminated polypi, said there were only four cases recorded in the Transactions of the several Societies and in the museums. One specimen that Dr. Coupland had alluded to was taken from a man whose symptoms dated from an attack of cholera, and he died six months afterwards. There was another specimen in Guy's Hospital Museum where there were about twenty polypi in the last twenty inches of the colon with long, slender pedicles. He had shown a specimen himself last year. There were two kinds of polypi: (1) Those formerly called villous tumours, which consisted of hypertrophy of the mucous membrane, with new epithelial layers over the retiform tissue; (2) deposit in the submucous tissue of a mass of cells, the pedicle being formed subsequently, analogous to the fibrous molluscum of the skin. He saw Mr. Bowlby's case of intussusception during life, and asked how it was that the small intestine, which must have come down through the ileo-caecal valve, did not become so slough.—Dr. WILKS thought from his experience that polypi generally occurred in little boys.—Mr. MORRIS was surprised to hear polypi spoken of as rare. He recollected seeing several cases shown in one evening at this Society, all from young children. He once operated on a woman who had polypus, fistula, and hæmorrhoids, and related a case of a man who complained of tenesmus and spasm of the sphincter, and on examination six or eight polypi could be felt in the rectum.—Dr. GOODHART said that he had met with three kinds of polypi in the museum of the College of Surgeons:—1. Like the large specimen shown to-night, which was like Mr. Curling's case. 2. The polypi of young children, which consist of mucous membrane, and are papillomatous. 3. Villous, like Mr. Henry Smith's case, where twenty or thirty were removed by the finger, but recurred. With regard to the intussusception, he thought that the colon usually sloughs, and leaves the small intestine behind.—Mr. BOWLBY, in his reply, said that disseminated polypi were usually mucous. The interest of his case lay in the fact that his had a fibrous consistence. He thought that the ileo-caecal valve in the intussusception case, as well as a part of the small intestine, had sloughed away.

Mr. J. B. SUTTON showed, first, the Liver of a Kangaroo, with about 200 small abscesses, some projecting above the surface and some deeply imbedded. All of them had caseous walls. One had burst into the peritoneum and killed the animal. He had often seen similar abscesses in birds. Secondly, he related the case of a Large Abscess occurring in the Abdominal Wall of a Python, seven feet long and five inches in circumference, which died four days after admission into the Zoological Gardens. The cavity of the abscess was lined with layers of fibrin. There were five ounces of bloody serum in the pericardium. The liver was filled with abscesses, from the size of a pea to that of a nut; some of them had only fibrin in them, others pus. In all reptiles there was a communication between the portal vein and the intercostals, and this was freer in the python than in other reptiles through an extra communication. The abscess was situated in the anastomotic area, and led to the hepatic abscesses and the pericarditis.—In reply to the President's question as to the cause of the abscess, Mr. SUTTON said that abscesses were common in snakes, possibly from wounds of the in-

testines produced by the bones which they swallowed.—Sir JOSEPH FAYRER, in reply to Dr. Wilks, said he was only familiar with multiple abscesses of the liver in the human subject, and he thought that at first they were limited necroses, and then abscesses.

Dr. WALTER EDMUNDS showed microscopical specimens of Nerves from three cases of Infantile Paralysis. The specimens were from three cases in which the leg had been amputated late in the disease as an encumbrance. The sections were from the internal popliteal nerve. They showed considerable increase of the endoneurium in the nerve-bundles and atrophy of many of the nerve fibres. The endothelium in the vessels in the nerve was proliferated.—Dr. BUZZARD thought that if the disease be really inflammatory it would probably affect the vessels in the connective tissue first, and where the inflammatory change was the greatest the nerve tubules would be most pressed upon, and therefore atrophied.—Mr. BOWLBY thought Dr. Edmunds' view was the correct one, as the separation of the fibres from the nutritive nerve cell would lead to atrophy. He thought the patches of connective tissue were in the site of former motor nerve fibres.

Dr. HALE WHITE and Dr. EDMUNDS showed microscopic specimens of Neuromata after Amputation, which were, he said, rare in the Society's Transactions, though not really rare tumours. The specimens showed that the first change in the coiled bundles of nerve fibres at the end of the amputated nerve was an ingrowth of delicate connective tissue from the perineurium; this ended in the sclerosis of the bundles, and in its turn the sclerosed tissue underwent fatty degeneration. The reason why the nerve fibres underwent fatty degeneration was that in man the other tissues of the limb not regenerating themselves, there was no need of either sensory or motor nerves. It was pointed out that in the nerve of the amputated limb certain fibres underwent degeneration, which were probably those coming from the parts which had been renewed, whilst the fibres which had not undergone degeneration were derived from the remaining parts of the limb. In a case of amputation of the thigh, the change in the cells of the tractus intermedio-lateralis had not extended as high as the lower dorsal cord. Sections of the median nerve just below a spot where it had been cut through previously showed complete degeneration of the nerve owing to all its fibres being functionally useless. A specimen was also shown of a round-celled sarcoma at the end of an amputated nerve.—Dr. WILKS asked if there was new growth as well as atrophy.—Dr. HOGGAN thought that the only satisfactory method was to begin *de novo* the study of nerve pathology by the investigation of the changes in the individual nerve fibres by the improved methods of staining by osmic acid and gold.—Dr. WHITE, in reply, said that his specimens were taken when the changes were too far advanced to show the new nerve fibres, and he had only quoted from the authorities as to their existence.

Dr. GOODHART showed the Calvaria and specimens of the other bones of an infant, aged fifteen months, who was in the hospital only three days, and died of atelectasis. The mother contracted gonorrhœa from her husband and the child had consequent ophthalmia, but there was no other evidence pointing to syphilis. There are two other children, one with rickets. The patient was suckled for three weeks, and then brought up on milk and water and beef-tea. The child thrived well the first year but always perspired profusely, had thrush badly, and occasionally spots on the nates, the abdomen was always large. During the last three months the spine had been curved and she cried when moved. A month ago the legs became swollen, then the arms, and then the head. There was well-marked cranio-tabes, the ribs were beaded and the thorax flattened laterally. Node-like lumps could be felt over the inner surface of each tibia and radius, and the lower epiphyses of the radii were enlarged. The spleen was notably enlarged. Post mortem the changes in the bones were the most noteworthy, the bones of the skull being enormously thickened, and also all the long bones and the spine. To summarise the changes:—1. The bones were soft like sponge, and all of them except the petrous part of the temporal bone could be cut with a knife like a raw potato, and one tibia was broken. 2. There was great hypertrophy, mainly, but not exclusively, upon the periosteal pattern. 3. There was marked rickets. The question was whether it was all from rickets or due to congenital syphilis. Parrot has described a similar condition of spongiform osteo-



phytes, but less marked than in this case, which he ascribes to congenital syphilis. Dr. Goodhart thought there was almost too much periosteal growth for rickets, and perhaps the safer plan was to consider it the outcome of both diseases. The infiltrating growth, which even obliterated the medullary canal, seemed to bring it in some relation to osteitis deformans, and some thought osteitis deformans was allied to tumours; and it might be suggested that these changes were more of the nature of a bone tumour.—Dr. NORMAN MOORE thought that the bodies of the vertebrae did not present the changes seen in rickets, and that in the skull the thickening was not increased at the sutures; in both these points it was not like rickets.—Mr. KESTEVEN asked if there had been any microscopical examinations made.—Dr. GOODHART replied that he had only made an imperfect microscopic examination, and found porous bone. He then related a case of Addison's Disease without bronzing, and showed the abdominal sympathetic nerves which had been carefully dissected out by Mr. Pearson, of the College of Surgeons. The patient was a medical man who had felt ill for a short time and took a sea voyage to recruit himself, obstinate sickness set in, which was ascribed to the effects of the sea, and he landed in a very exhausted state; a few days later he got out of bed and fatal syncope ensued. There was no alteration in the colour of the skin. At the autopsy Dr. Goodhart found suprarenal change, and the abdominal sympathetic affected in such a way as to show that there was undoubted Addison's disease. He thought that the case supported the view that if the disease was rapid in its course bronzing might not occur.

Mr. VICTOR HORSLEY exhibited specimens of Bone and Brain Disease in Syphilis. The organs shown possess no special interest beyond the fact that successful treatment lessens the opportunities of studying syphilitic lesions. In this case the patient was admitted into University College Hospital under Mr. Hill, from the Lock Hospital, Soho, in a very weak state, and suffering from pyæmic abscesses. What history could be obtained showed his condition to be pyæmic, following on necrosis of the facial and cranial bones. The specimens show, first, the points of necrosis on the frontal and malar bones, together with the spongy bones of the nose, of which the inferior turbinate was found post mortem to be a mere sequestrum, and kept in the nasal fossa by tenacious mucus. The whole mucous membrane of the pharynx is hyperæmic, and shows a few cicatrices of previous ulceration. The seats of active mischief were excessively foul, the smell of the discharge not being controlled by antiseptics. The frontal bone shows very well the cicatrices of former ulceration and destruction of the outer table. The lungs on both sides showed some cirrhosis of the apices and broncho-pneumonia; the liver, fatty and cirrhotic, presented a depressed scar on its surface penetrating a quarter of an inch into the substance of the organ. Both spleen and kidneys were cirrhotic, while the former was greatly enlarged, being seven inches long by four inches and a half by two inches. The other abdominal organs showed no particular lesion. On removing the brain there was found an excess of cerebro-spinal fluid, while the arachnoid and pia mater at the base were opaque, and in places matted together by exudation. This did not seem to have caused any paralysis of any cranial nerve. There is asymmetry of the cerebellum, the lateral lobe of the left side being deficient on its under surface at the anterior border, the flocculus being scarcely represented. This does not seem to be the result of disease. There were eleven abscesses in the connective tissue of the limbs and trunk.

Mr. HORSLEY also showed the Micro-organisms of Pyæmia. There were also shown two specimens of Micrococci, found in the abscess fluid of the case of syphilis and pyæmia first referred to, and also from a case of excision of the tongue for epithelioma. The form of pyæmia in both cases was alike—viz., that in which there is a formation of peripheral, not visceral abscesses—i.e., an infective process not dependent on embolism. As has always been found, the organisms are micrococci, and while always occurring in the abscess cavities, they were not found in the blood. With the fact in view of their invariable occurrence in acute abscess (described by Ogston and confirmed by Mr. Horsley), of course no causative importance was attached to their presence.

Card specimens of Urinary Calculi, chiefly composed of carbonate of lime, from the horse, ass, and dog, were shown by Mr. SHATTOCK; and Cancer of Omentum by Dr. BEDFORD FENWICK.

## OBSTETRICAL SOCIETY OF

A MEETING of this Society was held Dec. 6th, 1882, Dr. Matthews Duncan, chair.

*Deciduous Membrane.*—Dr. CLEVELAND finger-like sac, passed forty-eight hours patient who after a former labour had passed in stance, which he had then exhibited to careful search he had found no trace of. The PRESIDENT could think of no other unbroken decidua than that it came from.—Dr. WYNN WILLIAMS described a case present under his own care.

*Microscopic Sections of Carcinoma.* showed microscopic sections illustrating disease of the cervix complicating pregnancy of stroma was small compared with the appearance thus resembling that of med

*Perimetric Abscess.*—Mr. GRIFFITH showed a perimetric abscess, situated behind the ligament, displacing and obstructing the ing at three places into the cervix uteri.

*The Directions of Uterine Contractions.* showed a uterus removed by Porro's operation, illustrating well the wrinkles on its peritoneum the contraction of its muscular fibre. ROUTH had heard the uterine souffle present in cases in which he had failed in tating the abdomen.

*Retained Placenta.*—Dr. WYNN WILLIAMS showed a placenta retained for three months removed by him.

*Fibroids removed by Abdominal Section.* exhibited five specimens of uterine fibroids, respectively 3 lb., 8 lb., 13½ lb., 3 lb., and 1 lb., a abdominal section. One patient died each case the pedicle was secured by upon the value of which Dr. Bantock thought that whatever might be the future of cure of fibroids, it could not compete cases such as those exhibited, in each substantial objections to the former of BARNES thought fibroids such as Dr. D better dealt with by hysterectomy. to think Battey's operation best suited the wall of the uterus, and projecting and myxomatous tumours it was better could speak from clear observation of Battey's operation upon fibroids. this operation he had found a tumour practically gone.—Mr. KNOWSLEY thought hysterectomy should be performed if rectomy had been tried and failed. operation ten times; in all the patients been benefited, and in all the uterus in some to a surprising degree. N but the tubes, and the large vesment, ought to be removed.—Dr. Mr. Thornton's statement as to one by him.—Dr. CHAMPNEYS asked Mr he thought the operation should be thought only in cases in which life

*New Lamp.*—Dr. AVELING exhibited Swau's incandescient carbon lamp, introduced into cavities of the body for microscopic purposes.

*Ruptured Perineum: New Method.* paper upon this subject, by Dr. read. In this operation the sides denuded in the usual way; then about two-thirds of an inch in width, thickness, and long enough when high as the denuded surface on the from the floor of the vagina. S through the denuded surfaces in the edges as well as the flat surface with the raw surface. This being secured in the usual way. When sphincter ani, the flap was made through it in the same way as in the rent in the wall of the rectum was

ade to terminate within the bowel, and the deep sutures sutured before those bringing the flap into position were made.—Dr. AVELING asked what was Dr. Wynn Williams's attitude with regard to the action of the bowels after operation.—Dr. BANTOCK objected to the practice of tying the intestines together, and also to the use of vaginal injections, after operation. He had performed Dr. Wynn Williams's operation once, but was not much impressed by it.—Dr. LLEVELAND thought that rupture of the perineum could not be prevented by restraining the too rapid emergence of the child's head, which could be done by judicious counter-pressure.—Dr. SAVAGE thought the difference was overlooked between mere tegumentary lesions and rupture extending through the perineal body. In Dr. Williams's operation a narrow tongue of tegument was reserved in the course of denudation, and plastered over the crevice left after bringing the raw surfaces together. No additional strength resulted from this, because the tongue was merely tegumentary. Early operations were tegumentary, and failed together. The perineal body was the centre of attachment of the perineal muscles, and the mainstay of the floor of the pelvis.—Dr. ROUTH thought that rupture of the perineum could not always be prevented, and sometimes a slight laceration was not so great an evil as prolongation of the labour. He had in early practice succeeded completely with ordinary sewing-needles and thread. He concurred with Dr. Savage's remarks as to the perineal body, but had seen that the perineum made by Dr. Williams's operation was remarkably strong and effective.—Mr. KNOWSLEY THORNTON thought this mode of operating gave remarkably good results; but it was not new, having been described by Mr. Teale of Leeds, and practised by many American surgeons.—Dr. MURRAY had seen the operation now described, and thought it gave a firm perineum. It was not always prudent to retard the progress of the head. Laceration of the perineum might often be prevented by making one or two lateral cuts.—Dr. CAMPBELL POPE said that primary union might often be obtained by applying a broad strip of plaster to hold the edges together.—Dr. EDIS said that rupture might often be prevented by straightening the legs while the head was emerging, and also by making a nick on either side of the perineum. Union might be obtained by operation twelve or twenty-four hours afterwards. It was unnecessary, and rather jeopardised healing, to keep the bowels constipated after operation.—Dr. CULVER JAMES had, in one case, operated immediately after labour with a rather large common household needle, and obtained union.—The PRESIDENT had seen the results of many methods of operating, and could not say that one was better than another. He had stitched up a perineum two weeks after delivery without denudation or cutting of any kind, and it healed sufficiently.—Dr. WYNN WILLIAMS did not confine the bowels after operation. The perineum made without the flap he had described was apt to be too thin. He was not aware that his operation had been described before; it certainly was not alluded to in any work on gynecology.

*Pregnancy complicated with Cancer of the Cervix; Cesarean Section; Recovery.*—This paper, by Dr. EDIS, was then read. The patient came to the Middlesex Hospital in November, 1881. She had begun to suffer from pain, hæmorrhage, and discharge eleven months previously. She presented the signs of six months pregnancy, and there was epithelioma involving nearly the whole circumference of the cervix and the greater part of the posterior vaginal wall. Palliative treatment was adopted until February, 1882. Labour pains then came on, and the os dilated to the size of a five-shilling piece. It being judged impossible for delivery *per vias naturales* to take place, Cesarean section was performed by Mr. Morris. The child was born in a state of suspended animation, but recovered. The mother recovered, and when seen in September the disease had made but little progress.

*Two Cases of Labour complicated by Cancer of the Cervix Uteri.*—These cases were related in a paper by Dr. HERMAN. In the first case the diseased tissue was freely cut away with scissors and the actual cautery, and delivery effected with forceps. A vesico-vaginal fistula subsequently was formed, then phlebitis, and the patient died on the 18th day. The fistula occurred at a spot which the cancer had invaded. In the second case masses of diseased tissue were removed with the écraseur, the fingers, and scissors, with only trifling hæmorrhage, and delivery was effected with forceps. The mother recovered well. The author thought that in the management

of labour obstructed by cancer, the first alternative to be considered should be whether it was not possible to break down, and tear or cut away (the former preferably) the obstructing diseased masses.—Dr. BATE had had a case of labour with commencing cancer, in which delivery was effected by natural efforts, but the patient died from septicæmia.—Dr. CHAMPNEYS said that in these cases it was perhaps most important that there should be healthy tissue at the sides of the cervix, for it was there that lacerations most often occurred.—Dr. GALABIN inquired as to the method of suture of the uterus adopted in Dr. Edis's case. He had in four cases of cancer delivered *per vias naturales*, in one only was there great difficulty in doing so; but two of the mothers died; in one of the latter the disease was almost entirely removed with the galvanic cautery.—Mr. JENNINGS thought that rupture of the bladder during parturition was not so rare as might be supposed.—Dr. FANCOURT BARNES thought that in these cases Cesarean section offered a chance of probable recovery to the mother and certain safety to the child. An important point was that in this operation healthy tissues were cut through, while in natural delivery diseased tissues were torn, thus favouring blood-poisoning.—Dr. EDIS said that in his case interrupted sutures of silkworm gut were used.

## ACADEMY OF MEDICINE IN IRELAND.

### MEDICAL SECTION.

The first meeting of the Medical Section was held in the College of Physicians on Friday evening, the 15th inst. Dr. William Moore, President of the King and Queen's College of Physicians, Ireland, occupied the chair as President of the Section.

The PRESIDENT delivered an inaugural address. Having alluded to the absorption of the Medical Society of the King and Queen's College of Physicians into the Academy of Medicine in Ireland as its Medical Section, he reviewed at considerable length the advances made in the diagnosis of disease, particularly within the last twenty-five years. He referred first to affections of the chest, the differential diagnosis of which was now well-nigh perfect. In certain cases clinical observations of the temperature had proved of great use, and the most recent advance was the demonstration by Professor Robertson of the germ origin of pulmonary tuberculosis. To Laennec was due the elucidation of cardiac diseases, and to Traube, in great measure, the knowledge of the relations which may exist between these and renal affections. The diagnosis of valvular diseases had become very exact, but the precise value of murmurs as regards diagnosis and prognosis was apt to be over-estimated. Nor was the diagnosis of abdominal aneurism always an easy matter. Great advances had also been made in the study of specific fevers, especially of the endemic fever of this country, enteric or typhoid fever. Again, much had been done in the localisation of cerebral and spinal diseases, among the more interesting of this class of maladies being hysteria, hystero-epilepsy, and hemianæsthesia. As regards the treatment of some of these affections, he mentioned some remarkable instances in which good results had followed the practice of metallo-therapy.

Mr. ARTHUR BENSON exhibited a case of well-marked Retinitis Albuminuria in a boy, aged sixteen, without constitutional disturbance; Dr. CHARLES F. MOORE, a case presenting Neuralgic Symptoms in a man having remarkable patches of white hair, some of which were congenital; and Mr. STORY a case of Double Zonular Cataract.

Dr. J. W. MOORE exhibited by card specimens of Diphtheritic inflammation of the throat; and Mr. P. S. ABRAHAM microscopic sections showing (1) diphtheritic deposit of muscular tissue of the pharynx; (2) mycelium of fungus; and (3) degeneration of muscular fibre in diphtheria.

Dr. WALLACE BEATTY read a paper on the Causation of Left-side Pain, drawing special attention to a form not sufficiently recognised, which was due to fecal accumulation, and removed by getting rid of the accumulation. The pain was felt over the lower few ribs on the left side, was associated with extreme tenderness on pressure upwards of the tenth or eleventh rib, scarcely any pain being felt on pressure of these ribs downward, and was relieved when the side was pressed inwards with the flat of the hand. He explained its occurrence by the drag of a loaded colon on the pleuro-colic ligament; this constant drag setting up a state of

extreme irritability in the nerves of that ligament, so that a painful impression was carried upwards along the left lesser splanchnic nerve to the spinal cord, and was transferred by the law of irradiation of sensations to the tenth and eleventh left intercostal nerves.—Dr. WALTER SMITH said the pleuro-colic fold had not received the attention it deserved. It certainly was of considerable importance in the investigation of abdominal disease. Dr. Beatty's arguments were valid as explaining certain kinds of left-side pain, but did not explain all kinds.—Dr. WALLACE BEATTY did not wish it to be understood that he considered left-side pain was caused in every instance by faecal accumulation, but only in cases presenting the symptoms he had mentioned.

Dr. WALTER SMITH related two cases of Paralysis of the left half of the Velum Palati, and raised the question whether palatine paralysis was invariably to be regarded as a characteristic sequela of diphtheria, or whether it may not occasionally supervene upon non-diphtheritic forms of angina. Case 1 occurred in a young lady, aged twenty-four, and the paralysis developed six weeks after an apparently simple ulcerated sore throat, for which she had been treated by Dr. Smith. Case 2, a young lady, aged twenty-six, was affected with what was considered to be a simple relaxed sore throat unattended with ulceration. She remained in a weak and nervous condition, and shortly afterwards the left half of the palate was found to be paralysed. In each case the symptoms were similar—viz., difficulty of swallowing, nasal twang in the voice, and regurgitation of fluids through the nose. Both cases recovered completely. Dr. Smith submitted that it was not unreasonable to hold that catarrhal sore-throat may now and then give rise to slight motor paralysis through partial implication of the nervous system or otherwise.—Dr. HENRY KENNEDY said that diphtheria might exist without exudation. He had seen such cases in which paralysis followed.—Mr. H. G. CROLY said that the large majority of cases described as diphtheria were really cynanche.—Mr. WILLIAM THOMSON asked, if paralysis occurred in the palate as the result of specific inflammation, why similar effects did not follow in other parts of the body where nerve filaments were concerned.—Mr. J. W. MOORE alluded to the specimen which he exhibited, describing it as one of phlegmonous erysipelas of the throat in which diphtheritic conditions had supervened. He believed that paralytic symptoms occurred only in true diphtheria.—Dr. FINNEY considered the fact that other diseases were associated with paralytic symptoms confirmed Dr. Smith's view.—Mr. W. STOKES doubted that paralytic symptoms followed inflammation other than those of a diphtheritic nature.—The PRESIDENT regretted that no information had been given as to the presence of albumen in the urine in Dr. Smith's cases.—Dr. R. A. HAYES mentioned in support of Dr. Smith's view a case in which chronic inflammation of the palate, resulting from excessive tobacco smoking, gave rise to paralysis of the palate.—Dr. WALTER SMITH, in reply, said that the paralysis in these cases might be the result of myelitis or of muscular degeneration. He answered Mr. Thomson's question by pointing out the rich nervous supply of the palate, and the muscles being open to attack from both sides.

The Section then adjourned.

## Reviews and Notices of Books.

*Etudes de Physiologie Sociale: La Prostitution.* Par YVES GUYOT. Paris: G. Charpentier. 1892.—This laborious work has been written with the well-conceived purpose of proving that the various legislative measures in force with regard to prostitution, in their relations to the preservation of the public health and morals, have not only altogether failed in these respects, but have exaggerated the evils they were intended to suppress. We will see upon what grounds, and by what arguments, the author supports these positions, and to what extent he has succeeded in establishing them. He commences by asking, "What is prostitution?" and, accepting the definition of Littré—"An abandonment to unchastity"—very properly remarks that the term is applicable to either sex. But when he pushes his premises farther, and claims for the word "prostitute" a similar lati-

tude, he contends for a point of no practical importance as it is universally understood to mean woman. He then gives a graphic account of the atrocities exercised against this unfortunate at various times and in divers countries, Solon and Charlemagne to more recent periods, and is eloquent on the effects of the unequal laws and relations between the sexes; but though full of pity that the insanitation and infamy of prostitution should be punished and not of the other, yet he has no remedy for them. It appears, from his remarks on the subject, that until the nineteenth century regulations with regard to prostitution were not till the period mentioned that the question was conjoined with it. With a minute and revolting in its gross indecency, and the author would have dared to have published the *modus operandi* of the "French system" by "the police of morals," together with the connected therewith. The primary object would seem, is to concentrate prostitution in licensed houses, "*des maisons de tolérance*" as far as possible, to certain districts; to attain this the author says that its admission is "brutally harsh, venal, and unjust." a moral degradation of both the women and so frightful a nature that it is appalling and we may well felicitate ourselves that it encourages or permits the herding together of women in one house, under the tutelage of "*la maîtresse de la maison*," who, through her abominable traffic, has not any legalised existence in this country, an assertion to the contrary. He says of the Contagious Diseases Act license increased at Aldershot, and the police movement." We are in a position, if instituted on these points, to give an answer. The authorities say "such a system is decreased, as has also the number of young girls are now seldom seen in the streets, can be more explicit than this, an advertisement; for it would be impossible to mean of undermining the health of the rising generation than by legally prostitution such as has been so realistic author. It is, however, in its relation to the fact that this system more immediately concerns its own Contagious Diseases Act, its purpose, is largely modelled on that which applies to sanitation. Here the author failed to make out his case. How can he establish it? In the first place, being relatively more venereal disease in licensed houses, who are medically supervised than amongst *les filles isolées*, furnished rooms, who are obliged, to the dispensary once a fortnight for medical intervention in this respect amongst them. He himself has no proof of the fallacy of this doctrine, "that while the former cannot exercise selection of their clients and are of a greater number, six to twenty-five, exercise that selection and are able to the number of their reception, "the first are always amenable to the others are made to submit with them often go away when diseased hospital." Comment on this is a

called in this way are worse than useless. Another argument he advances in support of this position is that "it is almost impossible to discover a primary infecting chancre or decide the nature of vaginal discharges in a woman." This assertion is contrary to experience, for though, no doubt, it may be difficult in some instances to detect the difference or differentiate between the several kinds of the other, in the majority of cases it will not be so. Besides, irrespective of this, are not syphilitic mucous patches infective? And is there anyone so obtuse as to deny that when the object of them is sent to hospital for treatment a fruitful source of infection has been withdrawn from circulation? It is idle to attempt to refute such statements as these, and those who are agitating for the repeal of the Acts in question have no stronger testimony to bring forward than this their case is desperate indeed. The French term is utterly demoralising, but the legislation exercised in this country has an opposite effect, for it has been proved by numerous letters in THE LANCET and elsewhere, and by other testimony, that many young women, more impressionable than those more hardened in sin, have been rescued from their evil courses by the interposition of these Acts, and this is a sufficient answer to a favourite theory of the reformers that "the duration of time during which prostitutes exercise their calling has been greatly prolonged by the influences they have exerted." If they are enforced efficiently, and the medical examinations are conducted with proper skill and care, it is absurd to suppose that the diseases for the prevention of which they were passed are not correspondingly ameliorated. M. Guyot's elaborate ventilation of this subject will undoubtedly do good, and we strongly recommend all interested in it to read the book for themselves.

*Metropolitan Sewage, and what to do with it.* By EDWARD MONSON, A.M.I.C.E. Part I. London: Prentice and Sonson.—Mr. Monson's small work appears opportunely at a period when so much attention, both public and private, being given to the condition of the Thames as the result of the metropolitan outfalls for sewage. The whole history of the London sewerage system, and of the formation of the Metropolitan Board of Works, is entered into, and much of the action of the board is sharply criticised, both on account of the plan on which some part of the sewerage works have been designed, and because the scheme has never been carried out in its entirety. Especially does the author complain that flooding of houses, insufficiency of sewer provision, needless expense, and other difficulties have resulted from the initial error of not separating streams with much of the rainfall and the storm-water from the sewage proper. The sewers are in consequence of enormous size; they are, notwithstanding their huge capacity, totally inadequate to carry off storm-water, and the sewage which, under a separate system, could have been concentrated at a point where it might easily have been either chemically treated or utilised, is so diluted and in such quantity that the question of its proper disposal has never been faced. As a result, the effect of discharging the metropolitan sewage into the Thames has been to cause a nuisance of imperial magnitude and concern; shoals of sewage mud are found in the river; and very general complaint emanates from the Thames Conservancy, the Port Authority, and the riverside population. Even now Mr. Monson maintains that there would be true economy in reconsidering the system as a whole, and he specially advocates that the sewage should be treated by the lime process before the effluent is passed into the river. With regard to the sewage sludge which would result from this process, Mr. Monson points out how much it partakes of the character of the washed clay and chalk used in the manufacture of stock bricks; and he shows, as the result of actual experiment, not only that in this direction will in all probability be found the remedy for that accumulation of

apparently useless sludge which has so often been associated with the lime process of dealing with sewage, but that the utilisation of the sewage sludge in the manner he proposes will open out a great future for the manufacture of a brick which will be much sought after in building operations.

*On Duty under a Tropical Sun:* being some Practical Suggestions for the Maintenance of Health and Bodily Comfort, and the Treatment of Simple Diseases, with remarks on Clothing and Equipment for the Guidance of Travellers in Tropical Countries. By Major S. LEIGH HUNT and A. S. KENNY, M.R.C.S.E. pp. 138. London: Allen and Co. 1882.—The object of this work is to assist persons visiting tropical climates to counteract and palliate many of the petty annoyances and personal discomforts to which, from lack of experience, they may be exposed. The remarks on diet and the suggestions on clothing and equipment seem well calculated to be useful to the class for whom they are intended, but we are afraid that the remarks upon the diseases of tropical climates and the directions for their treatment will rather have a tendency "to foster a false sense of security by leading anyone to think it is possible for him to dispense with proper medical assistance when these evils befall him." This is far from the intention of the authors, who endeavour to impress upon their readers the "imperative duty" of availing themselves of the skill and experience of medical men acquainted with the diseases of the country; but we entertain doubts as to the practical results of the attempt in the direction of "domestic medicine."

*What to do in Accidents and Sudden Illness, &c.* By PHILIP FOSTER, M.D. Pp. 76. Leeds: Spark.—This is one of a class of books which, if not called into existence, has, at least, been greatly developed by the formation of ambulance classes. The work now before us is not, however, confined to instruction in what should be done on the occurrence of an accident or the infliction of an injury, but covers a much more extensive field. It discusses the conditions necessary for the preservation of health and the prevention of disease among the people generally; the duty of sick nursing; "the symptoms and treatment of certain ailments for which medical advice is frequently not sought, and of some others in which serious consequences might ensue before it could be obtained," including cases of poisoning; and concludes with a few remarks on the rearing of children. The work seems to have been carefully drawn up, and on the whole to be judicious and well calculated to answer the purpose intended. We think, however, it might have been abridged without detriment by the omission of the introductory chapter on the structure and functions of the body; and we must protest against the author's opinion that "the duties pertaining to the office of the nurse do not call for special knowledge or training." There may possibly be good nursing without these, but it is the rare exception to the rule. We hold that no greater improvement has taken place in the treatment of the sick than the introduction of a thorough practical training of the nurse.

*Diseases of the Ear.* By GEORGE P. FIELD, M.R.C.S., Aural Surgeon to St. Mary's Hospital, and Lecturer on Aural Surgery in the Medical School. Illustrated with coloured plates and woodcuts. London: Henry Kenschaw. 1882.—We have noticed the previous editions of this book, and are not now surprised to receive a third edition. The class of diseases of which it treats are of great importance, and yet unfortunately are seldom the subject of much attention in medical education, either on the part of the student or his teachers. Mr. Field does his best, and does well, to make up for this defect. His book will be found very useful both by students and practitioners. This

edition contains many new illustrations and several additional chapters.

*Monthly Maxims.* By ROBERT DUDLEY. De la Rue, 1882.—The close of the year brings with it the annual cluster of books suitable for presents, and the volume before us is one which will do much to enhance the reputation of both artist and publisher. Mr. Dudley's illustrations afford a rare combination of daintiness, delicacy, and quaint humour, and show in the drawing and execution a carefulness which is very seldom seen in works of this class. The larger illustrations are magnificent specimens of chromo-lithography, and this book of *Monthly Maxims* is one of those "things of beauty" which we feel sure will live far longer than the conventional ephemerides in company with which it makes its appearance.

*Introduction to Latin Prose Composition, with Hints on Latin Writing and Periodic Style.* By R. M. MILLINGTON, M.A. London: Longmans, Green, Reader, and Dyer, 1882.—Although the study of the Classics is now considered of much less importance than heretofore, almost all allow that the study of Latin composition may be a valuable mental training. Mr. Millington's book contains a carefully graduated course of Latin prose composition—a course which, if conscientiously gone through, is quite sufficient to satisfy the most rigorous examiner. The notes to each exercise are especially valuable, and the hints on style &c., and the repeated warnings against the indirectness of expression and want of harmony which characterise the compositions of many candidates at our university examinations, should be borne in mind by the student. Cicero, Livy, and Cæsar are, according to custom, recommended as models; and the by this time familiar warning against the terseness of Tacitus is given—a warning in which we, who have often enjoyed the "word-pictures" of that master of brevity, cannot join. A book of similar character on Latin verse composition would be valuable, and we hope that, should the present volume meet with the success it deserves, Mr. Millington may turn his attention to such a work.

*Sixes and Sevens.* Written by F. E. WEATHERLY; illustrated by JANE M. DEALY. London: Hildesheimer and Faulkner. Amongst the eligible presents for young folks at this season "*Sixes and Sevens*" must occupy a very high place. It is difficult to decide as to the comparative merits of verse and illustrations, both are so excellent and so well calculated to effect the object aimed at—the amusement and instruction of juvenile readers. The book will assuredly become a favourite in the nursery.

## New Inventions.

### A PORTABLE STETHOSCOPE.

THIS is an ingenious and elegant instrument, the stem of which is composed of a jointed tube of aluminium, so that it can be drawn out to the extent of six inches, its length when closed being less than three inches. The chest and ear pieces are made of celluloid, and the latter can be removed from the stem, to which it is fitted by a screw. By these devices the instrument becomes the most portable of any stethoscope with which we are acquainted. It remains to be seen how it will stand the wear and tear of daily use; but that it is quite as efficient a conductor of sound as the ordinary wooden stethoscope we have assured ourselves by considerable trial. The stethoscope is made by Messrs. Salt and Son, of Birmingham.

THE members of the St. John's Institute at Burgess-hill, Sussex, have decided to raise a memorial to the late Dr. James Braid.

### HIS EXCELLENCY THE GOVERNOR-GENERAL OF CANADA AND H.R.H. PRINCESS LOUISE IN VANCOUVER'S ISLAND.

R. W. BURNET, M.D., M.R.C.P. (Physician to the Northern Hospital), has favoured us with the following descriptive sketch:—

In the Province of British Columbia, lying between forty-ninth and sixtieth degrees of north latitude, and extending from the Rocky Mountains on the east to the Pacific Ocean on the west—an area about three times as large as that of Great Britain and Ireland,—there must of necessity be considerable differences of temperature and variety of climate. The prolonged stay of the Marquis of Lorne and Her Royal Highness in Vancouver's Island of itself is well for the climate of Victoria and the healthiness of the country. The mean winter temperature is set down at 45°, and that of summer rather more than 60° F., which is considerably higher than the average on the mainland. The mildness of the climate for over three hundred miles west of Victoria is attributed to the warm Japanese current which is believed to strike the Queen Charlotte Islands and flow in a southerly direction along the shores of Vancouver's Island. The rainfall of the islands and coast of the mainland varies, in different places, from forty-five to eighty inches. In some parts of the interior the rainfall is abundant, and in others, owing apparently to the position and relations of the mountain ranges, the fall is much less, and in dry seasons irrigation has to be taken advantage of to secure good crops. In consequence, however, of the large number of streams, a good water-supply is easily obtained. The mountain districts extending into high latitudes have greater variations of temperature—a long day in summer and a winter resembling that of Manitoba and the other northern territories.

As Los Angeles, Santa Barbara, and other favoured regions of Southern California form a sanatorium for the more temperate regions of the States, so there seems every probability that Victoria, and the whole southern part of Vancouver's Island, will, when the direct railway is opened, become a resort for those dwellers in the great Canadian North-West who have to seek milder air, or who desire to escape the rigours of a winter such as is usual in those parts. The direct communication between British Columbia and the other provinces of Canada has to be by way of San Francisco, and when the Canadian Pacific Railway, now in process of construction, is opened, the connexion between the provinces will be direct and complete, through scenery destined to attract those who have seen both to be equal in places to be seen in the Alps. The railway will then be connected with the English steamers arriving at Halifax, and the shortest route from England to China and Japan. There is still a considerable Indian population on these islands, but they are very much inferior in appearance and physique to those of the plains on the east of the Rocky Mountains. They are quiet, law-abiding, and industrious, engaged in agricultural and other pursuits. On the Fraser and other rivers, where salmon fisheries form a very important part, the fishing is entirely done by Indians. Whisky and rum have, however, made great ravages amongst them, and are steadily decreasing in numbers.

The inhabitants of Victoria, numbering about 6000, English and Scotch, are comfortable, easy-going people. The necessaries of life are moderately cheap, and wages are high—any skilled workman making from four to six shillings a day. In such a community there is, as might be expected, not much need for large hospital accommodation. The Victoria Hospital has some thirty beds and stands on a dry, elevated site, a short way out of the town. Esquimaux, some four or five miles off, there is a small hospital near the dockyard, and to it a resident surgeon is attached. Besides these there are the small Free Roman Catholic hospitals, and the small district hospitals of New Westminster and Navarino. At the last named place there are extensive and increasing coal workings, in which a large number of men are employed.

Her Royal Highness the Princess Louise lately paid a visit to the Royal Victoria Hospital, and was received over it by Mr. J. B. Matthews, M.R.C.S. Eng., a student of St. George's Hospital.



# THE LANCET.

LONDON: SATURDAY, DECEMBER 30, 1882.

## THE ANNUS MEDICUS 1882.

### Introduction.

WE proceed to lay before our readers a history of the year 1882, not pretending that it is complete. As on previous occasions, we go at once to our duty without preface or comment on the general history of a year which, with all its faults, will not look badly in British history.

### Anatomy and Physiology.

Before referring to a few of the more noteworthy of the facts which have advanced our knowledge of Anatomy and Physiology during the past year, it is with feelings of no ordinary emotion that we notice the death of CHARLES DARWIN, the great naturalist, whose work, continued through a long period of bodily infirmity, has left a durable impress on the whole world of modern thought; who passed away in the spring at the ripe age of seventy-one, and who lived long enough to see that the calm and unimpassioned, yet logical mode in which he stated his opinions, and the vast array of facts resting on unimpeachable authority he brought to support them, had converted to his doctrine many of those who by education and vocation were most disposed to ignore, scoff at, and oppose them. In the next place, it is fitting to express our deep feeling of regret at the loss science has experienced at the death of Professor FRANCIS M. BALFOUR, of Cambridge, a brilliant follower of DARWIN, and to pay a tribute of respect to the excellence of the work on Comparative Embryology, which he had only just completed, and which promises to be for a long time the text-book on this subject. The observations he had made are to a very large extent original, and though time has not yet been afforded to enable them to be corroborated by other observers, yet the care with which they were undertaken, the rare manipulative dexterity he possessed, and the acuteness of his perceptions, combined with the habitual caution with which he formed his opinions, render it probable that they will meet with very general acceptance. The statements made are everywhere well arranged and easily accessible to the student. The next works to be mentioned are the several splendid volumes of the reports of the scientific results of the *Challenger* expedition, to which we have on various occasions directed the attention of our readers, as containing an immense amount of original information upon the inhabitants of the deep sea, and many beautifully executed drawings of animals new to science, with descriptions by such men as MOSELY, HAECKEL, and others thoroughly versed in the anatomy and physiology of the animals of which they treat. There have not been many additions to the existing and well-known treatises on anatomy and physiology during the past year, though several new editions have appeared. Thus of the former we have only to enumerate Mr. REEVES' *Morphology*, a work of considerable originality and research. Dr. MEARS has written a work on *Schematic Anatomy*, which is on a new principle, and presents some advantages to the learner.

The first part of a good system of Comparative Anatomy has been published by WIEDERSHEIM, and the first fasciculi of Treatises on Zoology, by LANESSAN and by MOQUIN TANDON, have been issued, the last, however, being a translation of a new edition of CLAUS, a work already well known. Amongst the new editions may be mentioned QUAIN'S *Anatomy*, which has been considerably enlarged, and in which the Histology has been carefully revised by Mr. SCHAEFER, the Embryology and Development by Dr. ALLEN THOMSON, and the Anatomy by Professor THANE, assisted by Mr. GODLEE, rendering it upon the whole the most complete work of the kind in any language. A third edition of Professor MAPOTHER'S work on Physiology, revised by Dr. KNOTT, has appeared, and Dr. DALTON has issued the seventh edition of his excellent Physiology, which has the rare merit in physiological works of being somewhat less voluminous than its predecessors without losing in clearness and precision. A second edition has also appeared of HARRIS and POWER'S *Manual for the Physiological Laboratory*. Many important papers have appeared in the successive numbers of the *Quarterly Journal of Microscopical Science*, amongst which may be mentioned PRINGSHEIM'S and LANKESTER'S Researches on Chlorophyll, KLEIN'S article on the Lymphatic System, WALPOLE and HUXLEY on Saprolegnia in relation to the Salmon Disease, and HERBERT CARPENTER'S notes on Echinoderm Morphology. In the *Journal of Anatomy and Physiology* the segmental value of the cranial nerves has been discussed by Dr. MILNES MARSHALL. The cerebral sinuses and their variations have been described by Mr. J. F. KNOTT, and the volume issued during the present year contains many valuable articles on comparative anatomy. The *Journal of Physiology* contains papers by NEWELL, MARTIN, and SEDGWICK on the mean pressure and the characters of the pulse wave in the coronary arteries of the heart settling the question in favour of those who believe that the coronary arteries are injected during each systole of the heart and not during the diastole, and also an excellent paper by C. S. ROY, showing that the spleen performs rhythmical contractions independently of cardiac and respiratory movements.

In the "Leçons sur les Modifications du Sang," in which the changes presented by the blood under the influence of various remedies and therapeutic agents has been carefully investigated, GEORGES HAYEM has made a substantial addition to our knowledge of this fluid. By giving a table of the number of blood-corpuscles in a cubic millimetre, corresponding to every number from 40 to 270 of blood corpuscles counted in a square of a hæmatocytometer, he has materially facilitated all calculations of the absolute number of the blood-corpuscles. MALASSEZ has specially discussed the development of the red corpuscles in the medulla of the bones, and MAYET the spontaneous changes undergone by the coloured corpuscles preserved in plasma without access of air; whilst ALEXANDRE SCHMIDT has contributed to BROWN-SÉQUARD'S *Archives* a résumé of the researches made under his direction at Dorpat upon the physiological and pathological action of the leucocytes of the blood, in which he still continues to maintain that the white corpuscles contain a ferment that plays an important part in the act of coagulation, and having separated this ferment he shows its effects when injected into the economy. CADET, BIZZOZERO, HART, and others have

edition contains many new illustrations and several additional chapters.

*Monthly Maxims.* By ROBERT DUDLEY. De la Rue. 1882.—The close of the year brings with it the annual cluster of books suitable for presents, and the volume before us is one which will do much to enhance the reputation of both artist and publisher. Mr. Dudley's illustrations afford a rare combination of daintiness, delicacy, and quaint humour, and show in the drawing and execution a carefulness which is very seldom seen in works of this class. The larger illustrations are magnificent specimens of chromo-lithography, and this book of *Monthly Maxims* is one of those "things of beauty" which we feel sure will live far longer than the conventional ephemeridæ in company with which it makes its appearance.

*Introduction to Latin Prose Composition, with Hints on Latin Writing and Periodic Style.* By R. M. MILLINGTON, M.A. London: Longmans, Green, Reader, and Dyer. 1882.—Although the study of the Classics is now considered of much less importance than heretofore, almost all allow that the study of Latin composition may be a valuable mental training. Mr. Millington's book contains a carefully graduated course of Latin prose composition—a course which, if conscientiously gone through, is quite sufficient to satisfy the most rigorous examiner. The notes to each exercise are especially valuable, and the hints on style &c., and the repeated warnings against the indirectness of expression and want of harmony which characterise the compositions of many candidates at our university examinations, should be borne in mind by the student. Cicero, Livy, and Cæsar are, according to custom, recommended as models; and the by this time familiar warning against the terseness of Tacitus is given—a warning in which we, who have often enjoyed the "word-pictures" of that master of brevity, cannot join. A book of similar character on Latin verse composition would be valuable, and we hope that, should the present volume meet with the success it deserves, Mr. Millington may turn his attention to such a work.

*Sixes and Sevens.* Written by F. E. WEATHERLY; illustrated by JANE M. DEALY. London: Hildesheimer and Faulkner. Amongst the eligible presents for young folks at this season "*Sixes and Sevens*" must occupy a very high place. It is difficult to decide as to the comparative merits of verse and illustrations, both are so excellent and so well calculated to effect the object aimed at—the amusement and instruction of juvenile readers. The book will assuredly become a favourite in the nursery.

## New Inventions.

### A PORTABLE STETHOSCOPE.

THIS is an ingenious and elegant instrument, the stem of which is composed of a jointed tube of aluminium, so that it can be drawn out to the extent of six inches, its length when closed being less than three inches. The chest and ear pieces are made of celluloid, and the latter can be removed from the stem, to which it is fitted by a screw. By these devices the instrument becomes the most portable of any stethoscope with which we are acquainted. It remains to be seen how it will stand the wear and tear of daily use; but that it is quite as efficient a conductor of sound as the ordinary wooden stethoscope we have assured ourselves by considerable trial. The stethoscope is made by Messrs. Salt and Son, of Birmingham.

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As Los Angeles, Santa Barbara, and other regions of the States, so there seems every prospect of the same in Victoria, and the whole southern part of Vancouver's Island, when the direct railway is opened, because of those dwellers in the great Canadian Northwest who have to seek milder air, or who desire to escape a winter such as is usual in those parts. The communication between British Columbia and the provinces of Canada has to be by way of San Francisco when the Canadian Pacific Railway, now in progress of construction, is opened, the connexion between them will be direct and complete, through scenery such as those who have seen both to be equal in places in the Alps. The railway will then be connected with English steamers arriving at Halifax, and this is the shortest route from England to China and Japan. There is still a considerable Indian population on these islands, they are very much inferior in appearance and those of the plains on the east of the Rocky Mountains. They are quiet, law-abiding, and industrious, agricultural and other pursuits. On the Fraser River, where salmon fisheries form a very important part of the fishing is entirely done by Indians. Whisky has, however, made great ravages amongst them and they are steadily decreasing in numbers.

The inhabitants of Victoria, numbering about 10,000, English and Scotch, are comfortable, easy-going. The necessaries of life are moderately cheap, and high—any skilled workman making from four to five shillings a day. In such a community there is, as might be expected, not much need for large hospital accommodation. The Victoria Hospital has some thirty beds and stands on a dry, elevated site, a short way out of the city. At Esquimaux, some four or five miles off, there is a small hospital near the dockyard, and to it a resident physician is attached. Besides these there are the small Roman Catholic hospitals, and the small district hospital at New Westminster and Navarino. At the last named place there are extensive and increasing coal workings, and a large number of men are employed.

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nal exception, of small importance. The year has been specially barren so far as English pathology is concerned. From the laboratories of neither England nor Scotland has any important work proceeded, and even from the Brown Institution, from which we have had such good work in the past, comes the sound of physiology rather than of pathology. The lectures on Inflammation by Dr. BURDON SANDERSON, and on Pulmonary Activities by Dr. EWART, deserve, however, especial mention, though, in the former, we are not carried far beyond our obvious standpoint. Abroad, bacteria still absorb the energies of the pathologists of Germany and France, and the importance of the study has been sufficiently attested by the brilliant investigations which have added a new "household word" to the literature of pathology. Few recent discoveries have created a wider and more profound sensation than that of the tubercle bacillus, for which KOCH certainly deserves the high credit he has received, although the discovery had been worked towards by many investigators, and was made independently by BAUMGARTEN. The organisms of tubercle have given pathologists in all countries abundant work, and we may expect soon to have some definite facts bearing on its practical value, in addition to the technical facts regarding methods of observation which have been abundantly supplied. In other departments of bacterial pathology some new facts have been supplied, fewer in number, however, than in preceding years. Among them may be mentioned specially the researches of BIRCH-HIRSCHFELD on the organisms associated with syphilis, and of KEATING on those of measles, although the latter are scarcely more than a corroboration of the half-forgotten observations of VACHER and BRAIDWOOD. Of especial significance also is the fact announced by FEHLEISON, that the organisms of erysipelas are capable of giving rise to the disease after their separate cultivation. The remarkable observations of LAVERAN on the organisms which apparently constitute the active agent in the production of malarial disease, have been this year confirmed by RICHARD, and may perhaps excite more attention than they have hitherto received. Regarding other specific diseases the chief researches to note are those of POPOFF on the changes in the brain in typhoid fever, and those of EISENBERG on the alterations which are produced in the salivary glands by rabies. In the region of general pathology, the subject of inflammation has been little studied. Besides the lectures of BURDON SANDERSON, already alluded to, the most important researches are those of SPINA, on the morphological changes presented by protoplasmic elements in the tissues, which have not the form of cells. ZUNTZ has investigated the cause of the increased oxidation which occurs in pyrexia, and believes that the facts he has ascertained regarding the action of curara must, to some extent, alter our views of the process. The subject of septicæmia has been somewhat neglected during the past year, and the work which has been done only serves to show how much more is needed. The experiments of ROSENBERGER, for instance, suggest that the relation of bacteria to this condition may be secondary and not primary, and are of special interest in connexion with the facts which ROSSBACH has published, which apparently prove that, under certain circumstances, the organisms always present in the body may be the source

of those associated with septicæmia. The general pathology of the blood has attracted little attention, nor can we expect new facts until there is more agreement regarding its constituents. We must not, however, omit to mention the researches of HAYEM on the processes by which hæmorrhage is arrested, and on the peculiar "hæmatic crises" which occur during the course of many acute diseases. Apart from the question of its relation to bacteria, the pathology of tubercle has been the subject of many researches, and among those which deserve mention are that of CHIARI on the hyaline metamorphosis which tubercle undergoes; the laborious investigations of ARNOLD on the minute structure of tubercle in various organs; the studies of its formation in the thoracic duct by STILLING, and in the veins by WEIGERT, and in the synovial sheaths of tendons by TERRIER and VERCHÈRE. The facts described by TAPPEINER regarding the production of phthisis in dogs by the inhalation of tuberculous sputum have been confirmed by WEICHSELBAUM, although no new evidence of the contagiousness of phthisis in the human subject has been adduced. The observation of FRIEDLANDER may be regarded as demonstrating the frequent occurrence of organisms in connexion with croupous pneumonia, although it still leaves undetermined their precise relation to the disease. The etiology of gastric ulcer has been studied experimentally by AUFRECHT; the cause of the jaundice of newly born children has been investigated in a most able and thorough manner by BIRCH-HIRSCHFELD. No observations on the gastro-intestinal tract are more important than those of NOTHNAGEL on intestinal catarrh and atrophy, which, although undertaken from a clinical standpoint, are of great pathological interest. The occurrence of compensatory hypertrophy of the kidneys has been demonstrated by RIBBERT; and the researches of AUFRECHT have thrown considerable light on the pathogenesis of renal cirrhosis. Lastly, in what may be termed toxicological pathology, the most important investigations have been those of CORNIL and BRANLT on the effects of arsenic and phosphorus, which have shown the identity of the changes produced by the two agents.

#### *Therapeutics.*

In the department of therapeutics there are many indications of vitality and of distinct reaction from that scepticism as to the use of medicine which followed, as effect follows cause, the rise and fall of homœopathy. The demonstration afforded by this exploded system, in its simplicity, of the strong recuperative powers of the system, naturally led physicians to question whether medicine could not be dispensed with altogether. But the answer to this question is no longer doubtful, and makes it clear that that practitioner will be at a great disadvantage who does not study the latest evidence on the physiological and therapeutical action of medicines. The growing care in investigating the action of drugs, and, we may add, the growing perfection of chemistry and of pharmacy, have shown that the most specific effects may be produced by drugs which a few years ago were not known to exist—witness the case of pilocarpine, of hamamelis virginica or its active principle hazeline, resorcin, &c. The old physicians used to speak of the effects and uses of opium, but recent chemistry and

occupied themselves with the bodies named hæmatoblasts and with Dr. NORRIS' third or transparent corpuscles of the blood, with the result of showing that they are probably ordinary corpuscles partially deprived of their colouring matter or hæmoglobin. BIZZOZERO has suggested an instrument to which he has applied the name of hæmatocytometer in which the intensity of colour and the degree of opacity are measured by the different thicknesses that must be given to a solution, or to a blood mixture, to reproduce a certain optical effect; the imitation of a test solution for colour and the disappearance of a luminous point situated at a certain distance for the opacity.

Careful observations made by VIGNOL in RANVIER'S Laboratory seem to have demonstrated that in the lower vertebrata the heart possesses a local motor and a local inhibitory centre.

DUCLAUX has written a work on ferments and their relation to disease. In this he treats of the nutrition and development of microscopic organisms, and gives some remarkable facts bearing on their growth. Thus, in the case of the *aspergillus* a sixteen hundred thousandth of nitrate of silver is sufficient to arrest its growth, whilst it will not grow in a vase of silver, though the quantity of metal dissolved is totally inappreciable to chemical tests.

The obscure subject of the dilatation of the bloodvessels under the influence of the nervous system has been treated of at great length and with much ability by MM. DASTRE and MORAT, who have satisfied themselves that it is in most, if not in all, instances of a reflex character, the centre being in the spinal cord and medulla oblongata, the sensory being the afferent and the sympathetic nerves containing the efferent fibres, which directly induce the dilatation, and which emerge from the cord by the anterior roots of the spinal nerves, and then associate themselves with the sympathetic.

DUBAR and REMY have studied the phenomena of absorption by the peritoneum, and have shown that albumen in solution is absorbed by the peritoneum without producing apparent change in that membrane, that the albumen so absorbed does not accumulate in the serum of the blood, and that it is well borne and inoffensive. They have further endeavoured, by means of the injection of colouring agents, to follow the course of the absorbed material. The histology of the mammalian gastric glands and the relation of pepsin to the granules of the chief cells has been worked out by LANGLEY with much success.

HONIGSBERG has compared the digestibility of meat in various conditions in artificial gastric juice, and finds that with an artificial gastric juice composed of five grammes of WITTE'S pepsin, dissolved in 1000 cubic centimetres of water acidulated with one part of hydrochloric acid, raw meat yields 39.7 per cent. of peptone, boiled meat 26.6 per cent., and roast meat 48.0 per cent. The action in the stomach itself is undoubtedly far more complete, but the experiment is in favour of the digestibility of well-roasted meat. SCHULZE and BARBIERI have demonstrated the presence of peptones in the juices of various plants, as in the potato and beet.

VELLA has made intestinal fistulæ, and then injected pilocarpine subcutaneously, which he finds possesses a remarkable power of inducing secretion of the intestinal juice.

Experiments made with the juice so obtained emulsify fats, converted cane sugar into grape sugar, and digest proteids. It acts, however, differently from gastric juice. Gastric juice dissolves the perimysium first, then the primitive fibre; whilst intestinal juice attacks the fibre first, and leaves the perimysium intact.

GOLTZ has continued his researches upon the brain, and shows that injuries of a severe character to the (convolutions) of the brain in dogs produce no diminished intelligence, but a remarkable change in psychical character, harmless and good-tempered dogs becoming snarling and morose; whilst, if the occipital lobes are damaged, the animals preserve their good-temperament, but their intelligence becomes much more impaired.

MERSCHESKI has experimented on the function of the olivary bodies of the medulla oblongata, and has shown that after deep injuries to them rolling movements towards the injured side occur with nystagmus of the corresponding eye. He believes that they stand in close relations with the functions of the cerebellum. The structure of muscle has been investigated by HIPPOLYTE MARTIN, who shows that the muscular fibril is composed like an amoeba or leucocyte of granular protoplasm, but affected with cylindrical rods, in which the proteic granules are of several species, and arranged in a determinate order. The dark discs are composed of two closely apposed granules, the extremities of the rod, and the space between them is occupied by three other granules, the centre one being larger than the other two; in moderate contraction the three granules appear fused together, whilst in full extension they appear as separate granules.

The duration of the latent period of the "tetanus" in the healthy adult has been carefully studied by EULENBERG in healthy adults, and found to be on an average little more than 2-62 of a second. He regards it as more than a mere reflex phenomenon, and endeavours to prove that it is of a complex nature. Death appears, on the other hand, disposed to regard it as a contraction.

A very complete treatise has been published on the physiology of the muscles and nerves by M. RICHET, who gives in a remarkably clear and orderly manner the facts that are at present known in regard to the important lesions, which M. RICHET has endeavoured so much to elucidate.

We must not omit to mention that Professor SANDERSON has been offered, and has accepted, the vacant post of Professor of Physiology at Oxford. We trust he may long continue to occupy that office, we hope also that he will exert his influence in the foundation of a good medical school, and gather around him a band of youthful workers, who may enable Oxford to vie with the universities of the Continent.

#### Pathology.

In the department of pathology the year has been, on the whole, infertile. Isolates have been reported in their usual abundance, and a few of new discoveries there have been few,

signal exception, of small importance. The year has been especially barren so far as English pathology is concerned. From the laboratories of neither England nor Scotland has any important work proceeded, and even from the good Brown Institution, from which we have had such a rather work in the past, comes the sound of physiology of pathology. The lectures on Inflammation by Dr. BURDON SANDERSON, and on Pulmonary Cavities by Dr. EWART, deserve, however, especial mention, although, in the former, we are not carried far beyond our previous stand point. Abroad, bacteria still absorb the brilliancy of the pathologists of Germany and France, and the word "investigation" has been sufficiently attested by the have of the literature of pathology. Few recent discoveries of the tubercle bacillus, for which KOCH certainly deserves the high credit he has received, although the discovery had been worked out by many investigators, and was made independently to him by BAUMGARTEN. The organisms of tubercle have given us a new pathologists in all countries abundant work, and its practical application has been made in a few cases. In the new facts of the pathology of the tubercle, in addition to the technical facts regarding observation which have been abundantly supplied by other departments of bacterial pathology some have been supplied, fewer in number, however, during years. Among them may be mentioned the researches of BIRCH-HIRSCHFELD on the association with syphilis, and of KEATING on the lesions, although the latter are scarcely more than a confirmation of the half-forgotten observations of VACHERWOOD. Of especial significance also is the fact by FEHLEISON, that the organisms of erysipelas of giving rise to the disease after their separate The remarkable observations of LAVERAN on the malarial parasites which apparently constitute the active agents in the production of malarial disease, have been confirmed by RICHARD, and may perhaps attract more attention than they have hitherto received. In other specific diseases the chief researches are those of POPOFF on the changes in the blood in typhoid fever, and those of EISENBERG on the alterations which are produced in the salivary glands by the malarial parasites. In the region of general pathology, the subject of inflammation has been little studied. Besides the lectures of BURDON SANDERSON, already alluded to, the most important researches are those of SPINA, on the morphological changes presented by protoplasmic elements in the tissues, which have not the form of cells. ZUNTZ has investigated the cause of the increased oxidation which occurs in pyrexia, and believes that the facts he has ascertained regarding the action of curara must, to some extent, alter our views of the process. The subject of septicæmia has been somewhat neglected during the past year, and the work which has been done only serves to show how much more is needed. The experiments of ROSENBERGER, for instance, suggest that the relation of bacteria to this condition may be secondary and not primary, and are of special interest in connexion with the facts which ROSSBACH has published, which apparently prove that, under certain circumstances, the organisms always present in the body may be the source

of those associated with septicæmia. The general pathology of the blood has attracted little attention, nor can we expect new facts until there is more agreement regarding its constituents. We must not, however, omit to mention the researches of HAYEM on the processes by which hæmorrhage is arrested, and on the peculiar "hæmatic crises" which occur during the course of many acute diseases. Apart from the question of its relation to bacteria, the pathology of tubercle has been the subject of many researches, and among those which deserve mention are that of CHIARI on the hyaline metamorphosis which tubercle undergoes; the laborious investigations of ARNOLD on the minute structure of tubercle in various organs; the studies of its formation in the thoracic duct by STILLING, and in the veins by WEIGERT, and in the synovial sheaths of tendons by TERRIER and VERCHÈRE. The facts described by TAPPEINER regarding the production of phthisis in dogs by the inhalation of tuberculous sputum have been confirmed by WEICHELBAUM, although no new evidence of the contagiousness of phthisis in the human subject has been adduced. The observation of FRIEDLANDER may be regarded as demonstrating the frequent occurrence of organisms in connexion with croupous pneumonia, although it still leaves undetermined their precise relation to the disease. The etiology of gastric ulcer has been studied experimentally by AUFRECHT; the cause of the jaundice of newly born children has been investigated in a most able and thorough manner by BIRCH-HIRSCHFELD. No observations on the gastro-intestinal tract are more important than those of NOTHNAGEL on intestinal catarrh and atrophy, which, although undertaken from a clinical standpoint, are of great pathological interest. The occurrence of compensatory hypertrophy of the kidneys has been demonstrated by RIBBERT; and the researches of AUFRECHT have thrown considerable light on the pathogenesis of renal cirrhosis. Lastly, in what may be termed toxicological pathology, the most important investigations have been those of CORNIL and BRANLT on the effects of arsenic and phosphorus, which have shown the identity of the changes produced by the two agents.

#### Therapeutics.

In the department of therapeutics there are many indications of vitality and of distinct reaction from that of scepticism as to the use of medicine which followed, as effect follows cause, the rise and fall of homœopathy. The demonstration afforded by this exploded system, in its simplicity, of the strong recuperative powers of the system, naturally led physicians to question whether medicine could not be dispensed with altogether. But the answer to this question is no longer doubtful, and makes it clear that that practitioner will be at a great disadvantage who does not study the latest evidence on the physiological and therapeutical action of medicines. The growing care in investigating the action of drugs, and, we may add, the growing perfection of chemistry and of pharmacy, have shown that the most specific effects may be produced by drugs which a few years ago were not known to exist—witness the case of pilocarpine, of hamamelis virginica or its active principle hazeline, resorcin, &c. The old physicians used to speak of the effects and uses of opium, but recent chemistry and



therapeutics have resolved opium into nearly a dozen substances with entirely distinct physiological effects, and capable of the most various use in the hands of the physician. This year has witnessed the introduction of a substance not originally in opium, but resulting from the action of hydrochloric acid on morphia—apomorphia. Few of the books on *materia medica* published this year contain any notice of it. Its use—for the discovery of which the profession is indebted to Dr. GEE—is that of an emetic to be introduced hypodermically. But it is in the smallest quantity powerfully effective—witness the remarkable case of brandy poisoning reported by Dr. AMAND ROUTH in THE LANCET of last week. The hypodermic use of quinine in ague has been shown in our columns by Professor CHARTERIS of Glasgow, and Dr. GEORGE RANKINE of the 6th Bengal Cavalry. The stimulating effect of fifteen minims of rectified ether administered hypodermically, and repeated, seemed to determine a favourable issue in a case of aconite poisoning detailed by Mr. CECIL A. COOKE. The hypodermic administration of the active principles of purgatives does not promise to supersede the ordinary use of laxatives. The antidotal action of the alkaline sulphates in poisoning by carbolic acid was illustrated by a case in the Royal Southern Hospital, reported by Mr. T. D. RANSFORD. Though some antiseptics are themselves shown to be capable of serious poisonous effects, the antiseptic and germicide theory still dominates therapeutics, not only in surgery but in medicine. Our pages are full of letters and other communications from practitioners alleging the efficacy of some antiseptic or other in zymotic cases. The local use of boracic acid dissolved in glycerine and water in diphtheria, by Mr. T. D. HARRIES, of Aberystwith, is a case in point. (See THE LANCET, Feb. 25th, 1882.) His conclusions are confirmed by cases reported by Dr. GOODHART to the Clinical Society, though he does not seem to have been aware of Mr. HARRIES'S clear experience. Another case in point is the use of enemata of carbolic acid in typhoid by M. RAMONET; and yet others, are the successful administration of salicylate of soda in scarlet fever by Mr. JAMES COULDREY, of Scunthorpe, near Brigg, where the disease has prevailed in a severe form, and the use of salicylic acid in typhoid by M. VULPIAN, reported to the Académie Médicale. The use of salicin and salicylates in acute rheumatism was the subject of a most elaborate series of papers, elsewhere alluded to, before the Medical Society. We can only here say that these remedies emerged from the discussion with enhanced reputation. It is noticeable, however, that Dr. HERBERT DAVIES still prefers the blister treatment. The report of the committee of the Clinical Society on Rheumatic Hyperpyrexia, though chiefly clinical in its bearings, affirms the value of the prompt and early use of cold. The therapeutics of intestinal obstruction, not due to coarse mechanical conditions, are advanced by experience of the action of hyoscyamine in a case reported by Mr. KENNETH MILLICAN, and by a growing use of belladonna, in cases where opium has failed or is contra-indicated. For the production of anæsthesia there is an increasing preference for ether as an alternative to chloroform. The action of drugs and the best mode of administering them are thus becoming more and more questions of the first importance

in medical education and practice, in connexion with other great branch of therapeutics—the proper management of the sick—which is receiving at present much attention.

#### Surgery.

THE records of surgery during the past year are marked by any striking novelty or great progress, nevertheless good work has been done in many directions. Sir HENRY THOMPSON has recorded instances of removal of tumours of the bladder through perineal incision; and he advocates an exploratory incision in cases where the diagnosis is doubtful. He has also another list of 101 cases of lithotripsy to the already number recorded by him. Calculi have been removed from the kidney through a lumbar incision by Mr. BECK, Mr. BUTLIN, and other surgeons have recorded cases in which the kidney was examined with a needle through a lumbar incision without discovering a calculus. It has been shown that this operation is practically safe. A considerable number of nephrectomies have been recorded by surgeons at home and abroad; and a lively discussion at the Societies has shown that much interest is felt in the question as to when a splenectomy should be undertaken in cases of allied subject—i.e., splenectomy in cases of l. l. l. has been discussed by Mr. HERBERT COOKE. WARRINGTON HAWARD; the argument of the present to be conclusive in condemning the operation. Numerous facts in abdominal surgery, which tend to differentiate our art seems to be gradually (regrettably) separating from the field of abdominal surgery will therefore leave the discussion of oophorectomy, and other performances, the which are dreadful, for mention in another paper. Mr. WHITEHEAD'S method of excision of the prostate has been practised and commented upon by several surgeons. There has been some diversity in the opinion, but on the whole we gather it to be a valuable addition to the treatment of prostatic disease. A novelty in the treatment of empyema has been suggested by Mr. R. W. PARKER, to introduce purified air by a second puncture into the thorax, to replace the fluid which has been removed, but little opportunity has at present offered for the test of experience. Mr. DUBLIN tied the innominate artery, and it appeared at the time as if the case were likely to prove successful; but hope was not realised. Mr. HOLMS recorded a case in which the theca vertebralis was injured. Mr. GOTTSALLO and Mr. CLUTTON have again raised the question of the treatment of spina bifida by reporting successful cases in which MORTON'S method had been employed, and the subject has been referred for investigation to a committee of the Society. A very remarkable lecture was given by Sir J. PAGET at the Royal College of Surgeons, on "Some of the New Diseases;" it was the first of an annual series of lectures founded by the widow of the late Mr. BRAUER of Reading, and was equally interesting from its originality and suggestiveness. Three elaborate discourses on matters have appeared in our columns: Mr. MAJORS'S lecture at the Brompton Hospital on "Diseases of the

between the passing of the primary examination for the diploma of member and admission to the final examination, except in certain special cases. In May the report of the Joint Committee on the proposed institution of an examination in elementary anatomy and physiology was presented to the Council. The committee recommended that the proposed examination should be held at the various medical schools, to be conducted by the teachers, instead of at the College. At the meeting held in June it was resolved to call the attention of the authorities of the several recognised schools to the proposed regulation, and to invite the teachers of anatomy and physiology to confer with the Joint Committee at the College as to the mode of carrying out the proposed examination. This conference was held on June 26th, and the principle of holding an elementary examination in anatomy and Physiology at the schools was, after a long and full discussion, almost unanimously adopted, with the condition that six months should elapse between the elementary and the Primary Examinations. On July 6th Mr. MARSHALL and Mr. POWER were re-elected members of the Council, and Mr. CROFT was elected a member of the Council, and in the following week Mr. SPENCER WELLS succeeded Sir ERASMUS WILSON as President of the College, Mr. MARSHALL and Mr. COOPER FORSTER being elected senior and junior Vice-presidents respectively. The vacancy in the Court of Examiners, caused by Mr. RUSSELL's retirement, was filled up in October by the election of Mr. BRYANT. In July Mr. T. M. STONE resigned the post of Clerk, after a useful, valued, and honourable service of fifty years at the College. On the 15th inst. seven delegates were appointed, as hinted above, to meet and confer with a sub-committee of the Royal College of Physicians on the possibility of a combination of the two Colleges for the establishment of a complete conjoint medical and surgical examination. On the 13th Sir JAMES PAGET delivered the first Bradshawe Lecture at the College. On some New and Rare Diseases." This lecture was published *in extenso* in our columns on the 16th inst. It may be mentioned that during the year an attempt has been made to form an Association of Fellows, but as some of the promoters have not hesitated to avow a wilful spirit of antagonism to the College, the attempt has hitherto received no countenance from the principal Fellows.

#### *Army and Navy Medical Departments.*

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experienced in bringing up to the front those supplies of medicines and medical comforts which had been provided on a liberal scale, an attempt was of course made to show that this was owing to the defective organisation of the Department and the want of foresight on the part of the heads of the medical service. These charges were supported by statements of a very unscrupulous character, and were, we fear, in many instances put forward for the purpose of throwing discredit on the present system of departmental organisation. Many of these statements have already been disproved by the evidence of eye-witnesses, and we have no doubt that the inquiry now being conducted by the Committee appointed by the Secretary of State for War will completely remove the odium which has been attempted so unfairly to be cast upon the medical service. The military authorities, both at home and in Egypt, have borne testimony to the praiseworthy manner in which the medical officers discharged their duties, and the sympathy of their professional brethren in civil life was well manifested by the banquet given to celebrate their return to England on the termination of the war.

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#### *Mirror of Hospital Practice.*

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Paris, has been commenced, and is well supported. The Ophthalmological Society has held its meetings with regularity under the able guidance of Mr. BOWMAN. The genial manners, the large views, and vast experience of Mr. CRITCHETT, who would probably at no distant date have succeeded Mr. BOWMAN in the presidential chair, and whose death the members of the Society deplore, will be long held in remembrance. The histology of the optic nerve has been studied by Dr. BERGEN, who has been unable to discover the direct communication observed and described by LEBER, between the capillaries of the optic nerve and of the choroid. ROBINSKI has investigated the structure of the lens; AEBY, the histology of the canal of Petit, and the Zonule of Zinn; PREISS, the lymphatics of the cornea; WOLFF, the nerves of the cornea; HEISRATH, the drainage system of the anterior chamber of the eye. CHARPENTIER has contributed some papers on the differential sensibility of the eye, and he, JAEGER, MAGNUS and others have written on the sense of colour. The use of the spray in operations on the eye seems to be spreading both in France and Germany. It will probably prove useful in cases of enucleation and abscission, but it is not well adapted for cataract operations nor for iridectomy. Many papers have been published on purulent ophthalmia, notably those of HAUSSMANN, ABADIE, BAILLY, and DE WECKER, and evidence appears to be accumulating that cases of blennorrhoeic and gonorrhoeic ophthalmia, and of suppurative keratitis, are in many instances attributable to, or, at least, are associated with the presence of, certain micrococci and spores of fungi, such as the aspergillus, a subject that has been well worked out by LEBER of Berlin. The employment of homatropin as an agent capable of effecting dilatation of the iris, without the persistent effect of atropin, has come into general use, and pilocarpine has been shown to be not only a valuable and effective remedy in various diseases of the eye, but that it is an excellent antidote to the effects of atropine. KNAPP has collected a series of interesting cases in which foreign bodies have been tolerated in the fundus oculi, showing that it may not always be requisite in such accidents to proceed at once to enucleation, especially if the foreign body be small. FEDOR KRAUSE has given a good account of the pathological changes occurring in sympathetic ophthalmia, showing that the changes proceed chiefly along the ciliary nerves. Dr. AYRES has written a paper on the same subject, recording cases which seem to show that the changes are progressive along both the optic and the ciliary nerves. But the number of memoirs and original communications on the pathology and treatment of diseases of the eye is immense, and furnishes sufficient evidence of the attractiveness of the diseases of the eye as an object of study.

#### *The Royal College of Physicians.*

AT the Royal College of Physicians several important questions both of policy and ethics have been discussed. One recent and significant act of the College has been to appoint a sub-committee to confer with delegates of the College of Surgeons with a view to the formation of a Conjoint Board consisting only of these two bodies, leaving out the Apothecaries' Society. In this course the College is only accepting a proposal originally made by the College of

Surgeons in May, 1881. The prospect of legalising the movement less opportune and important. A worthy step the College has taken throughout the agreeing to the moderately worded resolution with regard to homœopathy. The report on the however, which appeared in our columns, led to self-assertion of dignity on the part of the College. Whether from the observance of excessive prudential a jealous regard for its fancied importance, it is that henceforward the proceedings of the College considered as private communications. Considered for some years past the proceedings have been unless an intimation to the contrary had been given by the President, the action taken by the Censors must be a retrograde one. Another important question, the College has given an uncertain sound, has been professional advertising. It need only be said that the London College was content with reprobating the extensively advertising, the Irish College advertising of medical publications in the literature. There can be little doubt that if the Royal College of Physicians advertise their business they do a great injustice to the bulk of practitioners whose patients they entice to the consulting rooms. The Irish Fellows in this respect shown a higher sense of justice and less greediness than representatives of the London College. It may be noted—namely, that the College has been obliged to appoint examiners in Anatomy and Chemistry outside the circle of its Fellows. The Gulstonian Lectures of the year were delivered by W. EWART, "On Pulmonary Cavities; their Origin and Repair." The Lumleian Lectures, by Dr. SANDERSON, treated of Inflammation; whilst Dr. FAYRER, in the Croonian Lectures, took the Fevers of India for his subject. The Bradshaugh Lecture was delivered by Dr. E. LONG FOX: "On the Sympathetic System in Disease."

#### *The Royal College of Surgeons.*

The year has been an eventful one for the Royal College of Surgeons. Beginning with the extended examination in Medicine and the new examination in Midwifery for final membership, and ending with the appointment of a sub-committee of the Royal College of Physicians, to consider the possibility of establishing a complete conjoint medical and surgical examination, the year has been full of incidents affecting not only the College, but also the interests of medical education. At a meeting held on January 12th the principle of a scientific examination was approved, on the condition that such examination should be passed before the completion of the professional curriculum. In March a standard was adopted that a candidate referred on the primary examination for three months, should before re-examination produce evidence of having pursued his anatomical and physiological studies during that period to the satisfaction of his teachers, whereas candidates referred for six months, in addition, produce evidence of having dissected a certain number of subjects. In April the Council adopted the proposal, after October, 1882, an interval of two years

between the passing of the primary examination for the diploma of member and admission to the final examination, except in certain special cases. In May the report of the Joint Committee on the proposed institution of an examination in elementary anatomy and physiology was presented to the Council. The committee recommended that the proposed examination should be held at the various medical schools, and conducted by the teachers, instead of at the College. At the meeting held in June it was resolved to call the attention of the authorities of the several recognised schools to the proposed regulation, and to invite the teachers of anatomy and physiology to confer with the Joint Committee of the College as to the mode of carrying out the proposed examination. This conference was held on June 26th, and the principle of holding an elementary examination in Anatomy and Physiology at the schools was, after a long and full discussion, almost unanimously adopted, with the condition that six months should elapse between the Elementary and the Primary Examinations. On July 6th Mr. MARSHALL and Mr. POWER were re-elected members of the Council, and Mr. CROFT was elected a member of the Council, and in the following week Mr. SPENCER WELLS succeeded Sir ERASMUS WILSON as President of the College, Mr. MARSHALL and Mr. COOPER FORSTER being elected senior and junior Vice-presidents respectively. The vacancy in the Court of Examiners, caused by Mr. BIRKETT's retirement, was filled up in October by the election of Mr. BRYANT. In July Mr. T. M. STONE resigned the post of Clerk, after a useful, valued, and honourable service of fifty years at the College. On the 14th inst. seven delegates were appointed, as hinted above, to meet and confer with a sub-committee of the Royal College of Physicians on the possibility of a combination of the two Colleges for the establishment of a complete conjoint medical and surgical examination. On the 13th Sir JAMES PAGET delivered the first Bradshawe Lecture at the College "On some extension in our columns on the 16th inst. It may be mentioned that during the year an attempt has been made to form an Association of Fellows, but as some of the antagonists have not hesitated to avow a wilful spirit of the College, the attempt has hitherto received no countenance from the principal Fellows.

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carditis simulating typhoid fever, under the care of Dr. STURGES, of the Westminster Hospital; rupture of liver, thrombosis of the hepatic veins and embolism of a branch of the left pulmonary artery, under the care of Mr. MAKINS at the Seamen's Hospital, Greenwich; rupture of an aneurism of the basilar artery, under the care of Mr. C. J. WRIGHT of the Leeds Public Dispensary. Among the surgical cases may be mentioned:—transfixion of neck by a walking-stick, under the care of Mr. DAVIES COLLEY, of Guy's; adherent stone in the bladder, forming after injury to spine, under the care of Mr. HENRY SMITH, of King's College Hospital; successful removal of large uric acid stone, weighing eight ounces, by lateral lithotomy, under the care of Dr. UNDERHILL, of Guest Hospital, Dudley; compound dislocation of the sixth from the seventh cervical vertebra without fracture, under the care of Dr. WHIPHAM, of St. George's Hospital; dislocation of the fifth cervical vertebra, reduction and recovery, under the care of Mr. CEELEY, of the Royal Bucks Infirmary. Among the curiosities may be mentioned a case of eyelashes in the anterior chamber of the eye, the result of a stab, treated by Mr. WILLIAMSON, of the Newcastle-on-Tyne Infirmary, and a fish-hook successfully removed from the œsophagus by Dr. GOLDSMITH, of the Bedford General Infirmary; excision of the pyloric end of the stomach for carcinoma by Mr. SYDNEY JONES, of St. Thomas's Hospital.

#### *The Medical Societies.*

At the various medical societies of the metropolis the year has not been very eventful. There have been no great debates or stirring controversies, but there has been the same steady pursuit of science in the records of cases of disease, of the results of operations, of pathological research, and in the general routine of useful work that renders the meetings of these bodies so attractive and fruitful. Commencing as usual with the Royal Medical and Chirurgical Society, we find this old-established and somewhat conservative body becoming alive to the fact that for some reason or other its meetings were losing much of their former popularity. In point of numbers the Society was never richer, but yet the Fellows failed to appear at the meetings and share in the debates, the contributions even became scanty, and rumour ran that the Society's younger rivals were pressing it rather hardly. However this may be, the changes that have been introduced—minor as they are in importance—during the past few months may have considerable effect in increasing the attendance and interest in the Society's meetings. Professor J. MARSHALL succeeded Dr. BARCLAY in the presidential chair, and his first duty on taking office was to move an address of congratulation to Her Majesty on her providential escape from the attempt on her life. The papers read before the Society have, many of them, led to animated debate, and some have enunciated new principles that may become established. As in other Societies, so here, surgery predominated, Mr. BRYANT relating his successful case of Colectomy for Cancer, a subject expanded more fully in the recent paper contributed by Mr. TREVES on Resection of Portions of the Intestine. Sir H. THOMPSON contributed a successful case of Removal of a Tumour of the Bladder by Perineal Section, and the same surgeon will shortly communicate another paper on this subject to the Society. Mr. HENRY MORRIS's paper

on Dislocation of the Hip-joint was another which aroused discussion, and so did Mr. PARKER's proposal to employ intra-thoracic injection of air as an aid to the evacuation of certain forms of empyema. Other papers, of a more elaborate nature, were the researches of Drs. RINGER, SAINSBURY into the action of Soda and Potash Salts, of Dr. CHAMPNEYS into the production of Mediæ, of Dr. EMPHYSEMA following Tracheotomy, and that of Dr. WAI upon the Postures of the Hand as indications of Action. Sir JAMES PAGET also contributed a paper on cases of the remarkable condition to which the name Osteitis Deformans. One of the cases referred to above has consisted in the exhibition of mineral and other specimens collected from various sources in illustration of the subject of the evolution of life, that way demonstrations of bacterial organisms, and specimens of cranial and cerebral disease, of epilepsy, and of forms of intestinal stricture, have been taken place, adding much to the interest of the meetings.—The Pathological Society has managed to deal with more subjects than occurred at the previous session; the specimens are so numerous that the communications accompanying them are often so terse, that not only is much work got done, but also, we fear, there is less actual debating than in former years. This is to be regretted, for not seldom interesting facts are brought out by discussion. It is pleasing to observe that the Society is receiving more contributions in comparative pathology, owing to the facilities afforded by the Zoological Society to members of the former body in making post-mortem examinations upon animals. We look forward to valuable information being thus furnished to pathologists, and cannot forget that Dr. CRISP, whose death it took place, was the pioneer in this special department in the Society. By the death of Dr. PEACOCK the Pathological Society lost a former President, and the most constant contributors to its Transactions.—In connexion with the sister Society—the Clinical—it is fitting to mention that the revered physician whose loss is fresh in the memory, Sir THOMAS WATSON, was for fifteen years occupant of the Presidential chair. The Society has now a well-established position, and many valuable communications. Amongst the more particularly discussed within it during the past year were Nephro-lithotomy in papers contributed by BECK, BUTLIN, and HAWARD; Nephrectomy by Dr. HART and Mr. GOLDING-BIRD, Dr. BARLOW, Mr. GODLEE, Mr. MARSH and Mr. J. E. ADAMS; subjects in abdominal surgery—e. g., splenectomy, HAWARD, and abdominal section for intestinal obstruction by Mr. GODLEE, deserve prominent mention. The growing boldness of surgeons in the treatment of Myxœdema—a condition which still continues to excite clinical inquiry—was roughly discussed at this Society early in the year. An elaborate Report upon Hyperpyrexia in Acute Erythematism was presented by a Committee of the Society, it dealt exclusively with the clinical aspect of the condition, the Committee not attempting to frame any theory upon its pathogeny.—The chief subjects debated



re can be little doubt, but of the expediency of his action there can be little doubt also. In the spring public indignation was aroused by an attempt on the life of the QUEEN by a man named MACLEAN. MACLEAN was arraigned for high treason, and was acquitted on the ground of insanity. MACLEAN had been in a lunatic asylum, and there never was from the first any doubt as to the unsoundness of mind. It was a clear blunder to go through the farce of a trial, and thus give a notoriety to the case, which would prove an incentive to lunatics of a similar class to imitate MACLEAN's action.

*The Brighton Corporation and THE LANCET.*

Early in the year we had occasion to question the perfect state of the sewerage of Brighton—a course which gave great offence to the Town Council, who commenced an action for libel against THE LANCET. They, however, selected Sir J. BAZALGETTE to report on the sewerage system, and Dr. RICHARDSON on the sanitary condition of the town. These reports agreed in the main with our pictures on the imperfect system of drainage. The Corporation, after the publication of Dr. RICHARDSON'S report, with commendable discretion, retired from the contest. Thus the liberty of the press was vindicated. If we do not discuss (which we do every week) the sewerage or insanitary state of a town, one great function of THE LANCET will be paralysed. Our aim and mission is to diffuse scientific knowledge throughout the world, and to reform local abuses. The amount of good accomplished by the Brighton agitation is simply incalculable. Every health resort throughout the kingdom had its sewage overhauled and its pestilential spots purified. Perhaps the authorities expected a visit from one of our commissioners. But as it is we congratulate ourselves and the Town Councils who have "put their houses in order."

*Public Health Questions.*

The year which is now passing away has, on the whole, been a healthy one at home. In England and Wales the general mortality, so far as it can be ascertained at this date, has been decidedly below the average. A comparatively mild winter led, in the first quarter of the year, to one of the lowest death-rates which has been recorded since civil registration was established in 1837. In the metropolis itself, however, an exceptional fatality from almonary affections amongst persons over sixty years of age was brought about by the density of the prevailing fogs. Throughout the year the prevalence of small-pox has been diminishing. In the metropolis, indeed, the small-pox death-rate is decidedly below the average for the ten preceding years, but several severe outbreaks have occurred in the provinces. It is a matter of experience that a London small-pox epidemic is always followed by an extension of the disease to some at least of the other large towns and ties, and the only peculiarity of the last epidemic is that its extension was longer in showing itself than usual. Amongst the English provincial towns that have most suffered are Bolton, Gateshead, Hull, Leeds, Lincoln, Newcastle-upon-Tyne, Nottingham, Rochdale, and Wednesbury. The mortality from the several continued fevers has also been below the average. In some parts of the kingdom isolated outbreaks have, however, occurred, and of these

the epidemic of enteric fever at Bangor has been by far the most extensive. During the four months June to September over 550 cases of this disease occurred in Bangor and its immediate neighbourhood, the outbreak being one of the most severe which has been recorded in this country within recent years. A searching inquiry was made into the circumstances of the epidemic by Dr. FRED. W. BARRY, the newly appointed Medical Inspector to the Local Government Board, and it was proved that the outbreak had in the first instance been brought about by the contamination of the water-service into which the specifically poisoned excreta of an isolated case had been conveyed by faulty means of drainage, and that its extension was in the main the result of an ill-ventilated system of sewers which facilitated the entrance of the then fever poisoned drain air into dwellings. The long continuance of the epidemic was also favoured by the failure of the sanitary authority at once to act on the recommendations of Dr. BARRY and of their own officer of health. The occurrence of small outbreaks of typhus fever in several large centres of population, and especially in Liverpool, London, and Sunderland, naturally led to the fear that, with the colder weather and the resulting overcrowding in the ill-constructed and ill-ventilated tenements of the lower classes, some epidemic prevalence of that disease might be anticipated. Although, however, more than the usual interval between epidemic prevalences of this disease has elapsed since the last typhus visitation, we are fortunately still without any indication of its further spread. Scarlet fever has, like the continued fevers, been distinctly less prevalent than usual, but in several parts of the kingdom local outbreaks of considerable magnitude and severity have occurred. Amongst the larger towns Accrington, Gloucester, Merthyr Tydfil, South Shields, Oxford, Nottingham, and Hull may be named as having specially suffered; the outbreak in Hull being a continuance of an epidemic which in 1831 caused as many as 682 deaths. The disease has also been fatally and persistently prevalent in several smaller places, such as Worksoy, and also at Upwell, a village near Wisbeach. Diphtheria has throughout the year caused an excessive mortality, the excess increasing as the year has progressed; and in some places, such as Folkestone, Taunton, Sutton-in-Ashfield, Lynn, and Whitstable, there have been marked epidemic outbursts of the disease. We are unfortunately still ignorant of the conditions essential to the development and, to some extent, to the spread of this affection, and with a view of acquiring further information as to its etiology, both the Local Government Board and the British Medical Association have instituted a series of detailed inquiries, the results of which may, it is hoped, hereafter give some indication as to how the diphtheria mortality may be lessened. Both whooping-cough and measles have prevailed to an unusual extent, and some of the measles epidemics have been very fatal. So long, however, as attacks of these diseases are regarded by the ignorant as necessary to the period of childhood, so long must they lead to a large number of preventable deaths. The periodic prevalence of autumnal diarrhoea has been less marked this year than usual, and it is evident that a comparatively cool autumn has in part conduced to this result. But it is equally clear that temperature alone does not regulate the extent of diarrhoea mortality amongst infants. The

mission on the Medical Acts, recommending changes in the organisation of the Medical Council and of the licensing boards in the direction long desired by the public and the profession. This Report shows a natural disposition on the part of the Commission to judge the medical authorities generously, but it nevertheless shows equally a perception of the defects of the existing system. Clauses 5 and 6 of Part I. of the Report are as follows:—

“On the other hand, it has been stated in evidence, and especially by witnesses who have been engaged in private tuition, that not only do the diplomas and degrees of these medical authorities imply very different standards of skill and knowledge, but that in some cases the possession of a diploma affords no guarantee that the practitioner holding it possesses a competent knowledge of medicine, surgery, and midwifery. Several distinct causes appear to us to lead to this result, such as the imperfections and low standard of some examinations; the fact that some examinations are injudiciously divided into parts, the first part of the examination of one Corporation being accepted by another, as in the case of the Apothecaries' Hall of Ireland and the Edinburgh Corporations; to which may be added the unsatisfactory manner in which the examiners themselves are in some instances appointed, as appears from the evidence laid before us by the representatives of the two Societies of Apothecaries.”

Other defects in the existing licensing system are brought out. Certain bodies are specially mentioned by the Commissioners, whose examinations, by a notable concurrence of opinion among the witnesses, are considered unsatisfactory. These bodies are the Apothecaries' Societies, the Edinburgh College of Surgeons, and the Glasgow Faculty of Physicians and Surgeons. The system of the Edinburgh College of Surgeons for creating Fellows, which is practically a system of purchase, was brought out in evidence before the Commission, and was little improved by even Mr. SPENCE'S defence of it. Similarly, in regard to the Medical Council, the work it had done was admitted liberally, and its failures were freely implied in the excuses suggested for its not doing better, and in the suggestions for a radical change in its constitution. The main proposals of the Commissioners are:—

“That there shall be one Medical Council. That in each division of the kingdom there shall be a divisional board representing all the medical authorities of the division, whose duty it shall be to appoint a certain number of persons to be members of the Medical Council, to appoint examiners for the divisional board examinations, which alone are to admit to the Register,” &c.

If legislation takes place on these lines, as we have reason to hope it may, there will be a Medical Council of eighteen members instead of twenty-four, and three licensing bodies instead of nineteen. The Council, moreover, will be no longer a weak and talkative body, fighting for the rights of corporations, but “one supreme controlling authority, entrusted with larger powers than those possessed hitherto.” The universities have been much considered by the Commissioners, and their graduates will be exempted from all the examinations of the divisional board but the final one, and this at a small fee.

A deputation of members of the British Medical Association, and others, waited on Lord CARLINGFORD and Mr. MUNDELLA in November, to urge on the Government

the promotion of legislation on the lines of the recommendations of the Royal Commission. Dr. WATERS, gave a history of the arguments and demands and of the efforts of successive Governments. GLOVER spoke from the point of view of a Scot and the holder of a Scotch diploma. Mr. W of Leeds testified to the fact that those who are one division of the kingdom often quickly another. Both Lord CARLINGFORD and the Viscount listened attentively to the deputation, and the subject should have their attention.

In Parliament, excepting answers to questions of less medical interest, there has been little to the session barren beyond precedent. The chief reason about the work of Parliament is that the House has awoke to the absurdity of its own Rules which have served lately so to hinder legislation that the Legislature itself into disrespect.

#### *Medico-Legal Cases.*

The year 1882 has not afforded many cases of exceptional interest in the domain of medical jurisprudence. The humiliating circumstance of the conviction for murder of a member of the medical profession, however, caused the past year to be held in remembrance. The circumstances of LAMSON'S crime were recapitulated, how for the sake of gain he administered aconitia to his brother-in-law in a gelatine capsule, the crime was clearly brought home to him by a series of chemical and physiological tests. The statement which the alkaloid was detected by Dr. STEVENSON will effectually tend to deter miscreants from using this lethal agent. Owing to the public panic caused by this case the Secretary issued circulars to various bodies of opinion as to the necessity or otherwise of a law which regulates the sale of poisons. (The law appointed by the different medical colleges is not that much information was furnished to the Secretary; but as yet no steps have been taken.) Quite recently a woman named TAYLOR, charged with murdering an old woman by the administration of lead. The circumstances were so late in the columns as to make a repetition of them unnecessary. On the last day of 1881 a curious death was made by a man named BROOKS, in which it appears that BROOKS, a somewhat eccentric man, to castrate himself on December 4th, 1879, he falsely alleged that he had been attacked by two men who attacked him. The result of that was that two men (JOHNSON and CLOWES) were sentenced to ten years' penal servitude. On February 1st, 1882, he again attempted to castrate himself, and was arrested. His statement that his injuries had been brought about by others. He died from the effects of heart disease on the 31st, 1881, and his death-bed confession was the liberation of the men who had been convicted. The conviction and execution of GUITEAU of President GARFIELD must be regarded as a sane. That GUITEAU was on the border

883, and we can only wish it a long career of usefulness.

#### Obituary.

The obituary of every successive year seems sadder than the previous ones, though in the case of the present year it includes the names of many whose age and honours were fully ripe. A few selections from our own death record will show what figures have disappeared:—JOHN CLINT SOUTH, F.R.C.S. Eng.; Sir ROBERT CHRISTISON, Bart.; CHARLES ROBERT DARWIN; Professor SCHWANN, of Liege; Dr. GEORGE BUDD, F.R.S.; Sir JOHN ROSE NORMACK, of Paris; Sir EDWARD BURROWES SINCLAIR, of Dublin; T. B. PEACOCK, M.D.; Professor JAMES R. VOOD, of New York; Professor SPENCE, of Edinburgh; Professor ANDREW BUCHANAN, of Glasgow; Dr. ARTHUR L. REID, of Hankow; Dr. CHARLES MOREHEAD, of Bombay; Sir JAMES ALDERSON, M.D. Oxon.; Mr. J. T. FLOVER; Dr. EDWARD PEELE, of Dublin; Mr. GEORGE BRITCHETT; BHOLA NATH BOSE, M.D. Lond., Bengal; Professor GEORGE GULLIVER, F.R.S.; Professor HENRY DRAPER, of New York; Professor WILLIAM PIRRIE, of Aberdeen; Dr. EDWARDS CRISP; Sir THOMAS WATSON, F.R.S.; Dr. EDWARD J. REYNOLDS, the oldest physician in Boston, who graduated at Harvard fourteen years before Sir THOMAS WATSON graduated at Cambridge; Deputy Surgeon-General PEARSE, late and most valued Chief Officer in the Vaccination Department of the North-West Provinces of India. We should want all the columns of the "Annus Medicus" to record the work represented by these names and the names of practitioners in the more laborious fields of private practice, some of them dying, like LYCIDAS, in their prime, most of them at their post, and not a few filling offices of public trust.

#### Conclusion.

Now we leave 1882, wishing our readers all happiness in the coming year and inviting their co-operation in perfecting the art and science of medicine, with which the well-being of mankind is seen to be more and more inseparably connected.

## Annotations.

"Ne quid nimitis."

### PROFESSORSHIPS AT CAMBRIDGE.

HITHERTO the elections to the Professorships in Cambridge have been made, in most instances, by the members on the electoral roll, who consist chiefly of the residents in the University. In future, however, under the new statutes, the elections will be in the hands of Boards, a Board being nominated specially for each professorship before a vacancy occurs, and appointed by the Senate. These appointments have just been made. The Board for the election to the Professorship of Anatomy consists of Professors Paget, Huxley, Flower, Liveing, Newton, Dr. Allen Thomson, Dr. Michael Foster, and Mr. J. W. Clark. The Board for election to the Professorship of Physiology consists of Professors Humphry, Huxley, Sanderson, Paget, Stokes, Drs. Pye-Smith, Mr. Langley, and Mr. Vines. The Board for election to the Downing Professorship of Medicine consists of Sir George Burrows, Professors Paget, Liveing, and Humphry, Drs. F. Farre, Lauder Brunton, and Richard Quain, and Mr. T. P. Main. The Board for election to the Professorship

of Pathology consists of Sir James Paget, Professors Latham, Sanderson, Humphry, and Paget, and Drs. Michael Foster, J. F. Payne, and Gaskell. It will be seen that, with a view to the representation of opinion outside the University, certain of the persons appointed in each instance are persons not resident in the University, and not officially connected with it; and the selections which have been made in conformity with the provision of the statute requiring this will certainly meet the general approval of the profession. The appointment to the Regius Professorship of Physic remains with the Crown. The Professorships of Physiology and Pathology are new Professorships, now first established by the statutes. The appointment to the former will probably soon be made, and the Board will have little difficulty in making a selection in the first instance. An election to the Professorship of Pathology may be expected to follow at no distant period.

### THE NUTRITIVE PROPERTIES OF RICE.

THE increase in the consumption of rice has lately attracted the attention of several men of science in Germany, and amongst other investigations, an attempt has been made by Professor Voit to discover the relative capacity which various forms of nourishment possess of being incorporated into the system. He has drawn up the following table of the percentage which remains in the body, and of that which leaves it:—

	Percentage incorporated.	Percentage which is not retained.
Meat . . . . .	96.7	3.3
Rice . . . . .	96.1	3.9
Eggs . . . . .	94.8	5.2
White bread . . . . .	94.4	5.6
Maize . . . . .	93.3	6.7
Potatoes . . . . .	90.7	9.3
Milk . . . . .	88.9	11.1
Black bread . . . . .	88.5	11.5

According to these results (the *Bremer Handelsblatt* remarks) meat and rice leave the smallest amount of residuum, and occasion the smallest excessive exertion to the digestion, and in fact introduce the minimum quantity of ballast into the human frame. Dr. Köaig, of Münster, considers that the fact of large masses of population living on rice is easily accounted for, and in summing up the information collected upon the subject, Professor Voit remarks that potatoes, when consumed in excessive quantity, fail to nourish the frame effectively, make the blood watery, and render the muscles weak. Apart from the subject dealt with in the table drawn up by Professor Voit, the question of the relative nutritive value of rice and potatoes has been investigated by Dr. König, who is of opinion that if similar quantities of both articles are compared, the former possesses four times the value of the latter in really nutritive properties. It is also remarked that the introduction of rice as a substitute for potatoes is facilitated by the fact that no such variation takes place in its quality as is the case with the potato, which is liable to be materially influenced by the effects of unfavourable weather.

### SLIPPERY STREETS.

THERE are some evils we seem to ignore and nuisances we tolerate apparently on principle, though what principle it is difficult to conjecture. The slipperiness of the London streets has been notorious from times so far past as to be forgotten. Recently, however, the fact has been demonstrated in a fashion peculiarly offensive. The long continuance of miserably wet and foggy weather has rendered the surface of the metropolitan area, as it has made most other surfaces, especially slimy. It is now really a feat in gymnastics to maintain the perpendicular in not a few of

available information as to the causation of this disease is as yet singularly imperfect, and we can only await the results of the exhaustive inquiry which, now for three successive autumns, has been undertaken by Dr. BALLARD, with a view of clearing up at least some of the more difficult sanitary problems connected with this subject. Leicester, Preston, Hull, Gateshead, and York have, as usual, suffered exceptionally from infantile diarrhoea.

During the year the subject of the isolation of the several infectious fevers has received a large amount of attention, and three important reports have been issued on the subject. The first was Dr. THORNE THORNE'S exhaustive report on the Use and Influence of Hospitals for Infectious Diseases throughout the country generally; a report which embodies all the information available on the subject so far as the requirements of sanitary authorities are concerned. The second was Mr. W. H. POWER'S report on the Influence of the Fulham Small-pox Hospital, which went to show, in the most convincing manner, that the aggregation of a large number of small-pox patients in a populous centre was attended with a spread of the disease amongst the surrounding inhabitants. The report was one of the most complete that has ever been issued by any sanitary department. It proved that the diffusion of the small-pox contagion had operated over a wide area; that it had come into operation every time the hospital had been used for the reception of acute small-pox cases; and that, owing to the uniformity of its incidence upon all the surrounding population, quite irrespective of the existence of roads or other channels of human intercourse, the diffusion must necessarily have been communicated through the atmosphere. The circumstances elicited as the result of this investigation led to the appointment of a Royal Commission to inquire into all the circumstances affecting the isolation of infectious diseases within the metropolis, and the report of that Commission formed the third contribution to this important subject. The Commissioners arrived at the conclusion that the metropolitan small-pox hospitals had operated injuriously upon the neighbourhoods in which they are situated; and although not assenting in full to Mr. POWER'S contention that the mischief was brought about by aerial diffusion, yet they would appear to have been largely influenced by this view in so far as their recommendations are concerned. We have so recently commented on this report that we would now only add a hope that legislation will speedily give effect to the conclusions which have been urged upon the Government by the Commission. The deaths by erysipelas following vaccination in Norwich were considered of sufficient importance to demand public inquiry by the Local Government Board, who, in the first instance, appointed Dr. AIRY to investigate the circumstances attending the fatality. Subsequently Mr. HENLEY was associated with Dr. AIRY in the inquiry. The report was so unsatisfactory that Dr. BUCHANAN deemed it necessary to append a memorandum showing that the conclusions arrived at by the inspectors were not borne out by the evidence, and that important considerations which might have led to the elucidation of the cause of the erysipelas had been overlooked.

The Parliamentary session has been very barren in sanitary legislation, and only two statutes call for any notice. One extended the Public Health Act so as to enable sanitary

authorities to make by-laws regulating fruit pickers and their lodgings; the other amended the Artisans' and Labourers' Dwellings Act, and provided means, amongst other things, for the purchase of houses, the demolition of which was necessary for the opening up of alleys, &c. Two other subjects, however, deserve notice in this connexion. During the year the Local Government Board completed their series of model by-laws by the issue of several sets of clauses for the regulation of noxious trades; and the Education Department of the Privy Council in their New Code of 6th March made provision for the issue of grants in the case of schools which, without being closed, may suffer from a attendance owing to the prevalence of infectious diseases, also for requiring school managers to comply with the orders of sanitary authorities as to the closing of schools in the case of epidemics, and for the closing of schools in the case of epidemics, and for the closing of schools in the case of epidemics.

Europe has fortunately escaped from the impact of any Eastern epidemic disease. Plague has, however, prevailed to some extent in Persian Kurdistan, the appearance after an apparent cessation of several years, and the rumours as to the dangers which we run by the introduction of cholera through the Mediterranean have been revived, and the presence of that disease in an epidemic form both in India and in some of the islands bordering the China Sea, led to an attempt to hinder traffic through the Suez Canal at a critical moment of the recent Egyptian epidemic. England, however, distinctly refused to submit herself to the regulations which the Egyptian Government sought to impose, and the result has fully justified the course which she took. It is to be hoped, indeed, that before long some final settlement on a rational basis will be made as to the constant disputes arising with reference to the subject of quarantine, as this antiquated process is understood in Egypt and in some other countries. Following on the Mecca pilgrimage cholera broke out in the Hedjaz and other localities affected by the annual visit to the holy city. At Jeddah the disease still prevailed in the middle of last month, but so far as Europe is concerned, all danger may now be regarded as having passed.

#### Miscellaneous.

A very notable event during the past year has been the opening of the Royal Courts of Justice, and in THE LANCET of November 4th will be found the report of our Commissioner on the sanitary aspects of the new building. The building, although praiseworthy, is by no means above criticism, and it is to be hoped that in the future when Government offices have to be erected some of the suggestions offered by our Commissioner will be acted upon by the Government of the day.

A very laudable attempt to improve the sanitary conditions of ships was made by the Directors of the Orient Line in the construction of the steamship *Austral*, undoubtedly the most magnificent vessel of its class. This ship's career has been most unfortunate, for she was capsized a few days after her departure from Sydney Harbour, owing to the carelessness of the crew in charge during coaling, and although it is hoped that she may be floated again, one cannot but have misgivings as to the difficulties of such a work may prove insurmountable.

The Parkes Museum has been incorporated during the year, and has been removed from University College premises in Margaret-street. It will be opened

as stated by Dr. Macnaughtan, nothing could have been done to avert the fatal consequences of the fall. An event of this kind, from whatever cause arising, must give rise to much anxiety on the part of the responsible officers, and we trust that Dr. Macnaughtan will find only sympathy from those placed over him in the regiment. The principle of non-restraint has been very roughly carried out at Perth, and hitherto with the best results. In no prison with which we are acquainted do the troublesome and often dangerous patients appear to be managed with less of harshness or friction. This is abundantly evidenced by the fact that the strait-jacket has been in requisition during this year; and the care with which Dr. Macnaughtan has brought about this state of affairs renders him specially worthy of support under his present worry.

#### HEALTH OF THE TROOPS IN EGYPT.

THE reports which reach this country of the improvement in the health of the army of occupation in Egypt continue satisfactory, as showing a reduction both of sickness and mortality. It is true that this has not been so rapid as it has been desired, and as many anticipated; but the result of this is too obvious. It has arisen from the impossibility of moving the men sooner into comfortable quarters where due attention could be paid to their health requirements. The buildings handed over to the military authorities for the occupation of the troops were in such a condition that had the men been at once moved into them the probable result would have been an outbreak of malarial disease. The Highland Brigade has at last been moved into them, and we look forward to a more marked diminution of sickness. This anticipation is, we think, justified by the fact that the regiments at Alexandria, which have been in quarters for some time, are stated to be in very good health. The result of the arrangements for sending convalescents, especially the fever cases, a trip up the Nile under the care of the indefatigable Mr. Cook proved very successful, the men returning greatly improved in health. It is stated that Lady Strangford's hospital at Cairo has been found extremely useful, and that steps are being taken to obtain the use of the Ramleh Palace, near Alexandria, as a convalescent establishment.

#### PASTEUR ON RABIES.

AT a recent meeting of the Académie de Médecine, Bouley communicated, in the name of M. Pasteur, a summary of conclusions regarding rabies at which the distinguished investigator has arrived. The first two enunciate familiar truths that the dumb madness and furiousness, and, in short, all varieties of rabies, are caused by the same virus, and that the symptoms of rabies are extremely variable. It is assumed that the characters of the several cases depend on the points in the nervous system at which the effect of the virus is chiefly localised. In the case of rabid animals the virus is associated with several kinds of organisms, and the inoculation of the saliva may cause death in three ways: by means of the special salivary organisms, by excessive suppuration, and by rabies. The fella oblongata of the human subject, as well as that of animals, after death by rabies, is always virulent, and the virus is also found in all parts of the brain, and it persists in the brain after putrefaction has set in. There are two methods of inoculation by which the period of incubation of rabies may be greatly shortened, and the disease produced not only rapidly but with certainty: one is by the injection of the virus into the blood; the other is by trephining the skull and placing the virus in the arachnoid cavity. Rabies then terminates at the end of six, eight, or ten days. M. Pasteur has met with some cases of the "spontaneous cure" of

rabies, but only in cases in which the disease did not develop beyond the initial stage. In such a case, in which the early symptoms passed away, the disease has been known to return at the end of a certain time—as two months,—and then to run the ordinary acute and fatal course. Mention is also made of the cases of three dogs inoculated in 1881: two quickly died from rabies; the third, after manifesting the early symptoms, recovered. The latter animal was inoculated by trephining in 1882 on two separate occasions, but without effect. M. Pasteur asserts that he now possesses four dogs which will not contract rabies, whatever the method of inoculation adopted or the proved virulence of the material employed. These facts he believes to be the first step towards the discovery of a method of the prevention of rabies by its inoculation. He confesses, however, that the end seems to be at present far distant.

#### VENTILATION OF RAILWAYS INTO THOROUGHFARES.

WE have already expressed our strong opinion that it would be incompatible with the interests of public safety to allow the ventilation of underground railways into the streets. The project for the construction of ventilating shafts in Queen Victoria-street, City, is a particularly absurd one, and should be, at once, interdicted. Apart from the obstruction to traffic and the danger of frightening horses thus threatened, it is most undesirable that not only here, but anywhere, special openings should be made in the midst of populous districts through which to discharge the concentrated impurities of a tunnel atmosphere. It would be far better to empower, and compel, the companies to purchase such blocks of surface as can be opened, and to make considerable openings for the escape of gases and vapours by unroofing their tunnels. This would prevent accumulation, instead of simply providing outlets, for the escape of suffocating vapours and gases.

#### THE BRISTOL GENERAL HOSPITAL.

GREAT improvements are in progress at the Bristol General Hospital, especially with regard to the sanitary arrangements of the several buildings. Last week Dr. Davies, medical officer of health for the city, delivered a lecture, in which he explained to a number of students and others the principles on which the drainage of hospital buildings should be carried out. The need for an absolute air-break between all pipes leading from the buildings to the interior of the drains, as also for ensuring a constant current of fresh air through all the drains, was especially insisted on, and the works themselves, which are being executed under the supervision of Mr. Eassie, C.E., were subsequently inspected.

#### MORTALITY AND SICKNESS IN FRIENDLY SOCIETIES.

THE actuary of the Friendly Societies' Central Office having officially reported that the quinquennial returns of sickness and mortality experience furnished for the five years ending 1880, in accordance with the Friendly Societies' Act of 1875, had supplied adequate data for the purposes of that Act, a short Act was passed last session which in future relieves these societies from the duty of furnishing such returns. Mr. Sutton, the actuary referred to, in an appendix to the recently issued report of the Chief Registrar of Friendly Societies thus describes the object for which these quinquennial returns were instituted: to collect from the experience of the societies adequate data from which trustworthy tables may be constructed, with the approval of the Treasury, for the information and guidance of societies. In order to ascertain the duration of sick-pay, as affecting the cost thereof to the society, the form used for the



the more crowded thoroughfares of London. Where the pavements are narrow or slope a little, the attention required to avoid "striking up," as they say of horses, is considerable and annoying. This is a disgraceful state of matters. It is idle to talk of putting the law in force to compel householders to sweep before their doors. Not a few of the worst places are opposite blank walls. Indeed, if one part of a street were thoroughly cleaned it would be quickly smeared with greasy mud brought from other parts, or the roadway; unless, indeed, it should occur to anyone to put the law in force against "authorities" responsible for keeping the streets proper in a passable condition. It is useless to remonstrate; but it ought to be put on record that the pavements and carriage-ways of London are probably at this moment in a more neglected and execrable condition than they have ever before been, despite all the improvements, and in spite of the large sums of money extracted from the pockets of the ratepayers to cleanse away the filth that is allowed to accumulate, and to put an end to the nuisance, which not only remains but increases. Many a sprained ankle, "jarred" spine, and "shocked" nervous system attest the mischievous nature of the nuisance we tacitly tolerate.

#### NEW HUMAN ENTOZOOON.

A FEW weeks back it was announced in our columns that Dr. Patrick Manson, who is now in England, had detected a curious cestode in the human body. He found twelve parasites in the subperitoneal fascia and elsewhere. How they came there is a matter of opinion, but under the name of *Ligula Mansonii* the worm was described by Dr. Cobbold at the last meeting of the Linnean Society. The author of the paper stated that probably the infested Chinese had drunk from a pond frequented by water birds infested by ligules, whose immature stages of growth are passed within the fishes living in the same ponds. Dr. Cobbold alluded to the destructive effects of ligules amongst the tench living in the ponds of La Bresse. He pointed to the circumstance that Italians were accustomed to eat fish-tapeworms under the name of *macaroni piatti*, and he expressed the belief that Dr. Manson's patient had swallowed the ciliated embryophores and their contained proscelices which had thus strayed and bored their way into the man's tissues. It is satisfactory to know that they had no concern in the production of the human victim's death.

#### THE SEWERAGE OF HENDON.

HENDON has for some time past been in difficulties with regard to its sewerage system, and with a view of arriving at some definite decision on the subject, Mr. C. F. Hancock, a member of the Local Board, was recently deputed to obtain all possible information with respect to the various processes of sewage-disposal in operation in this country. Mr. Hancock's report deals with the Lime and the Rivers' Purification Company's processes, with the Irrigation and the Rochdale Pail systems, and with several other methods. After considering them all in more or less detail Mr. Hancock is inclined to recommend for the adoption of his colleagues the system of the Rivers' Purification Company. The grounds for his conclusion are, in the main, that under such a system an effluent can be obtained that will satisfy the conditions of the Rivers' Pollution Prevention Act, 1876, that the company takes all the responsibility in consideration of an annual payment or subsidy, and that it indemnifies the local authority against all proceedings. These are certainly weighty reasons in the case of a district which cannot well bear the cost of making experiments; as to the most efficient process available, and for its own sake we hope Hendon will, without further delay, decide on a matter which, to say the least, is fast becoming one of pressing im-

portance. Mr. Hancock also expresses the opinion that the "separate system" is best adapted to the requirements of the district, and he hence advocates the retention of the existing sewers for rain and storm waters, and the construction of smaller sewers than would otherwise be necessary for the conveyance of the sewage proper to its outfall.

#### THE LATE BARON CORVISART.

BARON LUCIEN CORVISART, whose death has just been announced, was formerly physician in ordinary to Emperor Napoleon the Third. Corvisart was parentage, and if related to his great name, physician to the First Napoleon, it was only in a distant manner. His medical studies were pursued at this time, during a popular disturbance he was fortunate to be slightly wounded by an insurrection together with his name, brought him into notoriety after he had obtained his degree of doctor he received an appointment in the imperial household and eventually became physician in ordinary to the Emperor, a post which he held until the death of Napoleon. Since then he has resided partly in England and partly in France. During the crisis which followed the famous decision of the Seize Mai, he presided over the unsuccessful candidature for Parliament, at a time he has not appeared in any public character, during a flying visit to Paris that he died a few weeks, at his house in the Champs Elysées. His work was principally connected with the therapeutics of pepsine, for his researches upon which he obtained the Corvisart, in his capacity of physician to the Emperor, present at the consultation which took place at the Hôtel de Clugny, Ricord, Germain Sée, and Couneau, agreed, chiefly at the instance of Professor Germain Sée, that there was reason to explore the genito-urinary passages of their august patient. This was shortly before the Franco-Prussian War. For political reasons the result of their deliberations was not communicated to the Emperor; and there are many who think that this suppression changed the destinies of France. Had Napoleon known that he had a stone in the bladder, it is thought that he would not have been so ready to face a campaign. After the operation performed by Sir Henry Thompson on Napoleon the Third, Corvisart made some unpleasant strictures upon the treatment. Whatever may have been the feeling of the French at the time, it is now recognised that the Emperor's personal physician had no competence to criticise the line of treatment decided by the English physicians and carried out by Sir H. Thompson.

#### SUICIDE OF A CRIMINAL LUNATIC.

A FEW months ago at Montrose a butcher named White, while manifestly insane, murdered his wife and child, afterwards making an unsuccessful attempt at suicide. In due course he was placed in the lunatic wards of the Perth prison, and then on the 9th inst. succeeded in his self-murder. From the evidence at the inquest that White the week previous to the accomplishment of his purpose had shown marked suicidal tendency, he was placed in a separate room. Again admitted to the ward, he made another attempt and was then removed to a padded room with special supervision. Here he was left open so that, as the warder said, he might be watched, but he succeeded in darting past the warder and throwing himself over the balustrade of the ward, falling seven feet and a half and fracturing his neck. He was partly guarded by a suitable railing, but at the time it was open. Death occurred in fifteen minutes. A medical officer was not sent for till two hours after the accident. Upon this latter fact the sheriff very properly ani-

a special report by Professor Corfield, analyst to the Mayor, Hanover-square, Vestry, on the fines that have inflicted by the magistrates recently in cases of adulteration of food, in which convictions have been obtained on his certificates, he remarks: "I have on several occasions pointed out that the fines have appeared quite inadequate to the offences, and the tendency of the magistrates to inflict merely nominal fines seems to be increasing. However, that a man has been fined only 1s. and 7d. costs for adulterating milk with 20 per cent. of having previously been convicted of adulterating twice and fined 2s. 6d. and £1 3s. costs in each case, not to say proof been obtained that the fines imposed are not adequate, but the question is raised whether it is really while to put the machinery in work to get a conviction the only result is to bring the Act of Parliament into disrepute."

As a consequence of the Birmingham Corporation having decided to institute legal proceedings against several sanitary authorities in whose districts the river Tame is polluted, the Wednesbury Local Board have decided to ask the Parliamentary sanction to alter their present system of dealing with sewage. The new scheme is to embrace the whole of the district, and to carry it out will entail an expenditure of £1000.

At a recent weekly meeting of the Health Committee of the Liverpool Town Council, a proposition by Dr. Hamilton for the introduction of a system of notification of infectious diseases was carried. It was drawn up by a committee of medical men in Liverpool, and adopted by a meeting of the profession on January 10th, was lost by the casting vote of the chairman.

MR. J. I. IVEY, in Cornwall, appears to be a model temperance man. The Mayor, half the borough justices, and the majority of the Town Council are abstainers. The borough is pledged to support local option. In a population of 10,000 there is only one policeman, and last year there were only two convictions for drunkenness.

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DR. CONWAY EVANS, having again urged upon the Strand Board of Guardians the want of a mortuary, has been once more met by the stereotyped official reply, "The matter is under consideration."

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5907 births and 4480 deaths were registered during the week ending the 23rd inst. The annual death-rate in these towns, which had been equal to 22·3, 23·4, and 26·9 in the three preceding weeks, further rose to 27·6 last week. The lowest death-rates in these towns last week were 20·0 in Derby, 21·1 in Leicester, and 21·3 in Portsmouth. The rates in the other towns ranged upwards to 31·3 in Manchester, 32·1 in Preston, 32·2 in Plymouth, 32·9 in Newcastle-upon-Tyne, 36·9 in Huddersfield, and 40·1 in Liverpool. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 478, showing a decline from the numbers in the two previous weeks; 110 resulted from measles, 100 from scarlet fever, 106 from whooping-cough, 85 from "fever" (principally enteric), 47 from diarrhoea, 24 from diphtheria, and 6 from small-pox. The lowest death-rates from these principal zymotic diseases occurred last week in Oldham and Bristol; and the highest in Preston, Sunderland and Liverpool; measles caused the highest death-rate in Liverpool and Sunderland; scarlet fever in Leeds, Sheffield and Brighton; whooping-cough in Blackburn and Plymouth, and "fever" in Birkenhead, Derby, and Newcastle-upon-Tyne. The 24 deaths from diphtheria in the twenty-eight towns included 12 in London, 2 in Liverpool, and 2 in Halifax. Small-pox caused 4 deaths in London and its outer ring of suburban districts, 2 in Newcastle-upon-Tyne, and 1 in Wolverhampton. The number of small-pox patients in the metropolitan asylum hospitals, which had been 62 and 75 on the two preceding Saturdays, was 73 at the end of last week; 13 new cases of small-pox were admitted to these hospitals during the week, against 5 and 22 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had steadily increased in the six previous weeks from 330 to 637, were 633 last week, and exceeded the corrected weekly average by 61. The causes of 137 or 3·0 per cent. of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Leicester, Derby, and Cardiff; while the proportions of uncertified deaths were largest in Wolverhampton, Birkenhead, Oldham, Halifax, and Sunderland.

### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 24·8, 28·0, and 32·1 per 1000 in the three preceding weeks, declined last week, under the influence of milder weather, to 30·8; this rate was, however, 3·2 above the mean rate last week in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 128 and 116 in the two previous weeks, were 119 last week, and equal to an annual rate of 5·1 per 1000, showing a considerable excess upon the mean rate from the same diseases in the English towns. This zymotic rate showed the largest excess last week in Glasgow and Paisley. The fatal cases of whooping-cough in the eight towns, which had been 39 and 37 in the two previous weeks, rose to 43 last week, and included 28 in Glasgow and 7 in Dundee. The 23 deaths from scarlet fever corresponded with the number in the previous week, no fewer than 17 occurring in Glasgow. The 17 deaths attributed to diphtheria were within 2 of the number in the previous week; 11 were returned in Glasgow, 3 in Edinburgh and 2 in Dundee. Of the 11 fatal cases of measles, 9 occurred in Glasgow and 2 in Edinburgh. The 10 deaths referred to "fever," showed a further decline from recent weekly numbers; they included 4 in Paisley and 2 in Dundee. The deaths referred to acute diseases of the lungs in the eight towns, which had been 139, 185 and 231 in the three preceding weeks, were 228 last week, and exceeded by 86 the number from these diseases in the corresponding week of last year. The causes of 127, or 16 per cent., of the deaths registered in the eight towns last week were not certified.

## HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been equal to 24.9 and 33.6 per 1000 in the two preceding weeks, further rose last week to 38.1, and exceeded that recorded in any previous week of this year. During the first twelve weeks of the current quarter, the death-rate in the city averaged 26.2 per 1000, against 21.7 in London and 20.3 in Edinburgh. The 254 deaths in Dublin last week showed a further increase of 29 upon those in the two previous weeks, and included 19 which were referred to the principal zymotic diseases, and within one of the number in the previous week. These 19 deaths were equal to an annual rate of 2.8 per 1000 (against 2.9 and 2.2 from the same causes in London and Edinburgh), and included 6 from "fever," 6 from whooping-cough, 5 from diarrhoea, and 2 from diphtheria. The fatal cases both of "fever" and whooping-cough showed a decline from those returned in the previous week. The deaths both of infants and of elderly persons were more numerous than in any recent week.

## HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

## HEALTH OF CALCUTTA.

We are in receipt of Surgeon-Major McLeod's report upon the health of Calcutta during the third, or summer, quarter of this year, which acquires additional interest from the threatenings of epidemic cholera which have from time to time been disclosed by the weekly returns reproduced by the Registrar General. The return of the health officer is somewhat remarkable, in these days of elaborate vital statistics, for stating merely the numbers of births, deaths, &c., without any reference to population or to rates calculated thereon. Fortunately for sanitary progress such an omission in health reports is rare, and in the interest of the health of Calcutta we venture to hope that the omission will not be a permanent one. It would appear, from the figures published by the Registrar-General, that the death-rate in Calcutta last quarter was equal to about 25.0 per 1000, differing but slightly from the rate in Bombay, and comparing favourably with that in Madras. We do not doubt, however, that the rate is far in excess of what it might be, and this fact can only be brought home to the conviction of those interested in the health of the city by the publication of death-rates for comparative purposes. The health officer reports that "the quarter has been, as usual, much healthier than either of the two preceding quarters of the year, but it ranks high in point of mortality among other third quarters." The deaths from "fevers" in the quarter were 802, and were considerably below the average for the season, a result attributed to "the even distribution of rain and the absence of dry intervals or breaks during which malarious fevers are apt to become more prevalent and to exhibit a severe type." The deaths from cholera were 144, and 14 above the average number in the two preceding quarters; in only three years of the decade were, however, higher numbers returned. The number in September showed a satisfactory decline. Only 4 fatal cases of small-pox were reported; and no information is given concerning the causes of 1454 of the 2727 deaths in the three months, which are classed under the heading "Other causes." More precise mortality statistics should be forthcoming for such a city as Calcutta, which has a population little short of half a million of persons.

## NEW COUNTY HOSPITAL AT AYR.

AFTER serving the wants of the town of Ayr for a period of forty years, the hospital there has been found insufficient for the increasing demands made upon it, and new buildings, which have been in course of erection for sixteen months, are now completed, and were opened for public inspection on Christmas Day. Hitherto the hospital has been of value chiefly to the people of the town, but recently the constitution was so altered that patients may be admitted from the country as well, and upon this basis the directors have made a successful appeal for subscriptions, the sum subscribed to the building fund being about £6900. Notwith-

standing very handsome assistance from many friends of the institution, who have together almost completed the furnishing of the various departments of the house, the amount already expended upon the building is £8589.

Consisting of a central block, with wings at either end, the building proper is in the French Renaissance style, and is built of red freestone. The central portion rises to a height of three storeys, and will form the administrative department of the hospital. Ornamentation has not been neglected, and the tower which adds to the appearance of the building is also utilised for purposes of ventilation. The dispensing and operating rooms are suitably arranged in the centre of the building, and well arranged and provided, the surgical instruments being supplied by Mr. J. H. Houldsworth. A well-passes the whole length of the main building, and wards in each wing. The nurses' room, kitchen, and waterclosets are placed in contiguity with the wards. On the ground floor there is a patients' recreation. The wards themselves and spacious, are heated by coils of piping, and while the ventilation is effected by means of ing to ventilators in the roof, and by the cook's sash-lifters attached to each window. floors in the wing devoted to the male wards containing eight beds, a smaller containing with two beds only. The same arrangement upstairs, except that the smallest of the rooms, furnished by Dr. Ronald, will be retained as a convalescents. On the female side the two wards arranged as on the male side, but one of the wards will be used as a waiting-room, while the other will be utilised as a children's ward. This last is named after Sir Andrew Walker, by whom it has been endowed to the extent of £500. At some distance from the main building the fever wards have been erected. These consist of two blocks of one storey each, detached. In each of these accommodation will be six male, four female, and two private patients. Each block is complete in itself, only one will be used during epidemics, while the arrangement will also allow of more complete separation of patients suffering from different fevers. In another detached building a disinfecting room, mortuary, post-mortem room, washing house, and laundry have been provided. The disinfection will be carried out in one of Dr. Ransome's chambers, in which, by means of gas, a temperature of 250° F. can be obtained without damage to the articles treated. A self-acting mechanism prevents any damage to the fabrics. It is intended to make this apparatus available for the disinfection of articles supplied by the public. The total number of beds will be 71, apportioned as follows:—For males, 26; for females, 16; for children, 4; for private patient, 1; for fever patients, 24. The drainage has been carried out on scientific principles, and altogether it may be said that the Ayr Hospital is fully equipped for the work upon which it will soon enter.

The handsome subscription list, and the great kindness prompting to the elegant fitting up of so many of the wards by different benefactors point to a healthy local interest, which along with an enthusiastic and skilful medical staff seem all that is needed for a prosperous and highly useful future. Dr. Charles C. Scott will be the first house-surgeon.

The new hospital buildings had a narrow escape from destruction by fire a few days ago. The hospital was being well heated in order to have it ready for the opening ceremony on Christmas day, and in this process the fire in one of the wards communicated in some way with work near it. It was discovered in time to be extinguished without much difficulty, and the damage done is

At Sheffield an inquest has been held of a pauper who had been poisoned by an overdose of laudanum. The deceased was an inmate of the hospital. Verbal instructions appear to have been given by the medical officer to the nurse to administer laudanum in some castor oil. An ounce of laudanum was sent up from the dispensary, and was placed in the deceased's bed. During the absence of the nurse the deceased drank the laudanum. The nurse was highly censurable.

THE salary of Dr. Maclean, medical superintendent of the Holborn Infirmary at Highgate, has been raised from £300 to £350 per annum.

# Correspondence.

"Andi alteram partem."

## DEATHS AFTER ABDOMINAL OPERATIONS FROM HEART-CLOT."

To the Editor of THE LANCET.

SIR,—In last week's LANCET Mr. Thornton is pleased to inform your readers that I would have improved my position whatever that may mean—had I stuck to pure Listerism in abdominal surgery. He shows in a table that his results head and tail are a fraction better than mine, his being 10·67, mine only 10·76. He omits altogether the not unimportant fact that he mixes up cases done twenty years when he was at school, and when everything had to be learned about the surgery of the abdomen with the results of the last few years, when the difficulties that attended the operations had mostly passed away. He may also be unaware of the fact that in my early cases are included all cases from incomplete operations. It is true that it is now long time since I published any of my results, for I am not of ovariotomy statistics, especially of that sort with which Mr. Thornton treats us, and I daresay your readers are aware. It is little to me whether my results are better or worse than those of others; it is much to me if I have a single death after an operation, except what may arise from an accidental or unforeseen cause. So far as my life Mr. Thornton is wrong. I think that the use of any spray used in long abdominal operations is a useless money and that it is sometimes a dangerous one. Before the use of "pure Listerism" the mortality attending my operations had gradually fallen. The results over fourteen years gave a mortality of 1 death in 7. Of the five years before Listerism, the mortality had fallen to 1 in 10½; of the last of these years, to 1 in 21; and taking the last 26 years, the mortality was, or at the rate of, 3·84 per cent. In 121 abdominal operations done with strict Listerism and with the utmost care, there were 8 deaths (6·61 per cent.). There was surely nothing gained by this; no improvement in position here. Then in two cases a spray of boro-glyceride was used, one of these being a very bad operation, where the ovarian tumours and uterus were so welded together that the whole uterus had to be removed. I then went back the old way, and did 45 cases without any spray and without any death. If to these we add 26 cases, with 1 death, done before beginning the spray at all, we have 71 operations without spray, and with only a single death, and a tumour removed was a malignant one. But to take a far better test. I have sent for the results of every operation done in the Royal Infirmary, extracted from the hospital books. These are in all 64:—

### Spray Cases.

	Cured.	Died.	Total.
Ovariotomy ... ..	18	3	21
Hysterectomy for fibroid ...	2	0	2
Batley ... ..	0	1	1

24 cases, with 4 deaths (16·66 per cent.)

### Boro-glyceride Spray.

	Cured.	Died.	Total.
Double ovariotomy with } hysterectomy ... ..	0	1	1
Hysterectomy for fibroid ...	1	0	1

2 cases, with 1 death.

### No Spray.

	Cured.	Died.	Total.
Ovariotomy ... ..	31	1	32
Hysterectomy for fibroids...	5	0	5
Batley for fibroid...	1	0	1

38 cases, with 1 death (2·56 per cent.)

It seems to me that these results have "reversed our respective positions," and that "pure Listerism" has treated my patients badly.

I will now tell Mr. Thornton how he may improve his position, as he calls it, or rather that of his patients. Let him, for once, put his pride in his pocket, and use a

drainage-tube in the very bad cases. He will have a very little more trouble for the first two days, and he may drain unnecessarily sometimes, but he may also bring down his mortality from 10·67 per cent. to the hospital results of 2·56 per cent. Surely this is something worth trying for; though even now, I dare say, nature may sometimes burst open the wound and drain for him.

In concluding his letter, Mr. Thornton thanks Mr. Tait "for the opportunity he has afforded him of demonstrating the superior results obtained by Listerism in ovariotomy and oöphorectomy." I also have to thank Mr. Thornton for the opportunity he has afforded me of demonstrating that the antiseptic principle may be safely carried out without using carbolic spray, or, as he calls it, "pure Listerism."

I owe an explanation to all the members of our profession for having taken no notice of an application made by one of their number for information. This is the first time that I have ever done so. I took no notice of Mr. Thornton's letter to me. He knows well the reason why I can have no communication with him. Has he altogether forgotten that little circumstance that happened two or three years ago? The apology that he long owes me has not yet come.

I am, Sir, yours obediently,

Edinburgh, Dec. 26th, 1882.

THOMAS KEITH.

### To the Editor of THE LANCET.

SIR,—I have just read Mr. Thornton's second letter, and as its purpose seems chiefly to show that he is a more successful operator than either Dr. Keith or myself, I am not disposed to follow him in an argument so profitless to your readers. I am writing away from home and therefore cannot say how much he wrongs Dr. Keith, but the figures he quotes for myself are entirely wrong. They should be 312 cases, with twenty-six deaths, giving a mortality of 8·4 per cent. But even if Mr. Thornton's figures were correct they prove nothing, and his line of argument is, for himself, a very dangerous one. If Listerism is so essential to success, and if with it he can get, even on his own showing, results only fractionally better than Dr. Keith and I get without it, there must be some truth in what Dr. Taylor said at Worcester, that "Listerism is only a cloak for bad surgery."

In the many discussions which have taken place on this point, Mr. Thornton persistently ignores the point which seems to me of the greatest importance of all, the use and disuse of the clamp.

In the present edition of my book I give these figures as the result of my practice:

	Cases.	Deaths.	Mort. per cent.
Clamp, non-Listerian ...	36	9	25
Clamp, Listerian ...	26	7	27
Ligature, non-Listerian ...	209	6	3
Ligature, Listerian ...	30	2	6·6
	301	24	8

It must be clear to every one that in a discussion of any of the numerous questions concerning ovariotomy, all statistics tainted with the murderous mortality of the clamp must be omitted. When this is done my own figures show nothing in favour of Listerism; and against Mr. Thornton's advocacy of it there is Mr. Wells' condemnation (which no private conversations with Mr. Thornton can qualify) and the fact that it has been given up by Keith, Bantock, Savage, and myself. Mr. Thornton tells me that I have never been able to grasp or understand Listerism. The statement is rash, but perhaps true; my only appeal is to be let alone about it, and not have it dragged in on every possible occasion. Every death, according to Mr. Thornton, is in the hands of an ovariotomist who does not use Listerism is due to septicæmia. Some day, perhaps, Mr. Thornton will tell us what his definition of septicæmia is, and what his own patients die of.

Only one other point deserves reply, and that is the history of the case which had been under Mr. Thornton at the Samaritan Hospital. She is a very intelligent woman and gave me a clear history, confirmed in its main features by her medical attendant. She was sent to the Samaritan Hospital to have a tumour removed and Mr. Thornton declined to remove it on account of the risk. It was then about two-thirds of the size which it had reached when I

removed it, and its weight after removal was thirty-three pounds. It was not a "small fibroid enlargement of the uterus," but a well-marked example of the soft oedematous myoma. If Mr. Thornton has yet to learn that this disease is not arrested at the menopause, then he can accept the other horn of the dilemma. If this had been an isolated instance of its kind I should not have made use of it, but I shall have an opportunity soon of entering further into this aspect of the question. I am, Sir, yours truly,

LAWSON TAIT.

#### ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editor of THE LANCET.

SIR,—Do we want an Association of Fellows of the Royal College of Surgeons of England to consider "all questions affecting the interest of the Fellows and the government of the college?" I personally am not prepared to give a definite answer one way or the other. On the one hand, we have a Council whom we elect ourselves, who do not hold office for an indefinite time, and with whose action we are for the most part, I suppose, pretty well content; moreover, it has been clearly shown, even in later years, that the Council can be influenced by a powerfully expressed representation from the Fellows. On the other hand, it is no doubt a pleasant idea to bind the Fellows together into a body corporate, if that were possible, even if but little practical outcome came of such a union; as indeed the experience of the Convocation of the University of London would seem to render not improbable. But granted, for the sake of argument, that such an association is advisable, I would protest against its being tacked on as a sort of appendage to the British Medical Association, to which it is in no degree germane. It is notorious that a considerable number of Fellows never attend the meetings of the Association, and that many would always be prevented from doing so owing to the time of year that its meetings are held. It is difficult to see how such an Association could possibly be representative; it is easy to understand how it might become cliquy, and therefore mischievous. If it is to be instituted, it would surely be better to hold it in London, and at the same time that the election of Councillors and the Fellows' dinner take place. Why should it not be held on the same day, or if that were impossible, on the day before or after the election?

I am, Sir, yours faithfully,

Dec. 20th, 1882.

RICKMAN J. GODLEE.

ON

#### EXAMINING THE SPUTUM IN LUNG DISEASES OR THE BACTERIA OF TUBERCLE AS A MEANS OF DIAGNOSIS AND PROGNOSIS, AND SOME REMARKS ON STAINING.

To the Editor of THE LANCET.

SIR,—I have lately used as a means of diagnosis of tubercle an examination of the sputum for tubercle bacilli in all my cases of lung disease where grounds for suspicion existed, and I have found such means of diagnosis very valuable, in many cases solving the question where auscultation gave merely negative evidence. In two cases of apparently chronic pneumonia the discovery of bacilli in the sputum of one and not in the other led to a decided diagnosis and a variation of treatment, which was afterwards completely established by the subsequent progress of the cases, for in the one decided symptoms of phthisis became established in one lung, and in the other the lung trouble completely cleared up; and if the theory concerning the existence and connexion between these bacilli and tubercle be correct we cannot too highly estimate the value of the means that the existence of these bacilli affords of forming a correct diagnosis and a consequent prognosis, which is so anxiously looked for by the friends in these cases. I have used the methods of Ehrlich and Heneage Gibbes, but find the latter's method the easier to follow, and at present use that solely. I prefer, however, that the secondary staining be done in methylene blue instead of chrysoidine; the surrounding

tissue is rendered more distinct, whilst the contrast between the red bacteria and the blue is greater than between the red and brown of the chrysoidine.

I regret to say that when I first used either method my attempts were failures for a long time, and I began to almost give up in despair when it occurred to me that at the time the methods were described the weather was very warm, and I discovered that the cover-glasses when in the magenta solution should be kept at a temperature of 100° F. This I found ensured a uniform and deep crimson stain to the bacilli, so that in the sputa, examined previously without any result, I now found plenty of bacilli, and finding fresh sputa I found them at once. Typhoid putrefaction are not stained by this process, but which have passed through the nitric acid process washed, the putrefactive bacilli may be washed with a solution of gentian violet, with the tubercle bacilli—thus demonstrating the truth of proving that they are not identical. I find rapid work and purposes of diagnosis, the cover-glass after staining in methylene blue and washing with water, dried at once over a spirit-lamp flame, and solution of Canada balsam, in chloroform and examined at once. I have specimens prepared two months ago in which the bacilli can be easily seen by any one, even if not an experienced observer, may be clearly seen with a No. 6 Hartnack quarter-inch, and with the former the spherical ones are easily distinguished. I thus dispense with washing in absolute alcohol and drying in ether, also necessary that the washing after staining be done with distilled water. I find the dyes of Martindale are quite stable, and my preparations faded at all as far as I can judge.

I am, Sir, your obedient servant,

ENGLEDUE PRIDEAUX, L.R.C.P. I.

Wellington, Somerset, Dec. 1882.

#### THE DETECTION OF THE TUBERCLE BACILLUS.

To the Editor of THE LANCET.

SIR.—In your issue of last week you publish a long and somewhat incoherent letter from Dr. G. A. Heron, in which he impugns the veracity of my statements with regard to the new stain I have brought out for the bacillus of tubercle. Most of the objections raised in his letter were mentioned by him at the Medical Society's meeting, on the 4th of December, and refuted by me to the entire satisfaction, I think, of all present, saving of course Dr. Heron. He has, however, now done me the honour to review the various papers I have published on this subject, and to draw from them deductions not at all flattering to my truthfulness. I cannot allow these to pass without remark. Immediately after the meeting of the Medical Society, Dr. Heron appears to have called on Mr. Beck, the agent or salesman of the Badesche Anilin Fabrik, and he gives the result of his interview. On referring to the price list of this company I find that they do not quote fuchsin in it; what then could they do when a customer asked for fuchsin, but sell him the nearest thing they had to it? Does this, however, prove that fuchsin and magenta are the same? As to the use of these names on the Continent I can say nothing, but that they are used in the trade here to signify the same thing is not correct. Let Dr. Heron refer to the price lists of Messrs. Hopkins and Williams, Messrs. Son and Co., and Messrs. Becker and Co. He will find magenta and fuchsin both quoted, the one at double the price of the other. Does Dr. Heron think that firms of this standing are trying to defraud by selling the same substance under two names, charging in the one case double what they do in the other? Heron admits in his letter that he knows nothing of the chemistry of the anilin compounds. He is therefore unaware that magenta is a very comprehensive name, including the hydrochloride, acetate, nitrate and rosanilin. Does Dr. Heron think that all tubercle bacilli stain the same? If so I would advise him to make some original investigations into the subject, and then be able to speak with some authority on the matter.

The facts of the case are these: When Ehrlich



first published he mentioned fuchsin as the stain used, as well as methyl violet and gentian violet. By this stain I understood the fuchsin sold by Messrs. Hopkins Williams, and Messrs. Becker and Co., and which I used for a very long time for various staining purposes. I therefore made the stain by the method given, and tried I certainly could see the bacilli, which I never could do Koch's method. But they soon faded, which was exactly Dr. Heron's experience, *vide British Medical Journal*, 14th, p. 735, where he says: "These anilin dyes apt to fade very quickly; they may illustrate the presence of the tubercle bacilli at the examination of a prepared specimen, and within a few hours there may not be one of the organisms visible." On this I determined to try to find a better method, and for this purpose I made a very large number of experiments, and at last succeeded in making a stain which will not fade easily used—applying the anilin oil to make a definite pound and not for the sake of its alkalinity, as Ehrlich; using, also, a rosanilin salt and not fuchsin, which is, I believe, a by-product in the manufacture of rosanilin. Dr. Heron says in his letter last week, "I have repeatedly stained the bacillus under an ordinary  $\frac{1}{4}$  in. object glass, with very ordinary London daylight as my only illumination."

In his account of Ehrlich's method, published in the *British Medical Journal*, October 14th, page 735, he says, "power of 500 diameter is sufficient." If Dr. Heron is now using the same stain he did in August how does he account for this difference of opinion, that in August, he advised a  $\frac{1}{4}$  in. object-glass to "easily verify" that which he can now with a  $\frac{1}{4}$  in.? At the Worcester meeting he told me he could see the bacilli with a  $\frac{1}{4}$  in., but that he required special illumination. If the specimens he made then were easily shown why did he not exhibit some at the Worcester meeting? In his account of Ehrlich's process in the above-mentioned paper he states, "In the specimens prepared in this way before the section of pathology at Worcester, the bacilli were seen in large numbers." By whom were they seen? When I left the room everything was covered, and there were only a few people there, and from the time the section opened in the morning until I went away, Dr. Heron had not shown a single specimen under the microscope. I exhibited there two specimens of the bacilli in sputum under precisely similar conditions. One prepared by myself, the other after Ehrlich's method, and one of Dr. Koch's assistants. In mine the bacilli were very plain, in the other not one was to be seen. The power used was one of Messrs. R. and J. Beck's  $\frac{1}{4}$  in. economic series. The Ehrlich specimen they could be seen by artificial light. For the rows of bead-like bodies I would refer Dr. Heron to Mr. E. M. Nelson's drawing published in the *English Mechanic*.


In giving me a description of some preparations I sent them for examination, Mr. E. M. Nelson (who exhibited the specimens sent over by Dr. Koch to Mr. Cheyne at the various societies) says, "They are by far the finest specimens I have ever seen. The slide of sputum under a  $\frac{1}{4}$  in. N. A. 38 is a picture indeed. I could see the bacilli in that slide with a  $\frac{1}{4}$  in. eyepiece, with a  $\frac{1}{4}$  inch of 40° and A eyepiece they were readily seen. I could read them with a of 95°."

Dr. Heron admits that his specimens have faded; now mine have not, and those I showed at Worcester are as bright as ever, while two slides that were exposed to the daylight for over three months remain unaltered.

In conclusion, I would refer to the experience of the large number of men in this country, who after using Ehrlich's method are now using mine.

I am, Sir, very faithfully yours,

Gower-street, Dec. 25th, 1882.

HENEAGE GIBBS. 

## NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

At the last meeting of the Hexham Rural Sanitary Authority the subject of coroners' certificates of death came before the board. Dr. MacLagan, medical officer of health, called attention in his report to the fact that 12½ per cent. of deaths were not registered by medical men, and the clerk said that coroners sometimes, without ascertaining the cause of death from a medical man, came to "some sort of

a conclusion themselves," and that in one case which came under his observation the jury found the person died from heart disease, without hearing the doctor who was waiting to give his evidence. After some discussion on this important matter, it was agreed by the board to send an extract from the medical officers report (Dr. MacLagan's) to the Local Government Board. It is obvious that in a great many cases a non-medical coroner must give certificates of the cause of death in cases of which he knows literally nothing; and it is to be hoped that this action of the Hexham board may lead to some good result at head quarters, or at least stimulate other boards over the country to ventilate the question of medical coroners, so long contended for by THE LANCET.

The Backhouse memorial wing of the Sunderland Infirmary has now been completed, and was formally opened on the 15th ult. For some time previous to 1879 it was felt that the additional accommodation was required at the infirmary, and the architect was instructed to prepare plans to meet the object in view. A new suite of bedrooms, kitchen, and other conveniences, were afterwards erected at a cost of £4000. Subsequently the work of erecting a new wing was vigorously pushed forward, and in May, 1881, the foundation-stone was laid. In consideration of the warm interest taken in the institution by the late Mr. Edward Backhouse, it was resolved to commemorate his acts of charity by designating the new erection "The Backhouse Memorial Wing." The new building is built on ground to the east of the institution, and its entire length is 185 feet, and its extreme width 52 feet. The new building contains a large, well-lighted hall, operating theatre, patients' wards, balconies, bath rooms, and lavatories, and is fitted with the latest scientific and sanitary improvements.

Considerable alarm is said to exist in Sunderland as to the present high rate of mortality, and the large amount of sickness existing in the borough and suburbs. The residents at the watering-place of Roker intend to ask the Government to send down an inspector to investigate the matter; but if the Roker people would insist on the thorough draining and cleansing of the main road leading to the place and its adjacent streets, it would in the meantime be a prudent procedure. It requires no Government inspector to see what is apparent to every visitor—namely, that the avenue approach to Roker is little better than a swamp, and with every facility afforded by Nature for natural drainage, it seems something like perverseness and a courting of disease to keep stagnant water before the doors of many of the most tasteful and well-built houses. Let the Sunderland people, especially those resident in Monkwearmouth and Roker, inspect their own streets and roads, using common sense, and the inspection will soon lead to a "new departure," sadly needed just now in sanitary work. They will thereby strengthen and encourage their own medical officer of health in the measures he has so strongly and plainly indicated, as necessary for the sanitary reform of the borough.

The last severe winter, which came to a close about a week ago, must be remembered as most destructive to life. Here in the northern counties, at least, nothing in the way of winter for the last twenty years could be at all compared to it, speaking as to effects; and for this purpose, disregarding the thermometer, old and young, weak and strong, at times succumbed to the chilling blast, and were suffocated in the snow on lonely roads and moorland downs. When the thaw came bodies were found here and there all over the country; even in the large towns the tramp, the waif, and I fear the drunkard, was found frozen to the ground. The death-rate may not show very much higher, but the amount of illness and deaths amongst the old has been very great.

I hear that a Bill is lodged in the House of Lords to empower a company to bring, "not coals," but sea-water, to Newcastle. Considering that anyone wishing for sea-water here may go down in a very few minutes and have it pure from the German Ocean (and as for sea-air, we have often more than enough of it when it blows from the north-east), we are naturally not very much interested in the success of this scheme; we do, however, require more facilities given for public bathing by baths and washhouses, and this could be better aided by good soft water.

In reference to the difficult abdominal operation of Mr. Jeaffreson, mentioned in my last letter, I hear that the patient still continues to do well, and may now be fairly considered out of danger.

## SCOTTISH NOTES.

(From our own Correspondent.)

ABOUT six years ago a number of benevolent people in Perth originated a home for incurables capable of accommodating some fifteen patients. Though the building was scarcely so suitable for its new purpose as could have been wished, the directors were able periodically to report a considerable amount of good work done. The increasing demands for shelter in the institution being luckily accompanied by a more robust subscription list, it was recently determined to acquire new and extended premises, and these have been secured at Hillside, in a suburb of the town. To the former dwelling-house wings have been added at each end, and as a consequence room will be provided for twenty-five additional beds. It is expected that the new home will be completed by March next. While on medical grounds the crowding of hopeless cases has obvious disadvantages, there will always be a sufficient number of these dependent creatures willing to embrace the advantages of a well ordered establishment of this kind. I believe the entire medical charge of the patients has hitherto been in the hands of Dr. Stirling, a warm friend of the institution, but a broadening of interest among the local profession might be suggested when the new buildings are opened.

The local authority of Kircaldy had the subject of hospital accommodation for infectious diseases recently brought under their notice by the Board of Supervision. It appears that in this increasing centre of trade there is at present no provision against an outbreak of fever, but steps are likely soon to be taken to remedy the defect, and a neighbouring proprietor has offered a suitable site for the new hospital. While welcoming such increased interest in sanitary matters, the question arises whether this is anything like adequate recognition of the needs of the locality in hospital accommodation, and if the present might not be a proper time for considering the subject on a broader basis. There is perhaps no county in Britain, certainly none in Scotland, with a larger industrial population so inadequately provided for in this respect. The coal fields of Fife furnish a large number of accidents yearly, and residents in that county do not need to be told how grievous have been the scenes in conveying many of these sufferers across the Firth of Forth to the Edinburgh Infirmary. It is almost certain that lives have in this way been sacrificed, and if a movement were originated for one large or two smaller general hospitals for the whole district, public spirit would not be wanting in support of the scheme. The hospital near Cupar is not even suitable for that town, and its situation prevents its use by residents in the seaboard towns and mining villages.

The amount and the causes of illegitimacy in Scotland are frequently commented upon, and thus it is satisfactory to know that a diminution, even though slight, appears during recent years to have set in. Mr. Seton, in a paper read before the Royal Society of Edinburgh a few days ago, was able to show that during the past twenty years the percentage of illegitimate births had fallen from 9.7 to 8.8 for the whole of Scotland. As England stands at 4.7 per cent. southern readers may think there is much room for further improvement with us, but I believe that a difference in the registration customs or laws has more to do with the matter than a more lax regard to the moral law on the part of the Scotch. Certain of our rural districts are, indeed, so conspicuously persistent in showing a high figure in these columns that the agricultural labourer must be branded as of most depraved character. The insular counties present the remarkable circumstance of a purely Scandinavian population with a low percentage of illegitimacy.

## BELFAST.

(From our own Correspondent.)

THE annual dinner of the Ulster Medical Society was held in the Imperial Hotel, Belfast, on the evening of Thursday, December 7th. The chair was occupied by Dr. McKeown, Senator of the Royal University, who is President of the Society for the present session; and the vice-

chair by Dr. Cumming, Professor of Medicine, Queen's College, Belfast. There was a good attendance of the local medical men, and some representatives from other parts of the province of Ulster were present who had come to a general meeting of the North of Ireland Branch of the British Medical Association, held at the Royal Hospital on the same day. The usual toasts were given, and the speeches on the occasion were characterised by much good humour and cordiality.

At present considerable changes are taking place in the Belfast Medical School, which, it is hoped, will strengthen the very high position which it holds among the leading medical schools of Ireland. These changes have been occasioned principally by the fact that the University of Ireland (which has taken the Queen's) requires candidates for the medical degree "a certificate of having attended at a medical or infirmary hospital, where clinical instruction in diseases of women and children is given, for months, or of having attended for six months in a dispensary where similar clinical instruction is given." Further, the Senate recommends that students themselves of opportunities of attendance at hospitals for diseases of the eye, ear, and other special branches of medicine and surgery.

Some thought that, as we have in Belfast one of the best hospitals for diseases of women, two for diseases of the eye, and one for diseases of children, as well as a skin hospital, a plan would be to amalgamate the special teaching purposes, and to allow the students to attend at these institutions. However, at the annual meeting of the subscribers of the Royal Hospital, Belfast, in November, it was decided, after a very long and anxious discussion, to establish two new departments, one for diseases of the eye, and the other for diseases of the ear; and at the general committee and life governors, held Dec. 18th, Dr. Joseph Nelson was appointed Surgeon, and Dr. John W. Byers Physician for Diseases of Women. These gentlemen will probably soon enter on their duties.

The staff of the Royal Hospital is now larger than it has ever been before, and consists of four physicians, four surgeons, a physician for diseases of women, an ophthalmic surgeon, an assistant physician, an assistant surgeon, and a surgeon dentist. There is a large number of students at the Royal Hospital this year, and a good many of the advanced men are attending the Belfast Ophthalmic Hospital; while at the hospital for sick children, it is stated that there are thirty-seven students on the roll during the present session.

There is some falling off in the number of first year medical students at Queen's College this year owing to the circumstance that candidates for the M.B. of the Royal University have to pass what is termed the "First University Examination" before they enter, properly speaking, on their medical studies. As the subjects for this examination are non-professional, and can be made up by private study, and as students are not admitted to this examination until after the lapse of one academical year from their time of matriculation, it is clear that many of those men who would under the old régime have taken rank as first year medical students this session, are waiting out until they pass this examination before commencing their purely professional studies. The present session may, indeed, be regarded as a period of transition due to the changes inaugurated by the Royal University.

Some think that these requirements of the University will drive men back to other less severe boards; but there can be no doubt that those (and there is an ever increasing one) who wish to enjoy which a good university degree confers will not mind the additional time and trouble spent in preparation for examination. All lovers of education hope that the Royal University will adopt a very high standard for its medical examinations.

ADMIRALTY.—Fleet Surgeons David W. George Frederick Augustus Draw have been placed on the Retired List of their rank.—The following appointments have been made: Staff Surgeon Charles C. Goddard, to the *Curacoa*; Surgeon Archibald M'Kinlay, to the *Hector*; Surgeon Thomas Desmond Gimlette, to the *Hector*.

## NEW YORK.

— (From our Correspondent.)

An announcement is made that the German Government prohibited the importation of American pork at the of Germany. This once more revives the question as to the relative danger of using American hog meat, and as I have watched the subject on this side for some years, I offer your readers such facts as I have gathered. The policy of all interested in the exportation of pork to the United States is to deny that trichinæ exist in lean hogs; this statement is generally endorsed by the papers, and even to some extent by Government authorities. The many Chambers of Commerce throughout the country and those who deal in the article preserve a safe and inaction. Statistics therefore from such sources are not forthcoming, and the difficulty is great when an attempt is made to prove the truth of the various statements. The only reliable inspection of hog meat for trichinæ which has been made in the United States, was once made at Chicago under the auspices of the Board of Health by two microscopists. I believe about a thousand hogs were examined, the result being that 1 per cent. were found infected with trichinæ. Such a percentage certainly invited a closer consideration of the subject, but no steps were afterwards taken either to confirm or disprove the result of this single examination. Cases of trichinosis occur in the United States at rare intervals. The last case brought to my personal notice was of a family at Erie, Pa., where a family of five persons was attacked. The attending physician attributed the disease to typhoid fever, supposed to have been caused by a pig, but Dr. Ed. W. Germer, the health officer of the city, solved the mystery by finding trichinæ in pork of which all the persons had eaten. A portion of the psoas muscle was forwarded to me, and from sections made by myself I could display ten or twelve trichinæ in the field of the microscope at one time. The pig in question had been raised by the family, and it was clearly a case of trichinosis due to a native hog. Previously, another pig had been raised in the same sty; they had been fed with the same food, and reared under similar conditions. Both were killed at the same time, when one was found to be infested with trichinæ, while the other was entirely free from that parasite. A few weeks later, Dr. E. Wendt, of Hoboken, N. Y., reported the fatal termination of a case of trichinosis, attended by Dr. W. T. Kudlich, of the city. In this instance a robust young married couple was attacked by trichinosis, the case of the woman terminating fatally. Dr. Kudlich stated that the disease was unmistakably traced to home produce. On this occasion some interesting experiments and observations were made with the trichinæ found in the unfortunate man's body. None were found encapsulated, but a few had assumed the spiral form, or the preparatory stage, but the majority were free, and either stretched out or twisted at either extremity. Little pieces of the man's muscle were exposed to cold, and even frozen several times. After four days of such exposure the animation found them quiescent; but a gradual elevation of the temperature to 100° F. caused them to show active motion, and ten days later these parasites were still alive. Seven days after the death of the woman some of her muscle was allowed to undergo putrefaction, but the trichinæ still lived. On the day following the autopsy some of the fresh muscle was teased, and there being abundance of trichinæ many became isolated; these were never found to creep along in a definite direction, but some were seen to move in a manner to resemble the unfurling and recoiling of an eel, and a change of place was sometimes fortuitously effected. Dilute acids increased their motion, and alkalis had a contrary effect, while concentrated solutions of both rapidly killed them. In carbolic acid they squirmed and writhed before dying. Glycerine did not immediately kill them. A little fresh muscle was submitted to artificial digestion by being placed in a suitable fluid and exposed for twelve hours to about body heat. The muscle was in great part dissolved at the end of this time, and many free parasites were found in the liquid. They were, if anything, less active than they had been, and as the liquid cooled their movements ceased, but were renewed on re-heating the

slide. During this period of experimenting, a noteworthy fact of interest was observed, that the trichinæ had grown. Dr. Wendt on this occasion made the observation on the diagnostic value of examining small pieces of muscle from accessible regions in patients suspected of trichinosis. If the parasites were found, the evidence was of course incontrovertible; but he added, if *vice versa*, a conclusion could not be arrived at. In the present fatal case of trichinosis, small bits of the deceased woman's muscle were torn from the gastrocnemius and deltoid muscles; and while some specimens contained numerous parasites, others were found without them. In the diaphragm, intercostal muscle, and other well-known places of predilection, every examined specimen showed abundant parasites. In regard to the prevalence of trichinosis in the United States, medical statistics cannot be relied on; as Dr. Satterthwaite, President of the New York Pathological Society, observes, although a vast amount of labour has been expended on the origin, clinical history, and treatment of trichinosis, we have good reason to believe that it is seldom recognised during life, and even after death escapes notice, unless the examiner has his attention specially directed towards the possibility of its occurrence. Cases of trichinosis are certainly very often found in the dissecting-rooms and deadhouses. Dr. Carpenter's observation at the dead-house of the Bellevue Hospital has been that the encysted trichinæ are found more frequently in the pectoral muscles or the diaphragm than in the deltoids or the gastrocnemii. It is with the Germans only, who persist in eating raw ham, that trichinosis is found; others who thoroughly cook their meat appear to preserve immunity from contagion. I believe the result of the Chicago examination of pork showing a percentage of 8 per cent. of infected pigs to be perfectly unreliable as a test of the extent of the contagion among American hogs, and that if proper steps were taken to obtain trustworthy statistics a condition of American hogs could be shown which would inspire confidence for this staple article of food in foreign countries. I do not desire to discredit the work of the Chicago microscopists, but I maintain that a single test is valueless. What I desire to see is the result of daily examination carried over twelve months; with such statistics a sound average could be presented.

New York, December 2nd, 1882.

## Obituary.

C. MAC IVOR GOYDER, L.R.C.P., M.R.C.S.

OUR obituary, in reporting the death from typhus fever at Newcastle-on-Tyne, in his twenty-sixth year, on Dec. 16th, of Mr. Charles M. Goyder, surgeon, records the early close of a most promising and already distinguished career. Mr. Goyder was the only son of Dr. C. S. Goyder, of Spofforth, in Yorkshire, who died when his son was only nine months old. In 1874 Mr. Goyder gained the medical scholarship of the University of Durham, and then began his studies in the College of Medicine, Newcastle. He displayed at once not only great industry and application, but also talents of an unusually high order. He carried off the medal in all the principal classes, the Charlton scholarship for medicine, and the Dickinson scholarship for proficiency in all subjects, the latter being the highest honour obtainable by any student of the college; in fact, he came to the front at the first, and maintained his lead throughout his curriculum, far ahead of every student of his year. In 1878 he was selected junior house surgeon to the Newcastle Infirmary, but before he had held that office eighteen months he became a successful candidate for the post of senior house-surgeon in the General Infirmary at Sheffield. He held that appointment for about a year, but always longed to be back to his own hospital, and when the post of senior house-surgeon became vacant, in 1880, Mr. Goyder applied for it, and was held in such esteem by the medical staff and house committee that he was unanimously appointed. He brought to the discharge of his duties the same zeal and care which had always distinguished him, and his conduct in every respect was such as to gain him the esteem and regard of everyone, whether principals or subordinates. When he left the infirmary, scarcely a year ago, to take the practice of the late Dr. McLachlan, he was presented by the nurses with a handsome

timepiece and by the students with an illuminated address. He acted as hon. sec. at one of the sections in the late Sanitary Congress at Newcastle. Mr. Goyder was a man of singularly amiable disposition and highly honourable character, equalled only by his modest and unassuming manners. It is much to be feared that this promising young surgeon, in undertaking the work and responsibilities of a large general practice, overtaxed his physical powers, already perhaps weakened by a long residence in hospitals, and thus fell an easy prey to infection caught from attending his first case of typhus. He was carefully attended in his illness, which lasted just fourteen days, by his friends Drs. Arnison and Dixon, and was frequently visited by many of his numerous medical friends.

## Medical News.

**UNIVERSITY OF CAMBRIDGE.**—The following have passed the third examination for the M.B. degree:—

**FIRST CLASS.**—Brinton, B.A., Downing; Fuller, B.A., Gonville and Caius; Harrison, M.A., Clare; Richardson, M.A., King's; Sheild, Downing.

**SECOND CLASS.**—F. J. Allen, B.A., St. John's; Bullar, B.A., Trinity; Bullar, M.A., Trinity; Driver, M.A., Christ's; Hewitt, B.A., Christ's; Holthouse, M.A., Trinity; Newnham, M.A., Gonville and Caius; F. F. Schacht, Trinity; Swift, B.A., Gonville and Caius; Vos, B.A., Christ's.

**ROYAL COLLEGE OF SURGEONS IN IRELAND.**—At examinations held on the 11th inst. and following days, the undermentioned candidates obtained the diploma in Surgery of the College:—

Arthur Cottew, Michael Cleary, Thos. B. Clune, Walter W. S. Corry, John Craig, Francis J. Cruise, Cornelius Daly, Michael O'F. Dolphin, Percy J. Drought, James E. Fitzgibbon, John W. Gormley, Francis B. Hawes, George B. Haffernan, David W. Kennedy, Richard T. King, Thomas Lane, Edward E. Lennon, John J. Lyons, Hercules S. Miles, Hy. J. O'Brien, Denis M. O'Callaghan, John J. O'Hagan, Peter J. O'Reilly, Francis F. Peet, Francis E. Pim, Alfred E. W. Ramsbotham, George P. Ridley, James D. Ryan, George P. Torney, George A. Walpole, William H. Waterfield, Robert Wright.

**UNIVERSITY OF DUBLIN.**—The following degrees were conferred last week:—

**BACHELOR IN SURGERY.**—William Hallahan Bennett, Joseph Bulfin, William Alex. Carte, Francis Richard Cassidy, Arthur Wellington Fenton, John William Gowland, George Marshall Lloyd-Apjohn, Francis Albert de Thierry Monillot, Henry William Peard, Angus Mayberry Whitestone.

**BACHELOR IN MEDICINE.**—John Armstrong, Francis Richard Cassidy, Eugene Cormack, Richard Geo. Hanley, Arthur Wellington Fenton, John Fitzgerald, Dionysius William Freeman.

**MASTER IN SURGERY.**—Charles Gorman.

**DOCTOR IN MEDICINE.**—Charles Gorman, Edward Gordon Hull.

**LICENTIATE IN MEDICINE.**—Joseph Patrick Finegan.

**LICENTIATE IN SURGERY.**—Joseph Patrick Finegan.

**APOTHECARIES' HALL.**—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Dec. 21st:—

Cuffe, Robt. Ernest Gilhurst, Woodhall Spa Villa, Lincolnshire.

Davidson, Hugh Morgan, Aldeburgh, Suffolk.

Dent, Harry Lord Richards, Wood-street, Woolwich.

Griffin, Richard Palk, Padstow, Cornwall.

Lyons, Thomas, Brompton-road.

Wingrave, Vitruvius Harold W., Torrington-square.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Robert Holloway, St. Thomas's Hospital; James Howard Clarke, Charing-cross Hospital; Wm. Thos. Rees and William A. Wetwan, London Hospital; Wm. Stanley N. Shorthouse, Guy's Hospital.

THE Queen has presented six birch lounge chairs, provided with shifting backs and soft crimson covered cushions, to Netley Hospital, for the use of the invalids in that establishment.

IN answer to a special appeal by the President of the Weston-super-Mare Hospital for funds to extinguish the debt of £380 existing on the institution, the sum of £300 has been collected or promised.

**MANCHESTER ROYAL INFIRMARY NURSES' HOME.**—Some time ago a special subscription was set on foot for the provision of more comfortable quarters for the nurses of this

infirmary. The effort resulted in the collection of nearly £6000 for the purpose. With this sum a substantial building has been erected at the rear of the Portland-street wing of the hospital, and was last week occupied by its full complement of inmates. Accommodation has been provided for the lady superintendent, the home sister, and seventy-seven nurses, each having a separate bedroom.

THE ball recently held at West Hartlepool in aid of the Hartlepool Hospital was financially a success, being fully equal to expectations. The gross proceeds amounted to fifty guineas.

**REQUESTS TO IRISH HOSPITALS.**—Miss Sarah Peter, £100 to Adelaide Hospital; Mr. R. M'Quiston, £100, and Mr. Robert M'Geah, £100, to the Belfast Royal Hospital. The Board of Stearne's Charity, £60 to St. Mark's Ophthalmic Hospital, Dublin.

OVERWORK of the railway officials seems likely to have been the chief cause of the collision at Cowlairs Junction in Scotland on the 16th inst. The men in charge of one of the trains had been on duty for seventeen hours and a half, those of the other for nearly seventeen hours. Some means must be found of ensuring that good dividends are not made at the expense of public safety.

THE body of Captain Lopes, who died from typhoid fever in Egypt, was brought home in the *Lusitania* transport, which arrived at Portsmouth on Wednesday with reserve men and invalids, upwards of 900 in number, inclusive of a few officers. No deaths occurred during the voyage. The late officer's brother arrived to take charge of the remains, which were taken to Melksham, Wilts, for interment.

**ROYAL MEDICAL BENEVOLENT COLLEGE.**—The general meeting of governors which was summoned for Wednesday, Dec. 20th, for the purpose of making certain alterations in the by-laws affecting the school, failed for want of the attendance of a sufficient number of governors to form a legal quorum. Much disappointment was expressed by those present at the want of interest in the important business to be transacted, shown by the paucity of attendance. Eventually the meeting was adjourned to Wednesday Jan. 10th, at 4 o'clock.

**SOUTH LONDON SCHOOL OF PHARMACY.**—The following are the successful competitors at the examinations held last week at this school:—Senior Chemistry: no prize awarded. Junior Chemistry: Mr. Parker (medal), and Mr. Oldershaw (certificate). Botany: Messrs. Pridmore (medal) and Harvey (certificate). Materia Medica: Messrs. Armstrong (medal) and Oldershaw (certificate). Pharmacy: Messrs. Oldershaw (medal) and Johnson (certificate). Extra certificates were gained by Messrs. Burton, Horsefield, Hurcombe, Austin, Arnott, and W. Kinson.

## Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

BENNETT, REGINALD HENRY KEMP, L.R.C.S.I., has been appointed Surgeon to the Grenfell Hospital, New South Wales.

BRUCE-CLARKE, M.A., M.B.Oxon., F.R.C.S., has been appointed Surgeon to the Out-patient Department of St. Peter's Hospital for Stone.

EVANS, THOMAS, M.R.C.S., L.S.A.Lond., has been appointed Hon. Consulting Surgeon to the Randwick Asylum for Destitute Children, Sydney.

FENWICK, E. HURRY, F.R.C.S., has been appointed Surgical Registrar to the London Hospital.

FITZGERALD, WILLIAM A., M.B., has been appointed Clinical Assistant to St. Mark's Ophthalmic Hospital, Dublin.

GREAVES, HENRY, L.S.A.Lond., has been reappointed Medical Officer of Health for the Ashbourn Urban Sanitary District.

HOPKINS, H. CULLIFORD, M.R.C.S., has been appointed Public Vaccinator to the City and Borough of Bath, vice G. E. Lawrence, deceased.

HORSFALL, THOMAS, M.R.C.S., L.S.A.Lond., has been appointed Resident Medical Officer to the Leeds Public Dispensary, vice Hurtle, resigned.

HURST, GEORGE, M.B., C.M.Edin., has been appointed Honorary Consulting Physician to the Randwick Asylum for Destitute Children, Sydney.

W. HUGH, L.R.C.P.Ed., M.R.C.S., has been appointed Resident Medical Officer to the Leeds Public Dispensary, vice Oates.  
 J. T. M.B., C.M.Ed., has been appointed District Surgeon the Inanda Division of the County of Victoria, Natal, South ca.  
 E. ROBERT, M.D.Lond., has been appointed Pathological Lecturer to the Manchester Royal Infirmary, vice A. H. Young, Edin., F.R.C.S., resigned.  
 RICHARD T., M.R.C.S., L.R.C.P., has been appointed Public Sanitarian for the Darlington District of the Darlington Union.  
 ST. GEORGE, M.R.C.S., has been appointed Medical Officer the Sixth District and the Workhouse of the Launceston Union, Pearce, resigned.  
 ARTHUR QUARRY, M.D., B.S.Lond., M.R.C.S., has been appointed Pathologist and Curator to St. Mary's Hospital, vice person, resigned.  
 WILLIAM BEATTIE, F.R.C.S., L.R.C.P.Ed., has been appointed Deputy Medical Superintendent to the Yarra Bend Lunatic Asylum, Melbourne.  
 EDW. TULL, M.R.C.S., L.S.A.Lond., has been appointed Assistant Clinical Assistant and Registrar to the North-Eastern Hospital for Children, vice West.  
 T. H., L.R.C.P.Lond., M.R.C.S., has been appointed Resident Medical Officer to the City of London Hospital for Diseases of the St. Victoria-park, vice L. Humphry, M.B., resigned.  
 JOHN ARTHUR, M.R.C.S., has been appointed House-Surgeon the North-Eastern Hospital for Children, vice Dalton, whose appointment has expired.  
 HENRY, M.B., M.R.C.S., has been appointed Surgeon to the Leith District of the London Steamboat Provident Society.  
 ALFRED HARRY, F.R.C.S.Eng., M.B.Edin., has been appointed Medical and Surgical Registrar to the Manchester Royal Infirmary.

## Births, Marriages, and Deaths.

### BIRTHS.

R.—On the 9th ult., at Moonta, South Australia, the wife of Kendray Archer, of a son.  
 T.—On the 20th inst., at Camberwell New-road, the wife of Alfred Arnott, L.R.C.P.L., of a daughter.  
 ROSS.—On the 21st inst., at Shian Lodge, Penzance, the wife of Joseph Carne-Ross, M.D., F.R.C.P.Ed., late Lieut. 73rd Regiment, of a son.  
 FLOTT.—On the 22nd inst., at Sandgate, Shorncliffe Camp, the wife Surgeon-Major W. Floftott, Army Medical Department, of a daughter.  
 WALD.—On the 21st inst., at The Green, Southall, Middlesex, the wife of George Bruce McDonald, M.D., of a son.  
 E.—On the 21st inst., at Knighton, Anglesey, near Gosport, the wife of Dr. Warren Meade, of a son.  
 F.—On the 20th inst., at Steyne, Worthing, the wife of Frank Fish, M.R.C.S., L.R.C.P., of a daughter.  
 —On the 13th inst., at 24, White Horse-lane, Stepney, the wife Henry Reeve, Esq., of a son.  
 E.—On the 24th inst., at The Crescent, Kingsland, the wife of Alexander Towne, M.R.C.S., L.S.A.Lond., of a daughter.  
 E.—On the 26th inst., at Kirkmead, Woodford, Essex, the wife Frederick Turtle, M.D., of a son.

### MARRIAGES.

—VERDON.—On the 19th inst., at St. Mary's Church, Eastbourne, Surgeon-Major Oliver T. Duke, Beluchistan Political Agency, to the widow of the late Rev. H. B. Verdon, M.A., of Battersea, the youngest daughter of the late Henry Wheeler, Esq., of Lingbroke House, Wandsworth Common.  
 —COOKE.—On the 11th ult., at the British Episcopal Church, ante Video, Herbert Flower Parsons, M.R.C.S., L.S.A.Lond., of n Jorge, Durazno, to Katharine Elizabeth Nowell, daughter of a late J. Cooke, Esq., of Middridge Grange, Durham.  
 —BIRCH.—On the 11th ult., at Meerut, E.I., George Scott Robertson, I.M.S., Civil Surgeon, to Catherine Edith, daughter of out-Col. A. J. C. Birch, B.S.C.

### DEATHS.

—ON.—On the 21st inst., at Park Villas, Harpurhey, Sydney Henson, R.C.S., L.S.A.Lond., aged 55.  
 —EAN.—On the 19th inst., at the Royal Victoria Hospital, Netley, Surgeon-Major J. McK. MacLean, Army Medical Department.  
 —On the 26th inst., at Chichester, Richard Rugg, F.R.C.S.E., formerly of Brighton, in his 76th year.  
 —Drowned at Gypsey, Queensland, on the 16th October, Eric, the son and eldest child of Jessie Gertrude and John Pennefather, M.B., L.R.C.S.I., &c.  
 —R.—On the 21st inst., at his residence, Lapps Inland, Cork, William Kearns Tanner, M.D., F.R.C.S.I., aged 71.  
 —On the 2nd inst., at New York, John Phillips Payson White, D., aged 44.

B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

### BOOKS ETC. RECEIVED.

BLACKWOOD, W., & SONS, Edinburgh & London.  
 The Regulations of the Old Hospital of the Knights of St. John at Valetta. By the Rev. W. K. R. Bedford.  
 CHATTO & WINDUS, London.  
 Chapters on Evolution. By Andrew Wilson, Ph.D., F.R.S.E. Second Edition. pp. 382. With 259 Illustrations.  
 CHURCHILL, J. & A., London.  
 Notes on the Detection of the Acids usually met with in Analysis. For the use of Laboratory Students. By J. W. James, Ph.D. Jena. pp. 19.  
 The Relative Mortality after Amputations of large and small Hospitals, and the Influence of the Listerian System upon such Mortality. By Henry C. Burdett. pp. 41.  
 Nerve Vibration and Excitation as Agents in the Treatment of Functional Disorder and Organic Disease. By J. Mortimer Granville, M.D. pp. 128. With Illustrations.  
 Injuries of the Spine and Spinal Cord without apparent Mechanical Lesion, and Nervous Shock in their Surgical and Medical Aspects. By Herbert W. Page, M.A., M.C. Cantab. pp. 373.  
 Illustrations of Clinical Surgery. By Jonathan Hutchinson, F.R.S. Fasc. XV. Plates 55—58.  
 HOGGIS, FIGGIS, & Co., Dublin. LONGMANS & Co., London.  
 The Medical Language of St. Luke. By the Rev. W. K. Hebart, LL.D. pp. 305.  
 KEGAN PAUL, TRENCH, & Co., London.  
 The Garden of Fragrance. Being a Translation of the Bostán of Sâdi, from the original Persian into English Verse. By G. S. Davis, M.D. pp. 301.  
 Man before Metals. By Professor N. Joly. pp. 365. With 148 Illustrations.  
 LIVINGSTONE, E. & S., Edinburgh. BAILLIÈRE, TINDALL, & COX, London.  
 The Student's Handbook of Forensic Medicine and Medical Police. By H. Aubrey Husband, M.B., C.M. Fourth and Revised Edition. pp. 604.  
 LONGMANS, GREEN, & Co., London.  
 Introduction to Latin Prose Composition, with Hints on Latin Writing and Periodic Style. By R. M. Millington, M.A.  
 REID, ANDREW, Newcastle-on-Tyne. E. STANFORD, London.  
 Harness as it has been, as it is, and as it should be. By John Philipson. With Remarks on Traction and the use of the Cape Cart. By Nimshovich. pp. 80, with Illustrations.  
 SIMPKIN, MARSHALL, & Co., London.  
 A Handbook of the Law of Electric Lighting. By A. P. Poley, B.A., and F. Dethridge. pp. 96.  
 SMITH, ELDER, & Co., London.  
 A System of Surgery, Pathological, Diagnostic, Therapeutic, and Operative. By Samuel D. Gross, M.D., LL.D., &c. Sixth Edition, thoroughly revised and greatly improved. In Two Vols. pp. 1193-1173. With upwards of 1600 Engravings.  
 Notes from Sick Rooms. By Mrs. Leslie Stephens. pp. 52.  
 The Systematic Treatment of Nerve Prostration and Hysteria. By W. S. Playfair, M.D. pp. 92.  
 VAIL, J. H., & Co., New York.  
 Microscopical Morphology of the Animal Body in Health and Disease. By C. Heitzmann, M.D. pp. 846, with 380 original Illustrations.  
 WARD, LOCK, & Co., London.  
 Common-sense Clothing. By Edith A. Barnett, Lecturer to the National Health Society. pp. 150, with Illustrations.  
 WOOD & Co., New York. SAMPSON LOW & Co., London.  
 Studies in Pathological Anatomy. By F. Delafield, M.D. Vol. I. pp. 125, with 93 Plates.  
 Annales des Maladies des Organes Génito-urinaires.—Report on Different Systems of Sewage Disposal; by Mr. C. F. Hancock.—Des Inoculations Préventives dans les Maladies Virulentes; par le Dr. E. Masse.—Common Shorthand; by Edward Pocknell.—The Botanical Atlas, Part VIII.; by D. M'Alpine, F.G.S.—Statistischer Sanitäts-Bericht ü. d. Königlich Preussische Armee und das XIII.—Armee-korps für die Rapportjahre vom 1 April, 1879, bis 31 März, 1881.—L'Acido Picrico nella cura dell' Eresipela; pel D. F. Tasso.—Ephemérides, an Aunfiente Annale. (Unwin Brothers).—Simulation de l'Amaurose et de l'Amblyopie; par le Dr. S. Baudry.—Contributions to the Vital Statistics of Australia; by James Jamieson, M.D.—Female Education from a Medical Point of View; by T. S. Clouston, M.D.—Zeitschrift für Biologie; von M. v. Pettenkofer und C. Volz, Band XVIII., Heft 3.—Longman's Magazine, January.—Organon, ou Principes de Médecine Dosimétrique; par le Dr. Burgræve; première partie.—La Prima Estrazione completa di un Utero Canceroso; dal Dott. A. Paggi.—Medical Education, Character and Conduct; Introductory Addresses delivered by W. T. Gairdner, M.D. (Maclehose, Glasgow).—Microbes in Fermentation, Putrefaction, and Disease; by Chas. Cameron, M.D. (Baillière, Tindall, and Cox).—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for 1882.—An Address on Scottish Medical Teaching; by D. C. McVail, M.B.



## METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Dec. 28th, 1882.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 a.m.
Dec. 22	29.83	W.	39	38	..	45	35	..	Overcast
" 23	29.53	N.W.	41	39	..	45	35	..	Cloudy
" 24	29.75	W.	36	35	..	47	31	..	Bright
" 25	29.58	W.	38	44	..	54	34	..	Overcast
" 26	29.45	S.W.	51	50	..	55	42	..	Raining
" 27	29.45	W.	55	54	..	60	47	..	Raining
" 28	29.09	W.	55	53	..	57	51	..	Cloudy

## Medical Diary for the ensuing Week.

## Monday, Jan. 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ a.m. each day, and at the same hour.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ p.m. each day, and at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 p.m.  
 ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 p.m.  
 ST. MARK'S HOSPITAL.—Operations, 2 p.m.; on Tuesday, 9 a.m.

## Tuesday, Jan. 2.

GUY'S HOSPITAL.—Operations, 1½ p.m., and on Friday at the same hour.  
 WESTMINSTER HOSPITAL.—Operations, 2 p.m.  
 WEST LONDON HOSPITAL.—Operations, 3 p.m.  
 ROYAL INSTITUTION.—3 p.m. Professor Tyndall, "On Light and the Eye."  
 PATHOLOGICAL SOCIETY OF LONDON.—8.30 p.m. Annual General Meeting for Election of Officers.—The following specimens will be shown:—Arteritis at an Early Stage of Syphilis; Hepatic Cirrhosis in a Child; New Growths from Alimentary Canal; Chronic Inflammation of Glottis; Endocarditis with Disseminated Tubercle; Spina Bifida in a Child; Renal Abscess with Calculus (card specimen); Fibrinous Coagulum Loose in Left Auricle of the Heart; Fibrinous Coagulum Attached to Pleura; Lardaceous Disease of Liver; Polypl of Bladder in a Child; Animal Rickets; Crystalline Deposit in Hepatic Ducts of an Ox (card specimen).

## Wednesday, Jan. 3.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 a.m.  
 MIDDLESEX HOSPITAL.—Operations, 1 p.m.  
 ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ p.m., and on Saturday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1½ p.m., and on Saturday at the same hour.  
 ST. MARY'S HOSPITAL.—Operations, 1½ p.m.  
 LONDON HOSPITAL.—Operations, 2 p.m., and on Thursday and Saturday at the same hour.  
 GREAT NORTHERN HOSPITAL.—Operations, 2 p.m.  
 SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ p.m.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 p.m., and on Saturday at the same hour.—Skin Department: 1.45 p.m., and on Saturday at 9.15 a.m.  
 EPIDEMIOLOGICAL SOCIETY OF LONDON.—7.15 p.m. Council Meeting.—8 p.m. Mr. Percival Gordon Smith, "On the Planning and Arrangement of Hospitals for Infectious Disease."

## Thursday, Jan. 4.

ST. GEORGE'S HOSPITAL.—Operations, 1 p.m.  
 ST. BARTHOLOMEW'S HOSPITAL.—1½ p.m. Surgical Consultations.  
 CHARING-CROSS HOSPITAL.—Operations, 2 p.m.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 p.m., and on Friday at the same hour.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 p.m., and on Monday at the same hour.  
 NORTH-WEST LONDON HOSPITAL.—Operations, 2½ p.m.  
 ROYAL INSTITUTION.—3 p.m. Professor Tyndall, "On Light and the Eye."  
 HARVEIAN SOCIETY.—Dr. Morton, "On a Successful Case of Ruptured Perineum."—Mr. Noble Smith, "On Lateral Curvature of the Spine (with specimens)."

## Friday, Jan. 5.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ p.m.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 p.m.  
 ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 p.m.  
 KING'S COLLEGE HOSPITAL.—Operations, 2 p.m.

## Saturday, Jan. 6.

KING'S COLLEGE HOSPITAL.—Operations, 1 p.m.  
 ROYAL FREE HOSPITAL.—Operations, 2 p.m.  
 ROYAL INSTITUTION.—3 p.m. Professor Tyndall, "On Light and the Eye."

## Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

## THE MELBOURNE MEDICAL SCHOOL.

CERTAIN changes have been, or are about to be, made in the medical curriculum at the University of Melbourne, which, according to the *Australian Medical Journal*, give promise of increasing its completeness and practical efficiency. A separate Professorship of Anatomy and Pathology is to be created, and distinct courses of pathological work are to be made compulsory. Steps also are being taken to place clinical medicine and surgery on a better basis, and it appears probable that special lecturers will be appointed in these subjects, as well as in pharmacy and therapeutics.

C. T.—A paroxysm of auditory vertigo is a functional disturbance, and no pathological changes in the nerve centres are known to attend it.

## THE TREATMENT OF CYSTIC BRONCHOCELE.

To the Editor of THE LANCET.

SIR,—In thanking "Chirurgus" for the light which his experience of cases of cystic bronchocele has enabled him to throw over my want of success in the Mackenzie method, followed by me in the case reported, I must again direct his attention to the author's description (*Clinical Transactions*, vol. vii., p. 116), wherein mention is made, not of the neutral salt, but "of a watery solution of perchloride of iron." If I am to conclude from his letter that my want of success was due to the presence of a free acid, &c., in the injection employed, my duty is manifestly to point out the inadequacy of the descriptions of the method, or of the use of iron in our standard works on surgery, which in the absence of the resources of the Clinical Society, and the published experience of "Chirurgus," are alone the guide of the country practitioner.

Erichsen (seventh edition, vol. ii., p. 410), in dealing with vascular and pulsating bronchoceles, says, "Injection of perchloride of iron is likely to be of service, but is not without the special danger of forming a plug, &c.," but no mention is made of a neutral salt. Gant (second edition, vol. ii., p. 384), in discussing the treatment of cystic bronchocele, says, "Injection of perchloride of iron has been found useful, subject to the risk of considerable inflammation, suppurative, and pyæmia." Or, again, Holmes (*Principles and Practice of Surgery*, third edition, p. 589), in quoting Mackenzie, simply mentions "a solution of perchloride of iron."

Judging from the use of perchloride of iron in cases of post-partum hæmorrhage, it would seem that, although not free from danger, the presence of a free acid in an alcoholic solution (even of quadruple strength) is not altogether guilty of the evils imputed to it as a therapeutic agent in another condition (I allow in the former for a relaxed and open orifice), and I have yet to learn that the severity of the inflammatory process set up by the alcoholic solution in the case in point would have been materially lessened by the use of the neutral salt.

Concerning the drainage, up to the fifth day the exit for the amount of discharge from the contracting coagulum at the orifice of the wound, in the absence of normal suppuration, was sufficiently provided for; indeed, to further that end, the cannula was temporarily, the plug permanently, removed before the date prescribed by the author of the method. Owing, however, to the activity of the suppurative process (now established, fifth day) a free incision into the cyst was suggested, but the condition of the patient and the remonstrance of the friends at this date forbade further surgical interference. And this prompts me to remark that the dictates of duty, no matter how strong, in country practice are rendered subservient, and therefore secondary, to public sentiment by virtue of reason being but the tardy handmaid of a people full of superstition and prejudice, and to depart from the too commonly pursued policy of "temporising" is but to shake rather than to inspire the public confidence; hence the second aspiration.

I am, Sir, yours faithfully,

December 4th, 1882.

H. A. SMITH.

P.S.—I might mention that free drainage is not hinted at in Dr. Mackenzie's paper even as a contingency.

—The Roll of the College of Physicians, by Dr. W. Munk, may be the desired information. Only one name occurs to us amongst ians, that of Dr. William Stroud, who died in 1858, who devoted of his time to biblical pursuits, and was the author of a Treatise on Physical Cause of the Death of Christ, &c., and a Harmony of our Gospels. Amongst surgeons may be mentioned the late Mr. South, who, it is not generally known, was the author of "The Catechism with Scripture Proofs," by a Layman.

#### PHYSICIANS' PRESCRIPTIONS.

To the Editor of THE LANCET.

—Would you be good enough to give me your opinion on the following question:—

six months ago my doctor gave me a prescription, which he told me only be made up at a certain chemist's. I had the medicine made up, and with an excellent effect. Being cured, my doctor sent me a bill—£15 for thirty visits—and I at once sent him a cheque. This being in need of the same medicine, I take the old prescription to the chemist's, and ask them to make it up. This they refuse to do on the ground that my doctor had forbidden them to dispense it without a prescription. I apply to my doctor, and he writes me that those are his terms to the chemist, and that each time I require that medicine I can obtain it by first applying to him for an order. I do not care to be so childishly. Would you inform me if a chemist has a right to refuse to make up a prescription he has already dispensed, and also if a doctor has the right to order a chemist not to dispense any other prescription of his? I paid my doctor 10s. for that prescription, and contend that it is my property, not his; and that I am free to have it made up every day if I choose. What do you say?

I am, Sir, yours, &c.,

INQUIRER.

Number 21st, 1882.

A medical man is at liberty to make his own terms as to attendance, the system described in our correspondent's letter is not generally followed or approved. A medical man either dispenses or prescribes. If he prescribes, the prescription ought to be the property of the patient, to be used when and how he pleases, and ought to be written in such a way that it may be compounded by any legally qualified chemist.—ED. L.

—"The Blane Medal" is awarded to medical officers in the Royal Army only. Mr. Robert McCormick, F.R.C.S. Eng., who took charge of an expedition up Wellington Channel in search of Sir John Franklin, is living at Wimbledon, and is upwards of eighty years of age.

#### CINCHONA BARK.

To the Editor of THE LANCET.

—I shall be glad if you could, through your influential journal, bring the growers of cinchona bark in bringing their valuable tonic to the reach of the million at a price which will well content the consumer, and not be exorbitant to the labouring poor.

The importance of this new branch of Indian and Ceylon industry is remarkable, and their fine cinchonas, rich in sulphate of quinine, are the corky barks of South America before them. But, although the price obtained in London at wholesale auctions does allow a splendid profit to the manufacturer who converts the bark into sulphate of quinine, yet a further immense profit is made by the retail chemist, who purchases it at 7s. or 8s. per ounce of 437 grains, and retails it at 30s. per ounce, profit on 480 grains to the ounce. And this magnificent tonic, valued by physicians on account of the certainty of its effects, cannot be prescribed by doctors in the quantities they would wish to a poor man or his wife and children, owing to the exorbitant rates charged by retail chemists (especially country chemists) in making up a prescription, so that practically it is only the moderately wealthy to whom the doctor's quinine prescription without stint.

One of the largest cities of the north I lately purchased a packet of cinchona powder, being charged 1s. 9d. for thirty-six grains, or at the rate of 23s. per ounce; and the druggist seemed surprised at my remarks on the price. If this is the price at our town establishments, what must be the price in country towns and villages? And in the interest of the masses of the people and the hard-working planter I would solicit your aid.

I am, Sir, yours faithfully,

THOMAS DICKSON, Managing Director.

The Scottish Trust and Loan Company of Ceylon (Limited),  
Palmerston-buildings, London, Dec. 21st, 1882.

A letter of Dr. Struthers on Scotch qualifications, as well as several other communications, are unavoidably held over till next week.

Quirer.—Yes.

#### ACTION OF CERTAIN DRUGS DURING PREGNANCY.

To the Editor of THE LANCET.

SIR,—Would any of the readers of THE LANCET give me the benefit of their experience in the following case:—

An anæmic patient of mine, who is subject to severe attacks of cramps which nothing will relieve except the administration of arsenic and iron in combination, is now pregnant. Would the first-mentioned drug be likely to have an ill effect upon the child, and would there be any fear of the iron bringing on abortion?

I am, Sir, yours faithfully,

December 26th, 1882.

INQUIRERS.

D. W.—Southey, the poet, and Sir Walter Scott had a very high opinion of the late Dr. Robert Gooch, who was born at Great Yarmouth, the birthplace also of Sir James Paget. Dr. Gooch's second wife was a sister of Mr. Benjamin Travers, President of the College of Surgeons, not his daughter. Dr. Gooch was the first medical man appointed Librarian to the Sovereign. The late Mr. Pettigrew, surgeon to Charing Cross Hospital, was Librarian to the Duke of Sussex.

Bibliophile.—There is a very good American medical biography in two volumes, 8vo, by Dr. James Thacher, containing several portraits; Hutchinson's Medical Biography; Pettigrew's Medical Portrait Gallery; Biographie Universelle; Dictionnaire de Biographie. Consult Mr. Chatto, Librarian of the College of Surgeons, or Mr. Wheatley, of the Royal Medical and Chirurgical Society.

#### THE MEDICAL PROFESSION AND LIFE ASSURANCE OFFICES.

To the Editor of THE LANCET.

SIR,—Many times I have been applied to by various insurance offices for my professional opinion upon the eligibility of the life of a proposer. I have invariably declined to reply unless my fee of one guinea was guaranteed. May I venture to suggest to you, as the Editor of our leading medical journal, that the offices which treat us honourably by paying for our skill should in justice to them be particularised in some way, as, for instance, by an asterisk being appended to the names of such offices; inasmuch as they honour us, we should honour them. A list in the index page of "General and Official Announcements" in THE LANCET, and a like notice in Messrs. Churchill's Directory would suffice. The presence of such asterisk would sufficiently indicate those offices to whom we could safely reply, knowing that we should be paid for our professional opinion.—I am, Sir, your obedient servant,

Kennington-park, December 19th, 1882.

GEORGE FOWLER.

\*. A similar suggestion to that contained in the above letter has been made before, but is difficult to carry out. Very few of the respectable assurance companies now, however, refuse a fee for a professional opinion, though the tariff varies considerably in different offices.—ED. L.

Depilatory.—Preparations known as depilatories simply destroy the hairs as they grow above the surface of the skin. To get rid of hairs permanently their roots must be destroyed, and to do this effectually without leaving scars, recourse must be had to operations varying in nature according to the site and character of the hair to be removed.

Mr. C. van Biema.—It could be procured through any instrument maker.

Dubitant.—Medical pass-lists are inserted when sent to us officially.

#### "SALICYLATE OF SODA IN SCARLATINA."

To the Editor of THE LANCET.

SIR,—Like Mr. Couldrey, I have tried salicylate of soda in persons suffering from scarlatina, and have fancied it did good. I have also given it to all persons in communication with the patient, and to those in the house unprotected by previous attacks, and have, as yet, always appeared to prevent the disease spreading. I have tried it thus, fifteen grains every four hours, in three different families, the first of which was the most striking example. It was in the family of a fishmonger, where the parents and four children slept in two adjoining rooms. One of the children was attacked by scarlatina, and in less than a week a second took it. There was no possibility of absolute isolation, but I put the other two children on comparative doses of salicylate of soda, whilst the parents took none, having previously had scarlatina. Both parents and one child had sore-throats for two or three days, but the other child never appeared to suffer in any way. This and other instances may be cases of *post hoc ergo propter hoc*, but made some impression upon the patients' friends, and may interest some of your readers.

I am, Sir, yours, &c.,

Upper Montagu-street, Montagu-square, W., AMAND ROUTH, M.D.  
Dec. 27th, 1882.

To the Editor of THE LANCET.

SIR,—A more extensive experience with the above has satisfied me that it is a very valuable medicine if used early and with sufficient power. It seems to modify the throat and nasal symptoms. The dose had better be left to the judgment of the practitioner. In my letter to THE LANCET of the 16th inst., "seven cases" should read "several cases."

I am, Sir, yours faithfully,

Scunthorpe, Brigg, Dec. 26th, 1882.

JAMES COULDREY.

A Member.—We believe the Museum of the College of Surgeons will be re-opened next month.

Mr. F. W. England.—May 20th and July 1st.

#### "APOMORPHIA IN CASES OF POISONING."

To the Editor of THE LANCET.

SIR,—I have just received a note from Dr. William Murrell, telling me that it was Dr. Gee who first introduced the use of apomorphia to the profession, and not himself, as I stated last week in your journal. You will oblige by kindly inserting this erratum.

I am, Sir, yours obediently,

Upper Montagu-street, Montagu-square, W., AMAND ROUTH, M.D.  
December 27th, 1882.

## BONE-SETTING.

We have received a communication on the above subject from a correspondent in Belper, who has not appended his name.

G. S.—The Catalogues of the Museum of the College of Surgeons have been compiled by several distinguished men, as Owen, Paget, Morris, Parkes, Taylor, Lowne, Stanley, Flower, Huxley, &c.

## HAMAMELIS VIRGINICA.—REMOVAL OF SUPERFLUOUS HAIRS.—PARASITE OF THE MOUSTACHE.

To the Editor of THE LANCET.

SIR,—Several recent communications in THE LANCET on the subjects above noticed induce me to send you the following.

*Hamamelis virginica* is an indigenous American shrub, growing chiefly in the New England States. It has been used by the laity as a domestic remedy in various complaints since very early times. It was first noticed in regular medicine by Dr. Fountain in 1848 (*New York Journal of Medicine*), and a year later by Dr. N. S. Davis (*Transactions of the American Medical Association*). It was recommended by these gentlemen as a remedy for hæmoptysis and hemorrhoids, taken internally for the former and used locally and internally for the latter. These notices fell dead, and for many years nothing further appeared on the subject except in the advertisements of a remedy known as "Pond's Extract of Witch Hazel." This preparation is not, pharmaceutically speaking, an extract. It is in reality a distilled water, obtained by distilling the bark of the young twigs with water and adding alcohol to the distillate to preserve it from decomposition. Since the introduction of this preparation numerous imitations of it have appeared, and I presume the hazeline of the English market is one of them. Your correspondent, Mr. Symes (THE LANCET, Nov. 4th) speaks of this as being "the active principle of the witch-hazel." This is unquestionably not the case. Thus far no active principle has been isolated. That *hamamelis* contains an active principle is undoubted, but thus far no one has been able to obtain it, although a great deal of time and money have been expended on the research. We simply know that it is not an alkaloid, glucoside, resin, or resinoid, but what it really is remains as yet a problem. The plant itself is of considerable commercial importance, and a good deal of capital is invested in the manipulation of it. One firm, for instance, manufacture a "concentrated extract," which they sell to dealers, who dilute it with alcohol and water and then place it on the market under various names. I presume hazeline is one of these, but cannot speak with certainty, as there is no preparation with this particular name on the American market.

*Hamamelis* is official in the new U.S. Pharmacopœia (1882), and official directions are given for the preparation of a "fluid extract." The writer has been familiar with the uses and virtues of *hamamelis* for many years, has made some fruitless chemical investigations as to the nature of its active principle, is one of the "Committee of Revision" of the Pharmacopœia, and believes that the official preparation is the one that will give the most satisfactory results in practice.

*The Removal of Superfluous Hair*.—In reply to "A Puzzled Practitioner" (THE LANCET, Nov. 4th) I would state that he will find the description of a successful procedure on page 307 of the writer's "Elementary Treatise on Diseases of the Skin" (Macmillan & Co., London and New York, 1876). The method described (electrolysis) has been used successfully by Michel Hardaway, Fox, and Heilmann in this country, and their observations have been recorded in the various journals of this country.

*Moustache Fungus*.—For the past three years a patient has presented himself during the month of July with a condition resembling that described by Dr. Thin in THE LANCET, Nov. 4th. Parasiticides have each time been sufficient to temporarily relieve the trouble and restore the hair.

I remain respectfully yours,

New York, Nov. 16th, 1882.

HENRY G. PIFFARD.

## "CLOAK ROOMS FOR LADIES."

To the Editor of THE LANCET.

SIR,—With your permission I should like to inform the writer of the letter which appeared in your journal of the 9th inst. with the above heading, that this company has been established to provide cloak rooms for both sexes in the public streets. As yet only one or two have been put up, as there is much difficulty in getting the local authorities in the metropolis and other large towns to give suitable sites. If the medical profession would only take the matter up as artily, and bring its influence to bear on the Vestries and Boards of Works, who have the power to grant sites, there is no doubt that such places would soon be as common in London as they are in the large continental cities. To show how much these cloak rooms are appreciated, I may mention that there are often over 100 women in the female compartment in the Whitechapel-road Châlet in a single day, while the number of men using the male compartment is above that.

I am, Sir, your obedient servant,

G. M. FORMAN, Secretary.

The "Châlet" Company (Limited), 17, Buckingham-street, Strand, W.C., Dec. 20th, 1882.

ERRATUM.—In Mr. Croude's note on Eczema last week, page 1105, for "liq. pot. brom." read "liq. pot. arsen."

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Henry Thompson, London; Dr. Keith, Edinburgh; Dr. Broadbent, London; Mr. Van Biema; Mr. Cattley, Preston; Dr. E. N. Smith, London; Messrs. Mawson and Swan, Newcastle-on-Tyne; Dr. Lawrie, Lahore; Mr. Gant, London; Mr. Spearing, Shaw; Mr. Church, London; Mr. William Coates, London; Mr. Woodeson, Milton; Dr. Southery, London; Mr. T. Bryant, London; Mr. T. Holmes, London; Dr. Thin, London; Dr. Briscoe, London; Dr. McKeown, Belfast; Mr. G. A. Shaw, New York; Dr. Little, Upperton; Mr. Couldrey, Scunthorpe; Dr. Struthers, Aberdeen; Dr. Henderson, Shanghai; Mr. Millican, Kington; Mr. P. R. Wilde, London; Mr. E. Prideaux, Wellington; Mr. Freeman, Epsom; Dr. R. T. Smith, London; Mr. C. C. Cripps, Liverpool; Mr. T. Dickson, London; Messrs. Hatchman and Co., London; Mr. Reginald Harrison, Liverpool; Dr. Heneage Gibbs, London; Surgeon-Major Guinness; Dr. Philipson, Newcastle-on-Tyne; Mr. Michelli, London; Mr. Mulvaney, Oudh; Dr. Almeida, Brazil; Dr. Smith, Driffild; Dr. Beer, Charlottetown; Mr. Myers; Dr. A. H. Bennett, London; Mr. Badeley, Bristol; Mr. Lawson Tait, Birmingham; Mr. Scott; Mr. Klugh; Dr. Savage, London; A. D. P.; Dubitans; Inquirer; A. Z.; G. G.; A Hospital Surgeon; Humanitas; L.R.C.P., Stoke Newington; A. B. C. D. E.; Inquirers; &c. &c.

LETTERS, each with enclosure, are also acknowledged from—Mr. Bryan, Hornsey; Mr. Griffiths, Rhos; Mr. Johnson, Sparkbrook; Mrs. Sykes, Rochdale; Dr. Sutton, Oldham; Mr. Reeve, London; Mr. Harrison, Queenstown, Africa; Mr. Ricker, St. Petersburg; Mrs. Spencer, Glasgow; Mr. Noakes, Exeter; Dr. Lawrence, Chesham; Mr. Ryan, Queensland; Mr. Bernard, Stockwell; Mr. Tennant, Fence Houses; Mr. Pugh, Liverpool; Mr. Holman, Keighley; Mr. Tyson, Dalton-in-Furness; Mr. Jones, Southend; Miss Thompson, Dublin; Mr. Jackman, Coggeshall; Mr. Diamond, Fulham; Delta; L.R.C.P., Hove; Q. D.; Medicus, Seaford; A. B. Y.; G. N., Bayswater; Omega; E. R. A., Bloomsbury; Cato, Birmingham; M. D., Rathamstall; Oscar, Dublin; Assistant, Cheetham; Spéro; 24,557; N. W.; A. W.; W. W., Leamington; M. D., Bishop's Castle; Assistant, Tunstall; Medicus, Kentish-town; X. Y. Z., London; N. T.; &c. &c.

Port Elizabeth Telegraph, Halifax Guardian, Lincoln Mercury, Evening Telegram, Das Echo, &c., have been received.

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